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**Section I**  
**International Affairs and European Integration**

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**Subsection 1**  
**International Affairs**

## Recent Trends in Global M&A Activity

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### Abstract

*In this paper we analyze the evolution of mergers and acquisitions operations after 2007 to the present. This analysis will be detailed by regions and sectors. We notice an irregular trajectory of this evolution, with ups and downs, and so 2014 should be one characterized by a slight increase in global mergers and acquisitions.*

**Key words:** mergers, acquisitions  
**J.E.L.:** G34, O57

### 1. Introduction

The last few years of global merger and acquisition activity have been "abnormal." The nominal amount of M&A deal volume has been depressed. Corporate balance sheets, have abnormally low levels of debt. All of which has created an opportunity for companies to boost their earnings by joining forces with or buying other companies. As an added bonus, acquirers might find themselves in the relatively unusual position of seeing an immediate positive market reaction when they announce a deal. Further, corporate cash levels have been rising and debt levels falling since 2008. And yet M&A activity levels have not responded accordingly.

### 2. Developments in the operations of acquisitions and mergers in 2007-2013 period

The value of global M&A transactions in 2013 was 2.91 trillion US dollars, a seemingly healthy 9 % increase over 2012. But that's still nearly 8 percent lower than 2008 totals. What's more, the number of

deals in 2013 was 37,212, down 15 percent from 2012 (1).

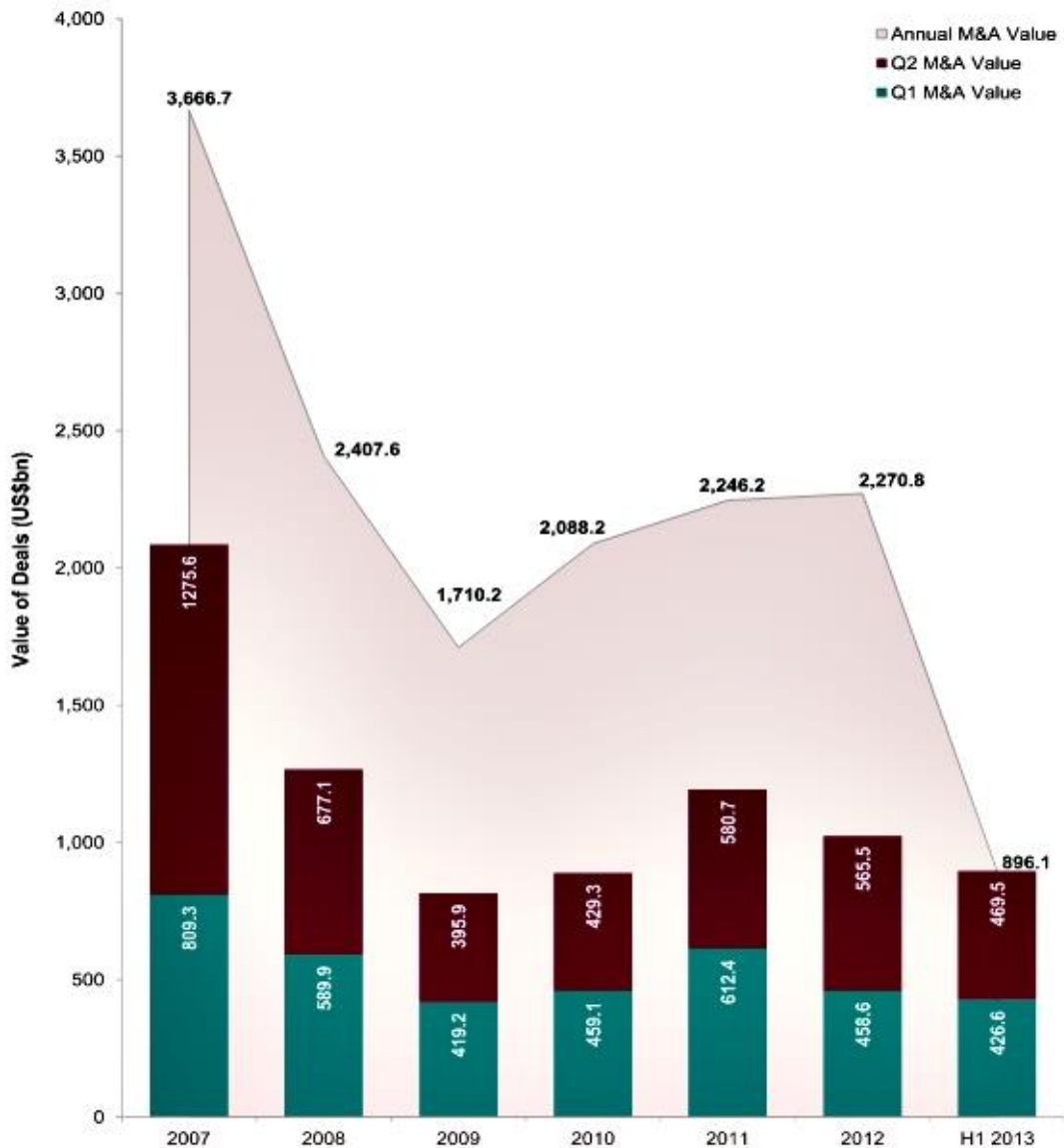
Acquirers in 2013 recorded their best performance in six years, with share prices out-performing non-acquiring companies by an average of 4.5 percentage points. However, despite the traditional end-of-year surge in completed deals in the last two weeks of the year, the total number of completed M&A deals in 2013 was lower than total 2012 volumes (2).

Despite these downward trends, cross-border activity continued to increase in 2013 as cheap debt and relatively stable market conditions in the equity and debt capital markets stimulated cross-border M&A. The total value of cross-border deals increased by nearly eight per cent in the first three quarters of the year compared to the same time in 2012 and accounted for a 34.8 per cent market share. The sustained growth in cross-border transactions intensifies the need for global advisors who are capable of navigating local regulations and transcending cultural and language barriers. Accessing global markets is now more than ever a vital growth strategy and clients look for those firms with a practice broad enough to handle such transactions. Accomplishing a client's international business objectives has subsequently affected law firm practices with one respondent noting how their role is "transitioning towards that of a project manager".

In our next chart we will show the evolution of mergers and acquisitions operations after 2007. What we observe is a similar trajectory of this evolution as the global economic decline as a result of the financial crisis:



Graph 1: Operations of acquisitions and mergers



Source: Mergermarket H1 2013 M&A Report: July 2013

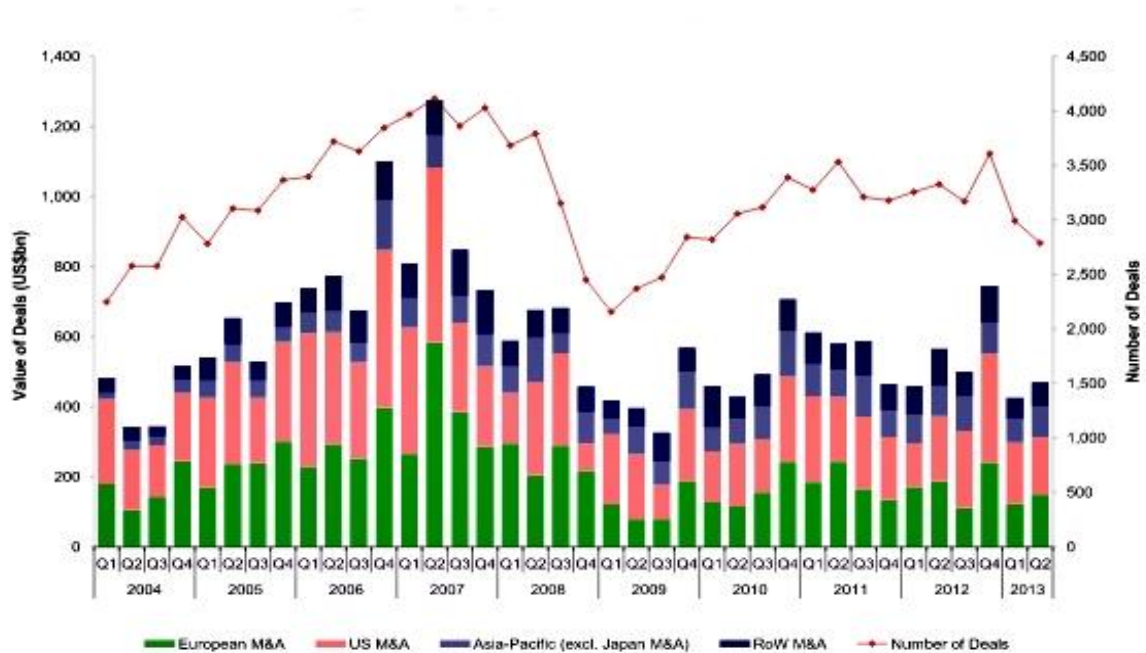
As we can see from the chart above, in Q2 2013 all areas apart from the US saw increased deal values: global M&A in Q2 (US\$ 469.5bn) was up 10.1% from Q1's value (US\$ 426.6bn) – Q2 experienced the highest valued Merger Monday since 15th October 2012 on 24th June with deals valued at US\$ 36.6bn (1).

Further, we see that global M&A valued at US\$ 896.1bn in H1 2013 was down 12.5% compared to H1 2012 (US\$ 1,024.1bn) and

suffered from 12.2% fewer deals. It was the lowest valued H1 since H1 2010 (US\$ 888.4bn)

As we can see in the graph, in Q2 the global average deal size increased to US\$ 337.3m from US\$ 295.2m which ends H1's US\$ 315.9m average deal size just behind 2012's US\$ 327.7m. Deals valued between US\$ 2bn and US\$ 10bn made up 36.7% of global M&A in Q2 – the highest quarterly share since Q1 2011 (42.5%).

Graph 2: Operations of acquisitions and mergers by regions



Source: Mergermarket H1 2013 M&A Report: July 2013

The volume of deals remains relatively low as a lack of confidence and momentum continues to deter shareholders from potentially risky deals, while the values of transactions are climbing. We can say that the reduced number of deals has contributed to an increasingly competitive legal marketplace as firms employ a number of strategies to secure those high-value transactions. Companies all around the globe emphasised a focus on quality and many rely on their reputation and expertise to maintain a flow of work. Global M&A levels were heavily influenced by the US, which accounted for over 40 per cent of the market share of global M&A. The average deal size of US-based transactions has seen a steady increase since 2010 and hit the highest level since 2001 this year at \$579.3 million. Retaining such a large share of global M&A has created a hive of activity in the legal marketplace as firms intensify their US foothold to increase their chances of securing high-value deals. Non-US firms have “grown tremendously” with a number of big players in the market toughening the competition.

### 3. Analysis at the sector level

As we can see from the graph 3, TMT sector had the second highest market share by value (US\$ 165.6bn) at 18.5% and is expected to grow further in 2013 with deal values already up 40.1% from H1 2012 (US\$ 118.2bn).

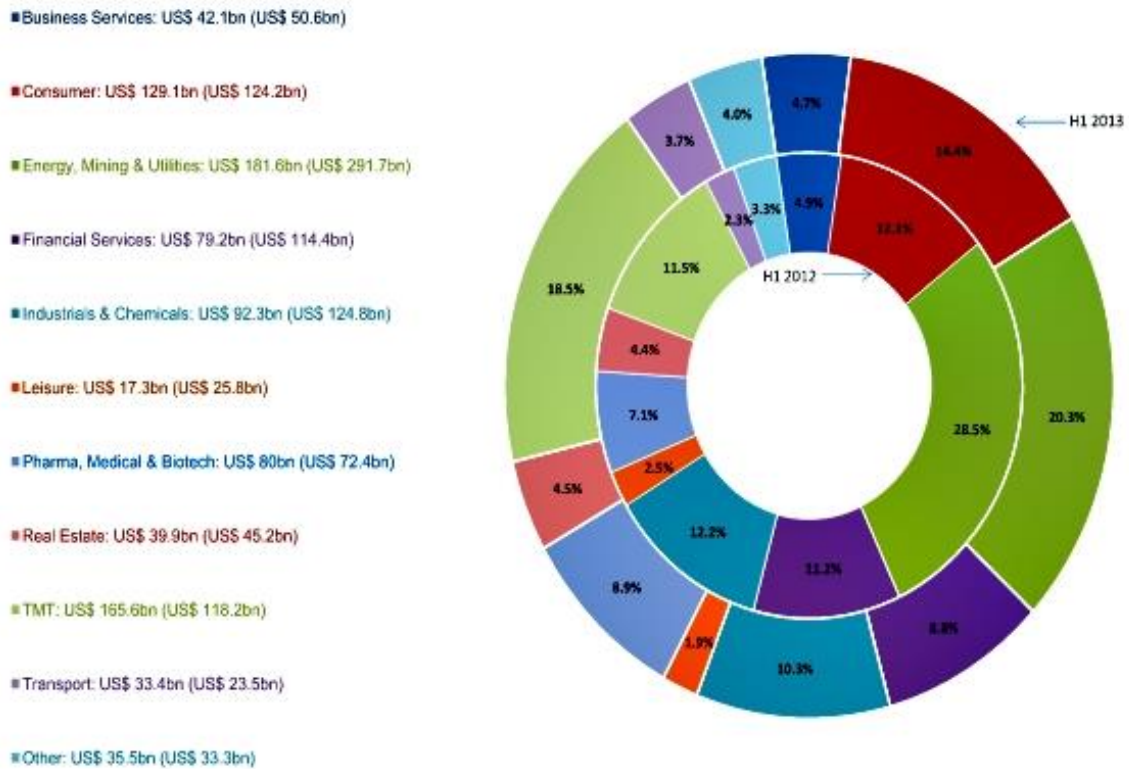
These predictions have already happened, so seven of the year’s top deals emanated from the sector and, more than that, 2013 is on track to be the biggest year by deal value since 2007. TMT accounted for over 27 per cent of total deal values in the first three quarters of the year 2013. The *Verizon/Vodafone* deal is a particularly high profile example. Verizon Communication’s decision to buy out Vodafone’s 45 per cent stake in Verizon Wireless is a big vote of confidence in the debt markets as their long-anticipated combination after much speculation suggests that current market conditions have reached optimum levels.

Another important strategic deal related to Microsoft’s acquisition of Nokia’s devices and services unit for \$7.2 billion, putting it in prime position to compete with Apple and Samsung in the smartphone market. A wave of TMT activity is predicted in the coming years as industries consolidate around key

companies and expand their regional and global reach. The boom is already prominent in the US and Japan where the sector claims a market share of 40.5 per cent and 31.4 per cent respectively.

In terms of dividing the sectors of these mergers and acquisitions operations in 2013 graphic representation is as follows:

Graph 3: Sectoral representation of worldwide mergers and acquisitions



Source: Mergermarket H1 2013 M&A Report: July 2013

In the consumer sector, the total value of deals in H1 (US\$ 129.1bn) increased 3.9% from last year and food was the order of the year. Brands like the US's Smithfield and UK's R&R Ice Cream satisfied investor cravings and resulted in a 64.8% higher value in the unconsolidated Consumer Foods sector in H1 (US\$ 60.8bn) from H1 2012 (US\$ 36.9bn).

When the stock market performs exceptionally well, as it did in 2013, public companies have additional capital and motivation to grow through acquisitions. Specifically, public companies in the Engineering and Construction sector saw tremendous stock price gains in 2013 and should remain acquisitive in 2014.

According to Thomson Reuters, M&A activity involving U.S.-based targets

represented 43% of the total global M&A deal value in 2013. Specifically, in the Engineering and Construction industry, we see continued interest from international firms looking to acquire U.S. companies. (3)

The expansion of domestic oil and gas production has created a ripple effect throughout the U.S. construction market, including the market for M&A activity.

Design firms and contractors are struggling to secure skilled labor and are shifting resources towards geographical areas of demand, as construction activity increases. Increasingly, larger firms are looking to M&A as an avenue to address their labor concerns.

Further, we present a table with the largest mergers and acquisitions transactions in value terms in the first half of 2013:

*Tabel 1: Top 5 deals in the first half of 2013*

<i>Announced Date</i>	<i>Bidder Company</i>	<i>Target Company</i>	<i>Deal Value (US\$m)</i>
14-Feb-1	Berkshire Hathaway Inc; and 3G Capital Partn	HJ Heinz Compan	27,36
06-Feb-1	Liberty Global I	Virgin Media I	24,98
05-Feb-1	Silver Lake Partners LP; and Michael Dell (private investor	Dell In	20,16
12-Feb-1	Comcast Corporat	NBCUniversal Media LLC (49% Stake	16,70
15-Apr-1	Thermo Fisher Scientific Inc	Life Technologies Co	15,00

*Source: Mergermarket H1 2013 M&A Report: July 2013*

For 2014 , there is more optimism about the global economic recovery. As we see in the banking market, continued low interest rates mean that borrowing to fund acquisitions is cheaper. And shareholder activism has reared up again. Noisy interventions from people like Nelson Peltz at Pepsi and Carl Icahn at eBay mean there is more pressure on companies to take action rather than maintain the status quo.

According to figures from Dealogic, the value of mergers and acquisitions around the world stands at \$552.4 billion via 4,880 deals in 2014 so far, the highest total since 2007, when \$617.2 billion worth of deals had been completed at this stage of the year, and up 13 percent from the same period in 2013. (4) Facebook's \$16 billion purchase of messaging service What'sApp, and Comcast's \$45.2 billion deal to buy Time Warner Cable are just some of the big deals announced so far this year.

Europe, led by the UK, is likely to feel a small recovery in M&A deals in 2014, as economic confidence returns to the markets. Although this is unlikely to be enough to make up ground on the number of deals completed in Asia-Pacific and North America.

#### **4. Conclusion**

M&A volumes should continue to accelerate but not all industry groups and sectors will necessarily catch the M&A bug. Dollar stores and food retailers – both highly

competitive businesses – could realize significant synergies by consolidating. Overcapacity could well spur forward smaller institutions eager to build scale, to potentially consider banks in northern Florida and Houston. Given the United States' boom in shale oil and gas production, the energy market has seen surprisingly light volumes of M&A activity, but Co-Head of Global Oil and Gas Equity Research Ed Westlake suggests that Asian strategic buyers may take a look at shale gas reserves in North America.

The analysts also point out a handful of industries that don't seem ripe for a pickup in M&A activity. The metals and mining industry will probably see a decrease in M&A volumes this year, since "without the tailwind of an appreciating commodities price environment, it is a lot harder to construct value-accretive deals." Casual dining chains aren't likely candidates for consolidation either as "high multiples [have made] public targets somewhat unattractive." What's more, a handful of the most active acquirers, including Starbucks and Darden Restaurants, Inc., have declared publicly that they're not in the market for more properties.

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## Literary Globalization

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### Abstract

*The present paper intends to view literature in light of the recent overly-debated phenomenon of cultural and linguistic globalization and to prove how necessary it is for us to accept this reality. I'm not going to avoid the vehement opinions of non-believers, but the idealists that already dream of a global library that includes world literature by harmonizing the national and global. I will attempt to draw attention upon this new approach of the issue in question and to the role that the English language (along with other languages circulating internationally) is playing within this equation. Especially being part of a small culture, which to become well-known, must inevitably resort to translation.*

**Key words:** globalization, literature, culture, language, national

**Clasificare J.E.L.:** A30, F50, F60, Z11

### 1. Introduction

The term globalization, so circulated in recent years, has gathered many opinions both for and against: for some, it is what you need to become happy, "a magical incantation, a skeleton key able to open the gates to all present and future mysteries" [1], but the opposition claims that modern man is losing his heritage in this unfigtable process.

### 2. Literature in the Age of Globalization

Globalization, as analysts believe, is unquestionably a general process of development of capitalism, a process that has

gained momentum especially after the collapse of the Soviet Union as a viable alternative to the abolition or resizing of old interstate economic organizations. Certainly, when we talk about the process of globalization we tend to associate economic, political, legal, or why not juridical, notions, but you'll notice that this phenomenon has effects in all areas of life's structures.

We are used to literature being an expression of individual creativity, a local form of expression that supports tradition - "national specificity" but eternal renewal, but it now falls into the category of those who strongly felt the impact of globalization. Literature gains new forms of expression through the manifestation of contemporary unrest and becomes the response to identity anxiety meeting fictional identity by including life experiences, both individual and collective. Due to acute contemporary socio-political tendencies, in the cartography of the world, literature has been enriched with a new theme that morphs the unprecedented level of relational discourse between individuals but also freedom of movement. New perspective brings with it a specific vocabulary and especially a new theme which raises questions of our awareness of relative references. Thus we see that literature not only builds on the experience of globalization, but also creates a narrative discourse, at a stylistic and thematic level, specific to the phenomenon.

We see that literary globalization comes with a package of multiple advantages like: expanding interest in smaller cultures, dialogue based on the process of knowledge, growing tolerance, international recognition, but also with a consumer society, which contradicts „the view according to which consumption is related to comprehensive values like the possibility of choice,

individualism or market" [2]. By creating consumer literature you give birth to a subculture phenomenon. Mass culture, for the most part - the American province covering the dimensions of the entire planet, becomes a subculture of the whole human race, although it is sharply criticized, which is easily embraced by the young generation. Literature promoted by weak intellectuals which makes no difference between cultural and democratic arguments has an overall negative impact. "The right to mass entertainment [...] is indisputable: entertainment keeps the imaginary busy, ie away from social and political engagements". [3] However, this type of show literature betrays true literature but has the advantage of selling at a much higher circulation because it managed to integrate everything the show society offers. Thus it can be said that in the current context of economic globalization connotations more cultural than that to overcome local boundaries and enter the global dimension, a literary work must sell in large numbers. If in other cases, we could talk about all known forms of publicity for selling a product, in the case of consumer literature, the accent falls on simplistic content; most often narcissistic, trivial or simply therapeutic with a gripping title and attractive cover (because we know that before the era of globalization readers were interested in image regardless of it's form). Whether we like it or not, we should realize that most of the time, material and economic interests go beyond, crossing the boundary, encroaching upon ethical principals.

The media exerts a strong influence on modes of perception and thinking, and the values and choices of individuals. Media systems using a real range of languages and forms of communication today is a universal mediator between reader and writer. From here, we could begin a long discussion about the cultural product transformed into commercial product to make a profit, with an impressive number of people and economic agents contributing to the globalization of literature. If changes in the world political and economic stage are key factors for the availability of product literature, social events bring to the forefront some works that resonate in some way. The events that surround us which succeed to mark us become the theme or subject in

literature, anticipated in the reader's experiences and anxieties. The phenomenon works both ways and works fail to trigger socially important events. The individual becomes integrated in reality, deeply connected to the world through the literature it produces. Although literature engages in economics it is subject to a single and very important selection criterion: the reader. Therefore, as there is the consumer society in which you are entitled to fit into if you choose, you can enjoy immediate access to quality information in any area of activity if you are part of the global network, "The world increasingly becoming a global shopping mall in which ideas and products can be found everywhere at the same time". [4]

The current needs of globalization involve bringing in a discussion of a previous approach based on the analysis of identity. We see that to the average person, it "is perceived as a negative factor of standardization by imposing a model, rather than the possibility of finding other ways of thinking and communication, and why not as a rediscovery of it's own identity". [5] In the context of excessive standardization on a global level, many literary critics, especially from smaller countries felt the need to support local specificity, which we saw in danger of dilution. It is a normal, legitimate reaction from minor cultures in relation to larger, monopolistic cultures, who feel threatened by overly specific mimicry.

To analyze this problem, we need to look a bit into the past to see that throughout history, Romania has faced the literary point of view with a lag of European civilization, stressed by an excessively long communist dictatorship when literature struggled to assert it's ideas.

However, our identity has since been affected, "the scourge of communism bit deeper into our spiritual fiber. Therefore, today, we are obliged to a double effort: the rediscovery of our whole identity and defense against new destructive germs". [6] We are under the influence of Eastern European nationalism to "evoke unpleasant memories overall: wars, ethnic tension, intolerance. It proves a certain difficulty of nations in the region to mutually accept themselves and impose excessive particularism". [7] Yet we must realize that we face a problem if after

more than two decades of freedom we still talk about Lovinescu's synchronization although we have all the tools that we need to express our creative spirit and prove the true capacity of communication with the world. As always one step behind, it seems, in the literary dominion, we've learned to import easily, to imitate and to synchronize very fast, and I'm not saying this is totally negative but we don't find easy ways to export our own creation; we do this with great difficulty and maybe if we make the cultural identity visible, we will be able to preserve it.

Solomon Marcus said that "cultural globalization (and implicitly in literature) involves an increased metabolism of various creative fields, so the recognition of the globalization of knowledge, after it's long period of atomization." [8] So be it a writer, artists, „a scholar of our days reduces much of his own ability to assert his own field if interested in the overall landscape of his time”. [9] We must not evade the confrontation with the world, but, on the contrary, we can make the individual ethnic aspect known through transmutation of different national values in all corners of the globe. To accept the idea of identity has evolved throughout history: "Now it compliments and completes the interactive component not only affirm their identity in structural material, but also the ability to interact with others. This last part is not a fad, but a condition of survival, especially in culture. The globalization of culture is therefore not in conflict with cultural identity but a prerequisite to maintaining and developing the latter." [10] Even those more skeptical about the outgoing phenomenon don't see a way to deviate from it but "integration [...] 'in Brave New World' (Aldous Huxley) will have to be with all our specific national and spiritual cultural traditions, our individuality centered on person-event, just so we will not lose our identity against a multiculturalist Trojan horse." [11]

Setting aside skepticism and distrust we see that many indigenous values were imposed on their own globally, and the quality of their work has been internationally accredited without losing much of their circulated identity. They managed to overcome the language barrier, that any

writer who comes from a small country, hits. Being part of a culture that doesn't have the advantage of an international language writers learned to write his texts often in English or to translate them. Cultural statements, major texts, exceeded the boundaries of language, civil, or political because they have the condition to be written in the cultural communities concerned. For centuries literary translation has played an important role in local the plan, but now we can say strongly that there is a one-sided phenomenon - not just import the literature, but we are able to bring our contribution to the common cultural heritage. About the idea of global culture, J. Tomlinson spoke saying that it "is tantamount to the emergence of a single culture, that would include all the inhabitants of the world and to replace the various cultural systems so far" [12] Of course exaggerations are not encouraged, therefore we don't translate everything, just flaunt at the opening, we don't refuse everything either, wishing to oppose the movement. Retaining Rumul Munteanu's claims that complement the idea discussed: "no genuine writer of a certain value, greater or lesser extent doesn't win in proportion to the absence of the possibility of comparison to other writers from other countries and no culture, no matter how rich, may not meet all the requirements of the public only through the writings that produced them". [13] We infer here that translations are thus a vein which produces a rich literary baggage of a people, a way of facilitating the exchange of ideas for progress.

Dreaming on, Paul Ricoeur saw utopian finality, for the moment, the integration of a great number of works by translating phenomena into a unified corpus' „dream to create a library that would be complete by accumulation. Paper, that infinitely ramified network and all works consisting of translations in all languages crystallized itself into a sort of universal library where untranslatable books of all kinds will be deleted. This dream would be that of a rationality, completely freed from cultural constraints and communitarian limitations a universally translated dream, and it intends to saturate the space communicating between them and compensate for the lack of a universal language" [14] There are opinions that say that true translation loses local color

and connotations involved in the act of writing, but there are facts that prove otherwise: by being untranslatable expressions, idiom host languages are enriched with foreign elements, thus forcing the reader to rethink it's own linguistic dimension "lexical material is submitted to the will and talent of the certified translator it was always a win for the culture and language expanding the semantic area of the old thesaurus, any translator bringing a number of new terms imposed by the continuous renewal of concepts, civilization and international language. It operates so in translation, assimilation in two key directions for the development of an expressive thesaurus of the national language: quantitative - the accumulation of new terms by updating forgotten words (...); quality - by creating figurative meanings, plasticized through capable connotations the idea able to give more vivid relief context, ennobling literary language translation (...). [15]

We are part of a world in permanent motion, time seems to have changed the paradigm into an eternal present and we are unfettered by the physical limitations in the redefined space by the virtual report. At the push of a button, the whole world reveals itself and we are able to access information from the far corners of the world. It was always the desire of the unsatisfied man in isolation to break the barrier of his limited space and to be able to access information from afar, and thus in the extensive phenomenon of globalization we can say that we have succeeded: "The magical utopia, thanks to which we all have access to large texts of mankind, is the utopia in which we live, and that we continue to maintain and translate." [16]

By translation we try to communicate information of our own, to make it known, without destroying anything in the process. Let's start from the beginning; the meaning of the term "communication", used since the fourteenth century, arises from the Latin word "communis" which means to share, to make common, to be in relationship. In the advancing years, humanity grew with the development of roads and postal services. In the sixteenth century the term was assigned a new meaning: to transmit. Since the nineteenth century it became the basic meaning of the word as a result of the

development of modern communication techniques. In this context, communication is seen as a component of human existence but also of literature. Why limit this process from the primary act which requires an interactive exchange of messages between individuals, when we can break boundaries and realize a connection between society, culture, civilization, up to the highest level of integration, that of humanity. Like words, literature is also a dynamic systems subject to change by constant contact proceeding from outside sources and intercultural contacts. Although any literature is subject to change, it's primary structure is resistant to major changes. Literature, in the context of intercultural communication should be viewed as a union, the acquisition of new information, openness to new horizons, mutual acceptance but also an improvement in their culture.

Many people begin further discussion starting with initial translations, reaching a much rumored topic, namely: linguistic globalization. It is true that initially starting from technical areas, English has become one of the most used forms of communication between business, politics and subsequently between ordinary people. The concern of most linguists and researchers in the field is that the English language does not become the only language spoken in all countries of the planet, especially if it has reached a high level of knowledge so that the literature should belong to a country, it sometimes ends up being written directly in an international language. Authenticity is related to each component of the culture of a people, but the most important element is language, seen as a symbolic code that embodies the unique experiences of an ethnic group. It is true that English penetrates more and more linguistic backgrounds, not to replace native languages, but to be a component thereof, that no nation, no matter how receptive to change, would not be willing to give up thousands of years of culture and tradition.

### **3. Conclusion**

In other words we realize that many have expressed negative opinions about the phenomenon but it is very important how we approach this problem - it is a reality that must be managed properly, because it is



happeneng regardless of opinions and apart from us and rejection, ignorance or denial can not invalidate it. So we should try to look at the positive side of this process, namely the opening of new possibilities for the development literature, increasing interaction between writers, familiarity with other cultures and civilizations and most importantly, the ease of access to information.

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# Multinational Companies and their Impact on the World Economy

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## Abstract

*At the beginning of the XXI century, transnational corporations is one of the great forces acting in the economic, financial, scientific and technological having a difficult word in world politics. Companies of this type have come to such an extent that, they lost in a sense, the national character. Transnational companies are the main source of capital, technology and market access for almost every country. Their activities have a strong impact on the global distribution of wealth and economic activity between national economies. They benefit both consumers and economies worldwide.*

*Transnational companies can help increase export competitiveness of developing countries. Therefore, these companies attract export-oriented activity is itself competitive.*

**Keywords:** multinational companies, export, developing countries, capital.

**JEL Classification:** G3, G30

## 1. Introduction

Companies (financial, industrial, commercial) are subject to the laws of countries in which they are established, especially as the international economy is a set of relationships between the centers of economic, political and military. Economic relations of these centers (countries and companies) define the structure and rules of national and international markets [1].

Any transnational company occurs simultaneously in three economic areas:

national, local, if parent-where the foreign subsidiaries, the international-when discussing trade between the units that compose or between them and the rest of the world.

## 2. McDonalds Corporation

Wherever you go, the United States and Europe to Japan or India, regardless of the language spoken by the common policy or landscape, millions of people are united by a common, stronger than religion or dollar plunged deep into consciousness universal society: Mc Donalds.

The worldwide success of the restaurant chain can be measured in a single glance over startling figures released by the company: 52 million people are "fed" every day more than 30,000 fast-food restaurants McDonalds opened 100 countries around the world [2].

McDonalds brand has become so popular that a study with 7,000 respondents in the UK, Germany, Australia, India and Japan shows that gold logo chain of fast food has been recognized by more people than the Christian cross, a religious symbol older than 2000 years [3].

With the expansion of the company McDonalds very successful in many international markets, the company has become a symbol of globalization and the spread of lifestyle american. Proeminenta to the massive influence of how to eat the different social categories also created a common subject of public debate about obesity, corporate ethics and responsibility to consumer [7]. A created as a byproduct and a specific jargon, as would be the phrase junk food instead of fast food, that food garbage instead of fast food . McDonald's restaurants are found in 119 countries and territories around the world and serve nearly 54 million customers each day. The company also operates restaurant brands, such as Piles Café and Boston Market and possesses some of Pret a Manger[8]. The company owns a majority share of Chipotle Mexican Grill until the official dropped to rights in October 2006. McDonalds occupies 8th place ranking in 2003 World macrcilor, with a brand value of 24.70 billion dollars. Ray Kroc's idea has

proven effective since 1954 and the fame of the company rose thundering since.

Currently, despite the social problems facing the company recorded a turnover of over 40 billion, with a profit of nearly \$ 3 billion [4].

Globally, McDonald's Corporation posted in July 2008, a net profit of 1.19 billion dollars, made in the second quarter, with growth figure of 6.1% of sales in international markets.

The business is conducted as separate segments and the most important include the USA, Europe, APMEA (Asia, Pacific, Middle East and Africa).

U.S., Europe and APMEA hold 32%, 40% and 22% of total revenues, in exchange UK, France and Germany, together totaling 50% of revenues Europei. In the other side, China, Japan and Australia account for over 55% of revenues APMEA.

Thus, if in Europe, the company's sales had a 7.4% advance and operating profit increased by 29% in the United States, sales growth was 3.4% and the operational gain of 6%, but the most spectacular results were recorded in the region APMEA. Aici sales, during 2008 increased by 8.8%, leading to an expansion of 37% in operating profit [5].

Despite the global crisis that began in 2008, McDonalds sales grew by 3.8% and increased its market share by 9% and the return to shareholders of 16.6 billion dollars.

According to Euromonitor International, McDonald's sales represent about 4% of total sales in global segment restaurants. Company revenues from sales in their locations and the taxes and duties levied on branded franchised restaurants. The Company's shares are considered defensive, McDonalds belonging to the consumer services sector.

McDonald's was deposed in 2010, the position of the world's largest restaurant chain, Subway rival, specializing in sandwiches.

On 1 January 2011, Subway had 33,479 restaurants worldwide, said Subway spokesman Les Winograd. According to an annual report released in February, McDonald's had on the same date 32 737 restaurants worldwide, according capital.ro. In comparison, two other leading brands in the U.S., Starbucks and Burger King have only 17,000 and 12,000 units respectively worldwide.

However, in terms of turnover, McDonald's still has a commanding lead thanks to sales 24.1 billion recorded in 2010 to 15.2 billion dollars for Subway.

In 2011, Mc Donalds has managed to maintain its focus on customer needs and the company's global priorities to optimize menu maturation customer experience and brand were spread accessibility to the area where the company has stepped up efforts to go forward[6].

In Europe, comparable sales rose 5.9%, marking the 8th consecutive year of sales comparable. Țările who contributed significantly to this increase were Britain, France, Russia and Germany.

Mc Donalds continues to expand business with cafes, with over 1500 well known locations McCafee, which in Europe are separate spaces in the restaurant, serving specialty coffees and desserts.

### **3. McDonald's corporate revenue**

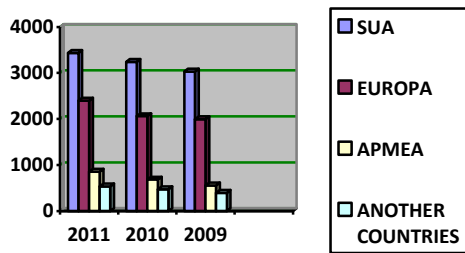
Revenue consists of sales to restaurants run by the parent company plus the fees charged by franchised restaurants.

In 2011 and 2010, the steady increase in revenues was driven primarily by sales positive but at the same time, and expansion.

In the U.S., revenues in 2011 were positively influenced by the success they have had new products, as well as continuous focus on daily values. However, franchised restaurant business had a negative impact on revenue in 2010.

Revenues from franchised restaurants representing two thirds of the company's revenue McDonalds. In 2010, they increased by USD 479 million or 8% and in 2011, they increased by 12% over the previous year, or 768 million dollars [11].

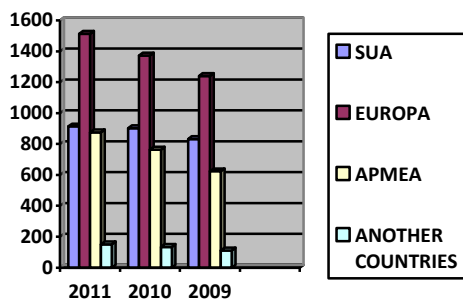
Table 1. - Revenues from franchised restaurants



Source: own processing of data from McDonalds Corporation

Proceeds of their restaurants is total sales less operating costs of these restaurants. In 2010, the company's revenues grew by 366 million dollars or 13% and in 2011, McDonald earned 282 million dollars, in other words, revenues increased by 9% [12].

Table 2. - Proceeds of their restaurants



Source: own processing of data from McDonalds Corporation

#### 4. McDonalds corporate expenses

Consolidated sales, general and administrative expenses increased by 3% in 2011 and 4% in 2010.

Revenue growth rate for 2011 was influenced by reduced incentive for employees with higher education costs related to the Olympics in Vancouver Biennial Convention of the company, called World Wide Owner. Instead, these activities have positively impacted revenue in 2010 [12].

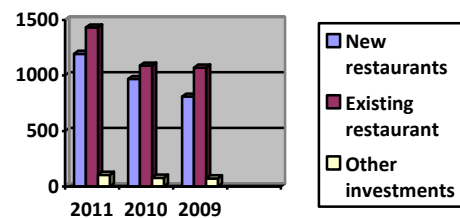
Investment spending in major markets, exluzand Japan accounted for 65% of total investments in 2011, 2010 and 2009. Investments directed towards opening new restaurants were concentrated in these three

years, to markets with long-term growth opportunities . Average development costs vary by type of restaurant building, real estate and construction costs in each market itself. These costs, which include land, buildings and equipment are used for the construction of restaurants optimal size and design effectively.

Even if the company is not responsible for any costs for each restaurant separately, the total development costs for traditional restaurants McDonalds, reached the U.S. average of 2.7 million in 2011.

Company owned approximately 45% of the land and buildings almost 70% of restaurants in late 2011.

Table 3 - McDonalds corporate expenses



Source: own processing of data from McDonalds Corporation

For 2012, the company expects that spending to reach about \$ 2.9 billion, of which about half will be used to open new restaurants.

Mc Donalds is expected to more than 1,300 new restaurants, including 450 franchised or licensed locations in markets like Japan and Latin America.

Remaining capital will be used for reinvestment in existing restaurants for redecorating over 2,400 locations around the world, some of them having reinvested capital needed by the company.

#### 5. Conclusions

The growing importance of transnational corporations in the global economy has become a highly controversial topic. For some popular, others disputed, the fact is that these giant companies is a reality of the current economy and are the most important businesses in the world.

Their supporters deems beneficial for both economies and for the development saying

that they contribute to the efficient and productive use of global resources, which increases global wealth and economic prosperity.

Transnational companies are huge concentrations of economic power and, like all forces, adopt corrupt and abusive attitudes socially.

The main way of expansion of transnational corporations in various industries, was and remained foreign investment capital. Therefore, sometimes, the very concept of investment flow is automatically associated with the presence and activity of these firms.

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## The Globality of the Competitive Process

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### Abstract

*Economically analysed, global competition refers to the activities undertaken by multinational companies on foreign investment purpose developed for the production and marketing of goods worldwide. The process can be treated both in terms of competitive advantage and in terms of other factors such as: change, complexity, competition, factors that characterize the development and evolution of branch in a completely foreign market.*

*The article directly addresses the factors of distortion of competition, both the typical and atypical ones. It is necessary to see the role and the global economic effects on the competitive process.*

**Keywords:** competition; competitive advantage; economic quality

**J.E.L. Classification:** D03, D21, L20

### 1. Introduction

The competitive advantage of a company can be determined by environmental and organizational factors identified internally and externally in a company. The factors determining the competitive advantage, management actions and strategic actions are in fact caused by competition, cooperation and co-optation of various stakeholders to provide support. The competitive actions leading to competitive advantage are based on ownership, on the access to resources, goods. Gaining competitive advantage through cooperation can be achieved by

attracting and shared use of resources and by sharing risks; such companies with similar activities have competitive advantage over those who work individually. It is important the first mover advantage through which firms aim to create a support for the assertion as major competitors and strengthen the positions already held. [7]

Regarding the actions of co-optation, this has a clear and safe goal: creating a balance between the interests of a competitor and those of a local business operating individually up to a certain point. An example of co-optation is the tacit understanding; the competitors protect and maintain the competitive advantages using a secret strategy.

So, considering the above, we can say that the process of globalization helps to amplify the competitive process giving it a more dynamic interpretation [5] and it also gives the economic agents the opportunity to gain advantage through strategies and methods that are often based on or hide anticompetitive practices to reduce or even eliminate competition. The war between the existing firms in a particular market may affect the competitive balance, "too much competition could reduce the level of investment and could also reduce the economic growth and development" [13]

Thus, referring to them we identify a number of factors that we call typical. These factors are present in any market economy and they affect competition. [2]

State aids are welcome at any time, being perceived as positive actions by the economic agents are designed to help them to enter the market, avoid bankruptcy, promote

transactions of import and export; actions that may affect competition. However, depending on their nature, these state aids may affect the main purpose of competition because: they can encourage the existence of companies that have significant losses, which brings disadvantages to consumers; they generate the disproportion among entrepreneurs based on the competitive and administrative criteria; they do not produce positive effects on the competitive or economic process either by impulse or by constraint; so, the economic agents that benefit from them have advantages and the activities in a particular market do not take place on equal terms.

Market transparency requires knowledge of all the information both by economic agents and by final consumers. The consumer must be informed about the price, contract terms, payment methods, delivery time/ payment/termination. That is why, the institution that deals directly with these issues appeared, *Consumer Protection*, intending to avoid actions that could harm consumers.

Quality is an extremely important factor within the competition process because it stimulates economic agents to produce superior goods in terms of quality; [8] so the advantaged one is the consumer having the possibility to choose among very good products, without facing the risk to have goods which do not meet the quality standards imposed by law on the market. To support this factor an economic agent must consider the company's capacity to produce, pricing strategy, and communication and of course domestic policies that support these elements. [1]

In order to promote quality among economic agents it is also necessary to create and maintain an economic environment favourable [9] for the emergence and development of activities that have this aim: achieving quality and its continuous improvement.

The capitalization of quality under conditions of competition involves the analysis of several directions: firstly knowing the existing level of quality required to establish the following strategies: placing on the market of a product of different quality that draws the customer; creating a popularity in front of the target audience

through communication and advertising strategies and avoiding critical situations that could put the company's image in a negative light. Thus, through quality it is ensured both customer satisfaction and competitive advantage.

The competition among economic agents takes place mainly at the level of pricing, of the communication strategy and promotion but also at the level of quality that we talked about earlier.

In order to have a competitive advantage and to know your competitive strategies that must be implemented it is required detailed knowledge of the competitors in the market, especially the direct ones. The power of competition among economic agents that operate in a market emerges from the interaction of factors such as: the concentration level of competition; growth rate of the sector in which it operates; the level of product differentiation in the market; the size of the storage costs and fixed costs; the barriers of market exit.

The number, i.e. the intensity of rivalry depends very much on the existence of barriers to entry. [4] Potential entrants may lead to either a price decrease or increase costs of the existing competitors, both having the effect of reducing the capital efficiency. Barriers to entry refer to switching costs; mass production; customer affiliation with a particular product; access to distribution networks; government policies etc.

The bargaining power of suppliers affects the competitive environment because they may have a greater bargaining power compared to their customers, who have to increase selling prices or reduce the quality of products and services. Thus, they can change the profit of a sector depending on the customer's ability to be reflected in the sustained increase in prices. It is also important the bargaining power of customers for a better collaboration with suppliers. A client has a stable relationship with suppliers if the products purchased are standardized or undifferentiated, switching costs from one supplier to another are low; the quality of raw materials procured from the supplier do not have a major impact on product quality. Price has a great economic and social role; it can influence the actions and it can analyse the strategies of the economic agents through the functions it performs: calculation, evaluation

and measurement of costs, results, income, flows at all levels targeting all subjects of the economic action. [6] Through them, the great diversity of consumption of economic resources, outputs and transactions are standardized in the form of currency, being organically related to the role of general standard currency, calculation and recording. The price informs the economic agents on the degree of tension between resources and needs. Absolute and relative price growth means increased tension and vice versa. Price levels are ultimately scales, steps which help to measure the degree of rarity: the higher the price, the more insufficient that potential good is compared to the needs. Prices are dynamic carriers of information by which the decisions of producers and buyers are coordinated. Thus, the relative prices change involves permanent reallocation of factors of production on areas, new ways of combining them, new structures of supply and consumption. Increasing the relative prices generates a downward trend in consumption and production growth. For the manufacturer, the price is the main tool that recovers costs, ensures profit and creates the conditions to continue the economic activity. Based on the information provided by prices, the producer decides to restrict or abandon certain activities. In this way, it is the most authentic information system for allocating and reallocating resources on areas.

Figure.1. PC Software piracy rates and commercial value of unlicensed software

	Piracy Rates					Commercial Value of Unlicensed Software (\$M)				
	2011	2010	2009	2008	2007	2011	2010	2009	2008	2007
<b>Asia Pacific</b>										
Australia	23%	24%	25%	26%	28%	\$763	\$658	\$550	\$413	\$492
HongKong	71%	69%	67%	65%	63%	\$145	\$132	\$122	\$115	\$99
Japan	67%	66%	67%	68%	67%	\$25	\$19	\$14	\$15	\$11
China	77%	75%	73%	70%	67%	\$1,002	\$779	\$7,083	\$6,377	\$4,668
Hong Kong	43%	43%	42%	48%	51%	\$51	\$52	\$218	\$18	\$225
India	62%	62%	62%	62%	62%	\$1,230	\$1,229	\$2,065	\$2,248	\$2,075
Indonesia	51%	50%	51%	51%	53%	\$1,651	\$1,624	\$1,838	\$1,498	\$1,791
Malaysia	53%	54%	55%	55%	57%	\$457	\$506	\$414	\$349	\$311
New Zealand	22%	22%	22%	22%	22%	\$99	\$85	\$63	\$76	\$55
Pakistan	86%	86%	84%	86%	84%	\$278	\$217	\$169	\$159	\$125
Philippines	53%	54%	55%	54%	57%	\$255	\$233	\$197	\$163	\$169
Singapore	60%	60%	61%	63%	62%	\$615	\$562	\$395	\$652	\$568
Sri Lanka	84%	84%	89%	90%	90%	\$66	\$83	\$77	\$97	\$92
Taiwan	27%	27%	27%	27%	28%	\$273	\$252	\$221	\$213	\$183
Thailand	71%	71%	75%	78%	78%	\$395	\$412	\$353	\$257	\$300
Vietnam	81%	82%	85%	85%	85%	\$569	\$576	\$508	\$569	\$524
Other AP	91%	91%	90%	91%	91%	\$22	\$27	\$30	\$29	\$25
<b>TOTAL AP</b>	<b>60%</b>	<b>60%</b>	<b>59%</b>	<b>61%</b>	<b>59%</b>	<b>\$20,908</b>	<b>\$18,746</b>	<b>\$16,544</b>	<b>\$15,261</b>	<b>\$14,099</b>
<b>Central and Eastern Europe</b>										
Albania	75%	75%	75%	77%	78%	\$6	\$6	\$8	\$9	\$11
Austria	89%	89%	89%	92%	93%	\$56	\$57	\$14	\$7	\$8
Azerbaijan	87%	88%	89%	90%	92%	\$67	\$57	\$52	\$55	\$53
Belarus	89%	89%	97%	97%	97%	\$67	\$106	\$50	\$55	\$50
Bosnia	66%	66%	66%	67%	68%	\$15	\$13	\$14	\$15	\$13
Bulgaria	64%	65%	65%	68%	68%	\$107	\$124	\$104	\$139	\$83
Czech Republic	37%	38%	38%	38%	39%	\$74	\$87	\$71	\$77	\$68
Estonia	69%	69%	69%	69%	71%	\$25	\$23	\$19	\$21	\$20
FRYBOS	66%	66%	67%	68%	68%	\$22	\$19	\$15	\$14	\$11
Germany	91%	91%	91%	92%	92%	\$143	\$131	\$113	\$146	\$120
Italy	61%	61%	61%	62%	62%	\$12	\$16	\$12	\$10	\$10
Kazakhstan	74%	74%	74%	75%	76%	\$123	\$29	\$74	\$125	\$110
Latvia	59%	59%	59%	59%	60%	\$52	\$50	\$24	\$31	\$29
Lithuania	54%	54%	54%	54%	54%	\$44	\$38	\$31	\$40	\$37
Moldova	80%	80%	81%	80%	80%	\$48	\$46	\$28	\$48	\$43
Montenegro	79%	79%	81%	83%	83%	\$7	\$7	\$11	\$8	\$5
Norway	90%	90%	91%	90%	92%	\$7	\$7	\$10	\$10	\$8
Poland	67%	68%	68%	68%	67%	\$619	\$557	\$508	\$448	\$580
Romania	67%	68%	68%	68%	67%	\$207	\$195	\$183	\$219	\$4,125
Russia	63%	63%	67%	68%	73%	\$3,227	\$2,842	\$2,413	\$4,216	\$4,125
Serbia	72%	74%	74%	74%	74%	\$104	\$95	\$67	\$99	\$72
Slovakia	40%	42%	42%	43%	45%	\$68	\$43	\$45	\$62	\$54
Slovenia	64%	67%	67%	67%	68%	\$51	\$47	\$39	\$51	\$35
Ukraine	80%	80%	80%	80%	80%	\$127	\$118	\$85	\$131	\$123
Other CEE	60%	60%	60%	60%	60%	\$58	\$58	\$58	\$58	\$58
<b>TOTAL CEE</b>	<b>62%</b>	<b>62%</b>	<b>62%</b>	<b>62%</b>	<b>62%</b>	<b>\$10,929</b>	<b>\$10,929</b>	<b>\$10,929</b>	<b>\$10,929</b>	<b>\$10,929</b>

Source: [www.bsa.org](http://www.bsa.org)

## 2. Consumerist globality

Globally, the software piracy rate in developing countries is much higher than in developed countries - 68% compared to 24% (average) - and the commercial value of

pirated software in emerging markets represents a significant part of the commercial value of pirated software globally speaking. In 2011, the global software piracy rate was 42%, the same level as in 2010, while the commercial value of the pirated software at global level reached \$ 63.4 billion, higher than the previous year when this value exceeded \$ 58.7 billion.[10] Piracy in the music industry is very common; its highest level is on the internet. The alarming levels reached by piracy via the internet are fuelled by an IT infrastructure more accessible and permissible to average consumer at increasingly lower prices for increasingly higher speeds. This is possible because there are no legal regulations in this regard. If internet piracy increases from year to year, the one on physical support decreases: piracy rate dropped in 2008 to 50% of products on the market, compared to 70% in 2007. By region, media piracy is as follows: Central and Eastern Europe: 64%; Latin America: 64%; Asia-Pacific: 60%; Middle East and Africa: 58%; EU: 35%; Western Europe: 33%; North America: 21%.

The law obliges all EU countries to establish separately the maximum limits of fines and prison convictions. The maximum sentences may vary, but the fines must be at least € 300,000 and four years in prison for crimes committed by organized criminal groups that jeopardize public safety and health. Minor criminal offenses can be punished with fines smaller, but no less than EUR 100,000. Encouraging or assisting a person to violate intellectual property rights is also a criminal act, and the authorities are entitled to confiscate and destroy counterfeit goods. However, copyright infringements for personal use are excluded specifying that they will be governed by civil law. [11]

There are many factors leading to the emergence and manifestation of unfair competition both in the domestic and foreign market; these factors are used in order to remove competition or for as a series of small producers "to survive" in the market, some of them even acting illegally. Many of these factors distort the essential role of competition, aspect that stands in the way of achieving the normal activity of producers and consumers. For example, for a producer, factors such as counterfeiting and piracy generate significant negative effects that can



be felt at the level of profit by reducing it and at the level of the entire activity, because there is the possibility that the company may not be able to defend itself against such factors and these things lead to market exit.

Piracy consists of fraudulent reproductive processes, with the purpose of marketing products that are subject to protection of intellectual property rights and related rights.[3]

According to specialized documents, intellectual property rights are: copyright; author's right of database; trademark rights; rights concerning drawings, graphs, and models; geographical and spatial indications; rights related to copyright; trade names being protected as exclusive property rights of national legislation.

Failure to comply with copyright negative effect on several areas of activity; among them we mention software field, musical field etc. These areas are also the most affected by this factor that directly affects the economy of a country, reflecting the percentage of gross domestic product. A report by the Business Software Alliance, in 2011, looks like this: in Ukraine the rate of pirated software reaches 84%, in Belarus - 87%, in Russia and Romania 63%. The highest level of software piracy is registered in Zimbabwe (92%) and the lowest in the United States (19%), Luxembourg (20%) and Japan (21%). In Moldova, the percentage remained at the same level as in 2010 (90%).

Overall, users who pirate software are mainly young men and the probability to live in a developing country than in an economically developed country is two times higher (38% compared to 15%). Decision makers in company recognize that they pirate software more frequently than other users and it is twice as likely that they buy licensed software for one computer and then install it on multiple computers in the company.

Of course, we wonder at what level our country is regarding piracy. Certainly in theory, without concrete data we state that Romania has a significant percentage of the practice of this factor.

A global survey conducted by IDC for the Business Software Alliance (BSA) [12] in May 2012 shows that software piracy rate dropped slightly last year in Romania to 63% from 64% a year ago, and the commercial value of software installed unlicensed

amounted to \$ 207 million. In Central and Eastern Europe, trading losses related to the software installed without a license have exceeded the value of 6.1 billion last year, the most damage occurring in Russia, Ukraine and Poland. [10]

### 3. Conclusions

The way that the change evolves translates into the behaviour of the economic agents, of the consumers, of the frequency of introducing highly innovative products. Thus, to cope with this factor, the economic agents must have multiple directions and be able to identify those that will help them cope with change. Complexity cover issues such as: technological, economic, social and political aspects that make up their environment and compete with the economic agents.

Competition aims to create added value for the consumer. Firms compete in their work on several levels, each with a different degree of competitiveness. Thus, companies must adapt their competitive strategy to deal with the existing competitors and the new ones. With regard to moral responsibility, multinational companies often face a big problem: applying moral standards on other markets.

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## Factors Affecting Labor Demand in Shipping

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### Abstract

*Shipping by dependence on the world economy has felt increases and decreases of world trade, which led to the gradual transformation into a global industry.*

*Currently, shipping is crystallized by a community worldwide, with technologically advanced ships, a good communication system, specialized labor force, benefiting from the fundamental principle of free trade.*

*Worldwide, the study by BIMCO (Baltic and International Maritime Council) shows that in the year 2010, the demand of seafarers recorded a total of 636,543 officers and 747,000 of ratings.*

*Latest statistics on the labor market in shipping suggests a balance between demand and supply ratings, but with a slight lack of officers by 2%.*

*This paper are trying to present factors affecting labor demand in shipping highlighting the elements which contribute to maintaining balance on the labor market.*

**Keywords:** demand, seafarer, labor market, shipping

**J.E.L. classification:** J21, J22

### 1. Introduction

The globalization of national economies has produced important changes in shipping: there appeared new types of ships, importing or exporting new areas, new maritime routes as a result of embargoes imposed on certain countries, new policies on training of seafarers [1].

But all these changes together with the use of an increasing proportion of new technologies in all activities of the shipping industry led to the importance of studying the supply-demand ratio of labor.

Given that the global economy is increasingly based on knowledge, the role of labor as a major resource in companies is growing.

In this way, demand for labor should be carefully manage, especially for obtaining and providing greater efficiency in its use in the production of goods and services to ensure higher levels of development of the company.

Given the current requirements, organization and enhancement of human capital imply that staff should be approached as a resource capacity and potential of development. Since this resource is flexible, it can expand or collapse.

Meanwhile, human capital is rather an investment with significant effects than an expense or cost for shipping companies, for which the organization of labor is closely related to human capital development through professional training.

The existence of separate markets for seafarers makes it possible to distinguish between groups on the labor market and providing differentiated income [2].

In the current international context, Romania play the role of reservoir of skilled seafarers with professional competence at high standard, for the employment of international fleet, especially to ships owned by shipping companies located in the European Union member states.

## 2. Particularities of labor demand

Labor demand in shipping is the need for pay labor that forms the shipping market over a period of time, expressed as the number of jobs for seafarers or onshore activities specific to shipping.

Assuming that in any economic activity demand for a factor of production is a derived demand, as shown in A. Marshall, we can deduce inverse relationship between application and volume of activities and relative of demand to labor productivity.

Considering that, those activities in each area of work shows some competences, skills for workforce involved, results characteristics of labor demand. The labor demand in shipping has certain particularities arising mainly from the working conditions and the specific activities taking place on a ship.

Particularities of labor demand in shipping resulting from:

### 1) Dependence on the volume and structure of benefits

Labor demand in shipping depends on the volume of goods transported, indicator that is closely linked with the evolution of the global economy. Thus, the amount of benefits realized or expected by the owner determines the dynamics of labor market demand in the field of shipping.

Another key factor is the type of goods transported, depending on which it is established the category of vessel capacity and requirements to be fulfilled for the safe transport of goods. Depending on the vessel engaged in transportation, activity is placed on the labor market demand for seafarers.

### 2) Type of ship

Depending on the type of ship, taking into account elements such as size, age of the ship, type of freight and international regulations regarding the safe manning on board a ship, the number of persons which form the crew can withstand variations from 18 to 25 seafarers. It should be noted that, in the 80's, a ship whose crew currently has 20 to 25 seafarers, had a crew that often exceeded 40 seafarers.

Variation of seafarers on board depend mainly on the type of ship, category of cargo transported, tonnage of the vessel, its degree of wear and flag under the ship sailing.

Lately, increasing the size of ships built

and high technologies applied to these vessels had the effect of reducing the ship's crew, for example, the experiment of „Safmarine Chilka” container with crew of nine persons.

Taking into account the reduction of crew for each ship belonging to the world fleet, numbering 53,000 ships, the effect on the labor demand in the naval field is quite significant.

Technological development enables a growing number of companies in the shipping industry to adopt measures such as temporary employment, deployment of components of the work process (subcontracting) and the use of a huge reservoir of cheap labor from developing countries, either to supplement or to replace highly paid workforce from the industrialized countries. All these elements can lead to an attempt to optimize in terms of labor demand in the shipping sector companies.

This technology of shipping domain requires new competences, skills from the crew and leading to training programs to future employees to be able to perform required tasks to highly specialized ship.

It is expected, that in the next five to six years, shipyards to adapt new ship projects so that equipment and facilities on board to allow a reduced crew. Developments in this direction are supported primarily by the concern of shipowners to reduce labor costs.

### 3) Increasing regulations in transport activity

In the last decade, regulators of naval transport have made their presence felt more than in the past thirty years, the increasing number of regulations influence the labor demand. The International Maritime Organization, the main regulatory authority in the field, has developed and imposed conventions on environmental protection, for example, ballast water management, fuel use emissions and conventions relating to safety of life at sea (SOLAS) and Standards of Training, Certification and Watchkeeping for Seafarers (STCW).

Such regulation imposed by the International Maritime Organization that influence the labor demand in the shipping is safe manning requirement.

This requirement takes effect on shipowners because when the ship is during repair or doesn't perform the voyages due to

lack of cargo, the shipping company is obliged to have a minimum crew onboard to ensure the safety of the ship.

All these regulations affect the number of crew on board, leading to increased demand for labor.

#### 4) Shipboard personnel structure

Depending on the type of ship and its level of technology, there is a certain structure of crew on board, representing a factor that influences demand for labor.

Table 1 Evolution of crew on different type of ship, 2000-2010

Ship Year	Officers		
	2000	2005	2010
Tankers 5000-10000 GT	9	8	8
Tankers 50000-70000 GT	10	10	8
Bulk 5000-10000 GT	8	8	8
Bulk 50000-70000 GT	10	9	8
Containers 5000-10000 GT	9	9	8
Containers 50000-70000 GT	10	8	8
Ship Year	Ratings		
	2000	2005	2010
Tankers 5000-10000 GT	12	12	12
Tankers 50000-70000 GT	14	14	14
Bulk 5000-10000 GT	12	10	10
Bulk 50000-70000 GT	15	14	14
Containers 5000-10000 GT	16	15	15
Containers 50000-70000 GT	14	15	14

Source: Organisation for Economic Co-operation and Development, *Availability and Training of Seafarers*, Precious Associates Limited, 2003, p.49 and Drewry Maritime Research's latest Annual Review & Forecast, *Ship Operating Costs 2011-2012*, London, 2012, p.18

In the period under review, the officers showed a decreasing trend regardless of type of ship and that due to technological progress that led to the reorganization of the activities performed and their redistribution among the officers of the ship. Seen in the light of the

shipowner, the crew reduction is important because it produces a significant reduction in personnel expenses.

It is important to discern differences in work content for each of the two categories of seafarers. Officers representing staff with tasks related to the operation of a ship, ship and cargo management and networking with representatives of institutions which verifies the conduct of transport activity. Ratings are responsible for the maintenance of the ship, vessel operation and cargo carried.

Another element of the structure personnel on board the ship that influence the demand for labor is the period of vocational education and training. Crew is required that every five years to refresh the mandatory courses required certification issue and patents. In addition, officers for promotion to the next hierarchical level must complete certain evaluations and refresher courses resulting in periods when they are not engaged in the labor market in the naval field.

#### 5) Specialization of the crew

Thirty years ago, seafarers were embarked on ships according to specialization and experience that type of ship. Decrease crew on board and reducing crew belonging to OECD countries resulted in limiting the requirement of specialization.

But lately, shipowners and charterers constraint, crewing agencies are forced to take into account the specialization of crew in selection and employment process. This requirement came especially for ships that presented a high risk to the environment feeling the need for more quality and specialization of the crew. The result of this is the increase in labor demand in shipping.

#### 6) The speed of rotation of crews on board ships

With the replacement of seafarers from OECD countries with Asian seafarers, apart from the need to intensify professional education and training, has declined embarkation on board ship, increasing the speed of rotation of crews, which influence the demand for seafarers.

#### 7) Utilization of ships

Considering the vulnerability of maritime trade and economic crises taking into account, freight rates as a factor regulating the volume of goods transported by ship, is resulting direct relationship between the

volume of goods transported and utilization of transport capacity of the world fleet. In 2013, the world fleet utilization was 84% with a 2% increase compared to 2012 [3].

As a result, the limiting investment strategies of shipping companies converge toward new assets (ships) and reduce costs, decrease which most often occurs by reducing staff costs. The labor demand is directly influenced by the usage of ships.

### **3. Conclusion**

The global labor in shipping has no obstacles for seafarers of any nationality to find a job. It is also characterized by a well-organized international recruitment network that connects shipowners, managers of shipping companies, crewing agencies and training institutions of seafarers worldwide.

Differences which exist between demand and supply of labor is manifested in every sector, especially in the field of shipping, in the current conditions of the external environment dominated by the processes of globalization.

In conclusion, from the point of view of labor demand in shipping, the issue that arises is represented by the correlation between world fleet increased and the development of world trade under the influence of the developments in the shipping field, increase of ships built dimensions, the increasing number of regulations required to seafarers.

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## Financial Mechanisms within Maritime Business

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### Abstract

*The naval operators as economic entities are accomplishing the same functions in the financial matters, as any other company, from any other sector, in all business dimensions, being broadly governed by the same financial mechanisms as any other economic enterprise, coming together due to legal and fiscal aspects at least. Disregarding this tendency there are some features that can make the difference important, considering the international or off-national character of the business as the external maritime services are, a particular study in these matters being thus justified. In the presented paperwork the authors are making a first step, overviewing the financial particularities of naval operators, revealing the main particularities regarding the stock concepts in naval transports, underlining afterwards some conceptual particular aspects of it. The final conclusions draft some practical measures in order to improve the financial liquidity and solvability, starting from the naval contract clauses bargain.*

**Keywords:** financial mechanism, naval transports, financial risks

**J.E.L. classification:** M21, M11

### 1. The economic activity in naval industry

The naval transportation as economic activity is that complex process built from all facts, acts, behaviors and decisions regarding the capital and specific resources management, allotted for producing,

repartition and consumption of naval transportation services, having as main target the profit increasing. Similarly, the port economic activity is referring to all activities regarding the port institutions and operator behavior overtaken in order to handle the goods and to assure all the required services for merchandise and for ships [1].

From the financial point of view, the naval enterprises are accomplishing the same functions as any other economic company, from any sector, in all known dimensions, owed to internal and external environment, as economic, financial, social, political and public dimensions, representing distinct functions in its functional structure [2].

The financial function of port and naval enterprises is determined into objective manner by the specific activities of financial sub-system and by the sum of financial relations, resulted from the enterprise interactions with the economic external environment. The major objective of any enterprise, acting in naval industry is to maximize the profit coming from naval and port operation, operational its available capacities and capabilities in a creative and competitive manner. In this regard, the present paperwork is approaching into innovative manner the main features of financial function within port and naval enterprises, following to reveal the particularities of manufacturing cycle in relation with financial and investment cycles [3].

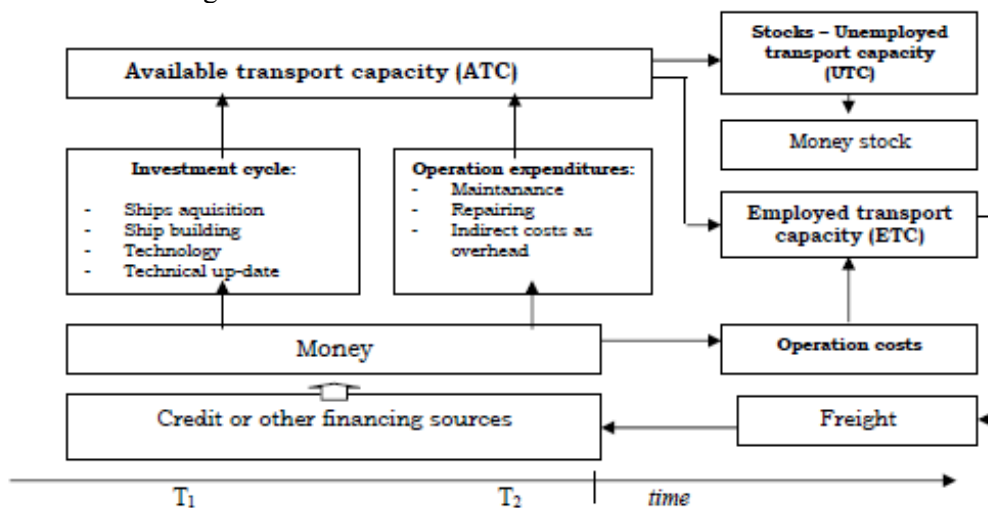
## 2. Main concepts regarding the financial mechanism in naval industry

The transport offer is defining the available transport capacities aggregate throughout the economic circuit, as exchange terms in naval industry, appointed into a virtual market in time and in space. The total transport capacity owed by a naval company can be assimilated with the patrimonial stocks comparing with ordinary enterprises, representing as definition the *available transport capacity* (ATC). The available transport capacity can be used through freight engagement, considered as *employed*

*transport capacity* (ETC), or can be unused in off-hire situations [3], considered as *unemployed transport capacity* (UTC).

The stocks in naval enterprises, reported to a fleet functioning properties and features, are calculated as the sum of ETC and UTC, their value being determined in additive manner in relation with off-hire losses of naval company (unachieved incomes) and with stationary costs (investment amortization costs). In relation with the financial function, the design of internal financial mechanisms of naval enterprises is represented in figure no.1.

Figure no. 1: *Financial mechanisms in naval business*



First, the money stock should cover the high level of investment in order to make available the transport capacities. In  $T_1$  moment obviously the problem is related to investment high amounts which can be covered through bond loan or simple credit loan, on long term, to permit the return of investment and the earning of those profit level to assure the company financial independency. The significant time gap between investment moment  $T_1$  and the progressive cumulative moments of returns receiving as  $T_2$  ask for a deep analysis of indebt effects determining the company focusing on reducing the stocks of unemployed transport capacities.

In order to assure the financial equilibrium it is compulsory that the incomes flow to stand on a proper cash level correlated to debt ratio (installments and interests costs) to cover the fix running costs and the operation

expenditure. Also, the lack of liquidities at once should affect the transport capacity operation and further the planned incomes achievement if the running expenditure are not financed throughout a contract execution. Therefore, becomes essential to plan precise and efficient the supply ports and moments, assuring all the time the access to a wide sources of financing even by short time credit, just to sustain the service alive [4]. On the other hand, for a naval operator is very important to reduce the transport capacity on stock, trying to maintain the fleet employed as much as possible. The unemployed capacity represents for real, at  $T_2$  moment, a stock of frozen liquidities, blocked under a unproductive capital, without any contribution to final results, but who produce additional losses. The losses generated by stocks unemployment are represented by



stock costs indicator ( $C_s$ ), calculated as value from the formula (1).

$$C_s = C_{st} + C_i + C_{oh} + A_i, \quad (1)$$

where:

$C_{st}$  – the unemployed ship stationary costs on-shore;

$C_i$  – the indirect costs for unemployed assets;

$A_i$  – investment amortization;

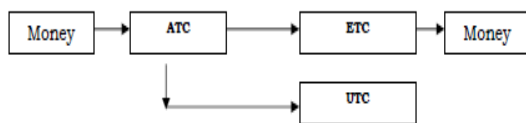
$C_{oh}$  – unemployment losses as off-hire.

The unemployment costs as off-hire loss ( $C_{oh}$ ) are calculated as unitary freight multiplied with unemployed transport capacity, from which we should extract the presumptive operation costs ( $O_c$ ) and the amortization as well (2).

$$C_{oh} = [(Freight/Tonnage) \times UTC] - O_c - A_i \quad (2)$$

The assets treatment as elements who generates losses is right in case of productive assets unemployed, with operational or manufacturing economic potential, as is the case of naval meaning of transports, in position as unemployed. Thus, the financial cycle within naval industry enterprises is determined successive by the transforming stages of money stock in available transport capacity, and further in reverse, by the money stock regenerating through transport capacity employment. In figure no. 2 is represented the transformation of money in ATC and the reverse flow of getting back the money stock from ETC profit, as the financial cycle synthesis.

Figure No. 2: The financial cycle tree



### 3. The financial cycle in naval enterprises

Within the financial cycle of naval enterprises as it has been generally defined for every enterprise we can distinguish three stages of money circulation, but like expected, with many functional particularities as will be described below.

**a. The operational cycle** – is targeting the service overtaken and contains three distinct stages, as following:

1. *The stage of ship availability engagement* – represents the prior phase on which the stocks are assured in order to use

most of the transport capacity and port infrastructure, when is being operable the notion of available transport capacity (ATC). In this supply stage the company will spent money to keep available its transport capacities providing the ship engagement technical and economic features. In this stage the expandable goods, the operational services and the repairing and maintenance needs are satisfied through specific procurement decisions.

2. *The stage of ship employment* – in this phase the naval enterprise will overtake its transport service function, becoming operable the notion of employed transport capacity (ETC). The naval company will operate the ship and will record the operation costs but will draw back the money stock receiving the freight for its contracts.

3. *The stage of ship preservation* – is an intermediate phase when the company is preserving its transport capacity becoming operable the notion of unemployed transport capacity (UTC). In lack of voyages or because of technical and maintenance reasons a ship can be preserved in technical manner, on-shore, in order to maintain or to rebuild the transport availability. The company is sustaining the ship costs, paying availability costs as stationary expenses on quay, technical costs on-shore or off-hire costs.

The relations within the operational cycle can be represented graphically as in figure no.3.

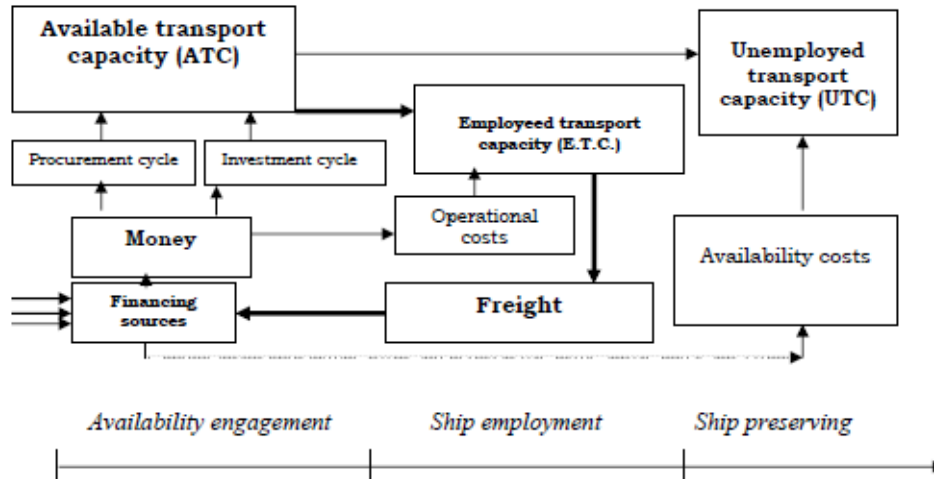
**b. The investment cycle** – represents the capital creation related to productive assets, useful for naval transport services or for naval operation. In investment cycle are procured main of fixed assets or good for long term use there are executed the technical improvements and new technologies insertion. The investments are overtaken in accordance with investment annual programs, being further amortized through direct transfer in freight structure or in operation tariffs.

**c. The financial operations cycle** – in this stage are included all credit and financing operations, the bond and share acquisitions, or the operations for claim cession. In naval transport comparing with other sectors, are recorded a high level of expenditure and incomes, situation that requires a proper rank of liquidity and solvability, the enterprises

being in difficulty to appeal often to treasury credits in order to sustain the current activities and the cash flow. The uncertainties related to the naval transport risks diminish the possibilities for long term credit, the

major type of financing being more close to internal sources or to shareholders loans.

Figure No. 3: *The Financial Cycle in Naval Transportation Enterprises*



#### 4. Conclusions

Then main financial particularity is issued by the international feature of naval transport as economic enterprises, starting from the foreign currencies implied and finishing with the payment instruments used in this sector. The foreign currency transactions can produce after case additional incomes but also tensions on short time in case of exchange rates losses. In order to control its financial policies in exchange rates for naval enterprises internal mechanism we propose the next solutions:

- the correct analysis for exchange rates on long term as trend, on a contract enclosure date, and right currency chosen – as example for payment positions we have to find the currency on falling trends and for cash positions we have to choose the currency on positive trends;
- the extension or reduction of cash or payment terms correlated to the medium term tendencies of exchange rates on stock markets;
- the coverage of exchange rates risks by hedging or swap operations on financial markets, or by risk assurance after case;
- the preference for credit titles as letters of credit, in place of direct or conditional payment order;

- usage of coverage clauses in transport contracts as the clause of overcharged price, indexed price clause, currency clause or hardship clause.

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## Some Vulnerabilities of the World Trading Landscape During Economic Turmoils

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### Abstract

*In today's global and interdependent world, international trade remains a factor that can sustain economic growth of a country. Statistical data on synthetic indicators of international trade flows from 2007 up to the present (as the case may be, some comparisons are necessary for the entire postwar period) shows that in the context of moderate recessions, and especially in the context of severe economic crisis, certain paradoxes and/or "atypical" situations occur between countries of the world. In fact, our study aims to identify a few of such realities and attempts, as the case may be, to formulate empirical explanations with regard to the today's global trading landscape.*

**Keywords:** trade openness, recession, crisis, trade balance

**JEL code** F130

### 1. Introduction

The realities of the postwar world revealed a quite unbeatable truth: performance and prosperity of national economies are significantly intensifying through participation in the world flows of material assets, but also of a different kind. A remarkable volume of literature (papers, studies, etc.), beginning with the classic theory of international trade and carrying on in subsequent developments, denotes a wide

interest for the role of international trade as a vector of development. We are thinking here especially to the works of Adam Smith, David Ricardo, Michael Porter, Paul Krugman a.o. [1],[2],[3],[4]

Nowadays world economy, as a reflection of a complex of interdependencies which shape it continuously, generates new opportunities for development, but it also amplifies considerably the vulnerabilities and the volatility. [5] Periods of economic turmoil, especially the severe ones, may induce severe consequences, not only in developing countries, but also in developed countries.

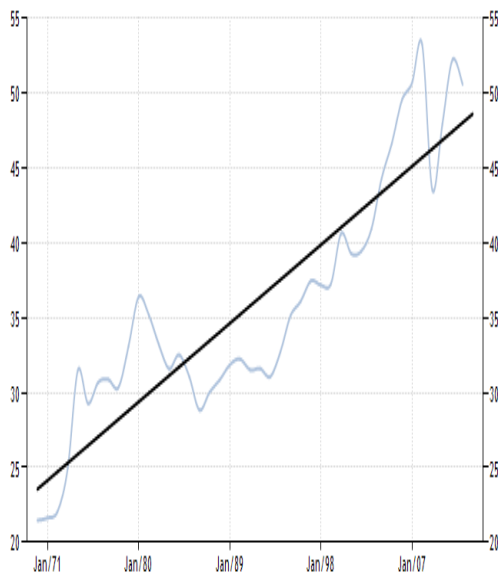
In this paper, we seek to identify some of the wakes which recessions and economic crises may generate into an increasingly interrelated world economy in which trade became one of the main vectors of development.

### 2. Nowadays World: a trading place

The image of a "trading place" that we used to associate more and more often with today's world economy is legitimated mostly by empirical evidences. Since 60s, contribution of merchandise trade to GDP was following a constant upward trend; of course, as the graph below suggests, it has been remarked some cyclical oscillations around this trend, induced mostly by economic turbulences of different intensity that have shaped the global economic landscape at one time or another. Even during the current economic crisis, comparable in amplitude and consequences

with the Great Depression of the 30s, the contribution of international trade to GDP still keeps above the trend, at higher levels than those of previous decades. The exception has been recorded in 2008 and early 2009 when, according to statistics published by the international organizations (WTO, UNCTAD, etc.) international trade has suffered the strongest contraction in the entire postwar period. [6]

Figure 1. Evolution of world merchandise trade as % of GDP



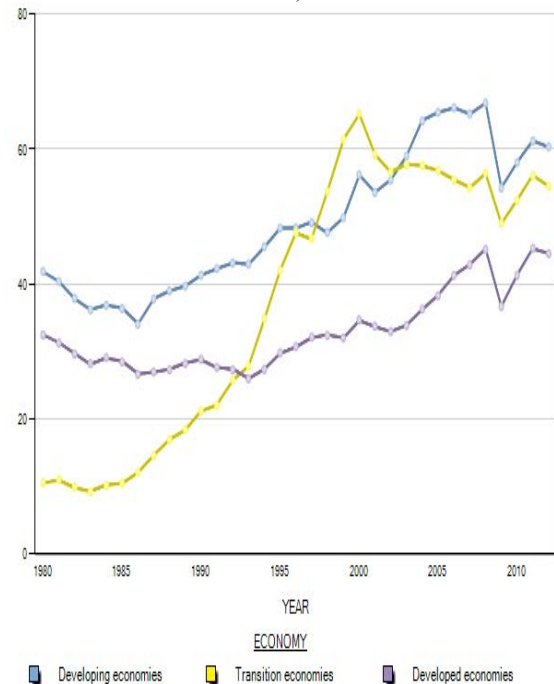
Source:

<http://www.tradingeconomics.com/world/trade-percent-of-gdp-wb-data.html>

The opening of the most countries in the world to foreign markets is obvious; beginning with the end of 80s, countries with transition economies have recorded notable developments, as a result of structural transformations that have accompanied the change of political regimes. Figure 2 shows significant results with regard to "borders permeability" even in the case of developing countries, which have recorded even higher performance than developed countries. Multilateral trade negotiations under the GATT and its successor, the WTO, have facilitated this opening and have created a framework for improving the position of developing countries in the world market.

Figure 2. Evolution of trade openness 1980-2012

(Sum of imports and exports of goods as a % of GDP)



Source:

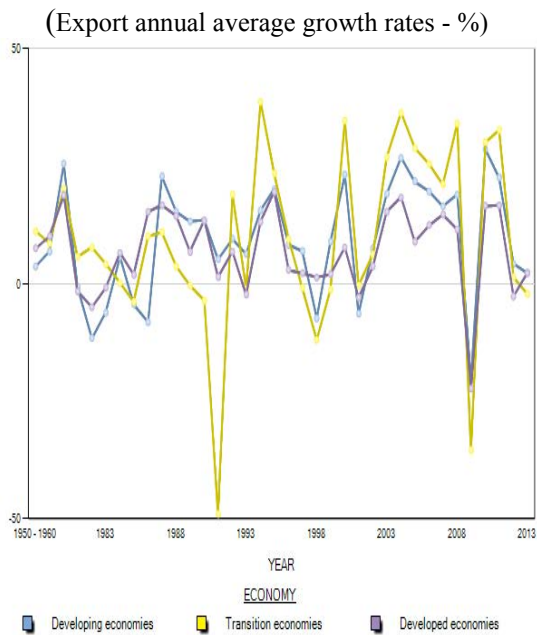
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Regarding to the state of trade openness in these three categories of countries we also notice a small contraction with an amplitude of less shrinkage during the period of the current global crisis, but without the overall trend to be severely affected.

### 3. The aftermath of turmoil

Analyzing international trade flows (exports and imports) during the postwar era, we have remarked their sinuous dynamics in developed countries, as well as in developing countries and transition economies (figure 3).

Figure 3. Dynamics of export flow  
1950-2013



Source

<http://unctadstat.unctad.org/TableView/chartView.aspx>

It has to be mentioned that, with regard to international flows of imports, the pattern of its dynamics (during the same period, 1950-2013), as annual average growth rates, has followed closely the dynamics of exports as it is shown in Figure 3.

We notice that political transformations at the end of the 80s generated in countries with transition economies even more severe consequences on trade flows in the short term than the current global crisis does. Also, in most of the countries we analyze the reducing of international trade dynamics is obvious during the periods of economic turbulence, namely the recessions of the 70s, financial crisis at the end of the 90s, recession in the USA at the beginning of the 2000s and especially during the current global crisis. The crisis that has affected the global economy beginning with 2008 has also generated a substantial increase of the cost of the transaction; more precisely, since 2007 the cost to export in the world (USD per container) has increased from about 1201 USD to 1515 USD (in the case of import, the cost has evolved similarly). [7]

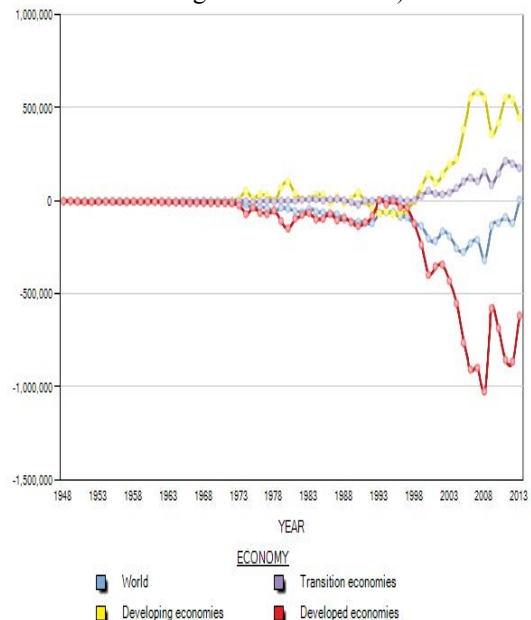
The distortion of dynamics and of the global business landscape is reflected directly in disequilibrium of trade balance. The quietude of the first postwar decades, marked

by the commitments to trade liberalization either at a multilateral level or at a regional level, seems to have come to the end when the crisis of raw materials prices (especially oil prices) started, in the 70s. Since then, as we can see in Figure 4, the global trade balance has shown a deficit, which has widened considerably especially during the economic crisis of 2008. From our point of view, despite the expectations/perceptions of public opinion, the developed countries have significantly contributed to this state of facts due to their chronic trade deficits after the year 2000 (even in countries with a great economic power such as USA, Canada, Italy, Spain, etc.).

Among other conclusions, we emphasize that economic recessions (like those of the 70s, 80s, 90s and especially the crisis of 2008) aren't a direct cause of these trade imbalances at the global level and/or in national economies, but they are a strong factor of their priming (the relationship between causes and effects of phenomena of this kind at the global level is complex, nuanced and goes beyond our study).

Figure 4. Merchandise trade balance  
1948-2013

(US Dollars at current prices and current exchange rates in millions)



Source

<http://unctadstat.unctad.org/TableView/chartView.aspx>

We also want to draw attention to what we could call "small paradoxes" of the world trading landscape in the last 3-4 decades, mostly with regard to the state of the trade balance in some countries. As it can be seen in Figure 4, is somehow "atypical" that during this period the international relative position of developed countries has damaged, while the relative position of developing countries has improved (especially because of the emerging of China and other Asian countries in the global market).

At the global level, if we are to analyze the main countries of the world by the structure of their trade flows (manufactured, petroleum, and natural gas, etc.), we could notice other relative changes with regard to the trade balance since the 70s up to now. So, one of the conclusions of our research was that beginning in the 70s, in some "atypically" manner too, traditional manufactures exporting countries have suffered a deterioration in the trade balance position. In fact, we could say that one of our research findings that corresponds to theoretical "expectations" concerning the global landscape in the last half-century refers only to the petroleum and natural gas exporting countries; this because they have improved the position of international trade balance recording considerable surpluses (examples: Norway, Algeria, Nigeria, Venezuela, Iran, Iraq, Kuwait, the United Arab Emirates etc.). [8]

Therefore, we simply understand that periods of economic crisis at the global level (both moderate recessions like those of the 70s, 80s, 90s, and especially the complex crisis of 2008) induce and/or generate complex consequences on the economic growth of all countries but their effects differ significantly from one country to another. [9]

A lot of studies/analysis highlighting the nature and the consequences of nowadays global crisis is seeking to explain this new Great Depression especially regarding to capitalist economies. Today, even the classic theory is questionable, because most countries of the world have differing reacted to the crisis and it wakes have been significantly different from one country to another.[10]

During certain periods of crisis, spreading their effects between different groups of countries has become more powerful than it

was a century ago (especially due to the escalation of technological, financial and other type of interdependencies between countries/organizations).[11] Disequilibrium in the trade balance also generates an imbalance of the current account which could be cleared only with borrowed financial resources, especially if the countries' ability to attract foreign direct investments is limited. Added to this, we could mention the worsening of terms of trade and the diminishing of the purchasing power on international markets, as well as currency devaluation, inflation, etc. Also, as it is known, the trade imbalances which occur in the context of the crisis and the other invoked effects are reflected inevitably (directly and/or indirectly) on the external debt of a country. From this point of view, all theoretical or empirical studies conclude that today there are no more "intangible" countries with regard to sustain a certain degree of public debt, a chronic disequilibrium of trade balance, and the worsening of other macroeconomic indicators. Even in countries such as USA, Japan, France, Italy, Spain, etc. there are many and important questions about their competitive position in the next years.

#### 4. Conclusions

Traditionally, the involvement of a country in trade with foreigners was viewed as a source of competitive advantage and economic growth since the Adam Smith's *Wealth of Nations*. As the Industrial Revolution, and later the Knowledge Revolution has imposed new socioeconomic realities at the global level, the sources of competitive advantage of countries have become more diverse and sophisticated. Almost about a century ago, in the context of Great Depressions of the 30s, international trade was closely related to the industry in developed countries (both of which being sources of competitive advantage). In our opinion, the global crisis of 2008 has given birth, and it will continue to do, to certain "paradoxes", questions and dilemmas, including with regard to trade between countries; in the long run, the current crisis throws discredit even on the mechanism of capitalist economy itself, i.e. that is based on competition and free market.

Therefore, our research also leads to the conclusion that today the state/the government must carefully weigh its macroeconomic decisions and strategies. We believe that it is obviously the fact that trade with foreigners will remain a source of prosperity in the future, but the way the governments will manage such flows will be significantly different from one country to another.

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## The Future of Economic Power

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### Abstract

*The importance of power in the development of society is undeniable. The power relations between national economies are more and more important and should be considered in every international economics analysis. Economic power has become the bedrock of both the military and the political power. Today the balance of economic power is shifting. The emerging states (China in the first place) are now demanding a greater role in global politics, challenging the existing international order dominated by the Euro – American west.*

**Key words:** economic power, state, BRIC  
**J.E.L.:** F50

### 1. Introduction

The importance of the power phenomenon in the development of the human society is undeniable. Yet, this phenomenon is insufficiently studied by economists; the most active researchers of this factor have been and are still the philosophers, the sociologists and the politologists.

Literally, the power does not make part of the economy mainstream. Thus, we notice among researchers an ambiguous interpretation of power, there being different and sometimes contradictory approaches of the issue of power and its role in the economic development.

The power phenomenon influences the entire system of economic relations, being present in the property relations, those of labour force occupation, in the exchange and distribution processes of its benefits, in ruling the economic relations by the state and other rulers, and also in the international economic relations. Thus, the analysis of phenomena and processes in world economy is most of the times incomplete or erroneous when

starting from the premisis that there would be a so called "pure" economy, without any influence, bigger or smaller, of the power relations between different multinational companies, world states and international organisations. Such an economy, governed only by objective economic rules, did not exist in the past and does not exist at present.

### 2. What is economic power and how could be measured

Power has always been an evasive concept. According to Robert Dahl's observations in 1957, "this word [power] and its synonyms are incorporated in all civilised languages, more often in meanings that slightly differ: power, influence, control, pouvoir, puissance, Macht, Herrschaft, Gewalt, imperium, potestas, auctoritas, potentia, etc" [1].

Military power implies the ability to master/ dominate/influence by force or the simple menace of using it somewhere else. Possessing this power, together with creating the impression that the possessor is ready to use it if necessary, is often enough for creating the desired effect. Through analogy, the economic power implies the possessor's ability to reward or punish the other side, function of its conformable, non-conformable behaviour towards his own desires, ability that is accompanied by the perception that the possessor also has the desire, the real possibility (political or economic) of using it if necessary. In the contemporary world, the economic power gains a greater importance.

A definition of the economic power is given by Julius DeAnne, a former intelligence analyst and member of the Monetary Politics Committee of the Bank of England in an article from 2006 on the economic power of the United States. According to her „the economic power has at least five meanings:



- The power of buying/financing more military force (buy more might)
- The power to achieve the objectives only by threatening or promises (carrots and sticks)
- The power to change the rules in order to favour someone (tilt the playing field)
- The power of extreme-competitiveness (hyper-competitiveness)
- The power of making the others to wish for the same thing (soft power)" [2]

The first meaning is the most common; the higher the wealth of the economy, the greater military power can be raised (if somebody wanted to do so). The other ones are more sophisticated. It's true that possessing some economic power can allow you to threaten or promise, can allow you to change the rules of the game or can make the others to wish for the same thing (attraction).

Another definition is that given by Ellen Frost: „The economic power may be defined as the ability to fully control or influence in a certain sense the others' behaviours by deliberate and politically motivated use of some political nature means" [3].

From an opposite perspective, another important aspect that must be held in view in defining the economic power is also the ability to resist the external influences imposed by another actor (especially by the external producers). In the functioning conditions of markets, some countries will be more selfsufficient than others, but no country can be selfsufficient in every sector.

The economic power has become an attribute more and more present in a variety of international actors, be they national states or not. The diffusion of power in the world economy has a strong connection to the globalisation phenomenon, practically with the integration degree into the world economy.

Hans Morgenthau, a representative of the realistic trend, considers that any assertion on national power must be judged in relation to its relative nature, its changing character and its area of application. In this perspective, the contemporary geopolitics of realistic inspiration not only deals with tangible and measurable factors – such as the territory and the population mass - but also with

imponderable factors that can modify the power equation in a surprising manner. In this category we include the moods of a nation, the internal cohesion and political dimensions, the power of tradition, a people's determination to reach a goal, the national pride. In fact, the above mentioned does not exhaust the factors that interfere in the power equation, but only draws attention to their qualitative diversities. Thus, the main factors that interfere are: the geographical size and the position on the globe, the topography and the climate, the natural resources, the population's number and level of studies, economic productivity, military ability, efficiency of the socio-political organisation, the diplomatic "know-how" degree [4]. The evolution of these elements explains the behaviour of a state and the existence of a certain geopolitical balance or unbalance. In this sense, every element of this equation gains a special geopolitical interpretation, distinct from the common meanings (geographical, economic....) specific to the analysed factor.

In the contemporary world, characterised by the globalisation phenomenon, these elements, even though they remain important, contribute less to the economic power than the society's and the Government's ability to create solid macroeconomic and financial policies, a fair and predictable legislation – the framework of an authentic market competition. Supporting the creation of an educated and adaptable autochthon workforce, a developed infrastructure (transport, communications, energetical), a stable and friendly investment climate should be the characteristics of a good governing which will mainly contribute to the status of a state's economic power.

The most common indicator of the economic power is the Gross Domestic Product (GDP), defined as the sum of consumption, investments, governmental expenses and net exports.

Another way of measuring the economic power is the GDP increasing rate. Developing countries usually have a bigger increasing rate than the developed ones (if they benefit from reasonable economic politics).

GDP / inhabitant is also used. Economists predicted that in a few decades the GDP of China will exceed that of the U.S.A. This shows the increase in China's economic power; but due to this country's huge population, China's GDP / inhabitant will not exceed a quarter or a half of that of the U.S.A. This fact rises up the question which of the two measurements is more precise, the one that takes into consideration the GDP only (nominal or as a parity of the buying power) or one that divides the result to the number of inhabitants.

The good governing is a basic pile of a lasting economic power. Too many times the politically appointed leaders (especially in developing countries) bury the development of their own economies by accepting disadvantaging contracts.

Small countries may obtain relatively good scores to all the above mentioned criteria. But the size of a certain state counts very much; some time ago it was considered that a larger population of poor people is not a desirable thing, but along with the growing market, a large number of people that need a work place, education, training are seen as a positive thing. From this perspective, China, India, U.S.A, Russia and Indonesia have a great economic importance, no matter what economic politics they follow.

The dimension or size of an economy offers "economic power" in what concerns the autonomy degree of a certain entity, but does not necessarily offer "economic power" seen also as an influence over the others. The integration degree into the world economy is more important from this point of view. In today's world the economic power has become a synonym to successfully integrate into the global economy. As a paradox, the greater this integration, the fewer possibilities

a country has to use its own economic resources to influence other governments' behaviours.

Popularity and prestige may also be considered elements related to the economic power. There is a greater possibility of mutual understanding (in the economic field, too) when there are good relations between the parts. The prestige was one of the U.S.A's quality for a long time, due to the huge market, educated work force and high technology used.

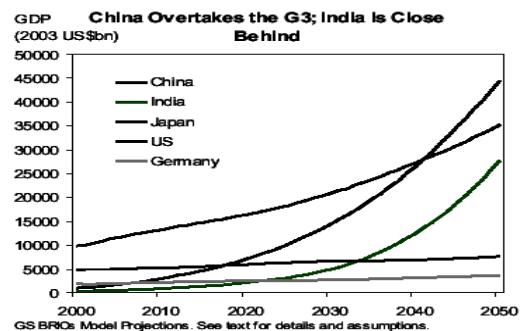
### 3. The economic power in 21st century

In the discussions referring to the economic power of some states it is important to underline the fact that "the potential plays a much more important role than the reality" [5]. Thus at the horizon of the year 2050, some forecasts place China on the first place in the world economy followed by the U.S.A., India, Brasil and Russia.

It is about a Goldman Sachs report given to publicity at the end of the year 2009 and quoted by Wall Street Journal, according to which Brazil, Russia, India, China (BRIC) could overcome the combined power of the group of the five: U.S.A., Japan, Germany, France, Great Britain. They will become the most attractive areas on the globe for direct and portfolio investments. At present, BRIC economies represent less than 15% of the G8 size, but in 2025, according to the report, they would be going to reach the half.

The mentioned Goldman Sachs report considers that in the year 2050 U.S. will be found between China and India.

Figure 1 Economic power in 2050



For the next 50 years Goldman Sachs analysts assume that the GDP will grow by

an annual average of 3.8% for Brazil, almost 6% for India, 4.7% for China and 3.2% for Russia in parallel with the increase in the value of national currencies of the 4 countries. For America at least the prospects are not entirely black, because although the U.S. will cease to be the only dominant force in the global economy, their trade will benefit from the increased demand for goods and services of the new powers. China's GDP will increase by four times in 2020 compared with 2000, reaching 7,000 billion dollars, and the GDP per inhabitant will be nearly \$5,000 [6].

Another study of the tendencies in the global economy has been prepared by the specialists of the PricewaterhouseCoopers consulting company. They reached similar conclusions to those of Goldman Sachs analysts forecasting strong growth in main emerging countries - China and India. [7]

#### 4. Conclusions

The ranking of the world economic powers confirms a hypothesis stated at the end of the twentieth century resumed at the beginning of the XXI century, namely: the displacement of the center of the global economy, of the holders of economic power therefore, from the Europe – Atlantic area to the Asia - Pacific. This change is based on an objective cause: the increasing exploitation of the huge human potential of some countries after the assimilation of new achievements of science and technology, as a consequence to the facilitation of the transmission of technological knowledge and information worldwide. It is expected that, for the advancement towards the knowledge society many other numerous nations to better exploit the creative potential and, as a

result, to improve the place in the whole world economy.

Furthermore specialists dealing with the analysis of the phenomenon were writing at the beginning of 2010 that "The structure of international relations is changing rapidly-the rise of new powers (India, China), means that the EU becomes a smaller part of a larger world." [8]. But even in a "larger world" the European Union is and will remain a major player in the games of the world economy, together with other traditional poles, Japan and the U.S, although important roles from an economic point of view will be detained by countries such as China and India, who will have to take some new responsibilities as great powers at political level, too.

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## Effects of Discretionary Fiscal Policy in Romania

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### Abstract

*The objective of this study is to explain the vicious circle in which the fiscal policy makers from Romania are as a result of the discretionary measures taken during the period previous to the economic crisis. The expansionary fiscal measures adopted by 2008 had exhausted the fiscal space for maneuver for economic recovery, and the direction of the fiscal policy was radically transformed. Since 2009, the main objective of the fiscal policy has not been the stimulation of the economic growth, but the consolidation of the public finances, which had been deteriorated during the economic expansion period. In this context, the fiscal policy promoted in Romania was procyclical, contrary to the theoretical tasks to stabilize economy.*

**Key words:** structural budgetary balance, fiscal policy stance, automatic stabilizers, fiscal consolidation.

**JEL Classification:** E62; F36.

### 1. Introduction

The evolution of the budget balance recorded in an economy does not rigorously reflect the impact of the fiscal measures taken by a Government, because it also captures the influence of economy on the government revenues and spending. For example, promoting an expansionary fiscal policy leads to, in the short term, to the increase of the budget deficit. However, the increase of the deficit may be caused not only by the state intervention, but also by the decrease of the economic activity, which produces automatic effects upon the budget. As a consequence, the evolution of the budget balance is both the result of a discretionary fiscal policy, and also of the automatic stabilizers' action.

From a methodological point of view, the variation of the budget balance constitutes the effect of the action of three elements:

- a) **the automatic fiscal stabilizers**, which capture the automatic impact of the business cycle phases upon the components of the budget revenues and expenditures, reflecting in the cyclical component of the budget balance. For example, about 90% of the budget revenues automatically react to the cyclical position of the economy and only 5% of the budget spending. The economic expansion is consistent with the increase in revenues, in the number of jobs, in profit and in the private consumption. All these elements constitute, in fact, the basis of most revenues to the state budget – revenues from the salary tax, from the social contributions, from the income tax and from the indirect taxes -, so that these categories of revenues will record an increase. Similarly, the economic downturns are accompanied by the decrease of the budget revenues, as a result of the decrease of consumption, production and employment. Thus, the economic expansion will generate an increase in revenues and a decrease of the budget spending, resulting in a cyclical budget surplus, namely induced by the relevant phase of the business cycle. However, the action of the automatic stabilizers is reflected in a cyclical budget deficit in the economic recession phase.
- b) **the endogenous discretionary fiscal policy**, including the reaction of the government decision-makers to the cyclical evolutions of the economy at present or to the anticipated ones in the short term. In order to identify the discretionary stance of the fiscal policy, one should calculate the structural component of the budget balance,

excluding the influence of the automatic stabilizers from the budget balance, namely that cyclical component.

- c) **the exogenous discretionary fiscal policy**, including changes in the fiscal instruments irrespective of the current economic conditions. Examples are the variations of taxation determined by elections, by the aging population, by the need to finance the defense budget or by measures promoted once (one-off), as well as the sales of the state assets, the recapitalization of the banks recording losses, the nationalization of the second pillar of the pension system etc.

The influence of the discretionary fiscal policy is reflected in the actual budget balance through the structural budget balance, while the action of the automatic stabilizers is captured by the cyclical budget balance. The structural budget balance excludes the cyclical budget variations, highlighting the situation of the public finances at the level of the potential GDP. The methodology for extracting the cyclical component of the budget balance was elaborated by Girouard and Andre [3], being newly developed by Mourre and others [4], supposing estimation of the appropriate semi-elasticities of the spending and budgetary revenues.

The table 1 presents, in summary, the relationships between the actual budget balance recorded in an economy, the structural budget balance and the cyclical budget balance. Once determined the structural budget balance, i.e. the result of the government's discretionary influence, we may identify the nature of the promoted fiscal policy, and its restrictive/expansionary stance:

- If the government promotes a restrictive fiscal policy (for example, increasing taxation or reducing transfers), then, the structural budget balance will get increased ( $\Delta SBS > 0$ ), which will also improve the level of the actual budget balance. However, the budget restrictiveness will negatively affect the economic development, which creates pressures in terms of decreasing of the cyclical budget balance, thus decreasing a part of the initial effects of the restrictive measures which aimed at budget consolidation.

- If the government adopts an expansionary fiscal policy (for example, decreasing taxation, increasing government spending or increasing transfers) then, the structural budget balance will get decreased ( $\Delta SBS < 0$ ), which will worsen the level of the actual budget balance. However, the fiscal expansion can result in the stimulation of the economic activity and, along with it, in the increase of the cyclical budget revenues, thus increasing the cyclical budget balance.

*Table 1. The actual budget balance and the structural budget balance*

<b>Economic recession</b>
Economy is in recession, the output and the revenues decrease, automatically resulting in the decrease of the budget revenues and the increase in the budget spending (with unemployment). The cyclical component of the budget is adverse, so that the actual budget deficit becomes higher than the structural budget deficit.
<b>Budget deficit</b>
The cyclical component of the budget records a negative balance, which will negatively affect the actual budget balance. Because of the recession, the actual budget surplus is lower than the structural budget surplus.
<b>Economic expansion</b>
Economy is in expansion, the output, the revenues, the employment and the consumption get increased, automatically increasing the direct and indirect taxes. It results a surplus of the cyclical component, which has a positive influence upon the actual budget balance. Due to the economic expansion, the actual budget deficit is lower than the potential one.
<b>Budget surplus</b>
The cyclical component of the budget records a positive balance, which will directly affect the actual budget balance. Therefore, a positive cyclical surplus will be added to the surplus corresponding to the potential GDP, thus resulting an actual budget surplus which is higher than the structural one.

The analysis of the fiscal policy stance is not complete without researching the economic context in which certain discretionary fiscal measures have been adopted. From a theoretical perspective, the fiscal policy should support the action of the automatic fiscal stabilizers. Therefore, during the periods of prolonged economic expansion, restrictive fiscal measures should be adopted in order to reduce the increasing inflationary pressures, which could generate the decrease of supply and the return to the

potential, but also to an inflation which is too high. Consequently, the budget balance gets improved as a result of both influences (automatic stabilizers and discretionary measures), and thus budget surpluses could accumulate. Moreover, during the periods of economic recession, the fiscal policy should be expansionary in order to increase the aggregate demand and to contribute to the increase of confidence of the private economic agents. The budget balance will worsen in the short term, but we hope that the economic recovery will offset the additional budget deficit created by the government intervention as quickly as possible. The mechanism described above corresponds to a counter-cyclical fiscal policy which, if promoted in both phases of the business cycle, will generate relatively neutral effects upon the state budget. Romer and Bernstein [6] have argued that Governments should adopt discretionary anti-cyclical fiscal measures, regardless of the business cycle phases, while Taylor [8] considers that fiscal policy should be rather neutral, allowing automatic stabilizers action.

When governments, through the adopted policies, do not aim at the stabilization of the economic fluctuations, the result is fiscal policies which emphasize the phases of the business cycle, thus becoming pro-cyclical. Therefore, a Government can promote expansionary policies when the economy is already in expansion, which induces the economic overheating. Governments have the feeling that they are not wrong because of the pro-cyclicity, as the additional debt may be more easily financed when economy grows. However, the negative effects in terms of funding may appear during the periods of economic recession, when a Government can be forced to implement restrictive measures aiming at ensuring the budget consolidation, instead of the expansionary ones, which are able to result in the economic recovery. Consequently, the pro-cyclicity from the period of economic expansion will be extended in case of economic recession. These virtuous effects of the fiscal policy's pro-cyclicity can be interrupted in the case of the economies which do not have debt financing problems and which may have a sufficient fiscal margin of intervention. The literature reviewed pro-cyclical behavior of fiscal

policy in line with the recession induced by the economic and financial crisis. Thus, the European Commission [2], Barrios and Fagnoli [1] or Princen and others [5] have estimated the budgetary consolidation efforts with the help of the structural budget balance, concluding that the budgetary adjustment generates positive effects on the ability of debt financing, but it negatively affects economic recovery in most economies of the European Union. In this context, Socol and Soviani [7] examined the peculiarities of the consolidation process in Romania, estimating an average adjustment of about 2 percentage points of the structural budget balance in 2010-2013.

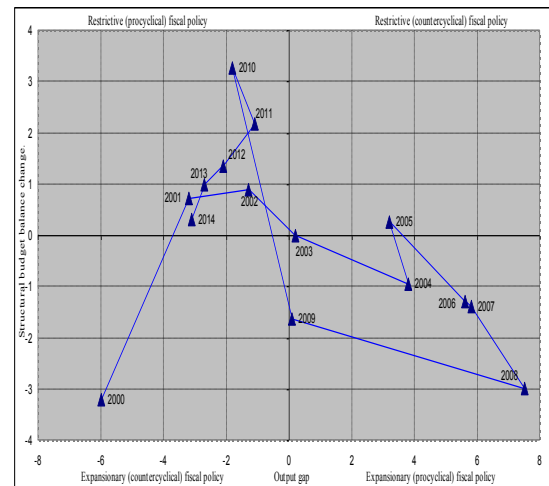
## **2. Pro-cyclicity of the fiscal policy in Romania**

During the period previous to the economic crisis, the government's behavior was similar to that of the private sector, promoting the increase of spending based on the assumption of increasing revenues in a long term. Despite the strong economic growth from the period 2006-2008, there was no concern to decrease the budget deficits and to create budgetary reserves for the periods of recession. Although the apparent economic prosperity represented an enhancer of the fiscal discipline, the requirements on decreasing tax evasion and increasing efficiency in collecting and using resources have been neglected. The fiscal policy has become pro-cyclical, thus increasing the pressure set upon inflation and external deficit, as it results from the analysis of the structural budget balance's dynamics.

The figure below represents the stance of the fiscal policy in Romania (emphasized by the change of the structural budget balance), according to the phases of the output gap from the period 2000-2014, based on the data from the European Commission (2013). According to the analysis carried out, in only two years (2000 and 2005) the promoted fiscal policy was counter-cyclical, which means that it corresponded to the stabilizing role of the Government in an economy. In these circumstances, it entered in the vicious circle of pro-cyclicity, and the expansionary measures contributed to the overheating of the economy, of which potential growth was approximately 5.5%

during the period 2006-2008. In this context, only an incidental increase of the state budget revenues was recorded, being determined by the increase in consumption supported by the foreign capital inflows and by the loose lending policy of the banks. In Romania, the period of rapid economic growth previous to the financial crisis (2006-2008) was characterized by a positive fiscal impulse, thus contributing to the overheating of the economy and increasing the imbalances accumulated in the economy. Moreover, the pro-cyclicality of the fiscal policy has exhausted the fiscal space necessary to stimulate the economy during the period of recession, thus inducing the need to decrease the budget deficit, under the terms of additional financing constraints. If before 2009, the structural budget deficits increased by approximately 2% each year of economic expansion, since 2010, there have been used the correction of the previous fiscal imbalances in a short period of time, which corresponds to a significant effort for fiscal consolidation. According to the European Commission's estimates, the Romanian fiscal policy will also be restrictive during the period 2013-2014, which reduces the likelihood of promoting substantial fiscal measures for the economic recovery. Fiscal consolidation has been mainly achieved for expenditure, through the promoted structural reforms aiming at the salaries of the employees from the public sector and from the public pension system. In terms of revenues, the most important measure was to increase the standard rate of the gross value added tax from 19% to 24% since July 2010. The cumulative budgetary adjustment estimated for the period 2009-2013 was approximately 6% of the GDP, its size being directly proportional to the size of the initial structural fiscal imbalance.

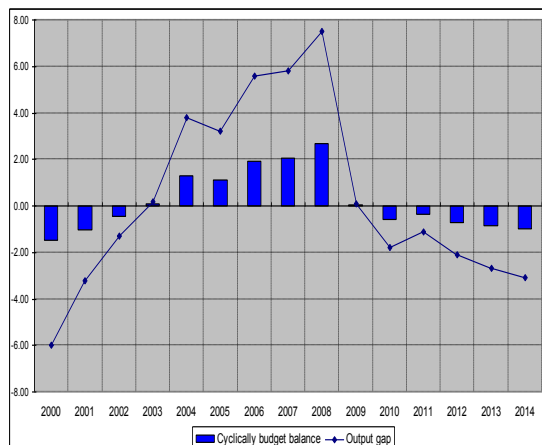
Figure 1. Fiscal policy stance promoted in Romania



Source of data: European Commission

If the evolution of the structural budget balance reflects the discretionary measures of the fiscal policy, the cyclical budget balance captures the action of the automatic stabilizers. Throughout the period 2000-2014, an output gap of 1% of the GDP involves a cyclical budget balance of approximately 0.33% of the GDP, which corresponds to a relatively low level of the size of the automatic stabilizers in the Romanian economy, while the average of the OECD or EU economies is 0.48 percents of the GDP. Figure 2 shows that the emphasizing of the output gaps (negative/positive) has involved a higher cyclical budget balance (in absolute values), which resulted in an improvement of the public finances during the periods of economic expansion, but also in their worsening in the years of economic recession. However, the size of the cyclical budget deficits recorded during the period 2010-2014 was lower than that of the cyclical budget surpluses from the period 2004-2008, under the terms of the relatively less intense recessionary gaps. The economic crisis has led to a significant decrease of the growth potential of the economy, so that the size of the output gaps was lower. A low level of the automatic stabilizers constitutes a disadvantage for an economy in expansion, but it is an advantage for an economy in recession, as the economic decline will have a relatively lower impact upon the cyclical budget balance.

Figure 2. The size of the automatic stabilizers in Romania



Source of data: European Commission

Summarizing the size of the fiscal discretionary measures and of the intensity of the automatic stabilizers in Figure 3, the result is that they have reduced the effects of the fiscal policy's pro-cyclicality from the period 2004-2008. However, the size of the structural budget deficits has been superior to that of the cyclical budget surpluses, which resulted in the increase of the actual budget deficits in times of economic expansion. Since 2010, the influence of the automatic stabilizers has been reduced, thus emphasizing the restrictive and pro-cyclical effects of the fiscal policy discretionary measures.

Figure 3. Discretionary measures vs. automatic stabilizers in Romania



## Conclusions

In this study, I have demonstrated that the pro-cyclical fiscal measures adopted especially during the period 2006-2008

altered the stabilizing role of the fiscal policy. Therefore, the economic stabilizing measures have been replaced by others which aimed at the budgetary, thus entering a vicious circle of the pro-cyclical fiscal policy. In this case, the state intervention is not aimed directly at the real economy, but at the modification of the budget balance in terms of increasing the sustainability of the public finances. Under the terms of relatively low automatic stabilizers, the economic growth will not generate but a slight cyclical budget surplus, which will not be enough to reduce the actual budget balance to the values agreed within the Fiscal Pact. It results that the Government will continue to promote a restrictive fiscal policy in the coming years by reducing the structural budget deficit, and this will impede the economic recovery.

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## EU Trade Complexity Analysis. The Case of Romania

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### Abstract

*From the perspective of trade integration, the real challenge for Romania is not increasing trade with the developed economies of the European Union, but rather that of deepening integration by reducing trade structural divergences. Without a structural modernization of trade, Romanian economy will lose, on medium and long term, some of the European market, thereby increasing the probability of asymmetric shocks in integrated commercial sectors. The objective of this study is to analyze the convergence of trade structure with the EU, in terms of the degree of technology complexity used in the production of goods imported and exported. Thus, I have shown that the new EU member states (including Romania) export largely the same categories of goods as well as developed economies, but also that their trade is based mostly on goods containing medium and high technology.*

**Key words:** trade integration; export; import; trade by technology intensity; Romania

**JEL Classification:** F15; F16.

### 1. Introduction

In this study, I proposed identifying the extent to which the technological composition analysis of the trade supports the real convergence process of the economies from the Central and Eastern Europe relative to the core, respectively to the periphery of the euro area. For this, I used the methodology proposed by the United Nations [5], structuring the foreign trade in four categories, in terms of the technological content: the trade based on the use of resources, on the use of a low technological content, on a medium level of the technology, respectively on a high technology. In the last 15 years, the emerging

countries in the whole world, including Romania, have been characterized by the declining share of the production of goods which use low technology, below 20% of the total trade, while the exports of medium and high-tech goods have recorded the fastest growth rhythms. Romania has registered a significant transformation of the technological structure of foreign trade, what is specific for the majority of Central and Eastern European countries, according to Crespo-Fontoura [1], which further increases the benefits of monetary integration. Munkacsi, Z. [3] revealed that the trade structure convergence occurred with a time lag in the case of Romania, relative to the other CEE economies. In addition, Romania's trade structure differs from that of other economies in the region despite the changes seen since 2000 according to Ivashko and Babson [2], respectively Nikolić [4].

### 2. Technological content of imports and exports

Table 1 emphasizes the trend of the Romanian exports towards the EU-27 economies during the period 2000-2010, under the terms of a compensation effect between the goods with low technology content and those with a medium technology. Thus, the share of the low-tech category decreased by approximately 30 percents, while the proportion of the medium-tech goods increased by 23 percents, in a more accelerated rhythm along with the liberalization of the trade with industrial goods. The low-tech exports to the EU-27 countries have mainly relied on clothing, footwear, furniture and textiles. Thus, in 2000, 31.3% of the total exports of Romania were with clothing, 10.3% with footwear and 5.1% with furniture, the three categories of goods representing 82% of the total low-tech exports. The share of the exports of textiles and footwear recorded an accelerated

decrease since 2005, as their contribution to the total exports in 2010 was only 11.8%. In 2010 these two categories together with furniture and processed metals had a share of 69% of the total low-tech exports to the European Union.

In 2010, a third of the medium-tech export of Romania to EU-27 was with vehicles, 18% with electrical circuits and 12% with industrial machinery. The exports of vehicles expressed in millions of euro had a share of 5% of the total Romanian exports in 2005, but they increased 4 times during the period 2005-2010, reaching to 13.7% of the total. As for the high-tech exports, their share decreased until 2007, increasing thereafter up to approximately 12% of the total in 2010. The highest share in the high-tech exports is recorded by the telecommunication equipment – 40%, namely approximately 1.2 billions of euro in 2010 -, followed by the exports of industrial electrical machinery and by the medical and pharmaceutical products, their shares being 19%, respectively 14%.

*Table 1.* The technological content of the Romanian exports to EU-27 (%)

	2000	2003	2005	2007	2009	2010
Resource based	13.39	11.80	14.44	14.90	13.40	14.26
Low-tech	57.03	57.73	48.38	40.38	27.64	26.63
Medium-tech	15.76	19.65	25.35	33.19	39.23	38.81
High-tech	7.85	5.98	6.38	5.08	11.27	11.88
Not specified	5.96	4.84	5.44	6.45	8.47	8.42

Source of data: Eurostat, personal calculations

The foreign direct investments in sectors such as pharmaceutical industry, electronics, telecommunications and electrical equipment determined an increase of the share of high-tech goods exports to EU in all CEE economies. Thus, in 2010, Hungary and the Czech Republic were among the first six European economies in terms of exports of goods belonging to this category, being placed before more developed economies, such as Germany, Sweden or Finland, according to the results included in Table 2. Generally, the euro area periphery economies, as well as the new member countries which are relatively less developed were characterized by a share below 10% of the high-tech exports. The only exception in

the case of the monetary union periphery is Ireland, of which share of high-tech exports in 2010 was 40.63%, down 9 percents if compared to 2003. During the period 2000-2010, Ireland recorded the highest share of high-tech exports, under the terms of the structural changes of this category of products – the share of the exports of computers and office equipment decreased in the total of exports from 23% in 2000 to 7% in 2010, while the share of the medical and pharmaceutical products increased from 6% to 24.4% of the total in 2010. Moreover, this latter category of goods contributed with 63% to the high-tech exports of Ireland to the rest of the EU. The performance of Hungary, which is the second economy in EU, was due the exports of telecommunication equipment, electrical machinery and TV-sets, in a percentage of 90%, the three categories of goods representing 27% of the total exports of Hungary to EU.

The structural transformation of the exports to EU-27 is also obvious in the case of the medium-tech goods exports. While economies such as Hungary, the Czech Republic, Slovakia recorded a declining share of this category of goods during the period 2000-2010, other economies, such as Romania, recorded an increase of their share. As a general rule, the foreign direct investments in the sectors producing vehicles and transport equipment constituted the determining factor for the stimulation of production and the exports of medium-tech products. For example, the exports of vehicles have a contribution of 17% to the total exports of Slovakia and the Czech Republic, respectively of 12% in the case of Hungary, while the share in Germany was approximately 15%. This category recorded the highest dynamics in a series of CEE countries, as we have shown in the analysis of convergence on groups of goods.

Table 2. Complexity of the exports to EU-27

	Resource based	Low-tech	Medium-tech	High-tech
Austria	18.06%	21.99%	36.37%	12.27%
Belgium	23.26%	15.06%	32.88%	15.20%
Bulgaria	25.57%	28.71%	20.19%	9.56%
Czech Republic	11.45%	18.01%	40.05%	21.30%
Finland	40.22%	17.26%	22.58%	13.83%
France	19.02%	14.16%	36.30%	18.59%
Germany	14.90%	15.71%	42.70%	17.70%
Greece	34.85%	17.94%	16.83%	10.70%
Ireland	30.72%	9.57%	11.51%	40.63%
Italy	17.00%	27.14%	38.68%	9.69%
Latvia	37.56%	16.72%	16.59%	9.95%
Lithuania	37.70%	17.61%	22.51%	5.45%
Netherlands	23.99%	10.89%	18.66%	23.83%
Poland	19.74%	21.13%	33.60%	14.56%
Portugal	23.31%	28.76%	30.17%	5.68%
Romania	14.26%	26.63%	38.81%	11.88%
Slovakia	15.58%	19.42%	36.68%	22.46%
Slovenia	13.79%	20.35%	41.41%	15.22%
Spain	19.10%	16.35%	38.30%	10.05%
Hungary	12.77%	10.88%	38.06%	30.48%

Source of data: Eurostat, personal calculations

The structural analysis of the foreign trade based on the complexity of technology outlines a generally favorable situation of the CEE countries, those from the center of EU being closer to the euro area core, while the Baltic States and Bulgaria are similar to the peripheral economies of the monetary union. The CEE economies recorded not only the most significant dynamics of the high-tech exports, but also the most important decrease of the exports of products with lower added value, such as those involving low technology. Although compared to 2000, the share of the low-tech exports decreased the most in Romania (by 30.4 percents), however, the contribution of this category of products is still relatively high in the total (26.7% in 2010), i.e. the third place in the European Union, after Bulgaria and Portugal (28.7%). Generally, the share of the exports using low technology is superior in the CEE economies, if compared to those from the core of the monetary union, except Hungary, of which share was only 10.9% in 2010, which is the second lowest place among the analyzed countries. Moreover, this CEE economy had a stable structure of exports in

terms of technological complexity, being the most structurally convergent with the euro area core both in 2000, and also in 2010. With reference to the category of exports based on resources, there cannot be established a connection between its share and the development level of an economy, but rather with other elements such as their geographical position or the degree of endowment with various resources. This category of exports recorded the lowest dynamics between 2000 and 2010 years, and the most profound changes were recorded by Latvia (a decrease by 23.3 percents), Lithuania (an increase by 11.2%) and Greece (an increase by 7.9%).

For example, the highest share in the resource-based exports of Greece is represented by petroleum oils (10% of the total exports in EU, respectively 30% of the total low-tech), followed by non-ferrous metals (8.5 % of the total exports), while the exports of fruit and vegetables are approximately 5% of the exports to EU. Lithuania and Latvia are the CEE economies in which the resource exports record the highest share in the total exports to EU, these two economies being the second, respectively the third in EU in terms of the share of this type of exports, after Finland with a contribution of 40% of the total. Two thirds of the resource-based exports of the two Baltic economies are with wood and cork (12% of the total exports to EU), respectively with petroleum oils (11.1% of the total). Lithuania is dependent on the external demand for petroleum oils, which record the highest contribution to the exports to EU – 21.8% of the total, respectively 56% of the resource-based one. According to the previous analysis, the purpose of the structural transformations of exports is to stabilize the category of medium-tech goods to approximately 35-40% of the total, to increase the share of the high-tech towards 15-20% of the total, considering that the low-tech exports and the resource-based exports will represent more than one third of the total.

If the exports structure involved significant changes in the case of the CEE economies, the imports recorded lower differences from a structural point of view, under the terms of a high convergence with the developed economies from the European

Union since 2000. This conclusion is also available for Romania, as shown in Table 3. Thus, the resource imports increased by 6 percents during the economic expansion period, as a result of the increase in domestic demand, while the share of the low-tech products get decreased, along with the decrease of the exports of such goods. The share of the high-tech product imports remained relatively constant in 2010 if compared to 2000, although there were transformations in the structure of this category of goods.

*Table 3.* The technological content of the Romanian imports from EU-27 (%)

	2000	2003	2005	2007	2009	2010
Resource based	10.94	10.71	11.34	13.28	16.27	16.48
Low-tech	31.17	31.92	26.64	21.46	21.50	21.04
Medium-tech	35.16	40.12	43.19	46.34	36.71	37.08
High-tech	16.67	11.31	13.30	12.37	16.62	16.58
Not specified	6.06	5.93	5.53	6.55	8.90	8.83

Source of data: Eurostat, personal calculations

If in the case of exports, the increase of the medium and high-tech categories represents a proof of competitiveness and, therefore, an important factor of the economic convergence, with reference to imports there is no direct connection between the degree of complexity and the economic growth process in a certain economy. For example, the imports of final goods for consumption which involve medium/high-technology (vehicles, electrical household machinery, TVs, telephones, telecommunication equipments, computers, pharmaceutical products etc.) do not influence the convergence of income, reflecting, at most, the transformation of the consumers' preferences in that economy. Exactly the way in which the imports of resources or of less processed products do not necessarily characterize a less developed economy as long as they become factors of production in medium or high-tech industries. However, the imports of capital goods used in the medium/high-technology industries constitute an element which improves the competitiveness of the goods produced and exported. Therefore, besides the interpretation of the import structures from Table 4, I have also made a synthesis of

the main categories of goods imported by the analyzed economies.

*Table 4.* Complexity of imports from EU-27

	Resource based	Low-tech	Medium-tech	High-tech
Austria	18.80%	20.95%	35.07%	12.76%
Belgium	22.15%	12.39%	27.77%	19.40%
Bulgaria	20.05%	18.89%	32.03%	16.69%
Czech Republic	15.49%	20.07%	35.16%	20.63%
Finland	15.89%	18.12%	34.23%	17.99%
France	17.34%	18.22%	33.71%	20.13%
Germany	18.20%	16.31%	32.51%	18.34%
Greece	21.40%	18.44%	27.13%	20.39%
Ireland	27.09%	17.41%	22.35%	18.94%
Italy	17.49%	15.76%	35.25%	18.62%
Latvia	25.39%	17.89%	29.29%	13.48%
Lithuania	17.61%	17.19%	37.49%	14.57%
Netherlands	23.75%	16.43%	26.54%	16.20%
Poland	16.98%	19.42%	39.01%	15.47%
Portugal	18.40%	20.62%	34.42%	14.64%
Romania	16.48%	21.04%	37.08%	16.58%
Slovakia	15.75%	19.28%	34.57%	20.25%
Slovenia	22.67%	20.36%	35.40%	11.96%
Spain	17.97%	16.52%	36.93%	18.53%
Hungary	16.50%	16.57%	36.12%	22.98%

Source of data: Eurostat, personal calculations

The most significant contributions of imports of resource-based goods are recorded by Ireland (27.1% of the total in 2010), Latvia (25.4%) and the Netherlands (23.8%), while Slovakia is characterized by the lowest share (15.8%). The imports of low-tech products have a share which is similar to that of the resources in the total imports, under the terms of a quite low divergence between the member states. As in the case of the exports of these categories of goods, Romania is characterized by its relatively higher importance, being the first among the analyzed economies, with a share of 21.1%. The dynamics of this type of imports of Romania was mostly influenced by the decrease of the share of imports of textiles from 10% of the total in 2000 to 3.7% in 2010 and of clothing from 6% to 1.8% of the total. The lowest share of the low-tech imports is recorded by Belgium (12.4% in 2010, compared to 15.1% in 2000), and 75% of them are represented by the imports of various goods made of steel, iron and

processed metals. As in the case of exports, the medium-tech goods record the highest share in the total of imports in all the analyzed economies, except Ireland, which is dependent, especially, on the resource-based imports. Besides Ireland, Greece, Belgium, the Netherlands and Latvia record shares of this category of imports which are less than 30% of the total. Lithuania and Romania are the only economies with imports over 37% of the total, while Slovakia and Hungary recorded the most significant decreases of this category, by 8.7, respectively 8.2 percents. Approximately 21% of the medium-tech imports of Romania from EU (i.e. 7.9% of the total) were with vehicles, while 8.2% were with the machinery specialized for certain industries and other industrial equipment. The share of certain textiles decreased from 5% in 2000 to less than 1% in 2010. With reference to the high-tech goods, the imports of the analyzed economies are less divergent if compared to exports. Thus, Hungary, the Czech Republic, Greece, France and Slovakia import this category of goods in a share of 20-23%, while Slovenia and Latvia relies the least on such imports.

## Conclusions

The analysis made for the complexity of exports and imports shows that, generally, there is a similarity between certain categories of exported and imported goods, this aspect suggesting the existence of an intra-industry trade. It is important to note that the structural convergence trend of the foreign trade does not automatically result in a reduction of the risks of asymmetric shocks under the terms of other CEE economies joining the euro area. For example, two countries A and B can have the same structure of exports and imports, yet the trades between them could be performed with goods coming from different industries (A exports X-type goods to B, and B export Y-type goods to A). Therefore, the shocks affecting the X industrial sector will only influence the production of country A, thus having an asymmetric impact for the two economies, which will increase the costs related to giving up their own currency.

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## Identity in the New Globalizing Context

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### Abstract

*Identity and the global are indissociately linked, while globalization is a continuous process that cannot be stopped and identity will never cease to be understood and interpreted in relation to the context in which the individual is placed. Once the territorial borders have become open, once people work in multinational companies, education promotes multiculturalism, the interweaving of the two paradigms – identity and globalization – seems imminent.*

**Key-words:** social identity, identity theory, globalization, symbolic interactionism.

**J.E.L. classification:** Z1.

### 1. Introduction

The investigation of such special constructions as social identities within the ever-changing globalizing environment is a challenging endeavor. In a continuously reshaped context, identity in the postmodern acceptance is a construct, the result of a fine "negotiation" of meanings between the subject and context/interaction in which it is placed. What is identity and how does it adapt to the new social context? Is it in a continuous shift or is it stable? What would be the challenges of identity in the nowadays context? What is globalization in the context of social identity evolution? How does it influence individual or group identity, if ever? These are some of the challenging issues tackled in the present paper, which is humbly attempting to shed some light over this conceptual framework.

### 2. Content

In the assessment of identity in a global context, it is necessary to draw in general lines the definition of what identity comes to

be considered in contemporary societies. The most concise way to outline this is to make reference to *Identity Theory*, as authored by Peter J. Burke and Jan E. Stets, their definition of identity drawing its roots from perceptual control model (used initially in cybernetics) and structural symbolic interaction (which will be later enunciated, for the completeness of the framework): „An identity is the set of meanings that define who one is when one is an occupant of a particular role in society, a member of a particular group, or claims particular characteristics that identify him or her as a unique person [4].”

So, departing from this very precise definition, one might further comment on the necessity of conceiving the individual's identity(ies) within the social context, a particular social structure, as he/she needs to constantly be engaged in interaction with other individuals in order to develop and gain self-esteem. What draws more attention is the concept of "role", which is further defined in the same theoretical approach as "the set of expectations tied to social position that guides people's attitudes and behavior[114].” So one can have several roles (or selves) according to the social position one is expected to occupy (e.g. father, student, social activist, etc). It is indeed the role one assumes or is supposed to embody that conveys meaning to the individuals, by making reference to "their structural features, their behavioral features and their expectational features [7].” But all these key-features above mentioned would be nonetheless meaningless without placing the self in a social context, since it is well acknowledged that "the nature of the individual depends upon the society in which he or she lives [4].” This would also make one think of Aristotle's claim that man is "a social animal" by nature, which is very much in line with the present claims in social identity studies that discuss the very issue of

identity in terms of social interaction. The self/agent can only acquire significance if he/she is placed in "systems of interaction [7]."

It is important to draw attention to the previously mentioned roots of identity theory, which takes its origins in structural symbolic interactionism that was further redeveloped and reshaped according to the new exigencies at the dawn of the 21<sup>st</sup> century, into what is now called "the identity theory". One might legitimately wonder what would distinguish symbolic interactionism from structural symbolic interactionism. Symbolic interactionism was first defined by George Herbert Mead, an American philosopher and sociologist, and was later brought forward and interpreted by Herbert Blumer, an avid researcher in sociology. Basically, they conceived the most important elements in human interaction to be "not the behaviors themselves, but the meanings of the behaviors [16]." At the very bottom of symbolic interaction is the "shared use of symbols [19]." They are used to render out meanings that in turn are associated to certain behaviors. What distinguishes structural symbolic interactionism from symbolic interactionism is the way the former conceives the status of the social structure, as being rather in a "stable, patterned and organized" state, than in traditional symbolic interactionism, which conceives social structure rather "in a state of flux", an environment in continuous movement, for this reason the individual's identity/ies is/are subject to constant adjustments to the environment.

Peter Burke is placing a central role in identity theory to the concept of "meaning." An identity becomes meaningful if a person becomes aware of his/her meaning within an interaction process. More precisely, "tied to each identity is a set of meanings that persons attribute to themselves when they are playing out or claim an identity [49]." Meanings of an identity make the individuals adopt a certain behavior, thus there is a direct correlation between the meaning (or else, the role, the identity one adopts) and the related behavior. Burke thus conceives identity as "a set of meanings" which in turn make up the identity standard, against which the self will be constantly compared to and it will adjust its behavior in coordination with the "input"

signals it receives from the environment. Within one identity "coexist" four instances that "drive" the individual, or else: the input (made up of perceptions received from the environment; it is a cognitive process); the identity standard; the comparator – the process of comparison of the input against the identity standard; the output – the relative behavior one adopts, according to the "error signal from the comparator [66]."

What I found particularly interesting in the process of analysis of identity theory was the evolution this field registered over the time span of sixty years, which makes the theory of symbolic interactionism as related to society's "state of flux" quite up-to-date. Within present identity theorists, the concept of social identity evolved, based on the individual's sense of belonging to a certain social group, whose components "share the view that they are members of the same social category [118]."

Identity will continue to be a major issue of debate, in the context of the present and probably future discourse that has not reached a common answer to the problem of the "given" and the "made" character, as well as the "individual" or "group" identity. A common ground has not been reached and it probably won't be reached, taking into account the never-ending arguments in foregrounding the foundation of one paradigm and the dismantling of the other and vice versa. Nevertheless, a balanced argument might mitigate the differentiation and propose a rather objective perspective, similar to what identity theory through one of its major representatives, Sheldon Stryker, claims with the fact that the "self reflects society." The individual cannot be perceived to his/her real dimension without contextualizing, putting him/her in a system of interaction. It is only within this framework that the individual acquires significance and, thus, comes into being.

Nowadays more than ever, there is a tremendous pressure upon the individual exercised by market, environment, culture and society. If previously the Enlightenment postulated the social and individual rigors of rationality, determinism and essentialism, poststructuralist philosophers view these paradigms outdated, and claim irreversible legitimacy to irrationality, indeterminacy, mass culture as well as commodification of

life in general. From this new stance, identity claims new revisions, since the new context overtly claims a new interpretation.

The view of the self underwent a significant mutation in modern times: historical changes, socioeconomic conditions led to massive "global mobility, information technology (especially the Internet), and genetic technology, and consider implications of these changes for social psychology of self and identity", as assessed in *Self and Society* by Yoshihisa Kashima and Margaret Foddy [182]. According to Baumeister, in the same study, the religious traditionally played an important part in shaping the personal self, having as a main objective "salvation and eternal life" [182]. The identity of the individual was more a matter of one's destiny, as people did not have much social opportunities and their life was more governed by the social hierarchy to which they belonged. One's occupation could not be a matter of choice, as it is nowadays, it was pre-established as of the hierarchy, which at the time was pretty stable. There was not much room for choice.

Further on, once with the nineteenth century industrialization, it was not amazing that social leveling and the emergence of the democratic society brought a new approach to what might now be coined as social identity. Adina Ciugureanu affirms that in the particular context of the industrial era two opposing forces guided the cultural and social landscape: "a drive towards heterogeneity and difference, pluralism and diversity and a drive towards globalization as standardization, homogeneity and leveling [11]." The same forces would be driving human individuals in general, that oscillation between personal identity and group identity. An increased awareness of the problem of identity, of defining who one is, what the main distinctive features of role-identity and group identity are, emerged as a natural necessity. But the difficulty was higher, as Yoshihisa & Foddy reflect, "the sociocultural system became more flexible and more complex and did not simply follow one's parent footsteps in work and marriages were no longer arranged [185]."

Being somehow freed from the previously imposed roles, the individuals are faced with an acute dilemma: that of making choices which became an important psychological

problem. The economic development led to a permanent questioning of the individual that was constantly put under pressure by the new emerging culture: mass culture. A culture that would make vanish the barriers between "high" and "low", "elite" and "popular", so as to make room for the new queen – the mass culture. Thus, group uniformization and standardization is often encountered and mass culture managed to address several targets of public, satisfying all tastes. The emergence of mass culture, together with the rapid development of all sorts of mass media tools might be considered intelligent ways of manipulation to counteract the overgrowing tendency of the individual of choosing instead of being made to choose. Thus, group standardization is often encountered and mass culture managed to address several targets of public, satisfying all tastes. The emergence of mass culture might be considered and intelligent tool of manipulation to counteract the overgrowing tendency of individual affirmation.

Globalization might symbolically be understood as the dialogue of cultures, the evanescence of every type of border and the general collapse into universality. In this huge realm, identity, whether personal or group identity both weakens and strengthens. At the dawn of the 21<sup>st</sup> century, humanity can only be addressed from a global perspective, as internalization and emergence of international markets, together with international marriages; international educational programs promote the idea of multicultural environments in which diversity is an asset.

The shifting perspective of the globalized society led to a reassessment of the notion of identity. Identity can no longer be assessed in individual terms, at least in most of the cases, since nowadays fewer people live in isolated places. Ulrich Beck considers the individual identity transgresses the national borders, since "an increasing number of people nowadays trade internationally, work internationally, love internationally, marry internationally, do research internationally, and their children are growing up and are being educated internationally [31]." For this reason, both individual and group identity have to be assessed from two perspectives – the local one and their impact on the global. The tremendous development of media in the



last decades resulted in "cosmopolitanization" of life: people buy imported food, read foreign books, travel abroad, make extensive exchanges with friend and relatives that live abroad, so everyday life is infused with global choices. The constant interweaving of the local with the global, the individual with the group leads to further questioning: aren't we surrounded by a tyrannical conspiracy that seizes human "brainwashing" and the purpose is to cancel individual affirmation? But that would be the object of a separate research. Meanwhile, we have to comfort ourselves that as long as we try to be shrewd and maintain a certain distance from the totalizing theories that surround us we can live a balanced live and still affirm our personal identity.

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## Post Crisis Regulatory Reforms – An Overview

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### Abstract

*The recent financial crises that have hit mostly the developed world in the two main regions, the United States of America and the European Union have highlighted the need of a sound framework for the financial transactions. Steps toward an increased set of regulations have been taken in both US and EU and more global approach has been set out via the creation of the Financial Stability Board and the adoption Basel III requirements. Still, there are more challenges to be addressed in the following period in order to avoid future financial turmoil.*

**Key words:** financial crisis, financial stability, financial regulations

**JEL classification:** G28, F42, F30

### 1. Introduction

The financial world has been shifting in the last two decades. Due to the crises taking place, some with very strong economic impact [10], the countries have started to seek solutions in order to avoid future turmoil.

The main of resolution was related to the regulatory infrastructure in place, both at local level and at the global one.

The main regions affected by the crises, the United States of America (the US subprime crisis) and the European Union (the European sovereign debt crisis) have both sought to recover and to preserve domestic financial stability and to support the work of international bodies focused on global financial stability.

In the US, the Dodd-Frank Act made is mandatory for financial institutions that were systemically important to submit annual resolution plans under rules issued by the

Federal Reserve (FRB) and the FDIC. There have also been other countries requesting plans from the most important financial players, but the developments have been uneven resulting in differing standards that have presented complications for companies with a global presence.

The Financial Stability Board (FSB) has been creating global resolution standards, with the guidance of the G20. In July 2013, the Financial Stability Board took an important step by issuing three final guidance papers to assist regulators and firms from the countries in implementing recovery and resolution planning requirements.

The guidance papers carry on with the FSB's previous "Key Attributes of Effective Resolution Regimes for Financial Institutions" [5], which required local and foreign authorities to maintain Crisis Management Groups to establish recovery and resolution strategies coordinated across jurisdictions for each Global Systemically Important Financial Institution.

The guidance papers together with the Key Attributes create an initial global framework for recovery and resolution planning.

The new Financial Stability Board framework provides only recommendations and does not have the force of law. In particular areas the FSP may report to G20 if the measures taken by countries are in line with the proposed frameset. Also, the role of the proposed standards are aimed at each country level in order to prevent some financial institutions of becoming "to big to fail" [8].

Both the US and EU, together with other countries on a smaller scale have sought to modify the current set up in order to mitigate the current risks and to better prevent future possible financial crises from happening.

## **2. Reforms in the United States of America**

After the US Subprime crisis, the biggest one since the Great Depression, the Obama administration signed into law a sweeping reform of the financial industry that seeks to address the bad behaviour of financial institutions and prevent any reappearance of the conditions that led to the 2007-09 turmoil [9].

### **2.1 The Dodd - Frank Act**

The Dodd - Frank Wall Street reform and consumer protection act, or Dodd - Frank Act, brought the most significant changes to financial regulation in the United States since the Great Depression and the reform in regulations that followed. It made changes in the American financial regulatory environment that affect all federal financial regulatory agencies and almost all the parts of the nation's financial services industry [12].

The Dodd-Frank Act implements changes that, affect the oversight and supervision of financial institutions, provide for a new resolution procedure for large financial companies, create a new agency responsible for implementing and enforcing compliance with consumer financial laws, introduce more tough regulatory capital requirements, effect important changes in the regulation of OTC (over the counter) derivatives, reform the regulation of credit rating agencies, implement changes to corporate governance and executive compensation practices, incorporate the Volcker Rule, require registration of advisers to certain private funds, and effect significant changes in the securitization market [7].

The Dodd-Frank Act creates the Financial Stability Oversight Council ("Council") to oversee financial institutions and update the current agency oversight system as per the following.

#### **2.1.1 Major agency changes**

- Creation of the Financial Stability Oversight Council;
- Creation of the Office of Financial Research within the Treasury to support the Council;

- Creation of an independent Bureau of Consumer Financial Protection within Federal Reserve;
- Creation of the Office of National Insurance within the Treasury;
- Creation of the Office of Credit Rating Agencies within the SEC;

#### **2.1.2 Major changes in agency oversight**

The following represent the major changes in the agency oversight:

- Federal Reserve will regulate thrift holding companies and subsidiaries of thrift holding companies, and will have all rulemaking authority relating to thrift holding companies; Federal Reserve will continue to regulate State member banks.
- The OCC will regulate national banks and federal thrifts of all sizes, and will have all rulemaking authority relating to thrifts.
- The FDIC will regulate state thrifts of all sizes.
- The OTS will be eliminated; all OTS functions, powers, authorities, rights and duties will be transferred to the Federal Reserve, the OCC, or the FDIC.
- The SEC will require registration of hedge funds that manage over 100 million USD as investment advisers; threshold for investment advisers subject to federal regulation to be raised from 25 million USD to 100 million USD.
- The SEC will require registration of municipal financial advisers, swap advisers and investment brokers; Municipal Securities Rulemaking Board rules to be enforced by the SEC [7].

Also, banks, bank holding companies and certain nonbank financial institutions will be disallowed to perform proprietary trading and investments and sponsorships of hedge funds and private equity funds. Furthermore, the Federal Reserve will have rule-making authority on this.

#### **2.2 Volker rule**

The Volker rule has the purpose to prevent some of the issues that led to the financial crisis in the US, relating to speculative investments performed by banks. These will not be allowed to perform certain investment activities using their own

accounts and limits their ownership of and the relationship with hedge funds and private equity funds.

Section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act requires all systemically important financial institutions to create "living wills" to facilitate "rapid and orderly resolution, in the event of material financial distress or failure." [1].

Banks are prohibited from trading with their own funds but are authorized to invest up to 3% of their Tier 1 capital in third-party hedge fund and private equity. That investment cannot exceed 3% of the total capital of a third-party hedge fund [9].

The protection that the credit agencies had from being sued when underwriters include their ratings in the deal prospectuses was also removed.

### **3. Reforms in the European Union**

Although the recent financial crisis started in USA with problems in the mortgage subprime sector, the turmoil spread also to the European Union and mainly to the most advanced countries (Germany is the one exception). This took place initially via the banking sector, as European banks had invested heavily in the structured products that the US market was offering and further developed into a sovereign crisis with countries such as Greece, Cyprus, Italy, Portugal, Ireland and Spain being hit.

After the eruption of the financial crisis, the stabilization of financial markets became a priority for the EU and reforming the financial sector was an important requirement.

In 2012, proposals were raised for the formation of a Banking Union for the Eurozone. The other EU member countries that did not have yet Euro as the local currency were also welcomed to join. The discussions also included the creation of a Single Supervisory Mechanism for banks as a key element.

As part of the reforms, three European supervisory bodies were set up to assist the local regulators and ensure EU-level rules are applied [3]:

-The European Banking Authority (EBA), which deals with bank supervision, including

the supervision of the recapitalisation of banks;

-The European Securities and Markets Authority (ESMA), which deals with the supervision of capital markets and carries out direct supervision with regard to credit rating agencies and trade repositories;

-The European Insurance and Occupational Pensions Authority (EIOPA), which deals with insurance supervision.

The financing facilities for the countries holding the Euro currency were set up very quickly, the example of Greece being an eloquent one. Due to the inability to repay the sovereign bonds that were maturing, the country lost access to affordable market financing, therefore the EU stepped in to assist with rescue financial packages. The EU also set up two temporary funds, the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF) which had a capacity to lend of 500 billion EUR in total.

The two funds were set up as a temporary measure, however the euro area countries created a new and permanent financial backstop at the end of 2012 - the European Stability Mechanism (ESM). It is now the foundation of the European firewall and an integral part of the EU's strategy to ensure financial stability in the euro area. Lending can go up to 500 billion EUR and conditional financial assistance will be available to those countries that have ratified the treaty on stability, coordination and governance. The ESM thus harmonize the surveillance by giving the possibility to offer conditional financial aid to euro area countries when required [4].

### **4. Global Reforms**

Reforms to prevent future crises from happening have not taken place only at local level but also at an international one. Policy makers tried to find solutions by coming up with a set of developments at both local and international levels.

In April 2009, the Financial Stability Board (FSB) was created from the informal group of regulators and bank experts that had been meeting in Basel.

The Financial Stability Board manages currently the work of local regulators and standard setting bodies at an international

level. It brings together national authorities responsible for the financial soundness, although mostly are from the G-20 countries [2]. Some of the most important reforms that have been finalized under FSB guidance and are being implemented can be summarized as per below:

- Adoption of Basel III capital requirements, including a countercyclical capital buffer and a surcharge for globally systemically important financial institutions (G-SIFIs). The two measures are creating macroprudential tools.

- Agreement on a standard for liquidity - the Liquidity Coverage Ratio (LCR).

- In order to minimize disruptions for financial institutions in distress from the category of "too big to fail", G-SIFIs and domestically systemically important banks (D-SIBs) have been identified. Also, higher capital adequacy requirements and more intense supervision have been set up.

- Enhancements to the "securitization model."

- Adoption of principles for sound compensation practices in order to minimize the effects of risk-taking encouragement.

- Agreement in principle on similar treatment of some types of financial transactions under GAAP and IFRS financial standards.

- Some OTC derivatives reforms [6].

## 5. Conclusions

The financial crisis highlighted the need to create an effective international framework to resolve cross-border financial institutions and groups. The development of such a framework has been a priority for the international community. Many important steps have been taken, most notably the adoption of Basel III, the identification of G-SIFIs, agreement on LCR or discouragement of risk-taking activities.

The main regions recently hit by crises, the United States of America and the European Union have sought to improve the local financial framework in order to avoid future financial issues, however further steps are still required.

The lobby performed by the global and regional banks is always heading towards more deregulated markets, however the

events that have taken place within the last two decades, with financial crises spurring and increasing in intensity [11] have shown the need of a more stable financial architecture.

Analysis are still being performed, local and international consensus is hard to achieve, however the decision makers throughout the world have realized the importance of the financial framework and the repercussions that this may have.

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# Particularities in Determining the Applicable Law in the International Trade Contract before the Arbitral Tribunal

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## Abstract

*The issue of determining the applicable law in the international trade contract before the arbitral tribunal is significantly different from its determination in the court of law. The explanation of this differentiation lies in the basis of the authority of the arbitral tribunals and of the courts of law.*

*In the present study we have aimed to explain the different position of the arbitral tribunals as opposed to that of the courts of law on the analyzed topic and to identify the conflict of law regulations applicable in the field, as well as their source.*

**Keywords:** conflict of laws, international trade contract, arbitral tribunal

**J.E.L. classification:** K12, K20, K33, K41

## 1. Introductory remarks. The legal nature of arbitration from the point of view of the law applied in international arbitration

### 1.1 The definition and legal nature of international arbitration

The legal nature of arbitration is explained in similar, even identical terms in the present legal literature [1]. Arbitration has been defined as private justice, characterized by two main elements: a) the origin of the contract and b) the jurisdictional function.

Arbitration is the institution within which the parties to a legal relation agree to solve, on the basis of their agreement and will, a present or (possibly) future dispute born out of that legal relation. Through the arbitration agreement, the parties of the legal relation subject their (present or potential) dispute to the jurisdiction of the arbitral tribunal, thereby removing the competence of the courts of law. Both the arbitration agreement

and the arbitration itself must comply with the limits imposed by the legislation in force.

That which makes arbitration international is the legal relation subjected to arbitration, which has to contain an international element strong enough to include that relation in the field of international trade law.

### 1.2. The regulation of international arbitration

International arbitration is subject both to international conventions in the field (to the extent in which they are applicable to the territory where arbitration takes place) and to national legislation.

At international level there are three important conventions on arbitration: a) the Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 10 June 1958) to which Romania has adhered through the Decree no. 186/196; b) the European Convention on International Commercial Arbitration (Geneva, 21 April 1961), ratified by Romania through the Decree no. 281/1963; c) the Convention on the Settlement of Investment Disputes Between States and Nationals of Other States (Washington, 1965), ratified by Romania through the Decree no. 62/1975.

At national level, both the old Code of civil procedure and the current one contain specific regulations on arbitration. In the current Code of civil procedure, arbitration is regulated in Book IV (art. 541-621). International arbitration and the effects of foreign arbitral awards are dealt with in Book VII (The international civil lawsuit), Title IV (art. 1110 – 1132). The legal norms contained in the Code of civil procedure are developed in the Rules of arbitration procedure of the International Commercial Arbitration Court and in the Regulations on the organization and functioning of the

International Commercial Arbitration Court attached to the Chamber of Commerce and Industry of Romania [2].

### 1.3. Determining the applicable law in international arbitration

The position of the arbitral tribunal is significantly different from that of the courts of law. While the courts of law exert one of the powers of the state (the judicial power), the arbitral tribunals represent, as shown before, a private justice. This is why in determining the applicable law in international trade contracts the courts of law apply the conflict of law regulations of that state (*lex fori*). Unlike the courts of law, the arbitral tribunals are not bound to the private international law of the state on whose territory the arbitration takes place, since the arbitral tribunals do not exert state power but their authority is based on the common will of the parties.

### 2. The problem of the conflict of laws rule of the court

The courts of law apply in any situation, both when the parties have designated the *lex contractus* and in the absence of the manifestation of the concurrent will of the parties in this regard, the conflict of laws rules belonging to the *lex fori*. The parties may establish the applicable law to the international trade contract (and the court has the obligation to respect this choice) because the conflict of laws rules belonging to the *lex fori* guarantee this right, the autonomy of will not having an original legal value itself, but a derived one.

The arbitral tribunals are different; they do not have a *lex fori* because they are not jurisdiction bodies established by the state. We join the authors who consider that neither in the *ad hoc* arbitration nor in the institutional arbitration, can there be question of a *lex fori* [3]. In specialized literature [4] several arguments have been brought in support of this point of view:

- The source of the power of the arbitrators is the arbitration agreement. The arbitration court is not a judicial body established by the state;
- Generally, the parties are free to choose the norms of constituting the arbitral

tribunal, the naming, revocation and replacement of the arbitrators, the deadline and place of the arbitration, the procedural rules the arbitral tribunal has to follow in the trial proceedings and any other norms regarding the proper running of arbitration;

- As shown by the provisions of art. I, paragraph 2, letter b of the Geneva Convention, its provisions do not only apply when the disputes are settled by arbitrators appointed for certain cases (*ad hoc* arbitration), but also when settling disputes through institutionalized arbitration; according to art. VII of the mentioned conventions, in the absence of the indication by the parties of the applicable law, the arbitrators will apply the law designated by the conflict rule they deem appropriate in that case;
- The venue of arbitration is often chosen on grounds unrelated to the conflict rules which will be applied in the case (for instance, the venue of arbitration is established based on the prestige of the institution of arbitration, on the geographical distance between the business partners or on the political neutrality of the state where the institution of arbitration is located);
- Although the Court of International Commercial Arbitration attached to the Chamber of Commerce and Industry of Romania consistently applies, in the establishment of the applicable law to the contract, the conflict rules present in the Romanian legislation, as if the provisions of the national law constituted the *lex fori*, according to art. 86, the arbitral tribunal determines the law applicable to the substance of the dispute, if it hasn't been chosen by the parties. Thus, there is no fundamental incompatibility between the position of the Arbitration of Bucharest (CAB) and the settlement of the conflict of laws by means of the conflict rules the arbitral tribunal might deem appropriate. Since the CAB Rules of arbitration procedure rules (according to the reasoning above) allow the arbitral tribunal to determine the *lex contractus* based on a conflict rule it deems appropriate, there can be no question of a *lex fori*.



### 3. Determining the applicable law in the international trade contracts before the arbitral tribunal

There are few international conventions in the field of arbitration containing provisions on the establishment of the law applicable to the substance of the dispute (the international trade contract). Only the European Convention on International Commercial Arbitration (Geneva, 1961) and the Convention on the Settlement of Investment Disputes between States and Nationals of other States (Washington, 1965) contain such provisions.

According to article VII (1) of the Geneva Convention, "The parties shall be free to determine, by agreement, the law to be applied by the 51 arbitrators to the substance of the dispute. Failing any indication by the parties as to the applicable law, the arbitrators shall apply the proper law under the rule of conflict that the arbitrators deem applicable. In both cases the arbitrators shall take account of the terms of the contract and trade usages."

In article 42(1) of the Washington Convention it is shown that "The Tribunal shall decide a dispute in accordance with such rules of law as may be agreed by the parties. In the absence of such agreement, the Tribunal shall apply the law of the Contracting State party to the dispute (including its rules on the conflict of laws) and such rules of international law as may be applicable."

The cited provisions show that the rules on determining the law applicable to the international trade contract before the arbitral tribunal are similar to those applied by the courts of law: the substantive legal rules applied to the international trade contract are determined on the basis of a dual conflicting rule. Firstly, the parties have the possibility (by expressing their concurring will) to designate the *lex contractus* (the principle *lex voluntatis*); only in the absence of the expressed will of the parties will the law applicable to the contract be established by the court [5].

#### 3.1. The principle *lex voluntatis*

The possibility of the parties to designate the *lex contractus* and the obligation of the

arbitral tribunals to respect this choice is provided in many national legal systems [6], in arbitration regulations, as well as in international convention (the Geneva Convention of 1961 and the Washington Convention of 1965).

#### 3.2. Determining the applicable law in the absence of the manifested will of the parties

According to the legal regulations of several legal systems, in the absence of the choice of the *lex contractus* by the parties, the arbitral tribunal will apply the law designated by the conflict rule it will deem appropriate in that case [7] or the law the case has the closest connections with [8].

In art. VII of the Geneva Convention (1961) it is provided failing any indication by the parties as to the applicable law, the arbitrators shall apply the proper law under the rule of conflict that the arbitrators deem applicable. This concept is found in several Rules of arbitration, such as, for example, the Rules of arbitration of the International Chamber of Commerce in Paris (art. 17) or the Regulations of the Arbitration Centre of the Chamber of Commerce of the Grand Duchy of Luxembourg [9].

The well-known theoretician Jean-Michel Jacquet that within the arbitration practices of the ICC Paris may be identified three methods of determining the law applicable to the international trade contract (constituting the substance of the dispute)[10].

The first of these methods consists in the cumulative application of the conflict of laws systems belonging to the states to which the contract presents an objective connection. If all these systems converge in indicating the substantive law of a single state, the arbitrator will find in this convergence the justification of the chosen solution.

According to the second method, the establishment of the applicable law takes place in accordance with the general principles of the conflict of laws. These general principles are drawn by the arbitrators, starting from the observation of an as large as possible number of conflicting systems (belonging to the different states). This method is related to the first method, mentioned earlier, between them lying two major differences. The first method consists

in comparing the conflict of laws systems belonging to the states with which the contract has an objective connection, while the second method consists in the comparison of a large number of states, regardless of the connection elements of the contract. Furthermore, the second method does not require that all the conflict systems indicate the same substantive law, but that the majority of the analyzed systems present a common conflict rule.

The third method consists in the direct formulation of a conflict rule, without reference to a particular national legal system.

Beyond this wide range of methods used for the determination of *lex contractus*, in the absence of the manifested will of the parties, the arbitrators must pursue the idea of serving "the legitimate expectations of the parties" [11].

#### 4. Conclusions

The issue of determining the applicable law in the international trade contract before the arbitral tribunal is significantly different from its determination in the court of law.

While the courts of law exert one of the powers of the state (the judicial power), the arbitral tribunals represent, as shown before, a private justice. This is why in determining the applicable law in international trade contracts the courts of law apply the conflict of law regulations of that state (*lex fori*). Unlike the courts of law, the arbitral tribunals are not bound to the private international law of the state on whose territory the arbitration takes place, since the arbitral tribunals do not exert state power but their authority is based on the common will of the parties.

The rules on determining the law applicable to the international trade contract before the arbitral tribunal are similar to those applied by the courts of law: the substantive legal rules applied to the international trade contract are determined on the basis of a dual conflicting rule. Firstly, the parties have the possibility (by expressing their concurring will) to designate the *lex contractus* (the principle *lex voluntatis*); only in the absence of the expressed will of the parties will the law applicable to the contract be established by the court.

*The principle lex voluntatis* The possibility of the parties to designate the *lex contractus* and the obligation of the arbitral tribunals to respect this choice is provided in many national legal systems [6], in arbitration regulations, as well as in international convention (the Geneva Convention of 1961 and the Washington Convention of 1965).

*Determining the applicable law in the absence of the manifested will of the parties* According to the legal regulations of several legal systems, in the absence of the choice of the *lex contractus* by the parties, the arbitral tribunal will apply the law designated by the conflict rule it will deem appropriate in that case [7] or the law the case has the closest connections with.

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- [4] Deleanu, Ion; Deleanu, Sergiu, *op. cit.*, p. 427-428.
- [5] Pommier Jean-Christophe, *op.cit.*, p. 242.
- [6] Thus, art. 1496 of the French Code of civil procedure provides that: "L'arbitre tranche le litige conformément aux règles de droit que les parties ont choisies" [The arbitrator decides upon the dispute in accordance with the rules of law chosen by the parties]; Art 46 (1) (Rules applicable to substance of dispute) of the UK Arbitration Act of 1996 provides that: "The arbitral tribunal shall decide the dispute: (a) in accordance with the law chosen by the parties as applicable to the substance of the dispute, or (b) if the parties so agree, in accordance with such other considerations as are agreed by them or determined by the tribunal "; art. 187 (1) of the Swiss private international law act (PILA) provides that "Le tribunal arbitral statue selon les règles de droit choisies par les parties" [The arbitral tribunal decides according to the rules of law chosen by the parties].
- [7] Art 46 (3) (Rules applicable to substance of dispute) of the UK Arbitration Act of 1996 provides that: "If or to the extent that there is no such choice or agreement, the tribunal shall apply the law determined by the conflict of laws rules which it considers applicable"; art. 1496 of the French Code of civil procedure provides that "à défaut d'un tel choix, conformément à celles (aux règles de droit) qu'il estime appropriées" [in the absence of such a choice, according to those (rules of law) as it considers appropriate].
- [8] Art. 187 (1) of the Swiss private international law act (PILA) provides that: "à défaut de choix, selon les règles de droit avec lesquelles la cause présente les liens les plus étroits" [in the absence of choice, according to the rules of law with which the cause is most closely connected]; art. 834 of the Italian Code of civil procedure (Codice di Procedura Civile) provides that: "Se le parti non provvedono, si applica la legge con la quale il rapporto e' piu' strettamente collegato. In entrambi i casi gli arbitri tengono conto delle indicazioni del contratto e degli usi del commercio." [If the parties do not provide, it is applied the law with which the cause is most closely connected. In both cases the arbitrators will take into consideration the recommendations of the contract and the relevant trade usages.].
- [9] Art. 13(3) of the Regulations of the Arbitration centre of the Chamber of Commerce of the Grand Duchy of Luxemburg reads: "A défaut d'indication par les parties du droit applicable, l'arbitre appliquera la loi désignée par la règle de conflit qu'il jugera appropriée en l'espèce." [If there is no indication by the parties of the applicable law, the arbitrator will apply the law designated by the conflict rule as it deems appropriate in the present case.]
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- [11] *Ibidem*, p. 57.

## Conflict of Laws Rules regarding the International Trade Contract in the Legal Systems of the non-EU European States

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### Abstract

*If, at the level of the European Union, we can talk about a standardization of the conflict of laws rules regarding contracts starting with the Rome Convention of 1980 and, subsequently, about a unification of these rules through Regulation (EC) No. 593/2008, outside the EU, the other European Countries continue to have their own system of private international law.*

*Given this diversity, we begin this study by trying to answer a number of questions on the analyzed topic: What is the legal source of the conflict of laws? What are the conflicting solutions? What are the similarities and differences between these solutions? Are there mutual influences? Can we talk about a de facto harmonization?*

**Keywords:** international trade contract, private international law, conflict of laws rules, the European Union

**J.E.L. Classification:** K12, K20, K33

### 1. Brief mentions regarding the law applicable to international trade contracts in the legal systems of the EU member states

From the beginning, we must make the distinction between the EU member states and the countries situated outside this organization. We will only recall the fact that, currently, Regulation (EC) No. 593/2008 (Rome I) [1] has replaced, at the level of the EU, the 1980 Rome Convention on the law applicable to contractual obligations. The system (of the conflict of laws rules) which is the basis for determining the applicable law for the contract, generally retains the same architecture as the one established by the Rome Convention: the

establishment by the parties of the applicable law, determining the *lex contractus* in the absence of the expressed will of the parties and special solutions for certain types of contracts.

It should be noted that some member states have adopted special legislative documents on the regulation of private international law relations and that for the resolution of the conflicting laws regarding contractual obligations, they have sent to the provisions of the Rome Convention. Such examples are the Italian Law no. 218 of the 31 May 1995 [2] and the Belgian Code of private international law (Law of 16 July 2004) [3]. According to article 24 (2) of Regulation No. 593/2008, given that it is meant to replace the Rome Convention of 1980, any reference to the Convention will be interpreted as a reference to the Regulation. Moreover, the two laws (the Italian law and the Belgian law) also perform a reception of the Rome Convention, subjecting to its rules even those contractual obligations specifically excluded from the scope of the Convention (art. 57 of the Italian law, respectively art. 98 of the Belgian Code).

We will continue by analyzing what has been announced from the beginning of the article, namely a number of other private international law systems belonging to non-EU countries. We consider Switzerland, the CIS are and Turkey.

### 2. Conflict of laws rules regarding the international trade contract in the Swiss private international law

Switzerland's legal system belongs to the Romano-Germanic law families. Being a federal state, distinction is made between the federal laws (which prevail even before the constitutions of the cantons) and the laws of the constituent cantons. Switzerland's Code

on private international law is part of the federal legislation. The Code was adopted by the Federal Parliament of Switzerland on 18 December 1987 and entered into force on 1 January 1989. We have to mention that several authors of international legal literature consider Switzerland's private international law system as a point of reference. Moreover, several states have drawn from the Swiss law in adopting or revising their own private international law system [4].

### *2.1. The parties' choice of the law applicable to the contract*

The parties can freely choose the law applicable to the contract. The will of the contracting parties may be manifested expressly or tacitly, but in an unmistakable manner – to be „obvious from the terms of the contract or from the circumstances”. The parties may choose the law applicable to the contract at its conclusion or subsequently, but the rights acquired in the meantime by third parties may not thereby be prejudiced (art. 116).

### *2.2. Determining the lex contractus in the absence of the expressed will of the parties*

In the absence of a law chosen by the parties, the contract is subjected to the law which has the strongest ties to it. It is presumed that this law is the one of the state in which the debtor of the characteristic obligation has its domicile or residence. In order to avoid interpretations, the Swiss law specifically mentions the typical performance in some more frequent contracts (sale, service, loan contracts etc.).

### *2.3. Conflicting solutions customized for specific contracts*

In the case of sale contracts, difference is made if they regard movable or immovable assets. The sale contracts having as object movable assets are subjected to the provisions of the Hague Convention on the law applicable to international sales of goods (15 June 1955), unless such contracts are concluded with consumers, in which case are applied the special rules in case of conflict laid down in art 12 of the Swiss law (art. 118). The Sale contracts for immovable assets are subject to the law chosen by the parties and in its absence to the law of the

state in which the asset is located. The form of the sale contract for an immovable asset is subjected to the law of the state in which the asset is located, unless this law allows the parties to choose the *lex contractus*, and the parties exercise this right (art. 119).

The contracts concluded with consumers, in the light of the Swiss law, are contracts for the supply of goods and services for the personal use of the consumer or for the use of its family, the former acting outside its profession. The choice of the applicable law by the parties is ruled out. The contracts with consumers are subject to the law of the state in which the consumer has its normal residence, if: a) the supplier received the order in that state; b) the conclusion of the contract was preceded by an offer the consumer received in that state, or if in that state the consumer had contact with a form of publicity regarding the product and, as a result, the consumer has taken the necessary steps to enter into the contract; c) when the consumer is determined by the vendor to leave its state of residence and to enter into the contract from abroad (art. 120).

The intellectual property rights contracts are subject to the law chosen by the parties, and when there is no chosen law, to the law of the state where the party undertaking to transfer the intellectual property rights or to give the right of use over them has its habitual residence. The contracts between the employer and the employee regarding the intellectual property rights over the creations of the employee achieved while carrying out its duties are subject to the law governing the employment contract (art. 122)

Intermediation contracts are subject to the law chosen by the parties and when there is no chosen law, they are subject to the law at the head office of the intermediary. The conditions under which the actions of the intermediary commits the represented party as regards third parties are governed by the law of the state where the intermediary has its head office, from where it conducts its business, and, in the event this place does not exist or is unknown to the third parties, will be taken into account the law of the state in which the intermediary fulfils its assignment. This rule also applies when the intermediary acts without power of attorney. If the intermediary has an employment contract with the represented party and does not have

a head office of his own, will be considered the head office of the represented party (art. 126).

In the Swiss law with general character (on all legal relations with international elements, therefore also regarding international trade contracts) there is a rule of exception according to which, if it is proven that the law established according to the common conflict of laws regulations regarding only has a weak connection to the legal relation in question, and another law presents a stronger connections, then the latter will be applied. The mentioned rule of exception is removed only if the applicable law was established in agreement by the parties (art. 15).

The form of the contract is subject to the law applicable to the substance, or to the law of the place where it was concluded. The contract entered into from the distance, between parties situated in different states is valid, from the point of view of the form, if it respects the law of one of these states. The form of the contract is exclusively subject to the law governing the substance, if it mandatorily requires certain conditions regarding the form for the protection of one of the parties, unless the *lex contractus* allows the application of another law (art. 124).

### **3. Conflict of laws rules regarding the international trade contract in the Commonwealth of Independent States (CIS) area [5]**

The first civil code of the RSFSR (Russian Socialist Federated Soviet Republic) of 1922 provided the subjection of the contract with international elements to the place of conclusion (*lex loci contractus*), both from the point of view of the form and of the content. In the soviet period, the private international law (in the area of the former USSR) was characterized by an incomplete and fragmented legislation; according to the soviet tradition, the regulations regarding the conflict of laws had to be present in general codes and legislative acts and not in special laws.

An important step was taken through the adoption of the Bases of civil legislation (1991), Title VII being dedicated to issues of private international law. The Bases of civil

legislation were applied in the Russian Federation starting with 3 August 1992, until the adoption of the new Civil code. Title VII contains 15 articles, the law applicable to international trade contracts being among the aspects approached. Thus, in art. 166 it is shown that these contracts are subjected, from the point of view of the substance, to the law chosen by the parties on the occasion of the drafting of the contract or at a subsequent time. In case the parties have not manifested their will, solutions for a number of thirteen contracts have been provided, the main idea being to subject the contract to the acting law at the domicile or head office of the party having to perform the specific obligation. Regarding the form, the rule *lex loci contractus* (art. 165) is preserved, along with the rule of the conclusion in writing of the international trade contract, but there are no more provisions regarding the requirement of the signature. Ukraine adopted another solution – According to the law on external economic activity of 14 April 1991, if an international trade contract is entered into by a natural person, the only requirement is the signature of that person.

After the collapse of the USSR, there is an evident tendency among the emergent countries (of the former USSR area) which became members of the CIS to harmonize, even to unify their legislation on the private international law through the ratification of certain international conventions and by adopting new legislative documents, thus replacing the former soviet law. In the first place, the legal foundations of these changes were established through the new constitutions of the CIS states. In the Russian constitution of 1993 is provided that “The universally acknowledged principles and regulations and the international treaties of the Russian Federation are an integral part of its legal system. If an international treaty entered into by the Russian Federation establishes other rules than the ones provided for in the internal law, the rules established in the international treaty will prevail” (art. 15 (4)). Similar provisions were introduced in the constitutions of the other CIS states. In the new Russian civil code are restated the constitutional provisions regarding international treaties.

Regional harmonization is of special significance within the CIS. According to art.

29 of the Statutes of CIS, the member states must collaborate in order to obtain a more similar legislation. For the private international law is of relevance the model Civil code of the CIS, adopted by the Interparliamentary Assembly in 1995-1996. The last title of the third part of the Code is: "Private international law". This title was taken almost unchanged in the Civil codes of Armenia and Uzbekistan. In the Civil codes of Russia and Ukraine, a series of articles differ from the corresponding articles in the model code, but the general concept is kept.

Because of the vastness of the substance, the Russian Civil code was adopted in three stages. The first part was adopted in 1994, the second in 1996 and the last part on 26 November 2001 (entered into force on 1 March 2002). The private international law regulations are found in the third part. On the law applicable to the contract with international elements, the articles of the Civil code have largely taken from the rules established by the well-known Rome Convention (1980) on the law applicable to contractual obligations [6].

Article 1210 (paragraph 1) of the Russian Civil code includes the provisions of article 3 of the Rome Convention (1980), consecrating the principle of *lex voluntatis*. In the absence of the expressed will of the parties, the contract will be subject to law of the country with which it has the closest connections. It is presumed that this country is the one in which the debtor of the specific obligation has its residence or the headquarters of the economic activities. In paragraph 4 of the same article are enumerated 22 types of contracts, for each of them being expressly shown the party undertaking the specific obligation.

Article 1212 takes the provisions of article 5 of the Rome Convention, regarding the contracts concluded with consumers.

Regarding the form of the contract, art. 1209 separates from the provisions of article 9 of the Rome Convention, stating that "any economic contract in which at least one party is a Russian legal person, will be subjected to the Russian law from the point of view of the form". This traditional view of the Russian private international law is consistently kept including in the conclusion of some international conventions. The most striking example in this respect is Russia's reserve in

signing the Vienna Convention (1980) regarding article 1, paragraph 1, letter b.

#### **4. Conflict of laws rules regarding the international trade contract in the Turkish private international law**

The first comprehensive regulation in the field was the "Code regarding the private international law and the international civil procedure", entered into force on 20 November 1982. After two decades of implementation, the Turkish legal literature held that this Code no longer corresponded to the economic needs, being outdated also in relation to the new consecrates conceptions in the legal uniform law. A project of a new law in the field was prepared by a commission formed of professors of Istanbul University and the specialists of the Research centre in the field of international law and relations. The project was completed and subjected to debates in 2002 and in 2004 it was handed over (with the changes made in the meantime) to the Ministry of Justice. In 2007, the Turkish parliament adopted the new Code on the private international law and the international civil procedure. The new regulation also takes on the modern conflicting solutions contained in the international conventions and in the legislations of west-European countries; regarding the contracts with international elements, were taken into account the Rome Convention of 1980 and the conflicting solutions consecrated in the west-European conflicting systems (especially the Swiss Federal act on private international law of 1987) [7].

The rules regarding the establishment of the applicable law in the case of contracts with international elements are provided in article 24. Compared to the former regulations, the principle *lex voluntatis* was extended, so that it also contains the implicit designation by the parties of the applicable law of the contract (the tacit will of the parties to the contract). For the situations in which the parties haven't expressed an options, the old rule of the venue was dropped in favour of the modern rule of the law presenting the closest tied to the contract. It is presumed to have such ties the law of the country in which the debtor of the characteristic obligation has its residence or

the headquarters from which it carries out its business (place of business). If the debtor of the characteristic obligation has several offices, will be taken into account the office connected to the execution of the contract.

The Code regarding private international law and the international civil procedure also contains, along with these general rules on determining the *lex contractus* (through the choice of the parties or, in its absence, through objective localization), special rules regarding certain contracts with international elements.

The contracts concluded with the consumers are regulated by art. 26, which faithfully reproduces the corresponding provisions of article 5 of the Rome Convention (1980). In the contracts with the consumers are considered the contracts having as object the supply of tangible movable goods or services (including the contracts for their financing) to a person (the consumer), for private use, apart from the professional activity of the said person. Within these contracts, the parties can designate the *lex contractus*; nevertheless, the choice by the parties of the applicable law may not have as a result the deprivation of the consumer of the protections assured by the imperative provisions of the law of the state in which it has its habitual residence. If the parties have not made a choice, the contract is subject to the law of the state of its habitual residence.

The intellectual property rights contracts are subject to the law chosen by the parties; when no option has been expressed, the active law at the place of business or habitual residence of the party which undertakes to transmit the intellectual property rights is applied (art. 28).

Contracts of freight transport are subject to the law chosen by the parties and in its absence, to the law of the state where the transporter has its main place of business at the moment of the conclusion of the contract. If it is proven that the law of another state has closer ties to the contract, this will be the *lex contractus* (art. 29).

Regarding intermediation contracts, the Code on private international law and international civil procedure (of Turkey), takes on, in art. 30, the corresponding provisions of the Swiss Federal act on private international law (art. 126), which we have

analyzed above. The contract between the represented party and the intermediary is subject to the law chosen by the parties and, in its absence, to the acting law at the professional headquarters of the intermediary. The conditions in which the actions of the intermediary commits the represented party in relation to third parties are governed by the law of the state in which the intermediary has its headquarters, from which it conducts its business or, if this place does not exist or is unknown to the third parties, will be taken into account the law of the state in which the intermediary fulfils its assignment. If the intermediary has an employment contract with the represented party and does not have an office of its own, will be considered the office of the represented party.

## 5. Conclusions

The comparative study undertaken leads us to a number of relevant conclusions.

Firstly, the general issues regarding the determination of the law applicable to the international trade contract are constant, regardless of the law system analyzed, – choosing the applicable law by the parties (substance and effects), determining the applicable law in the absence of the manifested will of the parties (subsidiary conflicting solutions), the conditions regarding the form of the contract.

The principle of *lex voluntatis* is accepted in all the studied private international law systems.

In the absence of a choice made by the parties, the *lex contractus* is determined on the basis of the subsidiary conflict of laws rules.

The analyzed private international law systems provide special conflict of laws rules for certain contracts, namely the most used contracts or the contracts considered to have special importance.

The contracts regarding real rights over immovable properties are subject either to the law chosen by the parties or, in its absence, to the law of the country in which the immovable property is located (for instance, Switzerland).

Regarding the conditions for the form of the contract, one can observe the preoccupation of the national legislators to



ensure the validity of the international trade contract (and of legal documents in general).

We may observe that the Swiss private international law system represents a point of reference, a considerable number of states drawing from the Swiss law when adopting or revising their own private international law system. Moreover, in the drafting of the Rome Convention of 1980 have been taken into account the conflicting solutions provided in the Swiss private international law system; the Convention has been further taken as a model for several other states of the world and has constituted the basis for the current Regulation No. 593/2008. Between the international law systems of the European states (members of the EU or not) there have been significant mutual influences.

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# Transnational Company – Main Player of Economic Life Globalization

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## Abstract

*Most often, when one speaks of world power, what is highlighted is the ability of a country or group of countries to impose its/their will on another country, either in a positive way by free acceptance, or in a negative way, by coercion or sanctions. Yet, under the current circumstances where the world economy is continuously globalizing, one cannot ignore the power held by "development agents", namely transnational companies.*

*As it happens with all the issues existing in this world, transnational companies too are praised by some and criticized by others in their irresistible growth.*

*The advocates of transnational companies believe they are a key component in the world economy, with a highly important and complex role in economic growth, in foreign trade improvement, in technical progress acceleration, in markets' globalization and in the internationalization of manufacturing and technology.*

**Key Words:** globalization, transnationalization, internationalization, transnational company, foreign direct investment.

**JEL Classification:** F23, F60

## 1. Introduction

Transnational companies are major sources of capital, technology and market access to almost every country. Their activities have a strong impact on the global distribution of wealth and economic performance among national economies. They bring benefits both to consumers and to economies worldwide. Nevertheless, transnational companies are huge economic power concentrations and, as well as all

forces, they can adopt corrupt and abusive attitudes from the social perspective.

Being frequently mentioned in specialized literature, always presented in economic, political and social publications, such types of business entities have come to rival national governments, to impose their own norms, values, and to change their business cultures.

As stated by Mircea Malița, globalization "has brought forth a player that has promoted it: capitalist corporation. Its role is so important that many people regard globalization in the light of capitalist corporations, monitoring its progress with fear, anxiety and caution." [1]

Globalization is first and foremost a consequence of economic performance transnationalization.

## 2. Historic Landmarks of Transnational Companies' Emergence

Far from being a new phenomenon, the emergence of transnational companies throughout the years has meant many historic landmarks that are worth considering.

The history of business internationalization is long. Various authors [2] state that commercial activities date back to the first civilizations, but no later than the Middle Ages in Europe was the initiation of commercial operations among countries marked, carried out by institutions that had a corporate private nature, also supported and encouraged by the government. Italian trade and banks had a key position in the business internationalization in early Renaissance, being estimated that almost 150 Italian banks had existed by late 14<sup>th</sup> century and they were already multinationally operational.

State patronage increased along with the emergence of large colonial commercial companies in the 17<sup>th</sup> and 18<sup>th</sup> centuries: the Dutch Company and the British East Indies Company, the Muscovy Company, the Royal

Africa Company, and the Hudson Bay Company. Yet, the closest forerunner of today's transnational companies is international industry development along with the Industrial Revolution. Although there is no clear data, it is generally recognized that industrial multinationals emerged in the world economy after mid-19<sup>th</sup> century.

It seems that in 1867, an American company called "Singer", manufacturing sewing machines, built a branch in Scotland, at Glasgow, thus being the first company in the world to become transnational. Still at that time (during late 19<sup>th</sup> century), several companies emerged that are nowadays known as transnational corporations: Standard Oil, Royal Dutch-Schell, Unilever, Siemens, Bayer etc. [3]

Foreign trade performance increased massively in the 20's, with the maturation of truly diversified and integrated companies, yet slowing down during the recession of the 30's and the war destruction in 1940, having a fluctuating expansion after 1950.

The table below shows the flows of foreign direct investment (FDI) in the year 1914 and the industrial exports' values in 1913 in a number of five countries.

*Table 1*  
*FDI Flows and Industrial Export Values*  
*when World War I Broke out*  
*(\$)*

	FDI – 1914 (by country of origin) (\$)	Industrial exports – 1913 (\$)
<i>Great Britain</i>	8,172,000	1,928,000
<i>U.S.A.</i>	2,652,000	896,000
<i>Germany</i>	2,600,000	1,824,000
<i>France</i>	1,750,000	813,000
<i>The Netherlands</i>	925,000	no data available
<i>WORLD TOTAL</i>	no data available	7,227,000

Source: Hirst, P., Thompson, G. [4]

Great Britain and Germany were the main industrial exporters at the outbreak of the First World War, almost twice as important as the U.S. and France. The value of industrial exports was much lower than that of foreign direct investment.

Already in the period between 1950 and 1975, transnational companies had an extraordinary momentum at world level, becoming true economic and financial empires. The issue has been exceptionally felt worldwide during the last decades, precisely during the very period when the idea arose about the globalization of material flows and financial flows, so that transnationalization is today, in early 21<sup>st</sup> century, one of the great forces of the time.

### **3. Enriching Concepts Related to the Nature of Transnational Companies**

The unprecedented increase of their activities, expanding their geographical scope, the rapid succession of technical events, the improvement and diversification of exchanges worldwide have all contributed in enriching the economic concepts and theory regarding the nature of transnational companies.

Since specialized literature often uses different meaning notions to express the same meaning: multinational firms, international companies, transnational corporations, a conceptual distinction among these terms must be made.

A mere approach assumes that what is international is the chain that owns independent enterprises (having its size and turnover) in more than one country. The capital of such a company may come mostly from one country and then the respective company is "national-international" or from several countries which makes it multinational.

But since both companies perform international activities across the borders of their own countries, and have their own organizational structures, they are transnational [5]. In a globalized economy, the idea of transgressing national borders, of the emergence of a global enterprise, is better conveyed by the term transnational.

Anda Mazilu states that Anglo-Saxon authors in the field use the term "multinational enterprise", whereas the UNCTAD documents related to direct investment issues focus on the concept of "transnational corporation", as they believe the latter "has extra suggestiveness and relevance ... to the transnationalization issue

*that is currently developing in the world economy."* [6]

One of the first definitions in economic literature belongs to R.Vernon who showed in 1966 that a transnational company is a large firm holding industrial branches in at least six countries (with its turnover of more than \$ 100 million). Once foreign medium companies have emerged, the number has reduced to two countries, and eventually to one. [7] *"International manufacturing is an added value creative activity under the ownership, control and organization of a company beyond its national borders."* [8]

According to the opinions of Professor Sterian Dumitrescu, a transnational company *"is the expansion of a large enterprise outside the borders of its own country. It forms a vast whole at world economic level, consisting of a main company - the mother company - and a number of branches (subsidiaries) set up in various countries."* [9]

Transnational corporations do not resemble the individual capitalist firms of the 19<sup>th</sup> century and not even do they resemble the trusts and other foreign monopolistic associations established at the turn of the 19<sup>th</sup> and 20<sup>th</sup> centuries, that developed as dominant forms until after the Second World War. Transnational companies are well-developed economic systems, having their own geography. They include the mother companies and subsidiaries in the home country and in other countries. [10] Such systems generate not only goods and services, but also money capital for new technology, investment, innovation and training capacities of the labor force, along with organization and management practices of their own. Such a system is not closed, but interactive and having exchange relationships with the systems of other transnational companies.

A transnational company is defined in UNCTAD reports as a business entity consisting of a mother company and its subsidiaries abroad.

*"A transnational corporation is generally regarded as an enterprise including entities in more than one country, operating with a decision-making system that allows coherent policies and a single strategy"* [11].

These companies are growing internationally in order to take advantage of

vertical and horizontal scale economies, and of the benefits ensuing from a market monopoly position.

David W. Pearce, in his more complex definition, believes that a transnational company is a *"large company having its head office in one country and mainly or partly operating by its subsidiaries in other countries. These corporations are growing internationally in order to exploit the vertical and horizontal advantages of a scale economy"*. [13]

Another definition shows a transnational company as a *"big sized enterprise which, starting from a national base, has set up several subsidiaries in different countries and has adopted world level organization and strategy."* [14] This definition firstly emphasizes that world-class companies started out as large national companies, which led to an intense process of capital centralization and concentration. Secondly, they had diversified their production before they began to internationalize, and thirdly, their national origin, the strength and weakness of the economy where they result from will also reflect in the competitiveness and strategies to be adopted.

*"A transnational corporation is a business entity made up of a mother company and its subsidiaries in several countries, which is characterized by manufacturing internationalization, based on a foreign "pool" of human, material and financial resources, and which promotes certain values at world level."* [15]

The author believes that a transnational company is a nationally strong company that builds its branches outside the borders of its country of origin, either by vertical or horizontal integration, or by conglomeration.

It is certain that at present, transnational corporations are the main players of economic life globalization.

#### **4. Conclusions**

The influence transnational corporations exert in the world economy is huge, if one considers the fact that they have financial assets that exceed the GDP of some small developed countries.

Transnational companies are regarded as private and public entities whose activities are performed by means of their subsidiaries

located in different countries and regions of the world.

Such companies have generated new economic mechanisms, they have transformed actual conditions, leading to the offshoring of manufacturing, distribution, exchange and consumption activities. "They have generated the emergence of globalization trends of competitors and the internationalization of various economic interests." [16]

The real dimension of the business universe complexity we currently live in can be better perceived to the extent to which one understands that a transnational company is a true globalization agent. Thus, as local and national business environments are opening up to the world economy, it is increasingly obvious that such companies are becoming the entities that coordinate foreign business relations.

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# Automotive Industry Competition among Transnational Companies

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## Abstract

*Globalization along with the liberalization of foreign economic flows have become a driving force of economic growth, a process that encourages both the national and international business environment and also the players in the international field and the competition among them.*

*The 21<sup>st</sup> century is a true challenge to transnational companies. It is becoming increasingly difficult to keep oneself on top. Although there are regional differences, the most profitable automotive transnational corporations whether they are Japanese, European or American, are engaged in their transformation process and in that of global capitalism structure, in order to further strengthen their power.*

**Key Words:** transnational company, automotive industry, foreign assets, mergers, acquisitions.

**JEL Classification:** F23

## 1. Introduction

Transnational corporations are one of the major forces acting in the economic, financial, scientific and technological fields, having a major role in the world politics. Companies of this type have come to such an extent that they have somehow lost their national features.

To such companies, competition is no longer national but international, with foreign companies of the same profile, in order to occupy large segments in the global market.

Transnational companies are a challenge to all business agents in the world, an attempt to tough competition where those who

succeed in adapting to competition will resist whereas the weak will be eliminated.

Continually pursuing the increase in their economic efficiency, to gain new markets, to develop new manufacturing capacity etc., companies have sought new business opportunities. Thus, their business activities have undergone a comprehensive process of globalization.

## 2. Power Ratios in the Automotive Industry

The automotive industry was the leading industry during the postwar economic boom. American manufacturers such as Ford and General Motors had laid the foundations of certain activities but the postwar period included unprecedented international expansion, particularly in Europe. "In the country regarded as the most successful in history and where almost all entrepreneurial successes had their peaks, it seems the car industry was the most successful" [1]. The protection of national markets and transport costs used to make foreign direct investment a principal element to serve such markets, as American companies reproduced assembly production lines in Europe and not only there.

After the 1970's, Japanese manufacturers have been competitively successful both on the U.S. market and on the European one. Their competitive advantage came from innovative management techniques known as "lean production" [2].

The techniques reduced costs and increased quality while decreasing the time interval of introducing new models. At first, Japanese manufacturers competed through exports, partially gaining flexibility by close outsourcing relationships with spare parts companies, which encouraged a production

strategy geographically concentrated and located around supplying companies.

In the 1980's, import restrictions in Europe and America made the Japanese car manufacturers internationalize production in these markets. American and European manufacturers reacted to the Japanese competition by adopting many of its management techniques and got involved in a significant reorganization process.

Production internationalization and trade liberalization have led to global competition in the automotive industry.

American corporations have developed the most extensive production networks geographically speaking, as a strategy to cut down costs, so that the manufacturing process is now spread across several countries. The United States of America, by their famous car manufacturers, have not only created a new civilization of ongoing movement, but have also changed the world significantly.

At present, the fight for supremacy is among the same producers: Japanese, American and European.

*Table 1  
Top Transnational Companies in the  
Automotive Industry  
(by foreign assets)*

Ranking in 2012	Corporation	Country of origin	Assets (million dollars)	
			abroad	total
1	Toyota Motor Corporation	Japan	233 193	376 841
2	Volkswagen Group	Germany	158 046	409 257
3	Honda Motor Co Ltd	Japan	110 142	144 811
4	Daimler AG	Germany	99 490	215 408
5	BMW AG	Germany	88 677	174 266
6	Nissan Motor Co Ltd	Japan	83 944	135 994
7	Fiat S.p.A.	Italy	83 781	108 537
8	Ford Motor Company	United States	76 945	192 366
9	General Motors Co	United States	70 341	149 422
10	Volvo AB	Sweden	40 273	52 103

Source: Prepared by the authors according to UNCTAD data [3]

In 2012, as per foreign assets, the first to rank was Japanese company Toyota Motor Corporation, a company that achieved more than 233 billion abroad of its total assets of 376,841 billion. Toyota is based on high performance and many accessories to attract buyers. Toyota manufactures a considerable number of cars on the U.S. territory and exports most of its production which makes

its export exceed that of U.S. companies of the same profile.

Japanese exporters, especially the car industry, are undergoing a spectacular comeback due to aggressive economic policies adopted last autumn.

Toyota had such performance only a year after the earthquake and the tsunami in Japan had led to the 2011 temporary shutdown of all the factories in the country, as well as of the assembly plants in other countries, affected by the lack of parts needed for manufacturing.

Toyota has kept its position as car market leader and has also managed to get significantly higher profits as compared to those of General Motors and Volkswagen Group, but it is facing the strong recovery of American car manufacturers that show their best models over the last decades, while its rival Volkswagen is strongly increasing its investment in the U.S. and China.

*Table 2  
Top Transnational Companies in the  
Automotive Industry  
(by sales abroad)*

Ranking in 2012	Corporation	Country of origin	Sales (million dollars)	
			abroad	total
1	Volkswagen Group	Germany	199 129	247 624
2	Toyota Motor Corporation	Japan	170 486	265 770
3	Daimler AG	Germany	121 546	146 892
4	Fiat S.p.A.	Italy	98 550	107 900
5	Honda Motor Co Ltd	Japan	95 792	118 983
6	Nissan Motor Co Ltd	Japan	90 789	115 991
7	BMW AG	Germany	83 102	98 764
8	General Motors Co	United States	65 319	152 256
9	Ford Motor Company	United States	57 834	134 252
10	Volvo AB	Sweden	43 053	44 845

Source: Prepared by the authors according to UNCTAD data [4]

In terms of sales, the German car maker Volkswagen announced record sales in 2012. As it is the largest manufacturer in Europe, the German company currently produces a quarter of the cars sold on the continent.

The German company has significantly increased its sales especially on the markets in Asia and the U.S.A. They have considerably exceeded the weak sales in Europe [5]. German car makers did not feel the crisis in 2011 at all, given the high demand for German cars on newly emerging

markets. Volkswagen Group has taken advantage of the problems encountered by Toyota after the natural disaster that hit Japan.

Additionally, EU-based companies operating in the automotive and car components industries have had a strong increase in their investment in research and development (+ 14.4%), whereas American companies declined their amounts invested in research and development by 2.6% in 2012. [6].

Nevertheless, in 2013, Toyota managed to regain its leading position. Besides the Toyota car sales, this Japanese company has also increased its sales of Lexus luxury cars or those manufactured by Daihatsu Motor and Hino Motors companies.

*Table 3  
Top Transnational Companies in the  
Automotive Industry  
(by the number of employees abroad )*

Ranking in 2012	Corporation	Country of origin	Number of employees	
			abroad	total
1	Volkswagen Group	Germany	296 000	533 469
2	Fiat S.p.A.	Italy	152 978	214 836
3	Toyota Motor Corporation	Japan	126 536	333 498
4	Honda Motor Co Ltd	Japan	118 923	187 094
5	Daimler AG	Germany	108 724	275 087
6	General Motors Co	United States	108 000	213 000
7	Ford Motor Company	United States	89 000	171 000
8	Nissan Motor Co Ltd	Japan	88 224	157 365
9	BMW AG	Germany	77 396	105 876
10	Volvo AB	Sweden	73 883	127 086

Source: Prepared by the authors according to UNCTAD data [7]

As far as the number of employees is concerned, both overall and abroad, the Volkswagen group still remains a leading company in Europe. With its history that is strongly connected to Ferdinand Porsche and the popular car ordered by Hitler, Volkswagen owns four mainstream brands (VW, Audi, Seat and Skoda) and three luxury brands (Lamborghini, Bugatti and Bentley), and a European market share of over 17%. The group has made most acquisitions (Seat previously held by FIAT, Skoda, Lamborghini, Bugatti and Bentley), the Bentley-Rolls Royce business being worthy of the annals of the 90's automotive industry.

The 1990's of the last century meant the removal of UK companies from among car makers, as they were acquired by German companies (Rolls Royce, Bentley, Rover) or American companies (Aston Martin, Land Rover). The statement of Volkswagen strategy maker F. Piech who considered that "at world level there will only be eight or nine manufacturers formed by mergers and acquisitions" [8], is becoming almost real.

Late 20<sup>th</sup> century was in the mergers and acquisitions market a period when the so-called giant transactions began to emerge. One of such transactions is the merger of the largest German industrial company - Daimler-Benz - and the third-largest U.S. car manufacturer - Chrysler. The merger remains a model and a landmark in the field of mergers and acquisitions. Firstly, due to its being able to radically change the look of industry, anticipating the globalization trends of the world market. Secondly, by its proportions, it was then considered the largest industrial merger of all times and also the greatest intercontinental merger.

The 21<sup>st</sup> century has been the decline of some major car manufacturers and the setup of new alliances that will probably end up as famous mergers.

It is estimated that the current global production of cars is 30% higher than it should be and, in order to keep the sales at good values levels, manufacturers resort to granting excessive consumer incentives. The two largest companies of America - General Motors and Ford - have to consider this issue in particular because the productivity of Japanese companies such as Toyota and Honda has outdone theirs. The work of Japanese manufacturers in Europe and America often has better performance than that of local rivals, which will make Western car manufacturers turn their attention to their own activities abroad.

Dr. Dieter Zetsche, Chairman of the Chrysler Group, very sarcastically assessed the car industry developments in his speech at the "Chicago Executive's Club": "... *The car industry reinvents itself ... . The American market is a battleground for the global industry. It is the most open market, free of charges and barriers, where consumers are open to foreign brands. Consequently, the U.S. market is being under*



*attack from all sides, in all its segments and by very skilled competitors.*“

### 3. Conclusions

Japanese companies have conquered the world, with some of the plants they have opened in the U.S. becoming even stronger than those they had at home. Yet, their success results from the transactions in which Japanese companies have been involved. Ford has acquired 33.4 percent of Mazda, General Motors – has acquired significant shares of Isuzu and Suzuki, Chrysler – has acquired some of Mitsubishi, and Renault owns nearly half of Nissan. The five major Japanese companies are supervised by the Europeans and Americans. The only one resisting - and does that in excellent conditions - is Toyota, exceeding giants such as Daimler Chrysler or Volkswagen, and it has been able to invent a luxury brand - Lexus - and to rank it first in the U.S., whereas traditional brands such as Oldsmobile or Plymouth have disappeared.

Toyota Motor has estimated that the car of the future will be one that combines an electric engine with a conventional (“hybrid”) engine, being the most effective way to save fuel, decrease waste and comply with government regulations. Toyota Prius emerged on the Japanese market in 1997, two years before its international release and even before the Kyoto protocol on the global warming conference. The sales during year one amounted to approximately 18,000 vehicles.

The global car industry is facing complex challenges, but the executives of the market will try to capitalize the opportunities generated by a slight economic recovery and to be successful by differentiation strategies, innovation and partnerships.

It is estimated that the car industry of the 21<sup>st</sup> century will have to radically change its management trend.

While Toyota is heavily investing in fuel cells based on hydrogen, Nissan and Volkswagen are preparing electric vehicles and express their disbelief in the viability of the new technology.

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**Section I**  
**International Affairs and European Integration**

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**Subsection 2**  
**European Integration**

# Empirical Evidences on Systematic Risk for Central and Eastern European Shares

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## Abstract

*We analyzed the evolution of systematic risk (beta) for a sample of 436 non-financial companies from five Central and Eastern European countries for the period 2002-2012. We found that Polish companies present the higher systematic risk, while Latvian companies, on average prove to be less risky. Our results suggest that high tech companies from Central and Eastern Europe have higher beta than utilities companies. We also identified a set of “defensive” shares in Czech Republic, Hungary and Latvia, and numerous “aggressive” shares in Poland.*

**Keywords:** systematic risk, beta, Central and Eastern Europe, shares, financial risk management.

**JEL Classification:** G32, G11.

## 1. Introduction

The total risk of an individual asset can be decomposed into two components: systematic risk (market risk or nondiversifiable risk) and unsystematic risk (unique risk, asset specific risk, residual risk, company-specific risk, or diversifiable risk). Systematic risks affect almost all assets in the economy, each to a greater or lesser extent. Unsystematic risk influences a single asset or a small number of assets [1]. While unsystematic risk can be eliminated by diversification, systematic risk has to be managed using financial derivatives.

Estimating systematic risk (beta) is crucial for investors, analysts, and for companies in computing cost of equity. In deciding whether to buy a particular share, a diversified investor is concerned only with that share’s systematic risk. Several studies

in the literature have found that beta is not constant over time, it may be influenced by economics factors (e.g. GNP, interest rates, or inflation) and it varies across sectors. The aim of the paper is to analyse the evolution of systematic risk for CEE shares for the period 2002-2012.

The paper is organised as follows. Section 2 presents a review on the estimation of systematic risk. The data used in the paper are described in section 3. The results are presented and discussed in section 4. Section 5 concludes the paper.

## 2. Estimating systematic risk

The concept of Beta coefficient (or simple beta) has been developed by Sharpe [2] and Lintner [3] under the Capital Asset Pricing Model (CAPM). According to Capital Asset Pricing Model, beta is a measure of the volatility or systematic risk of a share based on how its returns co-move with the overall market (a stock market index, such as S&P 500 Index) [4].

Beta is influencing the value of the cost of equity capital in Capital Asset Pricing Model (CAPM). Estimating beta is important, because CAPM is extensively used for computing the cost of equity capital for large public traded companies. Furthermore, the coefficient of beta is the crucial determinant of an asset’s expected return and risk premium.

For individual shares beta can be estimated using regression analysis against a stock market index based on historical data. In this case we used the following model:

$$R_i = a + b R_m,$$

where

$R_i$  = stock returns

$R_m$  = market returns

$a$  = the intercept of the regression.

$b$  = the slope of the regression (the beta of

the stock).

Key issues in estimating the coefficient of beta are appropriate market proxy, appropriate time period, appropriate frequency of data observations and appropriate adjustment factors [5].

One distinction must be made between levered beta and unlevered beta. While the former reflects both the business and financing risk borne by the investors, the latter incorporates only the firm business risk.

### 3. Data

We analyze data on listed companies from Central and Eastern Europe included in Compustat Global data base.

The final sample comprises 436 non-

financial companies from five countries (Czech Republic, Hungary, Latvia, Poland, and Slovak Republic) for the period 2002-2012.

The criteria used for choosing the companies were the availability and quality of data for a longer period of time. We restrict our sample because for some countries (e.g. Romania) there are no data available in the database.

### 4. Results

Table 1 presents the betas for the period 2002-2012 for our sample. In order to highlight the differences between countries we choose to compute an annually average beta for each country.

*Table 1. Beta coefficients for the sample over the period 2002-2012*

<b>Poland</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Beta (average)	0,68	0,88	0,98	0,91	0,79	1,01	1,00	0,95	0,87	0,97	0,99
Max	5,13	2,70	2,40	3,22	2,53	3,67	2,63	2,58	5,29	4,38	3,44
Min	-0,57	-0,28	-0,10	-0,30	-1,59	-0,21	-2,10	-0,56	-1,24	-1,27	-2,17

<b>Czech Republic</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Beta (average)	0,46	0,59	0,81	0,92	0,83	0,79	0,35	0,31	0,28	0,24	0,14
Max	1,64	1,90	1,86	1,92	1,70	2,09	0,95	0,73	0,69	0,65	0,63
Min	-0,16	-0,22	0,03	-0,21	-0,12	-0,34	-0,12	-0,12	-0,05	-0,06	-0,40

<b>Hungary</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Beta (average)	0,79	0,68	0,60	0,62	0,47	0,61	0,82	0,70	0,64	0,52	0,56
Max	1,77	1,91	1,16	1,37	1,18	1,19	1,63	1,54	1,47	1,31	1,09
Min	0,30	0,21	-0,05	-0,07	-1,08	0,02	0,45	0,22	0,14	0,06	-0,05

<b>Latvia</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
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Beta (average)	0,22	0,20	0,73	0,54	0,50	0,53	0,29	0,32	0,39	0,36	0,36
Max	1,41	1,34	1,34	1,15	1,26	1,05	0,83	1,05	1,94	1,91	2,68
Min	-0,24	-0,52	-0,31	-0,06	-0,21	-0,03	-0,11	-0,08	-0,02	-0,31	-0,79

Slovak Republic	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beta (average)	0,41	0,58	0,71	0,73	0,83	0,97	0,87	0,84	0,44	0,41	0,33
Max	1,16	1,08	1,62	1,27	1,40	1,13	1,44	1,03	0,96	1,12	1,30
Min	-0,07	-0,03	0,04	0,19	0,38	0,70	0,25	0,61	-0,53	-0,28	-0,30

Poland is the largest stock market in the region in term of market capitalization and number of listed companies. Our results suggest that the systematic risk of the Polish companies is higher than the average in any other country from the sample. Furthermore, in two years (2007 and 2008) the average beta for all stocks is greater than 1.0, which indicates that the average stock is more volatile than the market. For the shares listed on Warsaw Stock Exchange, the high values of beta display greater volatility over time.

Empirical evidences for Polish companies confirm that the beta coefficients of the computer and software companies are much higher than those of utilities companies.

During the period 2002-2012, many Polish stocks have a negative beta in each year, meaning that the stock's returns would tend to move opposite to the market index.

Average annual betas suggest that Slovak companies have the second highest level of systematic risk, followed by Hungarian and Czech companies. With an average annual beta of 0,407, Latvian companies present the lowest level of systematic risk from our sample.

Based on our results we have identified several "defensive" shares mostly in small countries, such as Czech Republic, Hungary, and Latvia. These shares proved to be not very sensitive to market fluctuations and therefore have low betas. On the other hand, in Poland, there are many "aggressive" stocks. According to Brealey et al [6] and

Fabozzi and Peterson Drake [7], "aggressive" stocks tend to amplify any market movements and have betas greater than 1.

Moreover, the behavior of betas during the financial crisis period is different between CEE countries. We observe a dominant peak of beta during the period 2008-2009 for Poland, Hungary and Slovak Republic, followed by a decrease in the value of average beta. For Czech Republic and Latvia, we observed that the level of systematic risk decreased considerably in 2008 compared to 2007, even if the financial crisis hit seriously these two capital markets.

## 5. Conclusions

The paper contributes to the financial literature through the expansion of the research concerning systematic risk (beta) of shares in emerging markets. We studied the evolution of systematic risk (beta) for a sample of 436 non-financial companies from five Central and Eastern European countries for the period 2002-2012. We found that the value of beta varies across countries and across sectors. The results suggest that Polish companies present the higher systematic risk, while Latvian companies, on average prove to be less risky. We found that high tech companies from Central and Eastern Europe have higher beta than utilities companies. We also identified a set of "defensive" shares in Czech Republic, Hungary and Latvia, and numerous "aggressive" shares in Poland.

The results of this study are useful for domestic and international investors in CEE shares and also for practitioners for estimating the cost of capital.

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# The Indicators Developed by the IMF on Financial Stability at the level of Central and Eastern Europe

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## Abstract

*The indicators on financial stability provide a multitude of information related to the strength and stability of the financial system which are essential to the macro-prudential analysis. The objective of this article is to analyze the main indicators developed by the IMF on financial stability at the level of the countries of Central and Eastern Europe and to observe their trend in crisis. Through the calculation of FSI we can clearly observe the overall image of an economy as well as its strengths and the vulnerabilities.*

*The Indicators developed by the IMF on financial stability provides a wealth of useful information in taking monetary policy decisions and also for counteracting severe financial disturbance.*

**Keywords:** FSI, financial stability, IMF, macro prudential, CEE.

**J.E.L Classification:** G21, G28, G29.

## 1. Introduction

The financial system is located in a constant surveillance encountering the need for a continuous assessment of the strengths and vulnerabilities which intervene in its evolution. In order to ensure the financial stability, the IMF has developed a series of indicators that permit taking action under crisis conditions and also the opportunity to obtain necessary information on which the competent authorities to formulate their monetary policy decisions. Their official name is the "financial health indicators" ("Financial soundness indicators") [4].

These indicators provide macroeconomic data emphasizing the stability of the entire

sector of the financial institutions of a country, as well as of the non-financial institutions and of private households that form the clientele of these institutions [1].

The objective for which it is calculated and published the indicators regarding financial stability is macro prudential; i.e. aims to identify, assess and supervise the strengths issues and the risks that may characterize financial systems in order to reinforce financial stability and to reduce the probability that financial crises occur [2].

The comparability of data provided by these indicators (FSI) is a medium-term objective and the users must take into account that internal information differs from country to country, which limits the a possible comparison between them and between their indicators, in same time [3].

## 2. The premises of forming the financial stability indicators

Becoming aware of the dangers that may affect financial system, amplified by the liberalization of financial markets, monetary authorities and other sectors pay more attention to the stability of national financial systems. Because the collective behavior of individual institutions propagates globally it was amplified the supervision of the risks which threatens the overall stability of financial systems.

The importance attributed to the macro-prudential analysis has determined that the International Monetary Fund to develop in 2000 a questionnaire to the member states and to the regional and international organizations in order to determine the most relevant indicators that contain or use relevant data regarding the macro-prudential aspects. Thus, based on these activities and of the

Financial Sector Assessment Program developed by the IMF and World Bank in 1999, has been established a list of basic indicators of financial stability in June 2001 [8].

The basic indicators are applied in all countries and the recommended indicators may be applied depending on the economic circumstances of each country. By applying the indicators developed by the IMF on credit institutions we can observe the level of stability of the financial system of a country.

Furthermore, FSI must cover the different aspects related to the health and the financial stability such as the soundness of capital, the relevance of all types of institutions, particularly in terms of safety against unexpected losses.

The objective of the indicators of financial stability is to follow the evolution of risks and of the fluxes that may indicate a greater vulnerability of the financial sector and to help in determining the response capacity of the sector in front of some adverse circumstances.

### **3. The financial system - applicative environment of financial stability indicators**

In order to achieve the objective detainee by the indicators of financial stability it is necessary to know the structure of the financial system, having the possibility to determine whether an economy has more or fewer banks, the diversity of financial intermediaries and of the internationality of the operations carried out by them or the market depth and the liquidity of market capital.

**A financial market** is composed of institutional units and markets between which are performed interrelations with the purpose to proportionate the necessary funds to investments and services, including those for payment or to finance the commercial activity.

The main function of financial institutions within the system is to mediate between the parties who hold funds and those that need them, assuming the transformation and the management of the risk and they have the ability to determine market prices.

From these institutions stand out as importance to within the financial system the

**institutions which attract deposits** because acts as an intermediary of funds, as an important source of liquid assets and funding in the benefit the whole economy. Moreover, they offer payment services that other entities use them to perform their business.

For this reason the bankruptcy of the deposit institutions can negatively affect the activity of other financial institutions and non-financial institutions, as well as the financial system credibility and it's functioning, in general [7].

All these statements support the assertion that the monitoring of the solidarity and stability of deposit institutions represents a central element in the entire analyze of the financial system stability. Within the institutions which collect deposits are included banks and other depositary institutions such as insurance companies, pension funds, other financial institutions, etc..

The national financial institution that can exercise control over the fundamental aspects of the financial system, and can perform activities such as issuing coin, managing international reserves and granting loans to deposits institutions is the central bank. In order to drawing up the indicators of financial stability, the central banks are excluded from the population declared [6].

Important for the safety and stability of financial institutions are non-financial entities whose principal activity is the production of goods and non-financial services. In addition to these, an important place for financial entities is occupied by the family households, defined as small groups of people who share the same household, saves in a common fund, some part or all of the income, and consume along certain goods and services.

They can perform any type of business, including manufacturing. The function of legislative authority, judicial or executive over other institutional units is occupied by the general government, having the power to impose economic limits.

All these elements its works in a financial market, which is defined as the place where the entities are able to negotiate their rights concerning the financial loans, taking into account a number of predetermined rules.

An important characteristic of this market is the liquidity because it allows to investors



to manage their portfolios and risks in an efficient way, thus reducing the cost of borrowing. The payment system is part of the financial system defined as the set of instruments, banking operations and interbank transfer system (in general) allowing the money circulation.

It is the channel through which perturbations can be transmitted in different systems and financial markets. A solid payment system is indispensable for maintaining and developing financial stability and, therefore, it has been reached an international consensus regarding the need for a reform to strengthen the system through practices and globally accepted norms.

Since on the real estate markets are allowed the negotiation of credit rights and of investment property rights, these can have negative effects not only on the stability of the financial system, but also of other markets related to the financing of real estate.

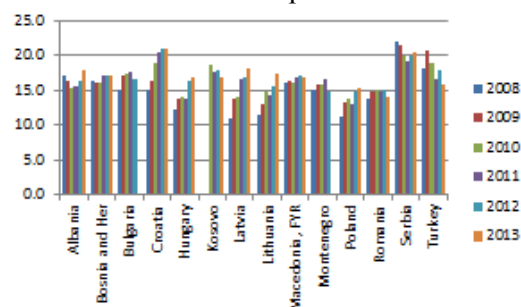
#### 4. The evolution of the main financial stability indicators in Central and Eastern Europe

The indicators developed by the IMF on financial stability provides a wealth of useful information in taking the monetary policy decision and also for counteracting severe financial disturbance. For these reasons it is necessary a surveillance of the evolution of these indicators in order to be able to see some changes in the economy and to can intervene to correct the adverse developments [9].

The International Monetary Fund deals with the global data collection of these indicators, highlighting like the most important and relevant factors at the level of an economy are: Bank Regulatory Capital to Risk-Weighted Assets; Bank Capital to Assets; Bank Nonperforming Loans to Total Loan; Bank Provisions to Nonperforming Loans; Bank Return on Assets; Bank Return on Equity.

As can be seen in Figure 1, the indicator **Bank Regulatory Capital to Risk-Weighted Assets** varies between 5% and 20%, and in most countries it had an increasing trend since 2006, the time of their introduction.

**Figure 1:** Bank Regulatory Capital to Risk-Weighted Assets in Central and Eastern Europe



**Source:** Own processed data from Financial Soundness Indicators (FSIs) – tables”

<http://fsi.imf.org/fsitables.aspx>

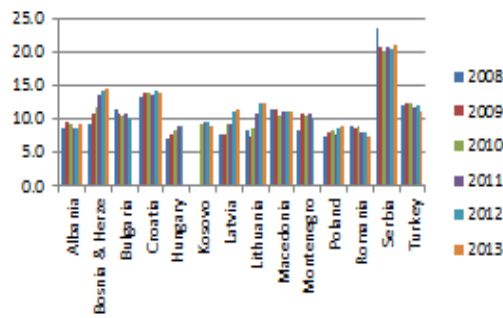
This means that, some events such as globalization, free capital flows, universalization, liberalization etc., have imposed the need for banks to adapt to these changes and to ensure a stability of this through capital, both at the quantitative and qualitative level. From Central and Eastern Europe, the countries with the highest level of the indicator **Bank Regulatory Capital to Risk-Weighted Assets** are Serbia, Croatia and Turkey. Of these, Croatia has followed an upward trend of this indicator.

Romania has registered an upward trend of this indicator from 2008 until 2010, followed by a gradual reduction in the others years. In 2013, Romania submits the lowest level of this indicator at the level of CEE countries, with a level of 7.5%.

Since it was introduced and until now we can observe that, at the global level, the values recorded by the indicator **Bank Capital to Assets** varies between 7% and 24%. As in the case of the previous indicator, its progress has been ascendant over the time, with some exceptions, among which Romania. This development is not exactly favorable because the indicator expresses the indebtedness of a country, i.e. the degree of covering the assets from other sources.

In the period 2008-2013 the highest level of this indicator was achieved by Serbia, the highest value was reached in 2008 with 23.6%. Poland is the country that presented the lowest levels of this indicator. Romania has shown a declining trend of this indicator, its highest level was in 2008, with a value of 9% and the lowest level in 2013, with a value of 7.5%. In 2013, Romania submitted the lowest level of this indicator, followed by Poland with 9.0% and Kosovo, with 9.1%.

**Figure 2: Bank Capital to Assets in Central and Eastern Europe**



**Source:** Own processed data from Financial Soundness Indicators (FSIs) – tables”

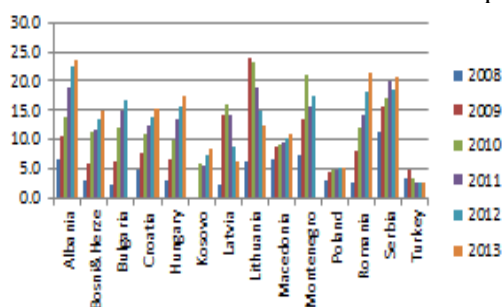
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Since this indicator represents the indebtedness rate of a country, a low level of this indicator is a good thing for countries with low levels of the indicator.

The indicator **Bank Nonperforming Loans to Total Loan** is very important since highlights the potential problems that may arise in the loan portfolio, offering the opportunity to remedy this situation in the future. According to the graph below, in which are presented the values of this indicator in different countries, we can observe that the evolution of non-performing loans in total loans has been increasing, with values between 2% and 21%.

Is valid in all countries that this coefficient increased most in 2009, when, due to the global financial and economic crisis, borrowers have not been able to repay the loans and these have become nonperforming.

**Figure 3: Bank Nonperforming Loans to Total Loan in Central and Eastern Europe**



**Source:** Own processed data from Financial Soundness Indicators (FSIs) – tables”

<http://fsi.imf.org/fsitable.aspx>

The highest level of non-performing loans in total loans was recorded in 2009 in Lithuania, being placed at a level of 24%, but it decreased gradually, reaching in 2013 a level of 12.5%. Until 2011, Serbia has

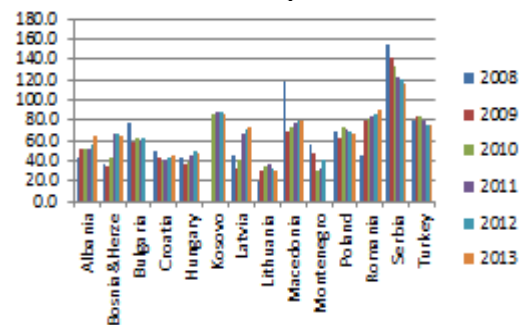
experienced an increased level of this indicator, with a slight recovery in 2012, but in 2013 this returned to a high values more than 20%. In 2013 Albania has presented the highest level of this indicator with a value of 23.5%, followed by Romania with 21.6% and Serbia with 20.6%. The lowest level of the indicator we can observe in Turkey, with 2.6%, followed by Poland with 5.2%.[5]

As for Romania, it is noticeable that the level of non-performing loans in total loans increased significantly since 2007, with an obvious value in 2009, when the financial crisis fully felt in our country. Even if the most difficult time was exceeded, the effects of the crisis are still being felt, because the high unemployment rate, the general economic condition determines a credit default by the borrowers, correlated with an increase of this indicator from year to year.

To evaluate the degree of covering the losses resulting from the non-performing loans in each country is calculated the coefficient **Bank Provisions to Nonperforming Loans**.

At the international level we can observe that the largest amount of provisions established in relation with nonperforming loans are recorded in the Spain and Argentina, and the lowest in Italy. Although the need for the incorporation of these provisions was felt after 2008, this has not been realized because most banks experienced liquidity shortage.

**Figure 4: Bank Provisions to Nonperforming Loans in Central and Eastern Europe**



**Source:** Own processed data from Financial Soundness Indicators (FSIs) – tables”

<http://fsi.imf.org/fsitable.aspx>

The level of this coefficient varies between 45% and 160%. In Romania, constituting provisions was an activity with a growing trend because the National Bank of Romania has pursued an adequate protection

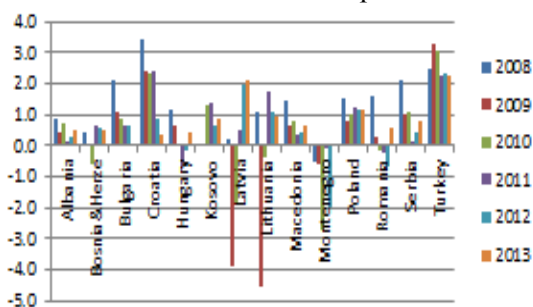
against possible risks that may arise in this regard, taking the necessary measures. Although it can be observed, as in the other countries, a slight decrease of this indicator in 2009 and 2010, the situation seems to remedy in 2011, banks are increasingly looking to protect against these possible losses.

From CEE countries, Serbia it is noted as the country which has the highest volume of provision, their highest level was in 2008, with 153.6%. In 2013, immediately after the Serbia, Romania followed with a percentage of 90.4% of the indicator Bank Provisions to Nonperforming Loans. The trend of this indicator was positive over the period 2008-2013, increasing from 44.2% as was their value in 2008, to 90.4% in 2013.

The indicator **Bank Return on Assets** has values up to 5%, which may record the negative values, indicating the impossibility of lending by banks based on deposits attracted. Negative values of this coefficient have emerged only after the triggering of the global crisis respectively more pregnant, after 2009. Worldwide, China appears with the highest return on bank assets, followed by Argentina; about the other countries the level of this indicator is very low because of the lack of availability of the funds, of the precarious economic conditions and of high unemployment rates, depositors have used already the existing savings, and have not been created other deposits.

Regarding the profitability of the banking assets in Romania, this it is very low, the same situation was also before the serious financial disturbances through which has passed our country.

**Figure 5:** Bank Return on Assets in Central and Eastern Europe



**Source:** Own processed data from Financial Soundness Indicators (FSIs) – tables”

<http://fsi.imf.org/fsitables.aspx>

Although there was a growing trend until the

year 2009, the effects of the crisis were felt heavily in subsequent years, even recording negative values in 2010, but in 2011 the situation seems to remedy, since the economy of the country begins to increase.

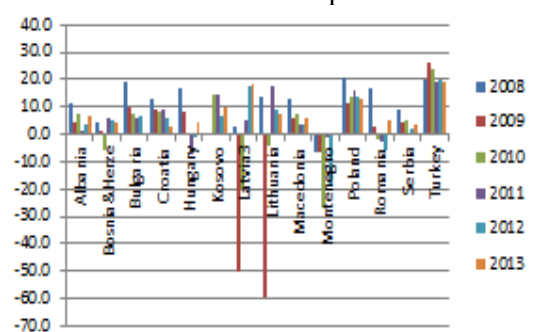
The lowest values of this indicator were registered in 2009 in Latvia - 3.9% and Lithuania - 4.5%. The negative values of this indicator were recorded in 2012 in Montenegro - 2% -0.6 in Romania and -0.1% Hungary. In 2013, the values of this indicator have been positive, the highest level being in Turkey with 2.2%, followed by Latvia 2.1%, and at big difference, Poland with 1.2%.

Romania has followed a downward trend of this indicator from 2008 until 2012, but in 2013 this indicator had a value of 0.6%. The lowest level of this indicator was - 0.6% and the highest level was in 2008 with a value of 1, 6%.

Registering significant value throughout the years, banks from different countries knew how to properly use their capital reaching values of 20% of the indicator **Bank Return on Equity**.

The 2009 year had negative effects on the profitability of banks assets, since during the crisis, the fear to realize investments and the uncertainty of future results has retained banks to use their own resources, keeping them for the next period, because can be observed signs of recovery in this sector since 2011.

**Figure 6:** Bank Return on Equity Assets in Central and Eastern Europe



**Source:** Own processed data from Financial Soundness Indicators (FSIs) – tables”

<http://fsi.imf.org/fsitables.aspx>

The lowest values of this indicator were recorded in 2009, when they reached -59.6% in Lithuania and -50.6% in Latvia. The highest level of this indicator was registered in Turkey in 2010 when it reached the level of 26.9%; moreover, Turkey being also the country with the highest values of this

indicator.

As for Romania, the maximum value of this indicator was recorded in 2009-17%, following a downward trend thereafter until 2012. In 2013, the value of the indicator Bank Return on Equity Assets indicator was 5%. This fact demonstrates that banks from Romania have used their capital in a productive way, considering that the economic and social environment have been favorable.

Since 2010, the situation has deteriorated severely because the central bank imposed certain austerity measures and the obligation to hold a minimum level of capital to ensure the solvency of banks and to avoid the contagion effect which can affect the financial system as a whole. The crisis effects were observed stronger this year, the indicator registering negative values, but the amount of 5% in 2013, gives a sign of recovery of the situation.

Looking the evolution of these indicators from the moment it was imposed their calculation and so far, we can see that their values are appropriate between countries, with some exceptions because it detaches the situation of the developed countries and underdeveloped countries.

However, we can affirm that the negative effect of the crisis was felt in the evolution of all the indicators, especially in 2009, but the situation its recovers after this year.

## 5. Conclusions

It was recognized internationally the need to hold the statistics of this indicators on financial stability, especially in times of severe financial stress in order to reduce the negative effects that may arise in such circumstances.

Thus, have been elaborated the Financial soundness indicators on all the elements that compose a country's financial system to indicate the exact picture of it, and the strengths and weaknesses of the system.

The indicators on financial stability provide a multitude of information related to the strength and stability of the financial system which are essential to the macro-prudential analysis, but they are not enough to weigh the factors of vulnerability of the financial system of a country.

Other important factors and which do not fall under those indicators are the quality of supervision and of the management of the enterprises; other factors that influence financial firms such as legal framework and the government influence on the financial system.

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# Institutions and Instruments of Fiscal Policy in the European Monetary Union

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## Abstract

*The European Monetary Union (EMU) represents besides applying a common monetary policy but also coordinating the economic and fiscal policies. We intended through this study to achieve a synthetic presentation of the main issues with regard to fiscal policy, to fiscal policy rules stipulated in the treaties of the European Monetary Union, and to the use of fiscal policy as an instrument of public policy in the stabilization process of economic cycles within the European Monetary Union and the adjustment process of the macroeconomic indicators.*

**Key words:** European Union, fiscal policy, Stability and Growth Pact, excessive deficit.

**Classification J.E.L.:** F36

## 1. Introduction

The European Monetary Union resides the coordinating process of the economic policies between the Member States; the coordination of the fiscal policies, especially by establishing limits for debts and deficits; an independent monetary policy coordinated by the European Central Bank (ECB); single currency.

In order to ensure the stability and to prevent unwanted side effects that may occur as a result of taking decisions in one country, the European Union partially regulates the economic policies. The fundamental tool for

coordination and guidance of the development of economic policy in the Member States is the Stability and Growth Pact. It establishes two main rules on public finances of the Member States (the public debt, the national deficit). The methodology used in this study is based primarily on the assessment of the theory, study and interpretation of the literature on fiscal policy, rules and tools of fiscal policy in the European Monetary Union. By stability and convergence projects, Member States expressed their intention to accept to change their tax systems as a result of a process of regulatory coordination, which have as a final purpose the tax harmonization in compliance with the two principles of European integration: the principle of acceptance of the fiscal policies of all countries, under certain conditions and the principle of subsidiarity as vertical relation between European institutions and national governments and as main objective the guaranteeing process of the Community freedoms, and protecting the single market [7].

## 2. Fiscal institutions and the Stability and Growth Pact

While the community authorities are responsible for the monetary and the exchange policy, the fiscal and employment policies as well as the structural policies for national product, labor and capital, remain the responsibility of each State. The fiscal policy remains within the competence of the

national states, as it couldn't be found a valid justification for their complete transfer to the Community authorities.

The MacDougall report from 1977, similar to the theory of optimum currency areas, suggested a further improvement, a European centralization of those budgets that were related to grants system for unemployment sector.

This is the summary of the report: the federal budget is equal to 2-2.5% of the Gross Domestic Product during the preparation stage for integration, 5-7% at a later stage and 25% when the monetary union became a Federal Union of states following the U.S. model. A partial decentralization of fiscal policy assigns to each country a certain flexibility and leeway sufficient to fight against the idiosyncratic economic shocks.

The decentralization facilitates a healthy competition for national policies regarding the requirements and preferences of each country. The ability to face, in a critical manner, the decisions of economic policy of different countries offer a series of complex information of which can benefit all Member States through which creates synergies that cannot occur in a completely centralized system. At the same time, the nature of the cooperation process of the Community sets limits to a policy competition thus avoiding its side effects especially regarding labor standards, the assignment of state grants and some levels of taxation.

The national fiscal policy was conducted by each government under specific rules established by the Treaty of Maastricht (1991) and the Stability and Growth Pact (Amsterdam, 1997), which, as we stated earlier, were enabling a large margin with regard to those decisions about public expenses and revenues in order to take into consideration those that are preferred at a national level. The individual responsibilities referring to the budgetary policy have been underlined by a "non-salvage" clause, under which both Union and each state are responsible for the commitments made by another member.

### **3. Fiscal rules in the Treaty of Maastricht**

The rules introduced by the integration process refers mainly to deficits and debts, with the intention of safeguarding the stability of the common currency against

some problems associated with individual debt exemption. Maastricht Treaty categorically obliges each country that wanted to enter the Union not to present an excessive deficit per Gross Domestic Product. The Council of the European Central Bank was tasked to evaluate the possibility of admission of the countries in the first phase of integration, checking occasionally deficits each defined as excessive if it exceeded 3% of Gross Domestic Product or the debt if above 60% of Gross Domestic Product.

Many economists have also criticized the convergence criteria stipulated by the Maastricht Treaty, in their opinion they involve excessive costs in terms of unemployment and revenues reduction. Losing a countercyclical tool, such as the monetary policy, would actually be called a high flexibility in terms of fiscal policy. Imposing restrictions to deficit at reference levels required by the Treaty, led instead to the fact that different economies have suffered deflationary shocks and governments have lacked the flexibility to respond to future shocks.

### **4. Aspects of the excessive deficit procedure**

The Maastricht convergence criteria are now in the Stability and Growth Pact, which requires the maintenance of a public budget close to an appropriate balance or in surplus and requires regular submission of stability programs, where countries should specify their specific objectives of public finances and strategies adopted to achieve balance or deficit, to achieve the balance the budget and reduce the public debt. Those countries with excessive deficit (more than 3% of the Gross Domestic Product) could be punished with fines up to 0.5% of Gross Domestic Product. The limit of 3% can be exceeded without necessarily causing an excessive deficit only if it will simultaneously check the following three conditions:

- exceptionality: the origin of the excess must be external to normal range of situations;
- transit process: the deficit can be located above the 3% of Gross Domestic Product only for a limited period of time;
- proximity: deficit must still remain close to the reference value.

The exceptionality clause may be invoked only when some unusual event outside the control of the Member States, which have a significant impact on the financial position of the government. Alternatively, this is desirable only if excess deficit occurs over a recession considered serious if it generates an exceptional reduction of Gross Domestic Product at least 2 % per year. The transient nature of the excess deficit is defined under exceptional conditions mentioned above; this clause is considered to be violated if the budget forecast indicates that the budget deficit does not fall below the reference value in the year following the recession, which is for the current year, the country will be considered among the punishable ones. To avoid penalties, the correction should be completed in the year following that in which the excessive deficit is identified, if there are (without any demonstration) special circumstances or prolong severe recession.

The evaluation procedure of the European Commission begins with a report which shows the presence of an excessive deficit. The report is subject to review by the ECOFIN (Economic and Financial Committee) issued their opinion on which the Commission shall draw up a report for the Council. If the Council determines that the deficit can be considered "excessive" it will provide guidance for adjustment measures. The analyzed country will be kept under observation and thus it would be taken measures within four months of the report, within one year will bring the deficit within the limits imposed. Otherwise, within ten months after sending the report of violation by the European Commission, it will apply the sanctions to the provided country.

The fiscal rules and their implementation were determined to reduce spending budgets of the countries, especially of those countries that are late in the convergence process for their entry into the European Monetary Union. The experience of strengthening included in the Maastricht agreements showed that the size of the rules of the economic policy was crucial to their success.

The stability of different national governments have set values for each year since 1999 in order to achieve balance in 2003-2004. Recording a failure of an objective in a single year, should not be a breach of the Stability and Growth Pact.

However, the pact calls for governments to take immediate corrections if there are significant differences of objectives that represent a violation not only of stability programs, but the Pact itself.

The Stability and Growth Pact is substantially unbalanced in the direction of rigid rules of flexibility and this may reduce some ability to act on the budget for the purposes of automatic stabilization of economic growth of the countries in the union. The risk of this feature is to create tensions between individual governments and the European institutions, especially in times of recession, tensions that could lead to high pressure on the Economic Central Bank towards "taming" monetary consideration or Union institutions as obstacles to improving their economic conditions.

## 5. Automatic stabilizers

The loss of the monetary instrument helped to spread a general consensus on the fundamental role that fiscal policy should hold in the stabilization of economic cycles within European Monetary Union. Cyclical fluctuations in economic activity actually transfer through changes to social expenses and revenues can have a different impact on the public purse after the economic period considered.

Depending on the level of centralization of decisions on tax policy, the used instrument could be different for stabilizing the national and / or regional profit. If the tax treatment provided a high decentralization, the public budget variations are certainly the most suitable instrument to cope with possible distortions of income. If the tax regime provides a high centralization, the objective of the stabilization could be achieved by setting an aggregate budget of the Union or an appropriate system of fiscal transfers between countries and / or regions.

The aspects regarding the fiscal policy instruments, the degree of decisional autonomy of each country and the level of interdependence of national policy issues are still open, but it is possible to highlight some considerations on the effects of some of the forms of intervention.

In the following we will focus mainly on national fiscal policies because the regime imposed by the Stability and Growth Pact

provides a definite decision-making autonomy of each government, by virtue of compliance with guidelines established by the Council to conclude later with some aspects of international transfers -regional redistribution effects contribute to economic shocks.

The first type of intervention to stabilize budgets refers to cyclical budgets. In particular, through the interventions of public spending, for example, an increase in expenses to temporarily reset economy crisis proves crucial especially in countries where flexibility of the costs and mobility of the factors such as labor and capital, or transfer of resources in general, are less usable because of politico-institutional nature. Also, to avoid the recourse to public deficit turn into an abuse, to achieve a debt level unsustainable or weight transfer on own debt of other community partners, the Stability and Growth Pact provides that the instrument can be used only up to the limit of 3% of Gross Domestic Product.

The hypothesis of a flexible fiscal policy in a complete manner, desired by the traditional theory of optimum currency areas was revised as a result of unsustainable public debt manifested in different economies in the '80s. Both the Maastricht Treaty and the Stability and Growth Pact strongly reiterated the requirement of non-decentralization, leading to the use of public spending, such as stabilizers effects of an economic crisis, on the one hand providing that new spending to be sustained by reducing others or to increase tax revenues, and on the other hand ensuring high robustness of the budget and therefore the effectiveness of interventions.

The amplitude of automatic stabilizers, measured by the cyclical component of budget balances vary from country to country and the same country, from one period to another, taking into account the size and volatility of the economic cycle, the importance of the public sector and the economic progress tax system.

However, the influence of fluctuations in the budget balance depends on the difference between actual Gross Domestic Product and the output gap and the sensitivity of marginal revenue and budgetary expenditure to Gross Domestic Product. Regarding the European Monetary Union, the first element is one that

unquestionably contribute to the differences between the cyclical components of different states. Buti and Sapir [1] through an empirical research carried out on EU countries, with reference to the period 1960 to 1997, noted that the size and volatility of the cyclical component and therefore automatic stabilizers, is high in those countries less industrialized (Spain, Greece and Portugal) and those very small from a geographical point of view (Finland and Luxembourg).

In short term, maintaining public budget in surplus or close to balance as much as possible would allow national governments to "reduce" substantially the effects of the phases of economic activities, because in this case there is a large margin of automatic stabilizers. The structural reforms could also increase the ability of the economies to adapt to economic shocks through the feedbacks from the automatic stabilizers.

In general it is justified to say that the income sensitivity to fluctuations in economic activity is higher than the expenses and this is because of the importance of the tax rate in the economic system and the progress of the taxation system. The average of the complex income elasticity of the European countries towards Gross Domestic Product is equal to 1%, with values falling between 0.8% in Italy and the UK at 1.4%. An explanation of the different sensitivities of the elements of the budget comes from the fact that, while in terms of income, all components are influenced by the income produced in a country, while expenditures are influenced by transfers to support unemployment.

With regard to the shock absorption capacity of the national budget, it may influence the degree of openness of a country. The smallest countries, strongly conditioned by external activity (high openness) shows less effect of the automatic stabilizers and thus an equal number of conditions that require relatively higher budget fluctuations to large countries where the absorption effect is high.

An adequate response in terms of the fluctuation of the budget, may vary depending on the nature of the economic "disorder". Fiscal policy can help stabilize the economic activity in the case of transitory shocks in terms of aggregate demand, shocks



on offer, however, to produce effects over a long period of time required for structural adjustments. The symmetric shocks that affect all countries in the same way, must be countered through a strong coordination of national fiscal policies and the latest through a common monetary policy; the asymmetric shocks, on the contrary, require a decentralization of decisions and thus of the measures.

In terms of those properties that are stabilizing the budget balances, Dogonowski and Andersen [2] states that a pro-cyclical policy is better than a balanced policy such as that imposed by the Stability and Growth Pact. This result may be recorded in the case of the imperfect financial markets or markets where the interest rate of the public debt manages to remain lower than that of the private debt. The capacity to absorb shocks from the perspective of the tax system also increases with the size of the shock itself.

The empirical studies show that 3% rule regarding the deficit turns out to be stringent during recessions for all countries such as the Scandinavian has a developed system of public assistance. The discussions that took place about desirable policies for monetary union are focused on the possible effects of fiscal federalism [3] with the "regional" idiosyncratic shocks, which could be stabilized by means of simple transfers (cash flows generated by the federal tax system). In 1988, in Brussels, the European Parliament, the Council of Ministers and the European Commission for the first time after a long euro-skepticism, have reached an agreement on the EU budget, where they have classified directives of "Delors package" with regard to the role and financing of Solidarity Funds to strengthen the internal market. Financing the resources should take into account the dislocation of the productive centers, of the development integrated projects and of the collaboration between countries, regions and EU authorities. The agreement stipulated that those revenues derived from the contribution of each country to be classified into: traditional type of net resources, payment of VAT revenues in Gross Domestic Product and total resources. However, when it comes to expenses, we can identify four elements even from the beginning: the European Agricultural Guidance and Guarantee Fund

(EAGGF), the Social Funds, the regional Funds and the Total of expenses.

The tax regime this way achieved provided the contextual conducted inter-temporal transfers through countercyclical budgets and inter-regional transfers. These transfers differ mainly in terms of their goals, while the other attempts to stabilize not only the current disposable income, but also the permanent disposable income, offering thus a kind of "insurance".

The transfers to regions being temporarily in difficulty derived also from payments made by developing regions, and the individuals should not have to fear any fiscal tightening, as this form of transfer is very effective in stabilizing income and consumption over the inter-temporal one.

Many economists have concluded that the strengthening of the tax system, such as that provided by the fiscal federalism, it would be desirable for European Monetary Union. Kletzler [4] (1999), by means of a model that ensures a replacement between the fiscal insurance and the stabilizing instruments lost due to monetary unification of European countries (national monetary independence and exchange policy), demonstrates that the improvement in the context of a flexible exchange proves to be rather marginal. The theoretical model is shown taking into account, on the one hand the productive asymmetric shocks between countries in a monetary union, and on the other hand the presence of the incomplete asset on the international markets (but the trade of assets arising from the capitalization of future earnings of its activity should not be possible). Through this formalization is shown that fiscal insurance scheme would be the closest, whether the monetary policy should be able to effectively reduce the short-term effects stemming from imbalances in the labor market or the prices of goods and services would vary from one country to another. Jensen [5] (1999), taking into account the existing limits on the actions of national fiscal policies and the need to change admission policies to the final stage of European Monetary Union after Maastricht criteria, analyzed a model that introduced a mechanism for fiscal transfers in order to assess the ability of macroeconomic stabilization. The Economist points out that fiscal transfers are relevant only for short-

term corrective interventions and must be distinct from intervention methods aimed at supporting the structural development of the poorest regions. Using a macroeconomic model for the two countries shows that the transition to a monetary union can generate high flexibility of prices and wages, which increase the speed of adjustment and could be made only in terms of price differences in initial growth levels income countries. In this way it highlights the role of stabilizing income transfers and asymmetric business cycles. Also, this intervention could lead to a high price instability and problems related to the phenomenon of moral hazard proper to those regimes where there is a risk distribution. For this reason the adoption of a mechanism for fiscal transfers becomes desirable only in the first period of the monetary union, or until the automatic endogenous stabilizers of the economy are not able to correct as soon as possible the effects of asymmetric shocks.

## 6. Right public finances

To avoid or prevent imbalances in the economies of the EU in March 2012, 25 Member States have signed the "Fiscal Compact", the Treaty on Stability, Coordination and Governance in Economic and Monetary Union, which is an intergovernmental treaty. It reflects the will of countries to integrate into their very culture of financial stability law that requires them to maintain a balanced budget or record a budget surplus. Member States shall take measures where their budget deficits exceed agreed limits. Treaty entered into force on 1 January 2013, reinforces the rules of the Stability and Growth Pact, which requires that corrective measures are applied in an automatic way, all signatory countries with stronger commitments for the euro area countries.

## 7. Conclusions

The impossibility to use the monetary policy in order to correct asymmetric economic shocks and imperfect mobility of factors such as labor and capital within the monetary union, led the member countries to consider fiscal policy as a final tool available for any adjustments. In this perspective, the

limits placed by the Stability and Growth Pact constitutes an obstacle to optimal policies in individual manner. Covenant, however, can be interpreted as a form of ex-ante coordination of fiscal policies and analyze its suitability to be reduced so that the opportunity coordination. The Stability and Growth Pact (SGP) was consolidated in December 2011 and brought more transparency and stricter oversight of national budgets by the Commission.

The Stability and Growth Pact has strengthened the procedure regarding the macroeconomic imbalances, which are intended to anticipate problems and to ensure corrective action as necessary, highlighting the intensification and extension of economic governance in Europe. We consider that it is likely that the intensification of integration to be conditioned by the existence of a fiscal union to ensure right public finances in Europe and solidarity mechanisms for crisis situations.

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## Analyzing the Influence of Lobbying on European Union Policies – Overview and Methods

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### Abstract

*It is every citizen's right to know how decisions are made, what interests lie behind them and how taxpayers' resources are allocated and spent. Considering these reasons, one might feel the need to measure the level of influence attributed to lobbyists, regardless of their status and needs. Being far from comprehensive, the article offers an insight into the literature, showing the main methods of quantifying the influence of lobbying on EU policies.*

**Key words:** lobby, European institutions, interest groups, EU legal framework

**JEL classification:** H110; H500

### Introduction

The issue of interest groups has prompted increasing interest over the 20th century, both at the involved parties' level - lobby groups and policy-makers - and the public opinion, often called upon to justify their dialogue. The level of influence they hold and how it is being exercised it is a subject to be discussed in order to preserve the democratic legitimacy of the European Union and to better understand the policy-making process at European level. Moreover, the transparency the EU institutions must prove is a fundamental requirement of the very reliability of this political and economic construction.

### Quantifying the influence of lobbyists

Many lobbying activities do not fall within the existing legal framework at

European level, taking place behind closed doors, so measuring how lobby works and what power has it was a challenge for those who have tried to turn the influence in a tangible tool.

An interesting view on this matter has researcher David Lowery [1], which notes that rarely it can be found a study that deals, in particular, with the consequences of interest representation over policy-making process. Though, some research papers cast some light on how the influence (or the perception of it) can be quantified. Andreas Dür [2] argues that quantifying the power of interest groups can be done by establishing the reasons for adopting a certain policy. He also stresses that, in order to grasp the consequences of lobbying, channels of influence, counteractive lobbying and policy process stages should be tracked.

John Mark Hansen [3] establishes, as a method with good results, direct lobbying, by which, together with "outside lobby", interest groups engage in media campaigns to influence public opinion (concept proposed by Kollman [4] in 1998). A traditional form acknowledged in U.S., of intervening on policy elaboration, is influencing a group of decision makers while they campaign for election. The interest groups, through electoral campaigns, support the future decision makers and obtain the latter commitment of promoting their interests [5]. A similar method is used at European level as well, by attempting to influence the appointment of rapporteurs in the European Parliament, for instance, simply because they exert power (the rapporteurs and their activities are not thoroughly verified, a general feature of MEPs). A particular way, of an incredibly force, is influencing decision

makers through the consequences, (particularly economic and social) which their actions could cause [6]. Thus, by promoting strong economic and social benefits on a community, in general, and a selection of voters, in particular, lobbyists obtain favorable pieces of legislation, somehow without too much direct pressure on those in a position to decide.

Austen-Smith and Wright [7] advocate for the inclusion in analyzing the level of influence of a variable measuring counteractive lobbying. The authors argue the need to assign an important role of this form of lobbying, thus an interest group cannot be ranked as non-influential if its position is not in a text-law – possibly it encountered another group's lobbying efforts, more substantial. In this case, it is possible that the first group has chosen a path to minimize its losses and avoid a much worse scenario.

All these elements presented so far can be grouped into a model that can calculate the level of influence that a particular group of interest has on policy-making process.

### **Methods of measuring interest groups influence**

In the following, we will give a brief review of the main methods of measuring the influence, pointing out the advantages they present and the gaps that should be considered when using them.

#### *Analyzing the policy-making process step by step*

The most important method is being considered analyzing the policy-making process, step by step, and establishing the chain of causation and mechanism between an independent variable and the outcome of the dependent variables [8]. In order to use this method, it is very important to have or be able to create access to the key decision makers and, perhaps as important, to the legislators' reflections on the subject under decision. The method is applied to study a small number of interest groups in order to make a detailed observation of all the factors that influence political decision. Andreas Dür [9] argues the importance of analyzing through semi-structured interviews, are useful when in need for estimates on the capacity of influence of a group in certain

moments of the process. The main difficulties are the impossibility of collecting a set of empirical data that can cover the all the steps, necessary in order to establish causality; cross-checking the findings, mainly because of the lack of data; since it can be applied to a limited selection, the results cannot be generalized. Regarding the use of semi-structured interviews, they can lead to misdirection, since each group is interested to promote their own interests and to communicate the power and the degree of influence they exert on decision makers. Finally, assigning a level of influence can be a cumbersome process, considering that there is no widely accepted reference by which the assigning could be done.

#### *Assigning a level of influence*

A second method is to assign influence, especially by making a survey/questionnaire to point out a number of factors which, when integrated, can generate a satisfactory result. This method has the benefit of observing and analyzing all the channels of influence. An advantage is cross-checking and observing a series of sectorial alliances. It can be argued, however, that an actor cannot properly evaluate another, due to a conflict of interest and lack of knowledge or ignoring the other lobbyists [10].

This method involves a major risk: when an interviewee is asked to assign a level of influence to a particular group of influence, he or she may consider only important cases that echoed quite high. It is a common error which must be pursued and minimized or even removed from the model [11]. Perhaps the most important disadvantage is that it clearly measures the perception of influence, rather than the influence at real parameters (concept introduced Polsby in 1960).

The model may be criticized that, using interviews and surveys, many respondents provide an average score, valid for different issues, thus neglecting the interest groups degree of specialization.

#### *Satisfied preferences*

A third method for calculating the level of influence could be analyzing the degree of "satisfied preferences". The outcome of the legislative process is compared with the positions held by different actors during legislative regulation. By using a predetermined reference system, we can calculate the difference between the final

result and the position expressed by a particular interest group. This method is recent and has been addressed by several specialists in the lobby research (Baltz and Schneider [12], Mahoney [13], Dür [14]). Thus, the method can approximate the influence even if nothing visibly happening (the lobby is done behind closed doors, using channels of influence inaccessible to researchers). The advantages of the method include the opportunity to address a large group of cases, which can also be used to generalize the results; errors resulting from the evaluation of a particular case (interest group – legislative procedure) may be canceled if we consider the large number of situations analyzed; even if we use individual assessment in each case, putting them all together allows categorizing and grouping different interest groups in intervals of influence.

When benefits are important, we find, of course, a number of disadvantages that can turn even into real difficulties. As George Tsebelis states [15], the first question mark is determining preferences: we can exemplify by setting preferences according to lobbied domains (currency appreciation for importers - multinational companies are interested in maintaining a stable exchange rate - exporters will benefit from a fall in the exchange rate). Mahoney [16] points out that different preferences must be established for different cases, as it cannot be operated with "global preferences". Using this method, many researchers have preferred the random selection process (Mahoney [17]), while others study simply a large number of cases (Baltz and Schneider [18]). Our empirical research has proved that is better not to use these two types of methods for establishing the sample. We would opt for predetermined criteria, such as interest groups' budget, experience in lobbying, membership in a lobby alliance and even being a provider of information and expertise for the EU institutions.

We strongly believe these three methods are the basic platform of any study aiming at measuring the level of influence.

As the literature in this area of study contains mostly new published research, which in many cases tends to narrow the approach, a researcher should stick to combining these three methods.

### **An overview of the European Commission's lobby register: benefits and drawbacks**

Influence of the largest European companies on EU policy process is still underestimated. Although, at European level, public is aware of the role of lobbying, the influence of different stakeholders on policy making process is less recognized.

Most Europeans tend to have a vague idea on how the companies lobby in Europe and rarely do they associate lobby with a particular industry or a certain interest group. This lack of clarity makes it much easier for most companies to hide behind professional or public affairs consulting firms in order to avoid disclosing the interests they lobby for. This is partly a result of the very nature of the lobbyists register launched by the European Commission on 23 June 2008.

According to official data, 20 of the 50 largest European companies are missing from the European Commission transparency register and some companies with strong representation in Brussels (Vodafone, E.ON, Nestle, Deutsche Bank, Barclays etc.) did not declare any lobbying budget for 2008 - 2010. The outdated register database makes us unable to have "real time" access to their lobbying expenditures. A merit of the register, though, is that it created *the law of decreasing lobby*, an apparent paradox, according to which the bigger the company, the lesser it spends on lobbying activities and programs. An example is the oil industry, where Shell and British Petroleum are on the bottom of a table in which Statoil and ENI have largest lobbying budgets. Moreover, there are many large European companies which reported unrealistic or too small lobbying budgets, taking into consideration their profile within the industries they activate, the presence in the lobbying circles in Brussels and, in many cases, the lobbying expenses reported in the United States. Many European companies with impressive turnover and market capitalization cannot be found in the EC register. A conclusion can be easily drawn: the EC register, at this stage, fails in his ambition to provide reliable and transparent data and information on lobbying in the European Union.

In the justification for the need to create an indicator able to measure the perceived influence of lobbying on EU policies, we chose to perform an insight into key areas in terms of scale lobbying at European level. The major players were chosen in the telecommunications, energy, agriculture / food industry and banking.

*Telecommunications.* Vodafone is an example of a European leading company which, according to the EC register, had no lobbying budget for 2008-2010. It is, perhaps, an example of lobbying through third parties - public relations offices, law and public affairs consultancy firms. According to the register, it appears that Vodafone is not a member of the European branch of the GSMA, a strong global platform that represents the interests of mobile operators, with an annual budget of one million euros, nor how much of this budget was used to promote the interests of the British operator in 2008 when, at European level, the Commission prepared a set of reforms to harmonize call charges within the EU, including new regulations on roaming tariffs (reducing the price for making / receiving a call, send SMS and use data services), which directly affected the interests of Vodafone.

*Energy.* European energy giant E.ON is missing from the EC register, although it is receiving access permits to European Parliament, including four nominal for one year. Although it may seem hard to believe, E.ON made statements that is not interested in direct lobbying on energy regulations, but the North Stream concern (E.ON is a shareholder) is registered with a lobbying budget of just 120,000 euros, most of the lobbying probably taking place thorough Member States.

*Food industry.* Nestle is one of the largest food processing companies in the world and was not registered in the EC register in 2008-2010, although in that same period Nestlé's employees received four passes to the European Parliament [19]. It is hard to believe that such a giant food industry did not lobby in 2008 when, in that year's spring, the European Parliament and the EU Council proposed new regulations on food labeling, in order to determine what information is mandatory, what is voluntary and which nutritional data should be communicated to

the consumer. In 2008, EC launched a consultation with the affected actors by those new rules - in March the same year CIAA (Confederation of the Food and Drink Industries), which also was not registered as a lobbying group, required minimal labeling, arguing that otherwise the consumer would be overloaded with information [20]. Adoption of stricter regulations would have affected Nestlé, a member of the CIAA, which determined the positions of the two actors to be relatively similar [21].

*The banking sector.* 2008 was an important year for bankers. Credit and financial crisis and the rescue from bankruptcy of large European and American banks generated turbulence in financial and banking sectors [22]. The magnitude of the crisis has prompted the competent EU authorities to announce a number of changes in the European legal system, too permissive and friendly with the banking institutions at that time. In 2009, Commissioner for Internal Market, Charly McCreevy, recognized that the banking industry had strong influence on European lawmakers, who had a passive attitude during the crisis [23]. Moreover, European policy makers have taken a number of measures that were likely to generate a series of lobbying activities from the banking sector. Thus, in February 2008 the European Commission made a proposal to the Council regarding sovereign investment funds to improve financial stability, which led, in January 2009, to the adoption of new measures to strengthen supervisory committees. Also in February 2008 the European Commission announced the review of the directive Undertakings for Collective Investment in Transferable Securities (UCITS). The banks have responded with a request for relaxation of regulation, despite the ongoing international financial crisis [24]. In September the same year, the European Commission announced closer cross-border supervision of banks' activities in response to the credit crisis. A few months later, in November 2008, the European Commission adopted a new proposal to regulate credit rating agencies, quite permissive some might say.

During the crisis, it is more than obvious that the banking sector had large budgets allocated to lobbying expenditures, both in Europe and the U.S. According to data

published by Essential Information and the Consumer Education Foundation, the financial industry has invested, between 1998 and 2008, about 5 billion dollars on lobbying decision makers in U.S. [25]. However, in Europe, the major players in the banking market as Deutsche Bank, Barclays and HSBC did not declared their lobbying expenditures [26].

## Conclusions

Transparency has been the subject of numerous debates in recent years. Overall, it can be argued that the decision-making process at European level is fairly transparent. This must be used as stimulus or leverage in order to determine interest groups to cast some light on their lobbying activities.

Transparency of lobby is in the benefit of the decision-making process, albeit it can be damaging for a lobbyist. Though, European regulatory authorities must commit themselves to open up the closed doors behind which lobbyists operate.

There have been taken important steps in order to measure lobby influence, but there is much to be done in order to be able to quantify the impact of lobbying over the decision-making process. Given the complexity of the EU legal system, one might find itself lost if tries to measure lobby influence at molecular level, which is why we strongly recommend the use of a tool comprised of the three methods discussed above (*analyzing the policy-making process step by step, assigning a level of influence and satisfied preferences*).

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# Policy Options for Restoring Public Debt Sustainability in EU Member States

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## Abstract

*In this paper we deal with the possible options to reduce/stabilize one country's public debt as well as with the specific factors that public authorities must take into account when selecting among different options for setting up a credible and viable public desindebtedness strategy. We also analyze the mix of options reflected in the public desindebtedness strategies adopted by the national governments of overindebted EU countries, during the recent crisis, given the specific context of their membership to the EU/Eurozone. The main conclusion of the paper is that, although several options were available, budgetary consolidation was the central pillar of all desindebtedness strategies adopted by EU countries, ensuring not only the reduction of previously accumulated public debt but also the prerequisites for a more "preventive" behavior of public authorities in the future.*

**Keywords:** public debt reduction strategies, fiscal consolidation, GDP growth, inflation

**JEL Codes:** H12, H63

## 1. Introduction

During the global economic crisis that began in late 2008, the public finances of many European countries experienced a significant deterioration. Fiscal stimulus and bank rescue measures, together with the cyclical evolution of budgetary revenues and expenditures have led to large increases in budget deficits and public debts. The main concern of many European governments thus became to design and implement strategies aiming to cut down budget deficits and reduce public debts to sustainable levels.

On such a background, the main purpose of this paper is to highlight what are the alternatives to reduce one country's public debt and how were they reflected in the strategies implemented, at national level, by the most indebted EU Member States.

Our work is primarily designed as a theoretical paper, supported, in order to ensure the relevance of interpretations and conclusions, by the analysis of some statistical indicators on the level of public debt and its structure, the budget balance, the GDP growth rate, etc. We have selected for our data analysis a number of 11 EU Member States, registering a consolidated public debt above the 75 % of GDP threshold at the end of 2013. The data sources are represented by European Commission's AMECO and EUROSTAT databases.

## 2. Policy options for restoring public debt sustainability – theoretical backgrounds

The literature ([1], [2], [3], [8], [10]) indicates the possibility of using different types of measures to reduce the public debt of a country and keep it at a sustainable level, more often being mentioned economic growth, amortization through inflation, public assets sales and budgetary consolidation.

### *A. Promoting economic growth*

Promoting economic growth represents the sounder path towards reducing the public debt of a country and therefore should be the core of any viable strategy to ensure its sustainability. However, achieving a consistent economic growth may prove to be a difficult task in practice, that's why this option is only rarely considered on its own when designing desindebtedness strategies, especially in countries where the adjustment needs are significant. The effects of sustained

economic growth are felt on two different levels.

Firstly, a high GDP growth rate supports for the increasing of budgetary revenues and possibly for the reduction of some public expenditures sensitive to the cyclical evolution of the economy. More specifically, according to relation (1), the cyclical budget balance is registering positive values, thus possibly offsetting a structural deficit and allowing for the overall budget balance to be in surplus. The financial resources made available in this way could be used for debt amortization purposes.

$$\text{overall budget balance} = \text{structural budget balance} + \text{cyclical budget balance (1)}$$

Based on pre-crisis experience, the effects obtained largely depend, however, in practice, on policy makers' ability and will to resist the temptation to increase budgetary expenditure under the "euphoria" induced by higher budgetary revenue, to "reward" the citizens for previous austerity years and thus ensure their support for future elections. It was frequent in the past, in this respect, the practice of different governments to keep promoting high budget deficits in periods of economic expansion, as a result of public spending policy reconsiderations that resulted in the deterioration of the structural component of the budget balance.

Secondly, the size of one country's public debt is most often assessed by the ratio of public debt to the GDP of that country, considered to better reflect the financial capacity of the debtor state to honor its liabilities. For European Monetary Union Member States and candidate countries, for example, public debt is considered to be sustainable, according to the provisions of the Treaty of Maastricht and of the Stability and Growth Pact, when it does not exceed 60% of GDP. Under these conditions, even if budget deficits persist in periods of economic growth, when the GDP growth rate is high enough to overcome the growth rate of public debt in absolute figures, public debt to GDP ratio decreases and, thus, the objective of reducing/stabilizing public debt as a share of GDP can be achieved.

### ***B. Public debt amortization through inflation***

When the inflation rate is high, although the nominal value of public debt remains unchanged, its real value and therefore its

share in GDP decrease, that's why promoting inflation represents, at least from a theoretical point of view, a possible component of public desindebtedness strategies.

Debt's amortization through inflation is however subject to some objective limits, deriving from the structure of one country's public debt. A significant share of external (foreign currency) public debt, commonly found in developing countries, renders this strategy ineffective, as the lower purchasing power of the national currency (due to inflation) is reflected in its depreciation against the foreign currencies in which public debt is denominated. Also, when a large part of the domestic (expressed in national currency) public debt is issued on a short term, the effects of high inflation may prove to be insignificant on debt burden, as investors in government securities may ask for a higher nominal interest rate to cover the losses induced by inflation. In the context of the financial innovations of recent decades, the concern for increasing the attractiveness of government debt securities has led to the extensive use, especially in developed and emerging economies, of innovative debt instruments protecting investors against inflation, such as the instruments directly or indirectly indexed to inflation or variable interest rate instruments.

Although easy to implement, accepting high inflation to reduce the real value of debt entails many risks, especially that inflation might get out of control, the adverse effects of strong currency depreciation on the national economy being widely accepted.

### ***C. Public assets sale***

The sale of public assets, whether real (buildings, land) or financial, and the use of resulting financial resources for public debt amortization can prove to be an important component of public desindebtedness strategies, especially in countries where public authorities hold significant amounts of such assets. In countries where public debt increased due to the massive interventions to save banks and other financial companies in trouble, in times of crisis, the very assets that public authorities acquired during the financial support operations could be the object of such sales.

However, selling public assets should not follow the sole aim of raising money to

reduce public debt. The decision to use such an alternative should be based on a careful cost-benefit analysis, considering both the potential benefits arising from public debt reduction and the disadvantages involved, as follows:

- resources obtained in this way are exceptional and non-renewal, so public authorities give up, for a unique cashing, to regular revenue from their property;
- the privatization of general interest public services could lead to an increase of their prices, with negative effects for consumers;
- the sale of public assets, such as buildings or land, might lead in the future to some types of budgetary expenditures increase, such as renting expenditures.

The privatization of state-owned companies must also be correlated with an increase in their efficiency and, thus, in the overall efficiency of the economy. Privatization would therefore be a good idea for public enterprises with losses, where private management might prove to be more effective.

It must also be taken into consideration the opportunity of selling public assets, given the still quite unfavorable conditions on the real estate market and the financial market.

#### ***D. Budgetary consolidation***

Although any of the previous solutions could contribute, to a greater or lesser extent, to the achievement and maintenance of a prudent public debt level, it is most often considered that it is necessary to complete them with budgetary consolidation measures, resulting in lower structural deficits or structural surpluses over the medium term. This way the pace of public debt growth could decrease or even financial resources could become available to pay-off debts incurred in the past.

The implementation of budgetary consolidation measures on the background of economic recession or modest economic growth, as can be characterized the current context of many indebted countries, raises some problems, being imperative to take into consideration the potential impact of such measures on the economic growth rate.

From this point of view, the economic theory and the empirical studies carried out on previous budgetary consolidation episodes suggest adverse effects. On the one hand,

according to the Keynesian view, budgetary consolidation measures are considered to negatively affect global demand and thus the output and economic growth of a country. On the other hand, contrary to this perception, other empirical and theoretical studies suggest the possibility of the opposite, expansionary effects of restrictive budgetary policy to occur ([5], [6], [7]), proving the complementarity of budgetary consolidation and economic recovery objectives. The occurrence of such "non-Keynesian" effects of budgetary consolidations depends on certain factors, among which even the size of public debt at the launch of such a strategy. When countries are facing large, unsustainable public debts, budgetary consolidation episodes can generate economic growth, while fiscal stimulus measures are likely to inhibit economic activity and deepen economic recession [13].

The above theories could call for different approaches to public debt reduction strategies, from the perspective of including a budgetary consolidation component. In countries with sounder public finances, where the need to reduce public debt is less stringent and economic growth is still fragile, large-scale budgetary consolidation measures could be postponed until more consistent economic growth is registered, otherwise there is the risk of a new recession. On the contrary, it might prove to be justified in these countries to continue with fiscal stimulus measures. On the other hand, in countries facing significant, unsustainable public debts, as currently is the case with many European countries, not only budgetary consolidation measures might not adversely affect growth, but they might also support it, thus accounting for an important component of any public desindebtedness strategy.

The budgetary consolidation objective could be achieved both on the account of measures to increase revenues, mainly tax ones, and to reduce some expenditures. For ensuring more favorable conditions for economic recovery, more appropriate appears to be the option to reduce final consumption expenditures (at the expense of investment ones, with positive impact on long-term growth and development), possibly combined with an increase of budgetary revenues without increasing tax rates, for example

through ensuring a better control of tax evasion or through extending tax bases.

### **E. Public debt default**

When faced with a difficult situation, a government could always choose, as last resort "solution", to default on its debt, a very expensive alternative and even unacceptable to some countries, as is the case with EU Member States. There are several types of costs that the default could entail for the debtor country, among them reputational costs, international trade exclusion, costs transmitted to the economy through the financial system or political costs [4].

In fact, we believe this is not a real option as it cannot be voluntarily taken into consideration as part of a rational public deindebtedness strategy (expressing the medium and long term vision of public authorities), but rather is a de facto situation that a government unable to honor its debt may face at some point, reflecting the failure of the adopted public desindebtedness strategy or even the lack of strategic vision.

### **3. National strategies for restoring public debt sustainability in overindebted EU Member States**

The concern for economic growth is a priority in EU countries, as demonstrates the Europe 2020 growth strategy. However, given the current economic conditions, economic growth cannot be the only pillar of debt reduction strategies in overindebted EU countries, for at least two reasons.

Firstly, a consistent economic growth is required to bring public debt to sustainable levels, both because of its large size and because of its high rate of self-accumulation through interest expenditures (quickly growing due to higher risk premium). Secondly, economic growth prospects are still modest for the years to come for heavily indebted EU countries. It can be seen from data in Table 1 that the contribution of anticipated nominal GDP growth on public debt reduction will be quite low, ranging from 1.3% of GDP (in Spain) to 3.9% of GDP (in UK) for 2014, while some countries' public debt (namely Greece, Italy, Portugal and Ireland) still is more than twice the reference value established by the Treaty of Maastricht.

*Table 1. The impact of nominal GDP growth rates on general government consolidated gross debt in some indebted EU Member States*

Country	General government gross debt in 2013 (% of GDP)	Nominal GDP growth rate (% over the previous year)*		Impact of nominal GDP growth on general government gross debt (% of GDP)*	
		2013	2014	2013	2014
		Belgium	101.5	1.5	2.9
Cyprus	111.7	-6.9	-4.3	-2.9	5.0
France	93.5	1.4	2.3	-2.5	-2.1
Germany	78.4	2.7	3.5	-2.7	-2.6
Greece	175.1	-5.8	-0.1	-5.7	0.1
Hungary	79.2	1.1	1.2	-3.7	-3.5
Ireland	123.7	0.1	2.9	-4.6	-3.6
Italy	132.6	-0.4	1.5	-3.3	-2.0
Portugal	129.0	0.3	2.0	-2.9	-2.5
Spain	93.9	-0.6	1.4	-2.7	-1.3
UK	90.6	-1.2	7.3	-4.2	-3.9

\*forecasted data for 2014

Source: the author, data from AMECO

The possibility to use inflation as an alternative to reduce the real value of one country's public debt is directly dependent on its public debt structure. In relation to this structure, the amortization through inflation appears to be possible in many overindebted EU Member States where, with the exception of Hungary, public debt is denominated mostly in the national currency (Table 2). At the end of 2012, the foreign currency debt was under 4% of the total public debt in countries like Spain, Italy, Germany or France and even null in the case of Belgium and UK. Also, the issue of debt securities indexed to inflation, which protect investors against monetary depreciation, is not very important, focusing in only a few countries, mainly France, Germany and Italy. Against the background of changing macroeconomic conditions and deepening disinflation, the share of such issues is even declining since 2008, representing only about 5% of total new government bond issues in the Eurozone in 2009 and 2010 [9].

In terms of the original maturity, only a small part of the debt is due under a year, the highest value being recorded, in 2012, in Italy (16.5% of the total public debt). We can even notice, in most countries, a tendency to reduce the share of short-term public debt in favor of medium and long term debt, with the

aim to reduce refinancing risk in the context of uncertain financial market developments.

*Table 2. Short-term and foreign currency general government debt in some indebted EU Member States\**

Country	Short-term public debt (% of total public debt)		Foreign currency public debt (% of total public debt)	
	2011	2012	2011	2012
Belgium	13.6	10.8	0.0	0.0
France	15.4	12.9	3.1	2.6
Germany	15.5	12.4	2.4	3.3
Hungary	8.7	12.2	51.8	43.5
Ireland	5.5	5.1	8.0	11.3
Italy	15.6	16.5	0.2	0.1
Portugal	13.6	11.3	8.5	11.3
Spain	9.4	8.6	1.0	0.5
UK	N/A	N/A	0.0	0.0

\* data were not available for Cyprus and Greece

Source: the author, data from EUROSTAT

Despite appropriate public debt structures and although, at international level (namely in the USA), inflation is sometimes considered to be a possible solution to fight against unusual high public debt [1], for the Member States of the EU it is far from being a viable option. For candidate countries to the EMU, such as Hungary, the high interest to maintain inflation at a low level is mainly determined by the need to fulfill the nominal convergence criteria for adopting the single currency. In the other countries that already belong to the EMU, inflation is under the strict control of the European Central Bank. ECB's primary objective is to maintain price stability and, although it has been actively involved in saving governments in trouble, it seems unwilling to sacrifice this objective. Although the overindebtedness of some EU Member States may prove harmful to the European economy as a whole, given the strong spillover effects that may occur in a single currency area, it is generally admitted that the sacrifices entailed by high inflation would be even higher than benefits of debt reduction [10].

The sale of public assets has also been taken into consideration when designing public disindebtedness strategies by European countries such as Greece, Portugal, Spain and Italy that have already launched or announced programs for the immediate future to sell public companies or even highways, buildings and land. Although the direct contribution of such revenue to public

debt reduction is rather modest compared to the overall size of the debt, we consider that opening the way for the sale of public assets represents, especially in heavily indebted countries, a guarantee of public authorities' strong commitment to reduce public debt, absolutely necessary for ensuring the success of any desindebtedness strategy.

Given the availability and appropriateness of alternative options, budgetary consolidation has emerged as the main component of strategies aiming to reduce or stabilize EU Member States' public debt, as confirms the fact that most of them signed (with the exception of the UK and Czech Republic), in 2012, the Fiscal Compact. This treaty stipulates the commitment of signatory countries to have balanced national budgets or in surplus, commitment considered fulfilled if the structural deficit does not exceed 0.5% of the nominal GDP.

*Table3. The cyclically adjusted budget balance\* in some indebted EU Member States (% of GDP)*

Country	2008	2009	2010	2011	2012	2013	2014
Belgium	-2.1	-4.5	-3.4	-3.7	-3.3	-1.7	-2.0
Cyprus	-0.7	-6.3	-5.6	-6.6	-6.1	-3.7	-2.9
France	-4.3	-6.2	-6.1	-4.7	-3.8	-2.8	-2.4
Germany	-1.1	-0.7	-3.4	-1.2	0.1	0.6	0.4
Greece	-10.6	-14.9	-8.6	-5.4	-3.1	-6.7	2.8
Hungary	-4.9	-2.4	-2.5	5.5	-0.1	-0.6	-1.9
Ireland	-8.0	-11.6	-28.6	-12.5	-7.9	-6.5	-4.3
Italy	-3.7	-3.6	-3.6	-3.0	-1.4	-0.7	-0.7
Portugal	-3.7	-8.8	-9.1	-3.1	-4.1	-2.3	N/D
Spain	-5.0	-9.2	-7.1	-6.8	-7.1	-3.3	-2.4
UK	-5.3	-9.0	-8.2	-6.0	-4.4	-4.6	-4.6

\* based on potential GDP; (-) for deficit and (+) for surplus; forecasted data for 2014

Source: the author, data from AMECO

Also, since 2011-2012 (and in some cases, such as Greece, Belgium or France, even earlier), all considered European countries have implemented budgetary consolidation measures, as shown in Table 3, reflected in important reductions of their negative cyclically adjusted budget balances. It can be observed that the countries with higher public debts have been forced to operate more severe corrections, often under the pressure of the commitments assumed towards international lending institutions (the IMF, the European Commission), entailing extensive negative social reactions. In Greece, the cyclically adjusted budget deficit decreased by 8.2 % of GDP in four years

(2009-2013) and in Ireland by 22.1 % in just three years (2010-2013). Conversely, in countries with more sound public finances, at least in relation to the above mentioned ones, adjustments were less abrupt, of only about of 2-3% (Germany, Belgium) and have entailed less negative reactions.

It can be seen from the data summarized in Table 3 that, by 2013, only one country (namely Germany) has succeeded to register a cyclically adjusted budget surplus. This proves the need for further budgetary adjustment measures over the medium and long term, not only to further reduce public debt but also in support of a strategic vision of public authorities, aimed at preventing and not only correcting future imbalances.

#### 4. Conclusions

The paper showed that, for the eleven most indebted EU Member States, public debt reduction strategies have comprised a mix of economic growth, public assets sale and budgetary consolidation measures, determined in relation to the size of required adjustments, the evolution of the domestic and international economic environment, the economic growth prospects, the dimensions of the public sector and other economic and social policy objectives that public authorities may aim at, etc.

If promoting inflation, though easy, did not prove to be a viable option for EMU member countries, budgetary consolidation was the central pillar of all desindebtedness strategies adopted by EU countries, ensuring not only the reduction of previously accumulated public debt but also the prerequisites for a more "preventive" behavior of public authorities in the future.

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# Evolution of the Cost to Income Ratio for the Two Main Romanian Banks: Romanian Commercial Bank and BRD Groupe Societe Generale

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## Abstract

*Efficient use of resources of the bank is the key objective of each manager. Therefore, on the deteriorating macroeconomic environment background, managers attention has turned in recent years to reduce costs and maximize profits. In this context, this study examines how the two main Romanian banks Romanian Commercial Bank and BRD Groupe Societe Generale acted to obtain an efficient activity, starting from the cost to income ratio indicator.*

**Keywords:** Cost Income Ratio (CIR), efficiency

**J.E.L. Classification:** G21, M21

## 1. Introduction

The recent financial crisis has decisively influenced the banks' activity, leading to a profound restructuring of their business to become profitable. And in the case of the Romanian banking system has felt the need to rethink the business model of banks given that it has reached a negative return on assets for the third consecutive year in 2012.

In addition, increased competition in the banking system, technological innovation, and the need to strengthen banks by raising capital level, led banks management to focus to control their costs and to providing products and services efficiently.

In this context, the aim of our study is to investigate the cost to income ratio as a measure of performance of the two main romanian banks: Romanian Commercial

Bank and BRD Groupe Societe Generale. We chose these banks because they own over 30% of the net assets at the level of banking balance sheet and capital of these banks is mostly foreign. Moreover the two banks are the biggest direct competitors of Romanian banking system.

## 2. Trends of the cost to income ratio in the Romanian banking system

Cost to income ratio known as the efficiency ratio is a benchmark measure most commonly used in the financial sector. Ratio of operating expenses to operating income expressed banks' ability to control operating costs. The formula for the efficiency ratio is as follows:

Cost to income ratio (CIR) =

$$= \frac{\text{Non Interest Expense}}{\text{Net Interest Income} + \text{Non - Interest Income}}$$

So, cost to income ratio calculation reveals that price components (interest rates, commission fees and factor costs) influence the determination of earnings and expenses. [1]

The cost to income ratio shows how expensive it is for the bank to generate one monetary unit in revenue in a given period of time. If the cost to income ratio has high values then banks have low productivity and hence lower efficiency. Therefore managers will pursue an adjustment of this report mainly through cost savings that are supposed to be easier to control.

A survey of 51 big European banks made by [4] showed that Europe's most efficient

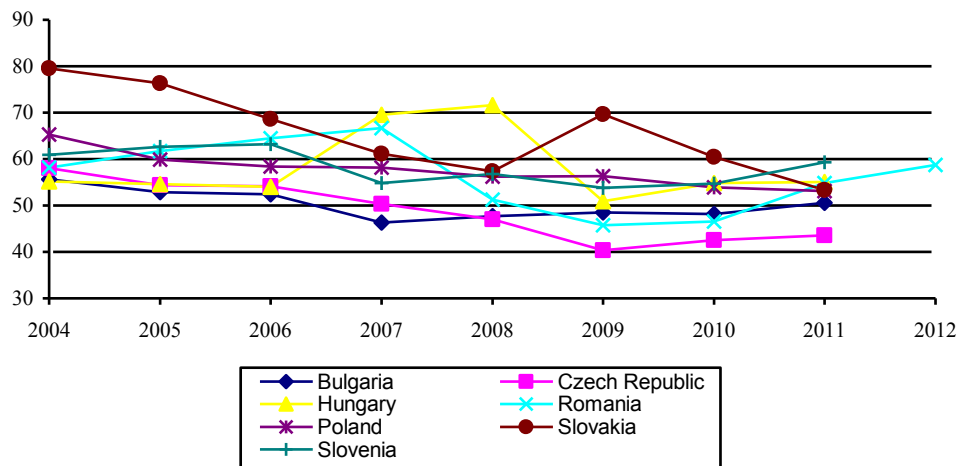
banks have five important characteristics in common:

- an advanced culture of cost-effectiveness, always encouraged;
- major investment in IT;
- a high degree of decentralization, with decision-making that occur primarily at the local branch;
- the use of a list of key performance indicators and mostly numerical objectives for cost and efficiency;

- a focus on embracing the right (revenue-creating) costs whilst shunning costs that bring little or no value to the customer. [4]

At the Romanian banking system we notice that the indicator cost to income ratio values are reasonable, being in the same range as other countries from the Central and Eastern European Union. (figure 1)

Fig. 1 Comparative evolution of cost to income ratio in CEE countries



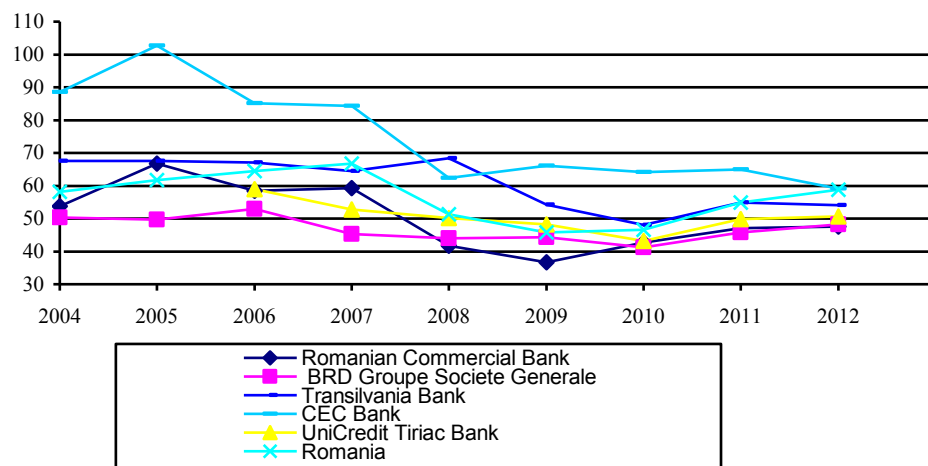
Source: World Bank databases

During the period 2004-2007, considered the period of credit expansion on the Romanian market, we see an increase in the indicator.

a sign of concern for bank management to streamline their banks activity. Since 2010 we notice that the indicator has a slight tendency to increase, remaining below 60%.

Once the financial crisis hit we note that the indicator is situated on a downward trend,

Fig. 2 Comparative evolution of cost to income ratio in main Romanian banks



Source: World Bank databases



Figure 2 shows the cost to income ratio for the five largest Romanian bank by assets in the year 2012 and the average for banks in Romania. Within this group stands out CEC Bank, the only bank with state capital, ranked fourth in terms of assets held.

As shown CEC Bank is the only bank with a outstanding evolution of this indicator.

We can explain this trend if we consider that only in 2005 the House of Savings (CEC) becomes bank, at which point it starts being prepared for privatization.

Even if later has been dropped desire of CEC Bank privatization, we can see improve the efficiency of the bank activity.

The other banks graphically represented (Romanian Commercial Bank, BRD Groupe Societe Generale, Transilvania Bank and UniCredit Tiriac Bank) generally fall in trend indicator at Romanian banking system.

### 3. Analysis of cost to income ratio for the two main Romanian banks

Since 2006 we can say that it has begun a new phase for the Romanian banking system if we consider that in december 2005 it was privatized the largest Romanian bank: Romanian Commercial Bank. This meant an intensification of competition and consolidation of the banking system.

Amid increased competition since 2007 banks have invested in alternative channels (internet banking, mobile banking, ATMs or POS) in order to reduce costs by moving the transactions at them. This led to a reduction in the number of front-office employees.

Another strategy adopted by banks to reduce operating costs was the centralization of back-office (credit analysis or processing payments), following that front-office become only sales force.

In recent years, on the deteriorating macroeconomic environment background, in an attempt to maintain banks profitable, managers attention turned to reducing cost to income ratio indicator. Thus, obtaining a low level of this indicator implies a high control costs.

To realize how managers react to reduce operational costs we turned our attention to the first two Romanian banks based on assets held: Romanian Commercial Bank and BRD Groupe Societe Generale.

Analyzing the structure of operating costs for the two main Romanian Banks, according to the table below, we find that the personnel costs registered a downward trend. In the case of Romanian Commercial Bank, 2007 represents the peak of employment costs, after which their level falls on a downward trend, reaching at the end of 2012 to record a value lower than 2006.

Table 1 Data composing the cost to income ratio

		mil. RON						
		2006	2007	2008	2009	2010	2011	2012
BCR	Personnel Expenses	922.1	1,193.6	1,051.0	921.7	873.7	879.3	872.2
	Other Operating Expense	601.5	647.4	817.1	996.5	1,088.6	1,150.9	1,098.4
	Interest Expense on Customer Deposits	864.3	1,139.8	1,823.7	2,455.3	1,530.0	1,502.2	1,270.8
	Other Interest Expense	569.4	1,027.5	2,300.6	2,546.8	1,633.2	1,526.1	1,360.5
	Total Non-Interest Operating Income	922.5	1,141.2	1,444.0	1,398.9	852.1	1,186.2	1,242.9
	Gross Interest and Dividend Income	3,120.0	4,130.2	7,164.7	8,840.4	6,913.0	6,160.1	5,529.6
BRD	Personnel Expenses	402.9	552.5	672.4	738.8	699.1	712.4	672.5
	Other Operating Expenses	571.2	583.7	757.1	898.5	776.5	815.7	828.0
	Interest Expense on Customer Deposits	735.6	1,095.6	1,826.5	2,281.1	1,254.0	1,047.6	1,071.8
	Other Interest Expense	100.7	242.7	413.7	233.7	116.3	223.2	166.5
	Total Non-Interest Operating Income	657.3	999.9	1,340.7	1,453.2	1,261.6	1,143.4	1,150.7
	Gross Interest and Dividend Income	2,021.3	2,837.7	4,135.9	4,754.2	3,693.7	3,443.7	3,184.4

Source: Bankscope

It is not the same in the case of BRD Groupe Societe Generale who records the highest level of personnel costs scarcely in 2009, after which their level records small variations.

These data lead us to conclude that, in the coming years triggering financial crisis, an important role in reducing operational costs represented downsizing.

If in the case of personnel expenses we record a tended to reduce them, in exchange for other operating expense we record their growth trend in the case of both banks.

With regard to interest expense on customer deposits and other interest expense we find a reduction in their level since 2009, for both banks, due to the successive reduction of interest rate monetary policy by the central bank.

The last years, have been marked also, by a reduction in the volume of loans granted by banks. This is due to stricter regulations imposed by the central bank and a high degree of prudence of banks as a result of recording a high level of non performing loans. Therefore interest income decreased and the level of provisions increased significantly, leading to a negative return for the Romanian banking system. This was true and for the two banks analyzed which recorded losses at the end of 2012.

#### 4. Conclusions

In our opinion the main challenge for the Romanian banking system remains reduced banking costs. What has happened in recent years by reducing personnel expenses and closing banking units represent only a short-term strategy designed to reduce losses.

To decrease the value of the cost-to-income ratio, Romanian banks must achieve a sustained program of operational efficiency. Thus, the banks need to rethink their business model with a return to core activities, providing simple banking products and customer oriented. They also must continue investing in IT because the alternative channels is a niche that can offer new opportunities.

Another measure of operational efficiency that should be considered is to simplify / automate processes and organizational strengthening. [5]

In addition, as shown [5] in his study, entitled "Cost reduction in the European banking sector," clever marketing strategies and sales price as well as multi-segment sales will prove crucial to generate additional income.

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## Analysis of the Banking System Performance in Romania During 2000-2012

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### Abstract

*The purpose of this article is to present the development of Romania's banking system performance based on ROA (Return to Assets) and ROE (Return on Equity) ratios between 2000 and 2012. The main objectives focused on presentation the theoretical banking performance aspects and banking performance indicators and analyses ROA and ROE indicators in Romania in the period 2000 to 2012, the calculation banking performance indicators of a bank in Romania. Research results showed that these indicators had a downward trend during the period analyzed, with values becoming lower.*

*The scientific approach is based on information from the literature national and European, as well as documenting the practice undertaken within the Bank. In formulating the thesis I opted on combining quantitative research qualitative research in order to obtain the expected results. As a result of the research undertaken, research tools pertaining to the two types of methods: literature review, normative acts, the comparison study, descriptive analysis, case study method, the interpretation of data.*

**Key words:** banking, bank profitability, bank performance, ROA, ROE

**JEL Clasification:** D12, C58, G21

### 1. Introduction

Over the past decade, the rapid development of financial markets and the internationalization of financial flows have changed the banking sector, making it almost unrecognizable. The new information-based activities, such as trading on the financial markets and generating revenue through commissions, is now the major sources of profitability of banks. Profitability, in the form of profits brought forward, is usually

one of the key sources of capital generation. A healthy banking system is built on the profitable banks and adequately capitalized. Profitability is a revealing indicator of the Bank's competitive position on the markets of the quality-management and banking. This allows a bank to retain a certain risk profile and offers protection against short-term problems [1].

In order to accomplish the goals and objectives of the present research comprises two parts: a theoretical part in which they are presented in the theoretical aspects of profitability and performance indicators and some banking practice include analyses ROA and ROE in the Romanian banking system from 2000-2012 and a case study on calculating banking performance indicators at X Bank in Romania.

### 2. Literature review

Study of literature is to produce the most representative work in the field of research. I presented a series of studies the deals with the issue of which banking system in Romania profitability, having both in books and journals.

Gabriela Piciu in a study entitled "Shaping the Impact of Risks on the banking performance" presents a matrix model that offers the possibility of indicating the establishment and the interpretation of causal, the interdependencies of the risks affecting the banking and financial assets in the uncertain expected returns and economic potential of assets traded by the bank, whose profitability level is determined by the probable gains or losses of the bank [2].

Constantinescu Liliana et all. (2012) presents a series of problems must be resolved by the main cooperative banks which want to offer advanced services namely: providing diversified services, simple and easy to access; providing

continuous training of staff because the services customers want qualified personnel and friendly; timeliness, as one of the ways to keep customers; the delegation of authority employees, the effect must be organized that front-line staff to deal with personal problems that can arise [3].

Revenue, expenditure and analysis of the profitability banks is studied by Monea Mirela (2011). In the study conducted a comparative analysis of presented is the dynamics of the major indicators (income, expenditure and product) to two Bank of the system. The study then continues with analysis and calculation of profitability indicators for the banking of the two high-end banks in 2009-2010 [4].

A study conducted by the European Central Bank (2010) defines the bank's performance as a bank's ability to generated sustainable and profitability represents three ways of measuring bank performance: traditional measures, economic measures and measuring performance in terms of the market [5].

Socol Adela et all (2013) presents a model of Romanian banks through performance indicators ROE, ROA and bad loans reaching the conclusion that the ROE and ROA varies with each other due to credit risk report [6].

The conclusion that can be deduced is that research in the field of bank profitability have grown considerably thanks to the importance that the calculation of the profitability indicators of the bankers.

### 3. From theory to practice regarding banking performance

In recent decades, the banks have undergone extensive transformations brought about by the evolution of the contemporary economy, the behavior of recipients of banking services, the policies pursued by Governments over the banking sector and the progress of modern technology. Bank profits are essential purpose of the establishment and operation of a bank. Appears as the difference between revenues and expenses [7].

Profitability is measured by a set of financial indicators. Key indicators including return on equity, which measures the rate of

return to shareholders and the investment return on assets, which measures the effectiveness of the Bank's potential use. Other indicators measure the profitability of the activity of a bank, the contribution to the profit of the various types of activities, the efficiency with which the bank operates, and the stability of its profits

Bank profitability is expressed by the following indicators [1] and [11]:

1. **Economic Profitability (ROA-Return to Assets)** represents ratio of net profits and total assets of the Bank. Expressed so net profit on a monetary unit of active, giving an overall assessment of the profitability of the Bank. In American literature, it is known as the return on assets or return on investment and return on invested capital is measured in the Bank or the effectiveness of asset management [4].

2. **Financial Profitability (ROE-Return on Equity)** is defined as the ratio between net profit and total capital, measuring profitability of shareholders' investments, putting net profit brought by a monetary unit of capital.

3. **Net Interest Margin (NIM)** is defined as net interest income reporting total assets. It is actually the difference between revenue and expenses in the return with interest related to the total assets.

4. **Rate of Assets Utilisations (AU)** express the banks' ability to generate profit and shall be calculated as the total revenue and total assets.

5. **Rate of Profit Margin (PM)** is calculated as a percentage ratio between net profit and total revenue.

6. **Equity Multiplier (EM)** is a synthetic indicator which highlights the degree to which attracted additional resources use leads to increased profitability of equity.

### 4. Calculation performance indicators bank at the bank A in the period 2010-2011

Based on the financial statements of the bank A in Romania for the financial year ended at 31 December 2011 we calculate bank performance indicators described above [8].

Table 1 Bank Performance Indicators from Bank A in the period 2010-2011

Current number	Indicators	Year 2010	Year 2011
1	Economic Profitability (ROA)	1.60	1.70
2	ROA – romanian banking sistem	<b>-0.16</b>	<b>-0.23</b>
3	Financial Profitability (ROE)	14.41	15.21
4	ROE – romanian banking sistem	<b>-1.73</b>	<b>-2.56</b>
5	Net Interest Margin (NIM)	4.11	4.37
6	Rate of Assets Utilisations (AU)	18.03	17.47
7	Rate of Profit Margin (PM)	8.87	9.73
8	Equity Multiplier (EM)	9.01	8.94

Source: own calculations

As a result of calculating banking performance indicators during the period 2010-2011 at the Bank you can see the following:

-Economic Profitability has positive values in the two periods examined, registering an increase of 0.10% in 2011 compared to 2010, which is favorable for the Bank. ROA in the Romanian banking system recorded negative values from -0.16% in 2010 and by -0.23% in 2011, due to the financial crisis since 2008 also affects banks, dropping both their profits and assets held.

-The Financial Profitability was 14.41% in 2010 and 15.21% in 2011, rising 0.8 percent from one financial year to the next, but at the level of the Romanian banking system it records negative values;

-Net Interest Margin increased by 0.26% in two years, showing a profitable activity of the Bank;

-Asset Utilization rate a decrease of 0.56% in 2011 compared to 2010;

-Profit Rate grew from 8.87% in 2010 from 9.73% in 2011 due to the increase in net profit of the Bank;

- Equity Multiplier decreased 0.07 in 2011 compared with 2010.

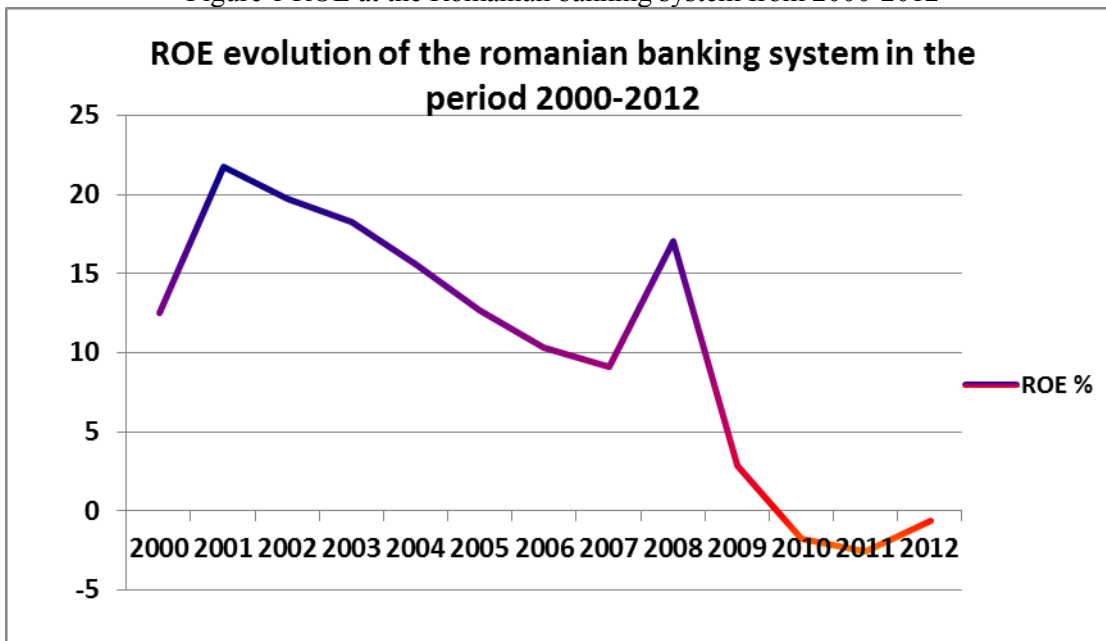
On the whole the Bank activity in 2010-2011 is one profitable, most indicators falling within the standard limits set globally.

##### **5. Evolution of ROE and ROA at the Romanian banking system in period 2000-2012**

With the support of information annual reports issued by the National Bank of Romania in the period 2000-2012, we will make an analysis of the key performance indicators of the Romanian banking system ROE and ROA.

The size of the ROE in the Romanian banking system is represented in the figure below:

Figure 1 ROE at the Romanian banking system from 2000-2012



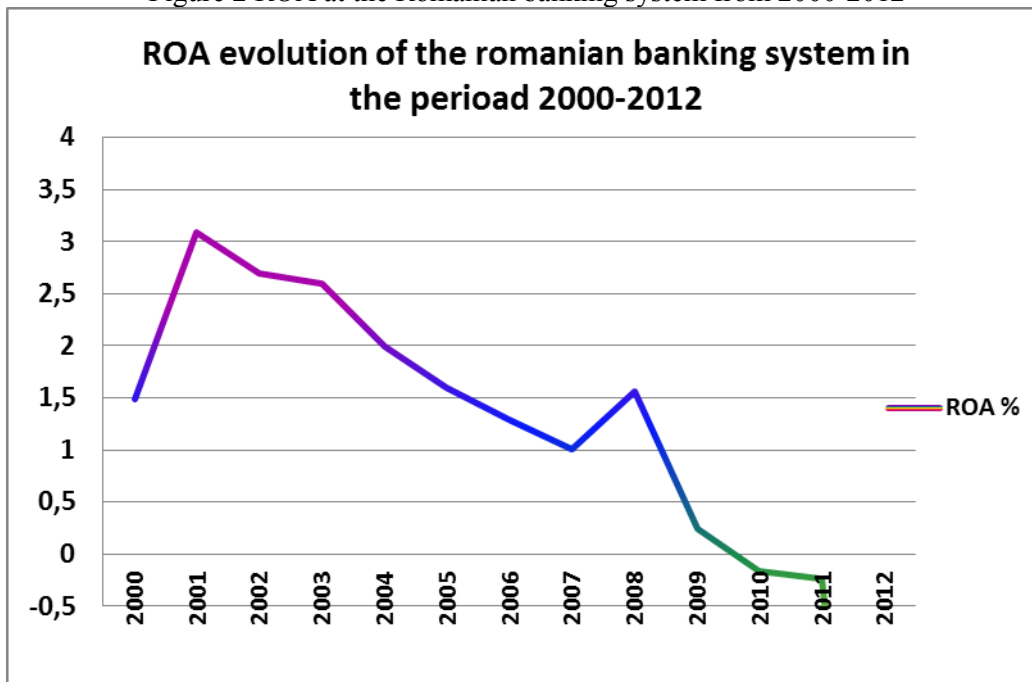
Source: own processing after National Bank of Romania data

In the period 2000 to 2012, ROE has been both positive (2000-2009) and negative values (2010-2012), the average value of its being of 10.41%. The highest values were recorded in 2001 (21.8%), 2002 (19.7%), 2003 (18.3%) and 2008 (17.04%). Since 2009 began to fall, as in the past three years

has negative values: -1.73% in the year 2010, to 2.56% in 2011 and -0.64% in 2012, due to the decrease in profit of banks in Romania and thus higher capital.

Evolution of the ROA is presented as follows:

Figure 2 ROA at the Romanian banking system from 2000-2012



Source: own processing after National Bank of Romania data

Evolution of the ROA is similar to that of ROE. The highest values of the ROA were registered in 2001 (by 3.1%), 2002 (2.7%), 2003 (2.6%) and 2004 (2%), and lowest in the 2010s (-0.16%), 2011 (-0.23%) and 2012 (-5.92%). Registered declines in recent years is due to the decrease in profit recorded by the entire banking system development and total assets.

The phenomenon of crisis that led to the reduction of bank profits in some countries also as causes: economic and financial situation, the deregulation of banking activity, the renewal of monetary policies, increasing competition and banking risks, the decrease in production capacity and the potential for growth of banks went bankrupt as a result of the decrease in profits and increasing risks in an intensely competitive [9].

## 6. Conclusions

Economic rate of return shows the effect of managerial capacity to utilize the resources of the Bank (and raised) in order to obtain profit. It appreciates that the ROA is the most relevant indicator of Bank efficiency because it expresses the net result as asset management performance under the conditions of a given volume of resources. Financial rate of return is the most significant expression of banking from the perspective of shareholders' profit because it highlights the effect their engagement in banking business [10].

Attention of banker's message you convey analysis based on indicators. As a rule, banks manages profitability by trying to "beat the" media markets and maintain stable and predictable profits. Therefore, the indicators are extremely useful tools, as in the case of other analytical methods, they should be used with caution and judgment, whereas only the indicators do not provide complete answers about the final results of banks. In the short term, you can use many "tricks" to make the indicators of a bank to look good in relation to the "industry standards". Therefore it must be carried out an assessment of the operations and management of a bank to make a check on the profitability indicators [1].

Analyzing the ROA and ROE at the level of banking system in Romania, I have

concluded that these rates were unfavorable, our values being smaller towards the end of the analysis period, and at the level of the Bank, most indicators of profitability have positive values, but increasing the financial year to the next in a small percentage of bank assets decrease due to both the profit recorded in the last period of the Bank. Future prospects of research is aimed at continuing the monitoring of the performance of the banking system in Romania, the Romanian system and comparison with a European country.

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## Influence of Europeanisation in the Reform of Public Sector

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### Abstract

*The literature seems to agree on two approaches of the concept „Europeanisation”. On the one hand it is considered to be only the process of adopting EU regulations into the national legislations and on the other hand, the reverse process is also considered, meaning the influence each member state could have on the design of European policies that are agreed upon.*

*From this statement, it can be observed that he also includes “institutional structures” in the bunch of characteristics of the Europeanisation. Therefore, a first idea that Europeanisation could have an influence on the reform of the public sector is created, despite the first thoughts that come in one’s mind when the term.*

**Keywords:** europeanisation, public sector, European Union.

**JEL Classification:** F5, F6

### 1. Introduction

This paper aims to provide an answer to the question whether the Europeanisation had influenced the reform of the public sector in the UK, and if yes, to what extent. In order to do that, the paper will attempt first to define the terms ‘Europeanisation’, ‘reform of the public sector’ and to set up the temporal frames when the discussed phenomenon will be observed. Considering that no time constraints are given, this assignment will consider the period starting with the moment when the UK had become a member of the European Union. In the first part of the essay, a short review of the literature concerning “Europeanisation” will be presented, followed by a review of the literature concerning the reform of the public sector. The body of this paper will than address the

changes noticed in the public sector in the UK against the EU directives regarding administrative capacity and other areas, trying to find out whether the two processes are interrelated, whether each of the presented changes can be accounted as an argument pro or against “influence of the Europeanisation” in the reform of the public sector in the UK.

Europeanisation is heard, namely that it refers only to directives and policies. The other conceptualisation of the notion ‘Europeanisation’ considers the way EU internalize some characteristics of the member states. Howell [1] mentions “shared beliefs, informal and formal rules, discourse, identities and vertical and horizontal policy transfer”. To summarize, from this perspective, Europeanisation is considered to be an interactive process that involved bottom up and top-down procedures. The above presented approach is referred to as being the “narrow” approach by Flockhart [2]. She identifies also a “broad conception” namely seeing Europeanisation as “process of cultural, political and organisational change along European lines, within and beyond the borders of Europe”. She states also that the impact of this form of Europeanisation is perceived by the citizens, particularly when national governments put the blame on the “EU by presenting (mostly unpopular) policies as part of the Europeanisation process”, especially if it is considered an euro-sceptic country like Britain, where the gap between elite and mass attitude towards Europeanisation worth to be considered. The Europeanisation is also seen a situation “where certain effects can be shown to have occurred” and not a process [3]

The paper presented few of the approaches regarding the meaning of ‘Europeanisation’. In the following part, we will look quickly through the approaches regarding the reform of the public

administration. A first important insight is offered by Toonen [4], who presents a very comprehensive overview of the reform activity in public administration. He argues that many countries have "embarked upon similar type of public sector reform" independent of their political and administrative systems. Among the models presented are: New Public Management reform, welfare state policy reform, comprehensive reform and transformation without reform. He points that "administrative and public sector reform involves thinking about values, norms and principles". From the above mentioned statement, we understand that reform of the public sector does not mean only the changes occurred in the public administration, but a planned process whose implementation is guided by a set of values and norms.

## **2. The influence of the Europeanization in the reform of the public sector in the UK**

In terms of reform of the public sector, this assignment will focus on the domestic institutions and their reactions to the process of Europeanisation. Relevant to this aspect is the success in the negotiations with the EU between domestic and EU level. It has been argued that the level of "success regarding uploading has determined the level of change in relation to download. Massey [3], considering the fact that nowadays all governments are planning their policies within the 'European' context, affirms that it is essential to see the modernisation of the public sector institutions as part of the Europeanisation's mechanism. Thus, a direct connection between Europeanisation and reform of the public sector is to be found. Massey [3] observes an "increasing convergence in the policy-making and institutional decision-making structures and procedures of their public administrations" despite the different British and Continental Europe traditions.

As a response to Europeanisation, a state can adopt one of the following position [5]: can be a pace-setter, when the EU policies follows its national policies, can be a foot-dragger, when blocks or delay costly policies in order to prevent them or at least receive some compensation for implementation costs

(Spain's case), or, as a third option, a state can be a fence-sitting part, meaning that it neither pushes policies to EU level, nor tries to block them, but builds tactical coalitions with one of the parties. In order to reduce the costs of implementation, member states seek to design the EU policy-making after their national model. A good example supporting this statement is the case of the environmental policy. While the solution in the German's perspective lies on strict emission standards that can only be met when the best available technology is implemented, the British approach, by contrast, is more reactive. It allows for weighting the economic costs against the ecological benefits of a policy. The European large combustion plant directive of 1988 follows the German approach and thus imposes significant costs for the UK. The costs of implementing this policy were very high for the UK. The implementation of the procedural regulation, imposing cross-media approach with the target of increasing public participation in pollution prevention, was a successful shaping of EU policy after the British's model. After earning its reputation of "a 'laggard' and the 'dirty man of Europe'", the British position started to change, namely the Department of the Environment adopted a proactive role at both the national and European level. The Environmental Protection Act of 1990 put UK into the position of being a pace-setter in environmental policy. Considering the above presented example, it can be argued that Europeanization challenged long-standing political, ideological and cultural traditions of the UK. The adaptation process, emerged from critical thinking pushing, transformed UK from a foot-dragger and fence-sitter into an active pace-setter in some policy areas, such as the environment, telecommunications or transport. The debates are largely developed in the literature, but such political two-way process between EU and the UK goes beyond our scope, namely the influence on the reform of the public sector and not re-designing of national public policies.

Related to reform of the public sector are also the so called 'triggers' of the Europeanisation. Among the dynamics that triggers Europeanisation identified in Massey's article, this paper will consider only three of them. Firstly, he names

"mimetic triggers" referring to increased interaction among civil servants "leading to the adoption of best practice" and "national coordination networks through things like peer-group review for the implementation of EU employment policy and monetary policy, among other fields". Secondly he identifies "professionalization" as being a trigger for Europeanisation, referring to "policy networks as part of the trans-nationalisation of societal actors" (e.g. regulatory agencies for telecommunications). The third trigger, "domestic politics", involves adapting the domestic institutions and regulations to European standards.

Europeanisation is present not only in the policies, law regulations in specific areas, but also in the way the institutions function in order to be able to implement the European directives. As representative examples, there could be named: environment, with all externalities and linkages such as environmental impact or regulations regarding construction of a new power station or generally building regulations. The personnel working in town halls, treasuries or other public institutions and organisations is influenced, guided and constrained by the Europeanisation of the public administration. As Stone Sweet mentions, the success of European integration depended on the capacity of EU to extend its organisational capacities. In this view, extending its organisational capacities is to be understood also as modifying the existing structure of the national bodies.

However, as Bache and Marshall show, the 'historical institutionalism' was a very important factor in determining the level of EU's impact on the British central government. They argue that the British traditions were maintained, despite the substantial change that has taken place. In the same view.. They use the term "adaptation" rather than reform when referring to the changes occurred in the British central government, local government and civil servants' behaviour as a result of the Europeanisation.

Bovaird and Loeffler identify among the factors that influenced the design of public policies the increasing influence of supra-national bodies – e.g. UN, World Bank, IMF, WTO, EU, etc, in driving legislative or policy change at national level, policy

changes shortly followed by an institutional adaptation in accordance with the requirements of that respective public policy. This affirmation can act as an argument sustaining the approach that EU influenced the reform in public sector in the UK.

Considering that being a member of European Union imposes some expectations, for e.g. expectations to fulfil the requirements of EU directives, Blum and Manning, argue that due to change in expectations, also the conditions under which governments operate are changing. This continuum change in the expectations induces a permanent adaptation of the government, adaptation transposed in terms of public sector reforms.

While analysing the reform process through managerial perspective, it is noticeable, that Tooner, [4] does not even mention Europeanisation as a possible factor that induced or influenced the reforms studied. This leads somehow to the validation of the affirmation: "The Europe 'or *acquis*' are consistently used to legitimize reform and overcome resistance to reforms that, according to many specialists would have had to take place anyway"

The NPM reform consists of implementation of 'business management' approach to the public administration. According to Toonen, England is the outstanding case of implementation of this neo-managerial type of reform. The only moment where the influence of Europeanisation is mentioned, is the case of the welfare state policy reform, whose "movements and programmes have associated institutional reforms in adapting their public structures to the new economic and European conditions" [p. 302]. Another model of public sector reform mentioned by the same author is the comprehensive reform, referred to as non-consensual, centrally guided and legislated process of public sector reform. Through transformation without reform is understood the change in administrative structure of the local and regional governments, as a result of adapting to economic and social changes, and demographics in the multicultural society, without being centrally planned or legislated.

The question that has been raised is related to reasons why the reforms have been so much mediated. The set of core values in public administration identified by Tonen [4]

are: responsiveness and satisfaction (efficiency and productivity'), values which belong to the world of public management; integrity and trust (transparency and openness); reliability and confidence.

Against the statement that Europeanisation played a role in shaping the reform of the public sector in the UK, some evidence is to be found also in Massey's article [3]. He argues that the measures included in the so called "New Public Management" reform undertaken in the UK, namely concepts such as "performance related pay", "hot-desking" and "contract vs. professionalised systems" were actually very old solutions to old problems, the latter, for example, dating 330 BC (discussed by Shen Pu-Hai in China). Such affirmations are a very strong pillar of the conclusion that "new public management" reform was not influenced by the Europeanisation.

Among the main characteristics of a reform in public administration, Kinnock mentions that besides professional excellence, efficiency, and customer satisfaction, also a very important role is played by strengthening public confidence in the capability of the public system to deliver "many of the essentials of modern life, and for helping to advance social and economic progress and security". But, it has been argued [3] that this was a shaping of the EU based on British model. The characteristics Kinnock mentions are actually the main ideas of the New Public Management culture, already implemented in the UK at the time when the reform of the EU public administration took place. Even if some principles are met in organisation of EU public administration and British public administration, this aspect cannot count as argument for sustaining the influence of Europeanisation on public sector reform in the UK, but the contrary.

### 3. Conclusion

To summarize, from the above presented discussion, it can be concluded that Europeanisation had a very important role in shaping the structure and way of functioning of the public sector institutions at all levels, be it national, regional or local. But, whether this influence can be considered part of the 'reform' of the public sector in the United

Kingdom is a totally different point to be considered. If we consider Toonen's [4] perspective, the reform of the public sector needs to have a set of values, needs to be planned and implemented in order to achieve some specific goals. What actually happened in Britain was a 'on the way' adaptation in order to fulfil the external pressures or to be able to respond to EU requirements. Even if, the number of arguments presented tends to influence the balance for the affirmation that Europeanisation had influenced the reform of the public sector in the UK, it could be concluded that the phenomenon in discussion in this paper did not have a very significant impact on the reform of the public sector in the UK.

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# Evolution Trends of the Romanian Post-Accession Agrifood Trade

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## Abstract

*After the accession to the European Union, major changes occurred in the Romanian international trade. The present paper is empirically analyzing the evolutions and main changes in the post-accession agrifood trade as compared to the pre-accession period, with EU and non-EU countries and the country's position in the EU agrifood trade flows. Main products flows, in terms of values and directions are analyzed as well. The main conclusions are indicating a continuous upward trend in exports, together with a significant decrease in imports, hence a major shift in the trade balance trend, from high deficits to a newly gained position of net exporter of agrifood products.*

**Keywords:** agrifood trade, pre-accession, post-accession

**JEL classification:** Q18

## 1. Introduction

The economic position of an individual country or group of countries (such as the European Union) in the international arena is directly influenced by its presence and share in the international trade. Since the definition and introduction of the Common Agricultural Policy, the European Union has set as a major target to massively increase its agrifood production in order to maximize the coverage of its domestic demand and to intensify the export of surplus. Upon its accession to the EU, Romania was coming with an agrifood sector with a level of development and economic efficiency significantly lower as compared not only to the old Member States, but to many of the new Member States that joined the EU in 2004.

Free access to the Single Market, even if it is sometimes restricted to certain quality problems or veterinary restrictions, meant a very important leap upward of the Romanian agrifood trade.

## 2. Data and methods

The calculations have been made using Eurostat and Romanian National Statistical Institute (NIS) databases, in CN (Combined Nomenclature), down to 2-digits division. Data for 2013 are provisional.

The analysis is focusing on the main agrifood product groups, in value terms, as well as directions: exports and imports.

In the post-accession period, the statistical division of international trade has changed: trade with other EU member countries are recorded separately as intra-Community trade and only trade with non-EU countries is considered as foreign trade (extra-EU trade), and these are the figures used in international comparisons as "exports" and "imports". Goods in free circulation within the European Union are defined as "arrivals" when entering, respectively "dispatches" when leaving the statistical territory of a given Member State.

## 3. Results and discussions

Increased demand for food products was a consequence of economic growth achieved by Romania since 2001. Major changes occurred in the agricultural sector in the first decade of transition to a market economy in both the ownership and the management regime resulted in fracturing the food production chains and reducing the fluidity of the functioning of markets. The food industry has also faced problems due to privatization, interruptions of raw materials flows and dispersal of finished products flows, and, last but not least, severe problems of financing and capitalization.

The lifting of import bans since 1990, then the partial and finally the complete removal of import and export restrictions, together with the adoption of a moderate tariff regime after 1997 allowed the access of imported food products on the Romanian market. As a result, since 2000, one has witnessed a continuous and accelerated growth of agrifood products imports. The main factors contributing to this trend were:

- Lack of fluidity in domestic food chains. The sector producing raw agricultural commodities evolved separately and at completely different rhythms from the manufacturing industries sector.

- Privatization in food processing industry was completed in 1999-2000; many of the old enterprises were closed, and very few were successfully restructured and privatized. Many new private enterprises appeared, but they were mainly small and medium sized, due to reduced domestic investment capacity. FDI started coming a few years later, hence a supplementary time gap in the development of the new agrifood products chains.

- The economic growth that started in 2001 has increased the purchasing power of the population, and thus has increased the domestic demand, both quantitatively and qualitatively. This extra demand faced a domestic supply deficit that could be met only through increasing agrifood imports.

- The penetration of large international retail companies on the Romanian market came a few years later than in other Central European countries (such as Poland, Hungary, Czech Republic, Slovakia), and rather hesitatingly at the beginning, in 1998-2001. After just a couple of years, an explosive development of large supermarkets and hypermarkets networks occurred. These networks have not found functional agrifood chains in the country, able to provide fresh agricultural products and processed food products in the necessary quantities, at required quality and at the necessary pace, which is why they resorted to agrifood imports.

The overall result has been a steady growth in imports of agrifood products (intra + extra-EU) up to EUR 4.3 billion (in 2008), followed by a decline during the crisis (down to EUR 3.9 billion in 2009); then growth resumed at a slower pace, reaching EUR 4.96 billion in 2013. The conditions above have

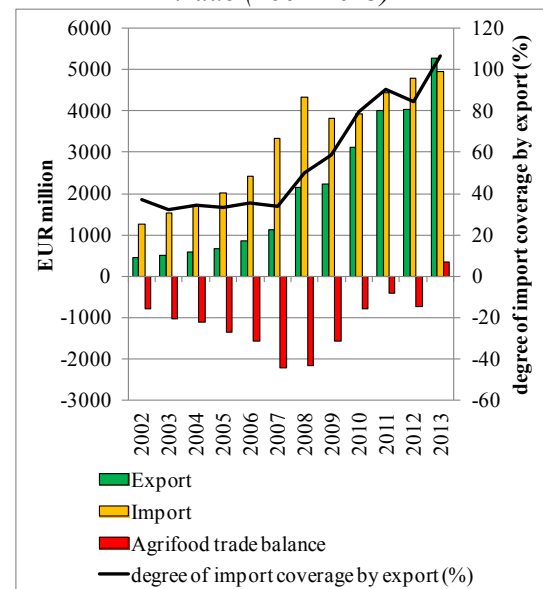
not been able to boost the competitiveness of the Romanian agrifood products so that to expect exports to increase significantly.

The agrifood trade balance has always been negative after 1990, and the coverage of imports by exports was on average 34.3% in 2002-2007. The deficit increased massively in 2002-2007, reaching a historical maximum of EUR 2.2 billion in 2007.

EU accession meant for Romania, at least for the first two years, a considerable increase in the agrifood trade volume: in 2008 the amount had doubled as compared to 2006, the last year before accession. In terms of agrifood trade, the economic crisis has resulted in a contraction of the total trade volume in 2009 (by 12%), after which the upward trend resumed.

One should note, however, despite the crisis, the steady upward trend in agrifood exports. Devaluation of the national currency was a factor favoring exports, as well as the free access to the EU Single Market. The Romanian exports of agrifood products increased spectacularly immediately after accession: after the first two years in the EU, agrifood exports had increased 2.5 times as compared to 2006 (the last year before accession), and after seven years, that is in 2013, exports had increased 6.2 times as compared to 2006 (figure 1).

Figure 1. Romanian international agrifood trade (2002-2013)



Source: author's calculations using Eurostat and NIS data [2], [3]

Imports increased as well after accession, but at a rate somewhat lower than exports: in the first two years, imports have increased by 1.79 times (2008/2006).

The general economic slowdown, accompanied by rising unemployment and reduced population's income has translated into a significant contraction of demand, reflected in a drastic reduction in the agrifood products imports. In 2009, imports decreased by 12% compared to 2008, after which the trend growth resumed, albeit at a slower pace than exports. Consequently, the export growth at a rate higher than that of imports resulted in a dramatic decrease in the agrifood trade deficit, from the peak of EUR 2.2 billion in 2007, down to only EUR 434 million in 2011, rising slightly in 2012 up to EUR 742 million. According to preliminary

data, in 2013, for the first time since 1989, the agrifood trade balance became positive (EUR 331 million), due primarily to the positive balance with non-EU countries, while the intra-Community trade balance is still negative.

Coverage of imports by exports has increased substantially since 2007, from 49.8% in 2008 up to 90.4% in 2011, and finally came over the unit value in 2013 (106.7%).

In the post-accession period, the Romanian intra-community agrifood trade increased significantly. Thus, in the post-accession period dispatches tripled (2010/2007), while arrivals increased 1.3 times (2010/2007), which resulted in a substantial deficit that reached its peak in 2008, one year before the economic crisis hit (table 1).

*Table 1. Yearly variation of the Romanian intra-EU agrifood trade*

	2006	2007	2008	2009	2010	2011	2012	2013
<b>Fixed base (2006) indices (post-accession as compared to pre-accession period)</b>								
Exports / dispatches	100.0	141.4	255.2	311.0	411.2	519.7	503.5	619.8
Imports / arrivals	100.0	180.6	256.9	228.6	237.0	262.1	284.0	204.6
Balance	100.0	208.3	258.1	170.4	113.8	79.8	128.7	-21.1
<b>Mobile base indices (previous year = 100)</b>								
Exports / dispatches	119.3	141.4	180.6	121.8	132.2	126.4	96.9	130.7
Imports / arrivals	123.3	180.6	142.3	89.0	103.7	110.6	108.4	103.5
Balance	126.2	208.3	123.9	66.0	66.8	70.1	161.2	-44.6
<b>Fixed base (2007) indices (comparison within post-accession period)</b>								
Exports / dispatches	x	100.0	180.6	220.0	290.9	367.7	356.2	471.7
Imports / arrivals	x	100.0	142.3	126.6	131.3	145.2	157.3	148.7
Balance	x	100.0	123.9	81.8	54.6	38.3	61.8	-14.9

Source: author's calculations using Eurostat and NIS data [2], [3]

Growth trends are more obvious if we look at the data as compared to the last year before accession with the last pre-accession year (2006). The introductions contraction in 2009 stands out (-9.3%), which, together with the expansion of dispatches (+23.2%) have led to an agrifood intra-community trade deficit by 32.4% lower than in 2008, which is a major deviation from the general trend in the last decade.

After joining the European Union, the efforts of the Romanian agrifood sector were directed mainly towards increasing competitiveness, resulting in improved efficiency and product quality along the food chains, allowing for a better country's presence on the European Single Market. The upward trends of the Romanian intra-

community agrifood products dispatches outlined above are substantiating this.

One should not forget, however, that the European Union is among the top three exporters and importers on the world agrifood markets. In this respect it should be noted that in the Eurostat terminology, the value and volume of exports and imports entering the international comparisons are given by the extra-community trade.

The Romanian agrifood trade shifted significantly to the EU: the extra-EU exports fell from 34% (of the total Romanian agrifood exports) in 2004 to 22% in 2009 (but increased again to 40% in 2013), while extra-EU imports fell from 49% (of the total Romanian agrifood exports) in 2004 down to 18% in 2013.

The significant change in the extra/intra-EU export ratio that occurred in 2009 (as compared to 2008) (from 33% /67% down to 22% / 88%) (table 2) could have as a possible explanation a stronger depreciation of the RON / USD exchange rate (by 21% in 2009/2008), as compared to the RON / EUR exchange rate (which fell by 15% only over the same period), and that might had temporarily redirected the Romanian exports to the EU at the expense of the extra-EU ones (in USD).

The absolute value of agrifood trade has steadily increased both in the pre-accession and post-accession period, with a slight contraction in 2009.

Trends in extra-EU trade are different from the intra-EU ones (figure 2). Thus, extra-EU exports increased continuously, reaching a maximum in 2013 (EUR 2.1 billion), while the upward imports trend in the pre-accession reversed after 2007, decreasing until 2010 to a minimum of EUR 720 million, then climbing again in 2011-2013 slightly over EUR 900 million.

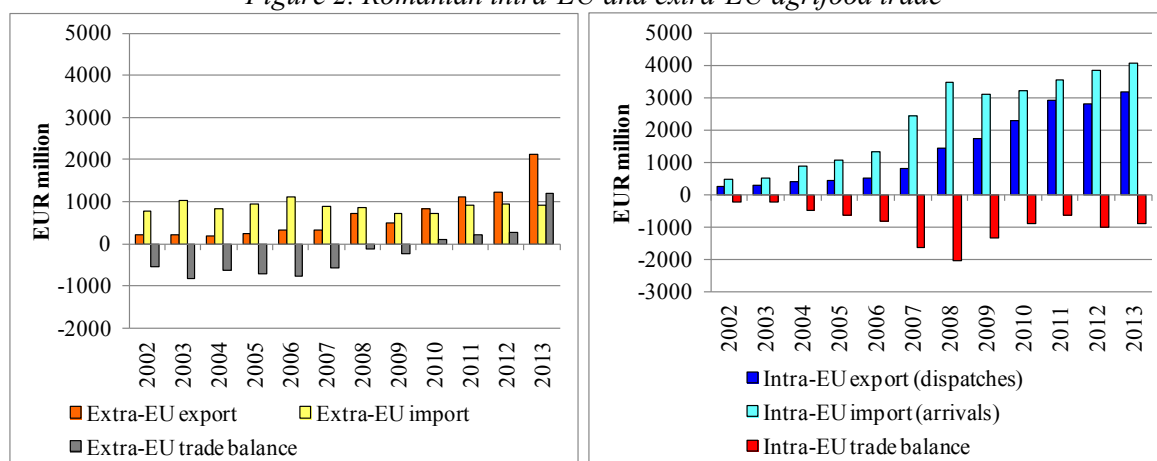
Table 2. Ratio of the Romanian extra-EU vs. the intra-EU agrifood trade

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013*
Extra-EU export	33.5	35.0	39.3	29.4	33.9	22.3	26.3	27.6	30.4	40.4
Intra-EU dispatches	66.5	65.0	60.7	70.6	66.1	77.7	73.7	72.4	69.6	60.4
Extra-EU import	48.4	47.2	45.4	26.9	20.0	19.1	18.4	20.3	19.9	18.4
Intra-EU arrivals	51.6	52.8	54.6	73.1	80.0	80.9	81.6	79.7	80.1	81.6

Note: provisional data (Romanian National Institute of Statistics) [3]

Source: author's calculations using Eurostat and NIS data

Figure 2. Romanian intra-EU and extra-EU agrifood trade



Source: author's calculations using Eurostat and NIS data

The intra-EU exports (dispatches) multiplied 6 times (2013/2006), while the imports only 3 times over the same period. As a result, the intra-EU agrifood trade deficit decreased continuously, as in the case of the extra-EU balance, by the combined action of exports expansion and import contraction. The year 2010 stands out in that it is for the first time after 1989 that the extra-EU agrifood trade balance turned positive: exports exceeded imports (figure 3), a trend that continued in 2011-2013. In 2013, the absolute value of the extra-EU balance exceeded that of intra-EU trade balance, resulting in a positive overall agrifood trade

balance, which is a first in the last 2 and a half decades.

The top five destinations of the Romanian agrifood products dispatches to other EU member states [1] have been in 2012: Italy, Bulgaria, Hungary, Spain and Germany, accounting for 65% of total dispatches to the other 26 EU member states (figure 3). The origins of arrivals are more concentrated: the top 5 member states - Hungary, Germany, Bulgaria, Poland and Netherlands – accounted together for 77% of the total intra-EU arrivals to Romania.

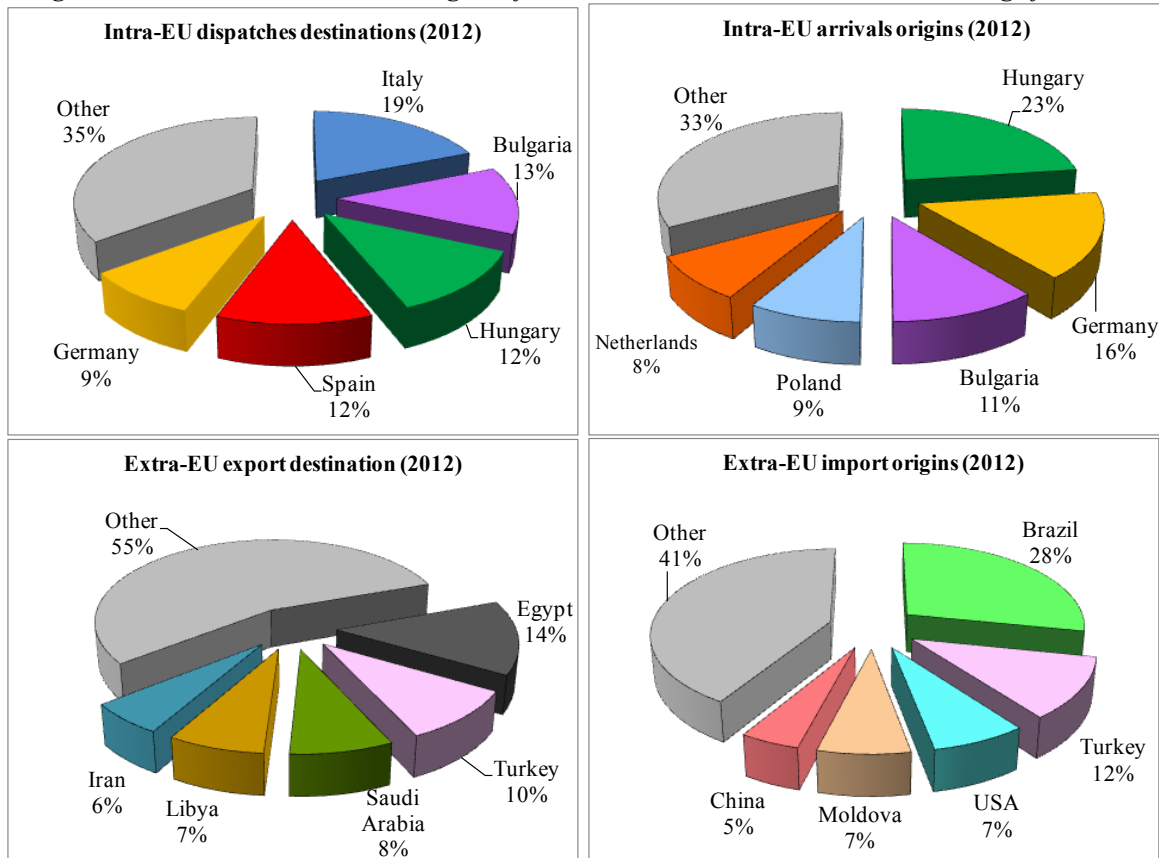
In extra-EU trade, Romania exported in 2012 agrifood products to Egypt (major



cereals exports), Turkey, Saudi Arabia, Libya, Iran. These destinations accounted for

45% of the extra-EU exports, composed mainly of cereals and live animals.

Figure 3. Main destinations and origins of the Romanian intra-EU and extra-EU agrifood trade



Source: author's calculations using Eurostat data

From extra-EU countries, Romania imported in 2012 from Brazil (mainly sugar and coffee), Turkey (mainly fresh vegetables and fruit), USA (various commodities), Moldova (wine) and China (canned vegetables and fruits). These top 5 origin countries accounted for 59% of the extra-EU agrifood imports.

Table 3 is showing the evolution of the Romanian agrifood trade balance, separated by the main product groups (in 2-digit HS classification); the positive values are highlighted. The selected years are 2003 (last year of EU-15), 2006 (last year of EU-25), and 2013.

Table 3. Romanian total agrifood trade balance (EUR million)

HS code	Product group	2003	2006	2013*
01	Live animals	116.53	115.74	149.40
02	Meat and edible meat offal	-152.28	-217.41	-261.40
03	Fish and crustaceans	-30.56	-95.03	-100.50
04	Milk, dairy products, eggs, honey	2.41	-130.49	-149.20
05	Other products of animal origin	-8.59	-26.09	-9.60
06	Live trees, plants and flowers	-9.61	-90.73	-84.40
07	Vegetables	-9.79	-106.72	-104.90
08	Fruits	-47.87	-159.35	-214.40
09	Coffee, tea, mate and spices	-57.97	-155.03	-153.10
10	Cereals	-289.55	963.39	1657.50
11	Products of the milling industry	-46.56	-81.66	-96.10
12	Oilseeds	39.56	208.49	546.40

HS code	Product group	2003	2006	2013*
13	Lac; gums, resins	-4.76	-20.43	-18.60
14	Other products of vegetal origin	1.26	0.47	0.20
15	Edible oils and fats	-27.66	-56.38	32.30
16	Preparations of meat or fish	-2.22	-5.68	6.20
17	Sugars and sugar confectionery	-116.37	-260.95	-210.20
18	Cocoa and cocoa preparations	-29.86	-107.57	-124.30
19	Bakery and pastry preparations	-18.74	-146.77	-166.30
20	Vegetables and fruit preparations	-31.62	-107.66	-130.20
21	Miscellaneous edible preparations	-89.28	-192.69	-186.20
22	Beverages, spirits and vinegar	-5.67	-110.81	-124.40
23	Animal fodder	-61.11	-225.23	-197.80
24	Tobacco and manufactured tobacco substitutes	-157.05	217.83	270.50
<b>01-24</b>	<b>TOTAL</b>	<b>-1037.35</b>	<b>-742.06</b>	<b>330.90</b>

Note: provisional data (Romanian National Institute of Statistics) [3]

Source: author's calculations using Eurostat and NIS data

The analysis of the main agrifood products groups flows (HS 01-24 chapters) (in the overall trade, that is intra + extra-EU) shows that the products for which Romania has a competitive advantage are cereals, oilseeds, tobacco and tobacco products, live animals and edible oils and fats, while the least competitive products are sugar, meat, animal fodder and processed food products.

#### 4. Conclusions

The EU accession meant for Romania, at least for the first two years, a considerable increase in the total volume of agrifood trade. In terms of agrifood trade, the economic crisis has resulted in a contraction of the total trade volume in 2009; afterwards, the upward trend resumed.

In the post-accession period, the intra-EU agrifood trade has increased significantly, mainly in the first two years, which led to a substantial deficit, the maximum being in 2008, the year preceding the economic crisis. After that, the growth of intra-EU exports has been important, exceeding that of imports, which resulted in a substantial decrease in the intra-EU deficit, but which still remained negative.

The year 2010 stands out in that it is the first time when the extra-EU Romanian agrifood trade balance turned positive: exports exceeded imports, a trend that has increased in 2011 and continued to the present day.

Trends over the last four years continued: both intra-EU and extra-EU trade balances

decreased continuously, by the combined action of strongly increasing exports and contracting imports. In 2013, the absolute value of the extra-EU trade balance became higher than the intra-EU one (which is still negative, with a deficit that was reduced from year to year), and as a consequence, Romania's total agrifood trade balance became positive, which has not been registered since 1989, that is for more than two and a half decades.

After joining the EU, the efforts of the Romanian agrifood sector were directed mainly towards increasing competitiveness, which resulted in improved efficiency and product quality along the food chains, aiming at a better presence on the European Single Market, as well as on international markets, efforts that need to be continued in same directions in the coming years.

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## Patterns in Trade in Selected European Union Countries

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### Abstract

*This article aims to identify patterns in the trade of selected European Union countries over the recent period. 20 countries are under scrutiny, 10 old member states of the EU and 10 new member states. The main goal is to find evidence with regard to whether and to what extent the trade channel is an active driver of European integration.*

**Key words:** exports, imports, intra-EU trade, extra-EU trade, integration

**JEL classification:** F10, F14, F15, F43

### 1. Introduction

Trade is a very broad topic that is of increasing importance, in an economic environment that is more and more connected across countries. European integration brings about chances and challenges and it is interesting to see the role of trade in this context. Valuable resources in this regard can be found in [2], as well as in Chapter 12 of [3]. Moreover, the openness and size of the economy are issues dealt with in [4].

Further related topics may address, for example, the link between trade and business cycles [5], as well as the competitiveness and quality of trade, with useful building blocks available in [1] and [6].

This article is an empirical study that focuses on 20 selected countries from the EU, 10 old member states and 10 new member states, and tries to draw a picture of trade patterns in these countries. A set of graphical and analytical tools is used to highlight relevant issues, in a synthetic way.

The purpose of the article is to find evidence with regard to patterns of trade in the selected EU countries, and especially with regard to trade as a driver of European integration.

### 2. Data

The data used are from the AMECO database of the European Commission. The analysis comprises 20 countries from the EU, of which 10 are old member states and 10 are new member states. The old members considered are Belgium, Denmark, Germany, Spain, France, Italy, Netherlands, Austria, Sweden and the United Kingdom, while the new members considered are Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia.

The main variables used are (in volumes) total exports of goods, total imports of goods, intra-EU exports of goods, extra-EU exports of goods, intra-EU imports of goods, extra-EU imports of goods, GDP at current market prices, and transformations thereof.

The frequency is annual and the period is 1999-2013. The last values in the series can be subject to revisions. The analysis is done under the assumption that any possible revisions would not have a significant impact. This period balances the need for a reasonably long interval under analysis, with the fact that this interval cannot be too long, for reasons relating to the nature of the data. Because the primary data are expressed in volumes, the inflation rate is a factor that, over periods of time that are too long, makes comparisons less relevant.

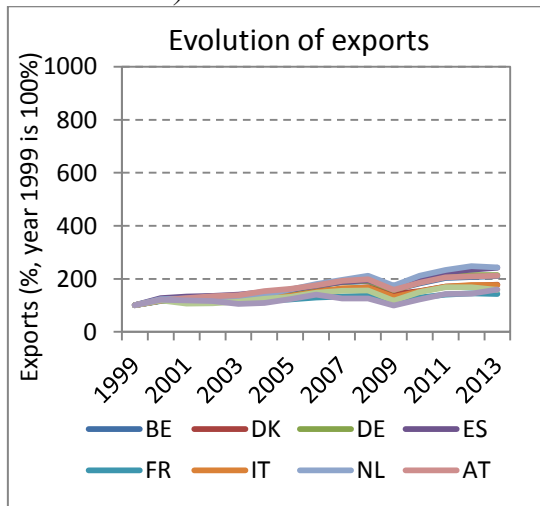
### 3. Empirical analysis

The evolution of exports for the old and new member states is depicted in Figure 1. The year 1999 is the base year (100%) and the evolutions are calculated with respect to it. The plots a) and b) have the same scale.

It is striking that the dynamics of exports is so different for the group of new member states compared to the group of old member states. While the old member states range, at the end of the period, between 142.92% and

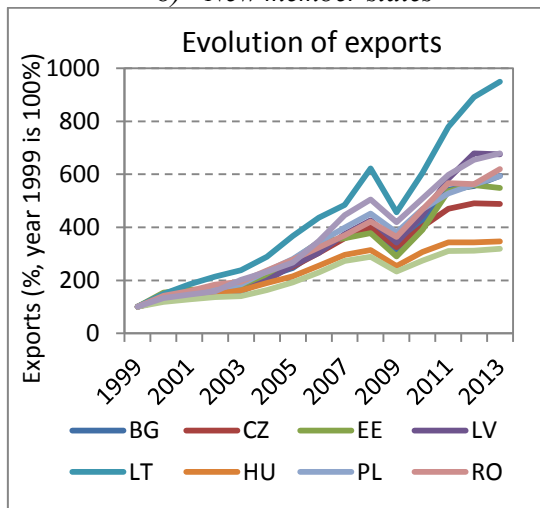
242.46% of the 1999 level, the new member states range between 319.61% and 946.97% of the 1999 level at the end of the period. This is a clear indication of integration via the trade channel, as the developing economies are behaving in a much more dynamic way.

Figure 1. Evolution of exports  
a) Old member states



Source: European Commission, author's calculations

b) New member states



Source: European Commission, author's calculations

Additionally, Table 1 presents a ranking of countries by the change in total trade (exports + imports) at the end of the period (2013) compared to the beginning of the period (1999). All new member states display higher increases compared to all old member states.

The percentage changes of the total exports for the 20 countries under scrutiny

Table 1. Ranking by change in total trade (exports+imports)

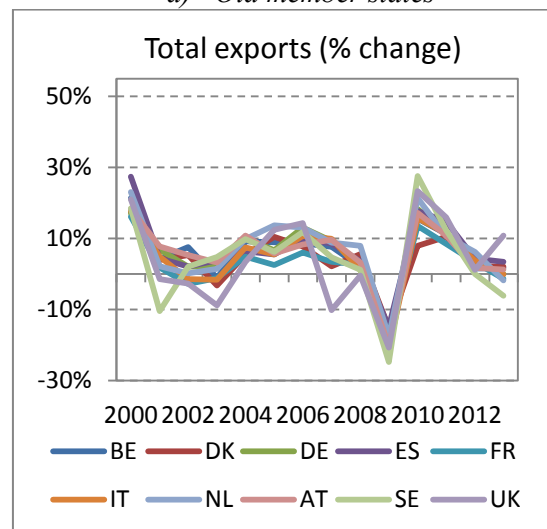
Country	Total trade 2013/1999	Country	Total trade 2013/1999
LT	735,89%	NL	236,89%
SK	626,87%	ES	219,00%
RO	590,10%	BE	214,44%
LV	551,46%	AT	208,29%
BG	540,77%	DE	208,20%
EE	474,88%	IT	175,02%
CZ	444,45%	DK	174,21%
PL	444,41%	SE	170,40%
HU	314,64%	UK	160,72%
SI	290,28%	FR	157,72%

Source: European Commission, author's calculations

are displayed in Figure 2. Most countries display robust growth rates of total exports in the period 2000-2008, with the new member states having generally higher rates, of up to around 50% per year. The year 2009 brings massive falls of the growth rates, which become strongly negative, close to -30% in some cases. From 2010 onwards, a rebound is observed, several countries achieving rates of growth of around 30%, but this rhythm is not maintained over the following years and declines progressively.

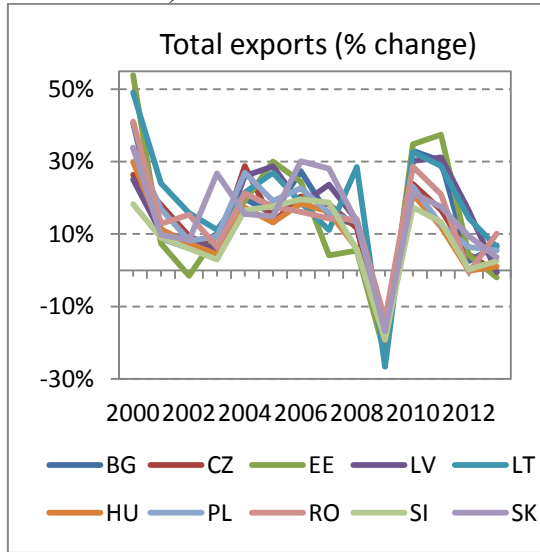
For the total imports, the situation is broadly similar and follows the dynamics of the total exports.

Figure 2. Total exports  
a) Old member states



Source: European Commission, author's calculations

b) *New member states*



Source: European Commission, author's calculations

It is worth investigating how well synchronized are the evolutions in trade with those in GDP. This can be done by calculating correlation coefficients between total exports and GDP and total imports and GDP (all variables in percentage changes, nominal GDP). The results are displayed in Table 2.

Table 2. *Correlation analysis*

Country	Total exports (%) - GDP(%)	Total imports (%) - GDP(%)	Country	Total exports (%) - GDP(%)	Total imports (%) - GDP(%)
BE	0.89	0.90	BG	0.48	0.72
DK	0.87	0.90	CZ	0.65	0.63
DE	0.86	0.76	EE	0.54	0.71
ES	0.36	0.60	LV	0.66	0.74
FR	0.76	0.76	LT	0.78	0.82
IT	0.70	0.74	HU	0.63	0.61
NL	0.65	0.60	PL	0.79	0.80
AT	0.83	0.81	RO	0.60	0.82
SE	0.94	0.92	SI	0.63	0.64
UK	0.63	0.82	SK	0.73	0.69

Source: European Commission, author's calculations

All correlations are positive, for both types of relationships considered (total exports-GDP and total imports-GDP). With a few exceptions, there are strong positive relationships between both total exports and GDP and total imports and GDP. Additionally, for the old member states, the

average coefficient for the total exports-GDP relationship is 0.75 and the one for the total imports-GDP relationship is 0.78, while for the new member states these values are 0.65 and 0.72, respectively. This shows, on average, a slightly stronger relationship between trade and GDP in the case of the old member states compared to the new member states.

It is relevant to investigate issues related to the volatility of trade compared to the volatility of GDP. It is presumable that trade is more sensitive to changes in the economic environment than GDP. The proposed indicator for volatility is the standard deviation, and Tables 3 and 4 present results with regard to total exports, total imports and GDP, respectively (all in percentage changes, nominal GDP).

Table 3. *Volatility of trade (original variables in % changes)*

Country	$\sigma$ total exports (%)	$\sigma$ total imports (%)	Country	$\sigma$ total exports (%)	$\sigma$ total imports (%)
BE	0,0889	0,1014	BG	0,1571	0,1767
DK	0,0753	0,0846	CZ	0,1243	0,1337
DE	0,0906	0,1021	EE	0,1997	0,1947
ES	0,0942	0,1327	LV	0,1415	0,1786
FR	0,0783	0,0959	LT	0,1703	0,1759
IT	0,0953	0,1202	HU	0,1175	0,1257
NL	0,1024	0,1097	PL	0,1184	0,1337
AT	0,0917	0,0895	RO	0,1274	0,1774
SE	0,1271	0,1387	SI	0,1066	0,1190
UK	0,1274	0,1180	SK	0,1296	0,1180

Source: European Commission, author's calculations

For 16 out of 20 countries, the volatility of imports is higher than the volatility of exports. One possible factor could be that during the boom period the dynamics of imports can be easily accelerated, while on the export side, it takes time to build and extend capacities, even if there is foreign demand.

With some exceptions, the volatility of total exports and total imports is generally higher in the new member states compared to the old member states. This is quite normal and represents both a challenge and an opportunity for the new member states.

The volatility of nominal GDP is lower than that of total exports and total imports for

all countries. Moreover, the volatility of nominal GDP tends to be higher in the group of new member states.

Table 4. Volatility of nominal GDP (original variable in % changes)

Country	$\sigma$ GDP (%)	Country	$\sigma$ GDP (%)
BE	0,0196	BG	0,0543
DK	0,0277	CZ	0,0769
DE	0,0228	EE	0,0878
ES	0,0451	LV	0,1234
FR	0,0196	LT	0,0923
IT	0,0253	HU	0,0830
NL	0,0301	PL	0,1028
AT	0,0205	RO	0,1183
SE	0,0749	SI	0,0450
UK	0,0771	SK	0,0722

Source: European Commission, author's calculations

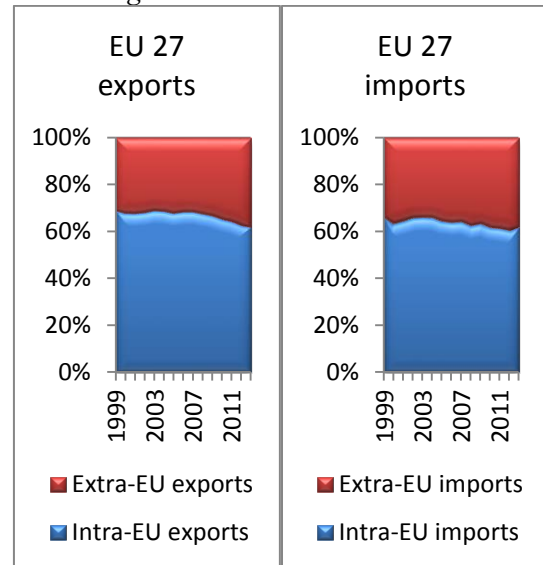
Another aspect worth investigating is the evolution of trade broken down into intra-EU and extra-EU trade. Figure 3 depicts the evolution of the shares of intra- and extra-EU exports and imports for the EU27 (EU28 available data do not cover the whole period).

In the recent period, about 60% of the EU27 trade (both imports and exports) is done inside the EU27, and the share of extra EU27 exports and imports stands at about 40%. There is a decreasing trend for intra-EU exports and imports over the last few years for the EU27, while the extra-EU trade is becoming more important. Particularly on the export side, this can be a consequence of the recent crisis, in the sense that the downturn in the EU27 economy lead to weak foreign demand for EU27 goods from other EU partners, and EU countries were forced to try to find new markets for their products.

In Figures 4 to 7, for reasons of space, a closer look is taken at the trade breakdown of four EU countries, two old member states (Germany and France) and two new member states (Poland and Romania).

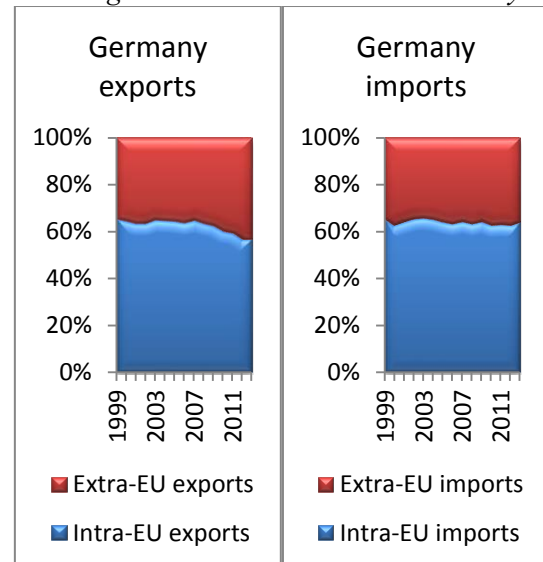
For Germany, the share of intra-EU exports is close to 60%, with a decreasing trend over the last few years, quite similar to the EU27, while the share of intra-EU imports is pretty constant over the whole period, around and above 60%.

Figure 3. Trade breakdown EU27



Source: European Commission

Figure 4. Trade breakdown Germany

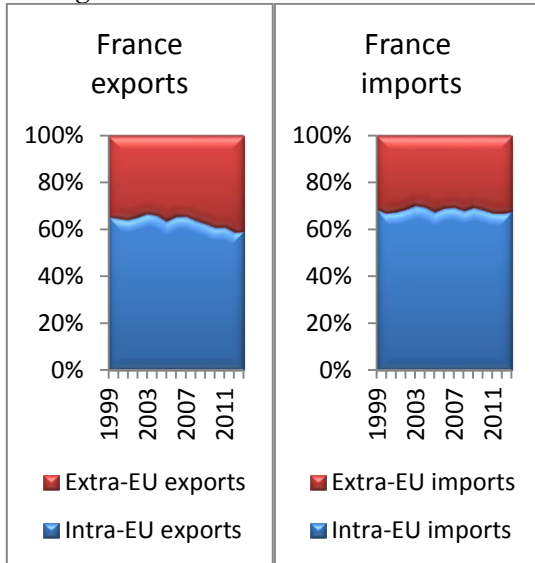


Source: European Commission

It is interesting to investigate how the structure of German exports is affected by the crisis, while the imports seem to remain more stable over the turmoil. An important element could be the fact that the partners affected by the crisis had a problem in absorbing the German products, but not necessarily in producing goods that were needed by the German economy.

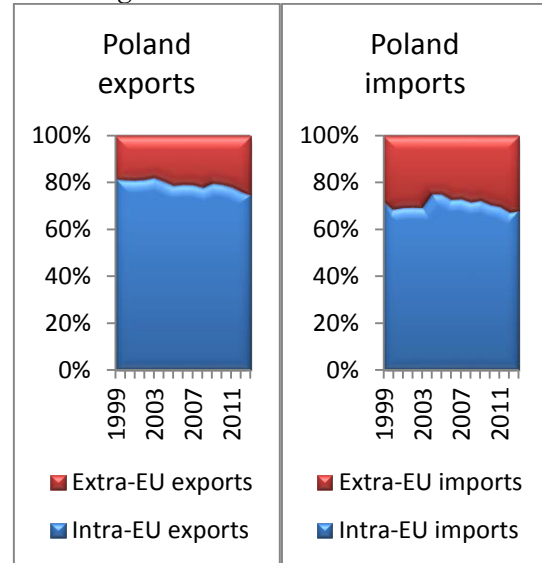
The profile of France is very similar to the one of Germany. The EU's largest economies seem to display trade patterns that are well interconnected.

Figure 5. Trade breakdown France



Source: European Commission

Figure 6. Trade breakdown Poland



Source: European Commission

The largest economy of the group of new member states, Poland, relies strongly on the other EU partners for its exports. Starting at about 80% at the beginning of the analysed period, the share of intra-EU exports decreased slightly over the last few years. On the import side, the intra-EU share is lower, decreasing to around 70% over the last period.

In Romania, the share of intra-EU exports is following a rather fluctuating path, but not far from 70% at all times, while the share of intra-EU imports seems to actually follow an upward trend, close to 75% at the end of the period.

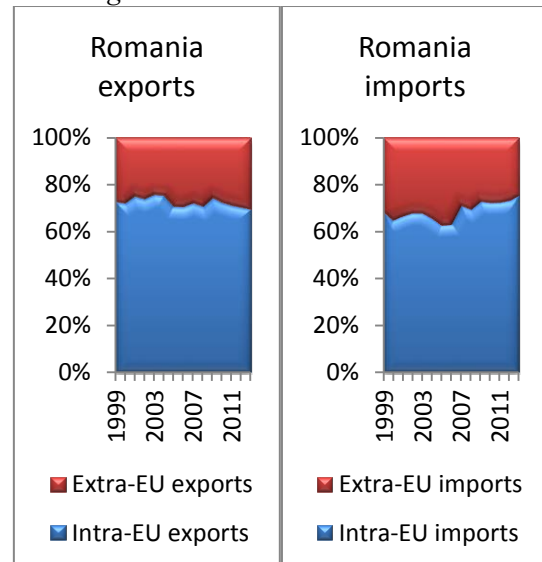
The larger shares of intra-EU trade in emerging EU countries such as Poland and Romania can represent a vulnerability in times of recession, when the EU as a whole is likely to be hit. In principle, diversifying markets, particularly on the export side, can bring economic benefits and less volatility.

Another issue worth investigating is that of the degree of openness of the economies of the member states under scrutiny. For the purpose of this article, the degree of openness of the economy is defined as:

$$DO = \frac{\text{Exports} + \text{Imports}}{\text{GDP}} * 100.$$

Figure 8 plots the evolution of the degree of openness for old and new member states. A few observations can be made. With the exception of Sweden, all considered member

Figure 7. Trade breakdown Romania

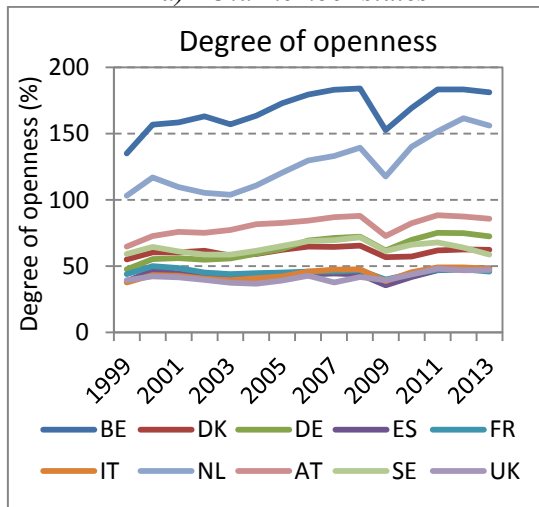


Source: European Commission

states, old and new, have a higher degree of openness at the end of the period than at the beginning of the period. Moreover, at the end of the period, the simple average of the degree of openness for the considered old member states is 80.67%, while that of the considered new member states is 129.67%. This evidence is in favor of the hypothesis of integration via the trade channel.

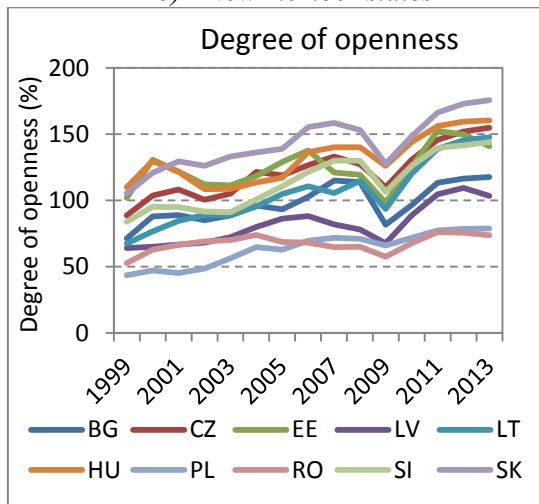
Additionally, it is not a general rule, but in many situations smaller economies display a higher degree of openness than larger economies. There are many factors involved, but it is quite clear that larger economies rely more on the domestic market and this leads in many cases to a greater degree of autarky.

Figure 8. Degree of openness  
a) Old member states



Source: European Commission, author's calculations

b) New member states



Source: European Commission, author's calculations

For example, Germany, an export champion, has a degree of openness at the end of the period of 72.61%, lower than the corresponding one of Austria, which stands at 85.85%. As an example from the new member states, Poland, the largest economy from this group, has a degree of openness at the end of the period of 78.68%, much lower than the corresponding one of Hungary, which stands at 160.40%.

#### 4. Conclusion

The article investigates different patterns of trade in 20 countries from the EU. The main point is that the trade channel is an active and important driver of European

integration.

The group of new member states is much more dynamic in terms of evolution of trade than the group of old member states.

The relationships between total exports and GDP and total imports and GDP are, with a few exceptions, strong and positive. Moreover, on average, there is a slightly stronger relationship between trade (exports and imports) and GDP for the old member states compared to the new member states.

The volatility of trade (exports and imports) is, with some exceptions, generally higher in the group of new member states. Moreover, the volatility of nominal GDP is lower than that of trade (both exports and imports) and has a tendency of being higher in the group of new member states.

A breakdown by intra- and extra-EU imports and exports is done for the EU27, Germany, France, Poland and Romania, underlining specific country and aggregated behaviours, but in general a high reliance on intra-EU trade is visible.

With the exception of Sweden, the degree of openness of the economies is rising over the analysed period in all countries. Moreover, in many situations, though not as a general rule, the degree of openness is higher for smaller economies.

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## The Economic Policy Coordination in Economic and Monetary Union

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### Abstract

*Achieving the Economic and Monetary Union (EMU), from an economic point of view, meant in fact achieving a level of nominal convergence and also a major convergence of national policies by the Member States and strengthening a system of cooperation and multilateral surveillance. Starting from this point, we intended to present in this study a brief review of the economic policy coordination in Economic and Monetary Union (EMU), focusing on issues related to the coordination of fiscal policy.*

**Key words:** Economic and Monetary Union (EMU) fiscal policy, monetary policy convergence

**Classification J.E.L.:** E40, E42

### 1. Introduction

Adopting euro as a single currency by all the participants and transferring the competence for the monetary policy decisions to a single monetary authority, the Eurosystem, (The Eurosystem comprises the European Central Bank and national central banks of the member countries of the EMU.) has completely changed the economic policy of all the countries that joined the Economic and Monetary Union. The European Council decided that the major directions that the national policies wished to pursue in order to achieve the objectives of common interest of the Community, such as conducting a regular research to ensure that

each country is complying with these objectives and encouraging the countries which have not done this thing to start achieving appropriately their own policies.

While the Community authorities are in charge of the monetary and exchange policy, the fiscal and employment policy as well as the structural policies of the national product and labor and capital markets remain the responsibility of each state. The structure of the economic policy of the Economic and Monetary Union requires a balance between centralization and decentralization of each element reflecting the principle of subsidiarity. Assigning the responsibility of specific policies to a supranational institution becomes an act of justification when the states fail individually to meet the previously accepted objectives or when the institution due to its greater size, could do a better and a very effective job. Under this principle, the monetary policy of the Economic and Monetary Union, through its uniqueness and its indivisible character, was wisely centralized, but other policies, such as for example the fiscal policy remain within the competence of the national states, because it was not found a valid justification for their complete transfer to the Community.

### 2. Fiscal policy approaches in optimal currency areas

The loss related to the instruments of currency policy highlights, in the case of the countries acceding to the optimum currency areas, the problem of the management of asymmetric shocks affecting some countries or regions. A low price and wage flexibility

and a reduced unit of mobility of the productivity factors (for example the labor) may actually feed the fears that an idiosyncratic shock can generate regional downturns or increases in unemployment levels of similar proportions as to be politically unacceptable for most countries.

In a currency area, the monetary policy has the task to redress the imbalances within the fiscal policy. In a currency area and then more than that in a monetary union, the governments can meet (achieve) its stability, using a separate or a combined manner, at least two types of tools: *countercyclical fiscal policies* (inter-temporal transfer) *and interregional transfers from less developed regions to highly developed regions.*

Choosing between the two instruments also depends substantially on the type of tax regime that governments decide to adopt. *First type of tax regime requires national provisions, while the second calls for a federal policy.* Starting for the moment from the intervention typology of fiscal policy, we can mention here what Kenen wrote in 1969 in a paper that later became a reference point for optimum currency areas theory [1]: the monetary policy and the fiscal policy must go together (hand in hand) for the existence of their optimal combination of (Optimality of fiscal policy mix referred to the management of aggregate demand and employment issues.), but they must have the same domain, but they must have the same domain.

A unique treasury in cooperation or in competition with the Central Bank must be invested with absolute power regarding the decisions about spending and taxes. The sector of the tax authority should therefore coincide with that of the currency area or not more extensive than the latter. This requirement is born from the assignment issues as a result of the unification of monetary policy, the governments being forced to face it when they are deprived of an independent instrument for economic stabilization.

The need of a domain coincidence desired by Kenen [1] is legitimated also by the difficulty that the authorities would have been able to meet while the process of homogenisation of the level of taxation between different exchange areas of their

competence. The variations of the existing policy or exchange rate could generate important variation in income flows, either input or output, with the inevitable consequences of taxation on each area, and thus on the effectiveness of fiscal measures.

### **3. The interaction between monetary policy and fiscal policy**

The literature with regard to the central bank policy insists on a concept according to which monetary authorities are the only ones responsible for the stabilization of income (Rogoff [2] in 1987, Persson and Tabellini, 1993, [3]). Also in an economy in which fluctuations can be attributed to a combination of effects of aggregate demand and a nominal rigidities and fiscal policy, it can reduce aggregate demand fluctuations [4]. Both components of fiscal policy influences the aggregate demand, including her objective function (fiscal policy) or considering it as an intermediate variable transmission mechanism within its own decisions (monetary policy). Optimizing the resources and improving the economic wealth, necessarily requires that these components be coordinated in any way.

The European Central Bank, which is responsible for monetary policy of the Economic and Monetary Union, was set as a priority objective for price stability. How is it possible to realize the coordination between monetary policy of the European Central Bank and national fiscal policies? Some answers can be drawn from the literature. A first approach in this respect belongs to Sargent and Wallace (1981) [5], who states that to the extent that the fiscal deficit trend of the governments is predetermined and unsustainable, the monetary policy and the price level can no longer be considered exogenous factors for its determination. The findings of the literature approaches reveal that is crucial to trace a fiscal discipline as a pre-request for a monetary stability desired by the Maastricht agreement.

A second approach in the literature consider the case of a central bank still affected by the inflation that could have distorting effects on the incentives of the tax authorities to reduce their own debt levels.

A third line of research examines the effects it can have short-sighted fiscal

policies of the governments, being aware of the fact that their leaders will be substituted at next election, support the spending plans forcing supranational monetary authorities to intervene with inflationary policies inconsistent temporarily. It is clear that in these cases the limit debt accumulation could improve the welfare of the monetary union.

Dixit and Lambertini [6] believe in their work that the monetary and fiscal authorities are trying to minimize the loss function in two variables, inflation and product (income) with benchmarks, where the importance assigned to them may vary. The authors verify through their theoretical models that the discretionality of the fiscal policy destroys the monetary commitment, thus justifying the introduction of rules of conduct of the tax authorities regarding the public budget. Imposing rules is not enough; the authorities must imperatively reach an agreement regarding the final objectives.

Assimilating interaction of the economic policy at the Nash game, each strategic decision could lead to a solution of balance, where the levels achieved may be almost equal to the initial favorite.

A fourth stream of studies explicitly considers the existence of different tax authorities, with different objective functions. The cost of non-cooperative tax policies can be very high, especially for symmetric shocks, and the number of studies in this respect is growing. Central Bank may intervene to ensure balanced economic growth in all countries, with obvious circumstances on price stability and therefore necessarily increase interest rates. Coordination of the fiscal policies would help at least to maintain a low level of interest rates.

Another approach is based on the concept that both components of economic policy have effects on aggregate demand and inflation. Authorities may obtain such benefits from cooperation; and the fiscal policy decisions should take into account the objectives of the European Central Bank on income and inflation stabilization.

In order to be able to sketch an idea on how the situation should be inside Economic and Monetary Union, with regard to the coordination between monetary and fiscal policy, can be useful to consider the conclusions reached by Lambertini and

Rovelli (2003) [7] through the development of a theoretical model. The idea of these two researchers refers to coordination between policies, which can allow reducing significantly the costs of stabilizing the prices. Assuming a strategic game between monetary and fiscal authorities, they conclude that, given the complexity and slowdown in decision subject to tax policy and the difficulty of change processes already implemented (in the monetary policy), the fiscal policy authorities would act naturally in a position of leadership (like Stackelberg leader) from central bankers. Inside the Economic and Monetary Union, the result is more than justified if one considers that fiscal policy (fiscal policy guideline) is set for an entire year, while monetary policy can be corrected in a short or very short time (every two weeks). Analyzing the results they claim that the approach known as "Treasury" would be a logical behavior of national governments, while the approach of "the Government" could guide the decisions of the European Commission.

In short terms, the approach "Treasury" provides that, having delegated an independent agent (European Central Bank) part of the function of welfare, the tax authority (national government) should impose its own policy taking into account only the remaining part of the function. The Government approach, however, implies the fact that the decisions of the tax authority (European Commission) should proceed to maximize global welfare. The implementation of the Stability Pact gives the Commission the obligation to monitor the application of the Covenant by all countries and decide the guideline for the national tax policies, taking into account those consequences that might be possible in terms of change of the price level.

#### **4. The coordination of the national fiscal policies**

The theory of optimum currency areas, as discussed previously, would require centralization of fiscal policy to counter the socio-economic events which may have originated the asymmetric shocks. Alternatively, it would be desirable a certain degree of flexibility in national fiscal policies so that each country can have the means to

counter the effects of specific shocks. Also, the situation presented in the Maastricht Treaty and the Stability Pact before, did not refer to the creation of a supranational fiscal authority, but did ensure the coordination necessary within a certain pre-set range of national fiscal policies. The justification for a similar regime lies in the need to take into account the externalities between countries or between policies. It might be checked, for example, if an increase of the interest rate in a country that often resort to the capital market in a continuing growing of its own deficit / Gross Domestic Product can be transmitted in other countries, irrespective of the performance of their public budgets (spillover between countries). In other cases, however, the decisions about taxation or assistance system may influence the functioning of the labor market and thus conditioning the effectiveness of measures in other policy fields, in this case labor policy (spillover from policy).

A close coordination, as some agreements regarding the rules and objectives, can serve to direct individual policies and may limit the potential negative effects of externalities. The independent policy coordination therefore allow approaching of the optimal situations due to the positive effects that may exist in terms of welfare. Through the exchange of information, the experience of other countries, either positive or negative, can help reduce costs to achieve adequate policies and correct errors that occur at a time.

The principles of the Treaty of Maastricht established the foundation for a close cooperation between the different authorities as a rigorous form; and therefore require them to reach an agreement on common rules for the conduct of individual policies in order to reduce the negative effects of externalities. The success of this form of coordination comes from a credible constraint mechanism, often represented by penalties for establishments that do not adjust their driving to joint decisions.

A less stringent form of coordination is given by the political dialogue, the exchange of information and the share of analyzes, together assigning to the union a unified vision on the full awareness regarding the interdependence of their decisions. The

management of fiscal policy in each country was designed to minimize the risks of negative externalities arising from individual inappropriate decisions. The scheme which is derived from such a system, it is defined as 'conditionally flexible'. The most important tool is the "general orientation guidelines Economic Policy" approved by ECOFIN and containing specific references that each member country should consider required during the decision making process on economic policy and the budget.

The coordination is continued from the moment the states must submit an annual stability program if they have already joined the union or a convergence plan if they are not yet members to the Euro zone. These programs are then subject to the assessment of the European Commission and ECOFIN's. The European Council agrees that countries shall submit a report of the progress of reforms in sectors crucial to the functioning of the single market, for example telecommunications, energy, defense of competition policy and removing barriers to the creation of new companies.

## 5. Conclusions

The relationships formed in recent years, such as voluntary but not only, between national and EU institutions are the result of the efforts made to achieve an adequate level of intra-state coordination between them and the Union itself, to overcome the lack of a tax system centralized as it wishes most of the literature on optimal currency areas. The most important result of this development is the opinion that it considered how to define national fiscal policies, not only domestic but also aggregate effects that policy decisions can occur throughout the euro zone.

The substantial spillover effects that may occur in a monetary union (see above) require the euro zone a very close coordination of their economic policies. The specific size of the euro zone is stated in the Treaty of Lisbon, which includes a new chapter focused on "the provisions specific to Member States whose currency is the euro". Euro group Protocol annexed to the Treaty refers explicitly to the need to develop an „increasingly closer coordination of economic policies in the euro zone" in order to promote conditions for stronger economic

growth achievement throughout the European Union

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# Study on the Influence of the Number of the ATMs and Population upon Bank Branch Evolution

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## Abstract

*The present work consists of two parts: the first part is a comparative analysis of the number of bank branches per 100,000 adults and of population and ATMs per 100,000 adults in Romania and other four EU countries (Bulgaria, Estonia, Hungary, Poland), and the second part consists in an analysis of the correlation between the three indicators. Actually, we shall determine if there is a strong correlation between the influenced factor (the number of bank branches per 100,000 adults) and the other two influential factors (population and number of ATMs per 100,000 adults), and the intensity of this correlation. We shall present primary statistical data for all the indicators of the above mentioned countries.*

**Key words:** correlation, ATM, bank branches, population.

**JEL classification:** G21; D5; P50

## 1. Introduction

The economic integration in the European Union aimed to favour the idea of competition in all industries, the banking industries being included. There is no study in the specialty literature employed to establish the correlation between the number of the ATMs and population of a country and the number of its bank branches.

The ATMs are computer telecom equipments that provide the customers with bank access to financial transactions in a public place. They represent electromechanical devices that allow the authorised users to withdraw money from their bank account (usually, they use plastic smart cards that can be automatically read) and/or access to other services (e.g. electronic fund transfers).

The bank branches represent retail locations of resident commercial banks and other resident banks that function as commercial banks and provide financial services to the customers, being physically separated from the main bank.

In the analysis, we made use of the statistical data of the World Bank as follows: the number of the ATMs per 100,000 adults; the number of the commercial bank branches (per 100,000 adults), and the total number of population.

The research methods employed in the present study are the following ones: the qualitative analysis (comparative analysis being a part of it) that aims to get perceptive differences at the level of the three indicators in the above mentioned five countries; synthesis (employed when we point out the final remarks that explain and describe the findings); the documentation; statistical assortment; the case study; the graphical representation and data interpretation.

## 2. Literature review

The structure studies on the banking markets in the banking system of the developed economies are quite frequent. In her study, Nadia Massoud [1] supports the idea that smaller banks might positively affect the market quota by setting up more developed ATM networks. Goode [2] tests a hypothesized model that measures the overall satisfaction that is obtained and the full spectrum of services attached to the use of automated teller machines (ATMs). We could not find works that specifically analyse the relation between the number of the ATMs and the number of population and its influence upon bank branch evolution. There are only few articles that partially approach only one side of this relation. Reynold [3] employed an economic pattern in the competitive retail banking services in order

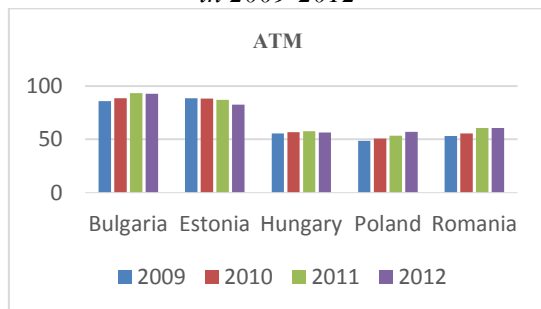
to answer to the following questions: Might a ATM network substitute a bank branch network? Does the clients' attitude towards technology affect the banking strategies? Astrid A. Dick [4] (2007) reinforces the idea that the local banking markets describe enormous differences as far as the size of population is concerned. His work established the fact that the nature of competition on the banking market is very similar. First of all, markets are similarly compressed, no matter their size. Secondly, the number of the paramount banks is approximately constant in markets with different sizes. In the present study, we shall explore the paramount factors that influence the number of the bank branches per 100,000 adults. The results suggest the idea that the number of the bank branches per 100,000 adults is indirectly influenced by the number of the ATMs per 100,000 adults, and directly influenced by the number of population.

### 3. Comparative Study on the Evolution of the Number of Bank Branches, Population, and ATMs in Romania, Bulgaria, Estonia, Hungary, and Poland

At European level, it is considered that the deepening of the crisis of sovereign debts and the continuous disrepair of the macro-financial environment represent the most severe risks for the financial stability.

Within this context, the number of the ATMs per 100,000 adults is continuously increasing throughout this period of time in Bulgaria, Poland, and Romania, aspect that mainly reflects the replacement of the employees with the ATMs. The only country (under analysis) that registered a decrease in this respect is Estonia (Figure no. 1).

Figure no. 1: The Evolution of the Automated Teller Machines (ATMs) (per 100,000 adults) in 2009-2012

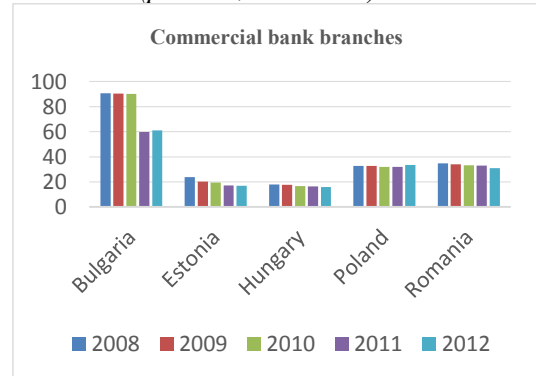


Source data collected from the World Bank statistical reports, and personally processed

One might notice a decrease of the number of bank branches (per 100,000 adults) between 2008 and 2012 in all the countries under analysis. The exception is Poland that registered a decrease up to 2010, and then a slowly increase (Figure no. 2).

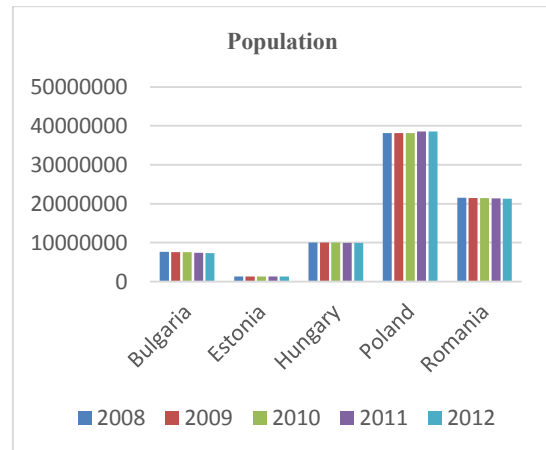
The evolution of population registered a decrease in Bulgaria, Estonia, Hungary, and Romania. In Poland, the registered increase was not significant at all (Figure no. 3).

Figure no. 2: The Evolution of the Bank Branches (per 100,000 adults) in 2008-2012



Source: data collected from the World Bank statistical reports, and personally processed

Figure no. 3: The Evolution of Population in 2008-2012



Source: data collected from the World Bank statistical reports, and personally processed

All the data (three indicators registered for five years in all countries under analysis) displayed in the three graphics were centralised, processed and transposed in Table no. 1. The results of the data analysis according to Table no. 1 are the following ones:

1. as far as the number of the ATMs per 100,000 adults is concerned, one

might notice that the highest value was registered in Bulgaria, in 2011, and the lowest value was registered in Poland, in 2008. Romania displayed a value below the average indicated by the five countries under analysis. Still, there are two countries that display values over average: Bulgaria and Estonia;

2. as far as the number of the bank branches per 100,000 adults is concerned, one might notice that the highest value was registered in Bulgaria, in 2009, and the lowest value was registered in Hungary, in 2012. Romania indicated a value below the average. Only Bulgaria displayed a value over average;
3. the number of population is slowly decreasing in all the countries under analysis; exception is Poland, which displayed a floating evolution.

Table no. 1: The Statistical Data for the Three Indicators

	ATM	POP	BRANCHES
Date: 04/09/14 Time: 22:01			
Sample: 2008 2012			
Mean	67.57080	15710170	36.14680
Median	57.62000	10000023	32.08000
Maximum	93.58000	38542737	90.60000
Minimum	43.00000	1339396.	16.41000
Std. Dev.	17.27537	13309712	23.58851
Skewness	0.344129	0.722949	1.445882
Kurtosis	1.404966	2.145430	3.879281
Jarque-Bera	3.143577	2.938447	9.516079
Probability	0.207673	0.230104	0.008582
Sum	1689.270	3.93E+08	903.6700
Sum Sq. Dev.	7162.521	4.25E+15	13354.03
Observations	25	25	25

Source: data collected from the World Bank statistical reports, and personally processed

Skewness Statistics is positive as far as all the three indicators under analysis are concerned; it means that distribution has the right side longer, i.e. the series are asymmetric. For the indicator entitled the number of the bank branches per 100,000

adults, distribution is leptokurtic (since Kurtosis is  $>3$ ), and as far as the indicators the number of ATMs per 100,000 adults and the number of population are concerned, distribution is platikurtic, since Kurtosis displays values below 3.

The probation of data distribution highlights a tendency of majority abnormality according to the values resulted from the Jarque-Bera test.

#### 4. Romania – Statistical Data, Evolutions

In Figure no. 4, one might notice the following aspects:

1. the number of the bank branches per 100,000 adults continuously decreased from 35, in 2008, to 31, in 2012. This fact might be the consequence of the increasing number of the ATMs that function 24 hours a day, and replaced the job of more and more bank employees;
2. the number of the ATMs per 100,000 adults increased from 50,00 in 2008 to 60,56 in 2011. Beginning with the year 2011, this indicator registered a very slow evolution, reaching to 60,64 in 2012;
3. the number of population decreased with 0,86% in 2012, comparatively to the situation registered in 2008.

According to Table no. 2, both the number of the bank branches per 100,000 adults and the number of population registered maximum values in 2008 and minimum values in 2012.

The ATM evolution was the reverse of the evolution of the indicators for the number of the bank branches per 100, 000 adults, and the number of population. The number of the ATMs continuously increased, the lowest value being registered in 2008. The highest value was registered in 2012.

Skewness Statistics shows that distribution is not symmetrical. All the three indicators under analysis registered values  $< 0$ ; this indicates the fact that the tail on the left side of distribution is longer than the medium average.

Kurtosis statistics is  $< 3$  for each indicator; this indicates the fact that, in this case, distribution is platikurtic.



Source: data collected from the World Bank statistical reports, and personally processed

Figure no. 4: Romania – Evolutions in 2008-2012

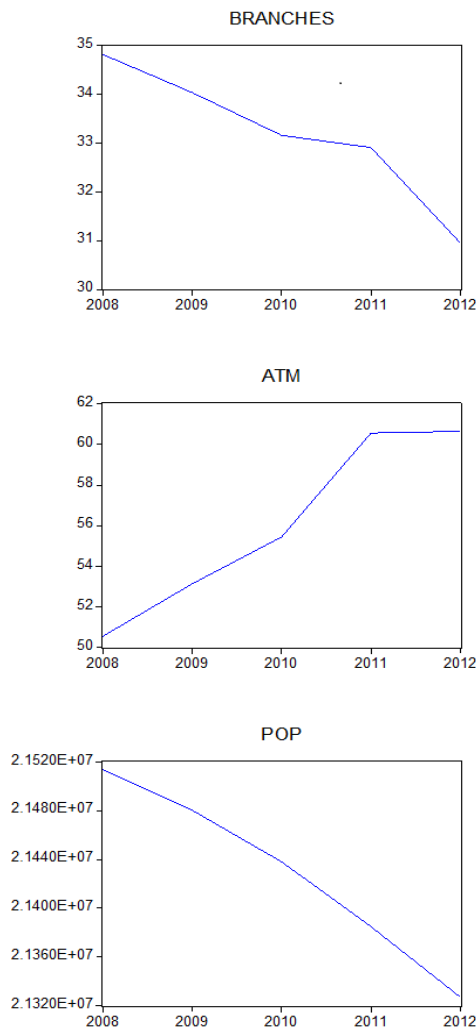


Table no. 2: Romania: Statistical Data for the Three Indicators

Date:	04/10/14		
Time:	11:52		
Sample:	2008 2012		
	BRANCHES	ATM	POP
Mean	33.17600	56.06400	21428752
Median	33.16000	55.44000	21438001
Maximum	34.82000	60.64000	21513622
Minimum	30.95000	50.55000	21326905
Std. Dev.	1.455620	4.487642	74595.34
Skewness	-0.540179	-0.019936	-0.263487
Kurtosis	2.256672	1.422166	1.718992
Jarque-Bera	0.358273	0.518989	0.399726
Probability	0.835992	0.771441	0.818843
Sum	165.8800	280.3200	1.07E+08
Sum Sq. Dev.	8.475320	80.55572	2.23E+10
Observations	5	5	5

### 5. Romania: The Analysis of the Correlation between the Number of Population, the Number of the ATMs per 100,000 Adults and the Number of the Bank Branches per 100,000 Adults

The last part of our study makes the connection between the number of the bank branches per 100,000 adults and the two key-indicators: the number of population and the number of the ATMs per 100,000 adults. It is our endeavour to study the relation between these indicators that define the banking degree with the correlation coefficient. We shall calculate the correlation between the number of the bank branches per 100,000 adults and the above mentioned key indicators for the entire period under analysis (2008-2012), and we shall analyse the intensity of this correlation. The study is based on the data registered in Romania between 2008 and 2012.

We shall calculate the correlation coefficient for two variables: the independent variable (the number of population or the number of ATMs per 100,000 adults), and the dependent variable (the number of the bank branches per 100,000 adults).

In order to obtain the linear correlation between the two series of data we used Pearson's correlation coefficient. Pearson's correlation coefficient indicates the magnitude of a correlation that ranges between -1.00 and 1.00.

For Romania, between 2008 and 2012, we shall obtain Pearson's correlation coefficient between the independent variable (the number of population or the number of ATMs per 100,000 adults) and the dependent variable (the number of the bank branches per 100,000 adults) as follows:

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2} \sqrt{\sum_{i=1}^n (Y_i - \bar{Y})^2}}$$

A correlation of 1 indicates a perfect correlation, i.e. if it registered the highest score for one variable, we know that it registered the same score for the other variable as well. A negative correlation would engage each other in inverse proportion.

A correlation of less than 1, either positive or negative, shows that each result of a pair of scores attracts the other one in a less than perfect correlation, so the highest score of a variable in a positive correlation could be accompanied by an average score of the other variable.

In the table below we shall calculate two correlation coefficients as follows:

C1: the correlation coefficient between the number of the ATMs per 100,000 adults (the independent variable) and the number of the bank branches per 100,000 adults (the dependent variable);

C2: the correlation coefficient between the number of population (the independent variable) and the number of the bank branches per 100,000 adults (the dependent variable).

We would like to see which one of the two key-indicators influence more aggressively the number of the bank branches per 100,000 adults. Mention should be made about the fact that we calculated the correlation coefficients for the entire period under analysis (2008-2012).

Table no. 3 Correlation Coefficients

C1	C2
-0.87923	0.972714

Source: Personal Reckonings

## 6. Conclusions

The correlation coefficient was calculated by introducing the data registered in Romania between 2008 and 2012.

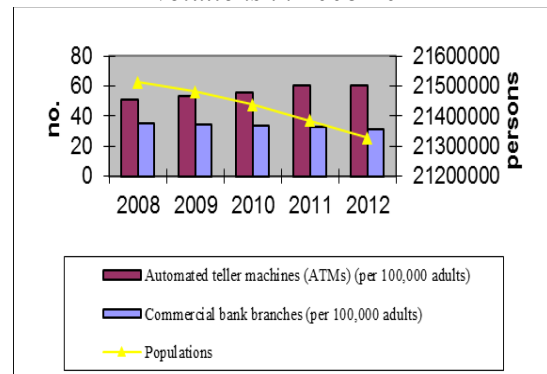
As result of the analysis of the correlation coefficient C1 between the number of the ATMs per 100,000 adults and the number of the bank branches per 100,000 adults, one might conclude that there is an inverted correlation between the two indicators as follows: if the number of ATMs per 100,000 adults increases, the number of the bank branches per 100,000 adults will register a decrease, since the result is a negative one. Correlation is extremely strong since the value of the correlation index ranges around -0,879.

If we take a look at the correlation coefficient C2, we might notice that the

correlation intensity is even higher than the one registered for C1 because value of C2 is 0,972. Nevertheless, here, the correlation is direct. It means that if the number of population registers a decrease, the number of the bank branches per 100,000 adults will decrease as well.

The above mentioned remarks are argued in Figure no. 5 as well.

Figure no.5: Romania – Evolutions in 2008-2012



Source: data collected from the World Bank statistical reports, and personally processed

Still, not only the two above mentioned factors, but also other factors might influence the bank branch evolution per 100,000 adults, such as: the policy promoted by each territorial development bank, the technological development, the legislation in force of the state under analysis, the degree of development, standard of living.

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# Precautionary Measures to be Taken Following a Tax Audit or a Fraud Control Over a Taxpayer's Assets

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## Abstract

*The present paper is the result of an interdisciplinary analysis in which we plan to investigate the difference between two concepts that may appear to be synonymous, but which, in reality, are distinct forms of checking the taxpayer: tax audit and anti-fraud controls.*

*In addition, special attention is given to combining provisions of tax procedural law with those of civil procedural law.*

*In terms of financial and tax law, we speak, inter alia, of the obligation to declare correct income and paying related taxes. As for civil law, here we refer to the matter of real rights, respectively to the property, assets, and the ownership right thereof, and also to the rights of claim and the guarantee of claims payment by instituting precautionary measures, at the initiative of the creditor. i. e. the state tax authority.*

**Keywords:** patrimony, assets, tax audit, precautionary measures, appeals

**J.E.L. classification:** K11, K34, K35, K41

## 1. Introduction

Our scientific approach highlights the role of the precautionary measures that the fiscal authority can take following an audit, no matter if they are *tax audits* or *fraud controls*. Precautionary measures represent a guarantee imposed by the tax authorities on a taxpayer-debtor's patrimony.

As for the notion of *control*, etymologically, it originates from the Latin phrase *contra rolus*, which means checking an original document after the duplicate or if the original was in the possession of another

person. The notion of 'control' also achieved other meanings: the periodic review of activities, of a situation and so on, to track its progress and to take improving measures; continuous (moral or material) monitoring; mastery; periodic verification of knowledge etc. [1]

Analyzing the two fiscal controlling operations that we are going to study, we can see that they are not synonymous. Moreover, inspectors perform two types of checks pursuing different objectives. The notion of control is defined as "checking, periodically or continuously, prior, concurrent or posterior, held - by specially authorized bodies - on activities in order to establish the legality or appropriateness of material and technical operations or of the documents issued by the financial administrative authorities" [2]. If we talk about the *financial control*, we have a different definition, namely, that of "a checking activity conducted by competent financial authorities in the management of public funds and public property or private administration of the state and of the administrative -territorial units" [3].

Some authors consider that there are three such operations, namely: the financial control, the tax audit and the fraud control. Among these, an approach made in broad terms, make *tax audit* and *fraud control* components of the *fiscal control*. *Stricto sensu*, the notions of fiscal control and tax audit are synonymous and are unrelated to the third notion of fraud control.

In what follows, we will present a brief analysis of the notions of *tax audit*, *fraud control*, *the taxpayer's patrimony*, *the precautionary measures* and *the remedies*, so that at the end of this document to conclude with the necessity of observing the

imperatives of law in enforcing these measures.

## 2. The notion of tax audit

*Tax audit* is the verification of the legality and compliance of tax returns, fairness and accuracy of fulfilling the obligations on the part of taxpayers, compliance to tax and accounting legislation, checking or, where appropriate, establishing tax bases, determining differences in payment obligations and related accessories. It is regulated by the Fiscal Code, the common law or general rule and other regulations that function as distinctive rules.

The notion of *tax audit* involves checking all categories of persons (natural persons, freelancers, legal persons), regardless of their form of setup, which have obligations for establishing, withholding and payment of taxes, contributions and other amounts owed to the general consolidated budget. For taxpayers who also have branches, the tax audit will be usually performed simultaneously at the headquarters and the branches by the competent tax authority.

Under Art. 3 al. 1 section 2 of the Fiscal Responsibility Act no. 69/2010, amended by Act no. 377/2013, the general government budget represents *all components of the budget, including the budget, the state social insurance budget, special funds, the general centralized administrative units, the Treasury budget, the budgets of autonomous public institutions, public institutions' budgets that are entirely or partly funded by the state budget, by the state social insurance budget, and by special funds budget, as appropriate, the budgets of public institutions financed entirely from their own revenues, budget funds from external loans contracted or guaranteed by the state and whose reimbursement, interest and other costs are paid from public funds, external non-reimbursable funds budget, as well as the budget of other bodies that are classified in the public administration, supported and regulated according to (EU) Regulation no. 549/2013 to form an integral system.*

Also linked to tax audit, it was established by the so-called *Deloitte document* that this type of inspection also has as its objective to analyze and assess fiscal information by

comparing tax returns with information provided by the taxpayer or by the tax authority from other sources (for example, "cross-check" controls), as well as sanctioning results and imposing measures to prevent and control nonconformities with the tax legislation.

"Deloitte" is the brand under which tens of thousands of dedicated professionals in independent firms throughout the world collaborate to provide services to clients in the following areas - audit, consulting, financial advisory, risk management and tax. These firms are members of Deloitte Touche Tohmatsu Limited (DTTL), which is a limited liability company based in UK. In Romania, the services are provided by Deloitte Audit LLC, Deloitte Tax LLC, Deloitte Consulting LLC, Deloitte Assessment LLC and Deloitte Fiscal Representative Evaluation LLC (jointly referred to *Deloitte Romania*) which are affiliates of Deloitte Central Europe Holdings Limited. Deloitte Romania is one of the largest professional services firms in Romania that provides services in five areas: audit, tax, consulting, risk assessment services and financial advisory services, with a team of over 450 national and specialized expatriate professionals [4].

Tax audit can be carried out by the competent authorities of the National Agency for Fiscal Administration (NAFA), by virtue of their job duties. We are going to draw a difference between financial and fiscal controls because they represent different notions, are performed by different authorities and have different control attributions. Following the completion of a tax audit, the Controller shall issue a document that notifies the checked person, i.e. the taxpayer.

Documents certifying the payment obligation are usually the acknowledgement document which determines Liabilities (this practically represents a title claim, but also a final, enforceable, court ruling). It is also possible to issue some other documents by the competent bodies performing activities regarded as tax inspection.

When we use the term *taxpayer*, we refer mainly to the narrow acceptance of the term, namely, "individual owing taxes, contributions and so on, to the general consolidated budget" [5].

The deed representing the tax audit findings can be challenged in the litigation tax procedure, as a prior step, before the higher body that issued it. Then, if the appellant is dissatisfied when receiving the decision, s/he can go court within the legal period.

### 3. The notion of *fraud control*

With the coming into force of the Government Decision no. 520/2013, which regulates the organization and functioning ANAF, The General Directorate for tax evasion and tax fraud was organized and this body operates as an entity without legal personality, with responsibilities for preventing, detecting and controlling the acts and incidents of tax evasion and tax and customs fraud [6]. Within this body, there operate regional offices headed by anti-fraud Adjutant Inspectors General. The headquarters of tax fraud regional divisions is established in municipalities.

The general Directorate tax fraud staff consists of civil servants and public officials having specific general public functions [7]. Fraud inspectors, except those of the Directorate for combating fraud, perform two types of control operations, namely, *current control operations* and *thematic control operations*. It is important to know the limits of the controls that inspectors under this authority may exercise because there can be made some appeals directed against the control acts based on the abuse of power or the faulty fulfillment of these responsibilities.

The *current control* is thus performed promptly and unannounced, based on identification card, a badge and a permanent service order, while *thematic control* is carried out by fraud inspectors based on their control card, the badge and the thematic control order which set the targets to be verified, the controlled entities, the time periods when the checks are carried out, the duration and the onset of the control [8].

Fraud control is handled by one of the two offices of the National Agency for Fiscal Administration, namely, the General Tax Fraud Office (D.G.A.F.). This agency has no legal personality, which means that any appeal against the deeds issued by the inspectors cannot be tried in contradictory with DGAF, but directly with the National

Agency for Fiscal Administration (ANAF). This clarification is needed because a misdirected request is not always susceptible to changes, especially when they are imperatively required by law.

The specific activity of the authority that deals with fraud control is regulated by Government Decision No. 520/2013 and other legislation. The Fiscal Procedure Code has no special rules applying to this fiscal operation. Fraud control involves preventing, detecting and combating acts and actions of tax evasion as well as tax and customs fraud.

Turning to the notion of *fraud control*, note that it is that type of *operative* and *unexpected* checking that can be also conducted in order to achieve thematic control operations that represent the activity of verification which pursues finding, analyzing and assessing a fiscal risk specific to one or more determined economic activities.

When fraud inspectors conduct an unannounced prompt control, pursuant to Ordinance No. 74/2013, they can check out some issues, such as compliance with legal acts for the prevention, detection and combat of all acts and activities of tax evasion and tax and customs fraud; trade compliance, pursuing the prevention, detection and removal of tax evasion and tax and customs fraud; manner of manufacturing, storage, circulation and use of the goods in all places and spaces in which the activities of economic operators unfold; participation, in cooperation with the specialized bodies of other ministries and specialized agencies to detect and combat illicit actions that may generate activities of evasion and tax and customs fraud [9].

### 4. The taxpayer's patrimony. Precautionary measures. Appeals means against the acts of control bodies

Talking about the notion of *patrimony* in general implies referring to all the rights and obligations in connection with the property of a person. No matter if it is a natural person or a legal person, the definition of *patrimony* is the same. And since patrimony presents two aspects, representing its two components, namely, the active side (rights) and passive side (liabilities), we are going to focus our legal approach on some explanations

concerning the patrimony of the individual - the taxpayer-debtor. When discussing about the taxpayer's property we consider both the classical definition of property and its components from the economic point of view, namely, income, expenses, and profit.

The precautionary measures represent some guarantees that the control body sets on the taxpayer's patrimony to ensure that at the time of the execution of the enforceable title it will be able to collect the amount registered in the title, fully or at least partially. These measures are regulated by Government Ordinance no. 92/2003, which is the Fiscal Code, as amended and supplemented thereafter, by ANAF President's Order no. 2605/2010 and other legislation.

Following the control, before taking precautionary measures, during or after taking these measures, the Controller is required to issue a series of preliminary acts, namely, the *supporting report of the precautionary measures* underlying the issuance of the *decision* which establishes the precautionary measures, the *minutes* of a levy for personal property, the *minutes* of a levy on real estate, the *address* for setting up the precautionary seizure of cash, the *address* for the establishment of the precautionary seizure of the amounts owed to the debtor by third parties, the *report* in support for the removal of the precautionary measures underlying the issuance of the *decision* which waives the precautionary measures [10].

The legislator requires that the precautionary measures which may be imposed on taxpayer's assets are: *the precautionary attachment for the immovable property*; *the precautionary attachment for movable goods, securities and intangible assets*; *the precautionary attachment on the sums owed to the debtor by third parties*; and *the precautionary attachment of the money availabilities in bank accounts* [11].

These measures may be contested according to the legal nature of the contested act (administrative or otherwise, not being assimilated to the administrative act), as well as according to the subject of the claim (the appeal against the enforceable title or against the execution forms). There are also situations in which the provisions ruled after the fraud control can be challenged by a request addressed directly to the court, if the complaint is of a civil or commercial nature.

If it refers to the appeal filed against the enforceable title, a title which is not an administrative act, but concerns the very title, the legal way is usually the civil court through direct trial.

If the act challenged is an administrative one or similar to the administrative one, the law requires that, first, the higher body should be referred to, by way of preliminary procedure and only then, after receiving the answer, (if it is not favorable to the appellant) or, in the absence of a response, should the court be notified.

The appeal upon execution may also concern the forms of execution, when the legal mean that the justice seeker has at hand is that provided by the administrative and fiscal contentious procedure.

We should mention here that in the case of appeals by way of civil or commercial procedures the legislator does not provide the appellant with an opportunity to make a separate request requiring the temporary suspension, urgently and without summoning the parties involved in the process of execution of the measures imposed by the tax authority with which they are on trial. In these circumstances, the appellant is likely to bear the consequences of the contested act, to be foreclosed especially over his/her bank accounts, pending a court decision. If the decision will be favorable, the appellant can only request the *invalidation of the foreclosure*, but also compensation from the public servant who decided the precautionary measure.

In most cases, appellant taxpayers are satisfied with getting a favorable solution and are not even interested in reclaiming the legal charges incurred during with trial of their cases. Much less often do they go to court with patrimonial liability action against the civil servants who took the precautionary measures in an unlawful, insubstantial, and sometimes abusive manner.

## 5. Conclusions

Since our study stands for an interdisciplinary approach, we have presented the analyzed institutions in relation to the financial and tax law but also to the civil law. In terms of the financial and tax law, we have pursued, among other things, the obligation to declare correct income and

pay related taxes. As for the civil law, here we refer to the real rights law, namely, patrimony, assets and ownership right, but also to receivable rights and the guarantee of receivables payment by instituting precautionary measures, at the initiative of the creditor - the state tax authority.

The procedure that is applicable to these situations actually aims the regulations underlying the audits, taking precautionary measures, the manner in which the taxpayer's patrimony is affected or not, as well as the remedies which the debtors have at hand, when they consider themselves wronged.

Without being able to cover the entire scope of the existing issues in this field, we have tried to capture topical aspects that the state authorities and the Romanian courts face especially after the entry into force of the new codes that our country is trying to align with the European legislation.

We hope that the information presented will raise the interest of theorists and legal and economics practitioners, in both our country and overseas. This way, our scientific approach will achieve its goal, our research will enable those interested to deepen these research results, to compare them with the legislation and the practice of other states and, perhaps, to determine the improvement of the national legislation and to make the controlling authorities in the field of taxation, in particular, more responsible.

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# The Basics of Land Rent and Lease Rent from the Legal and Economic Perspective

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## Abstract

*We chose to study two notions that we meet both in the legal and the economic fields, both in our country and beyond the Romanian borders. These are the land and lease rent, both having the legal nature of a contract and in an unequivocal manner regarding ownership of land. At the same time, both have a correspondent in the economic field where the land and the income it produces can be found in the notion of capital.*

*An element of novelty resides in the analysis that we proposed, in the light of legal and economic, with the presentation of the comparative aspects, where we find similarities and differences both within the current legislation, as well as in economic analysis.*

*Trying to identify common elements of both two notions, as well as two scientific fields, we reveal the reasons why they survived over the centuries and continue to be current.*

**Keywords:** agricultural property, land rent, lease, price, capital

**J.E.L. classification:** K11, K12

## 1. Introduction

In order to transfer some attributes of the ownership right such as possession, use, usufruct through different legal operations it is necessary to determine the value of land as national wealth, as a production potential, but also as an object of exchange. The parties' intention is encountered in their legal relations materialized in different

conventions, such as sale, exchange, rent, lease, usufruct transfer, succession etc. Among them, we find the notion of *exchange value*, a concept familiar to the economic field, rather than to the legal one.

If the sale and exchange involve the transfer of ownership from a patrimony to another, rent, lease, usufruct transfer concern only part of the ownership right characteristics. As for *succession*, about this concept we cannot say for sure if it is a legal instrument that involves transfer of property rights, because this notion is susceptible of several meanings. Thus, we can talk about *succession* as synonymous with the term *inheritance*, a situation in which, unquestionably, we are talking about the transfer of ownership from one patrimony (of the deceased) to another (of the heirs / successors). This is the restricted meaning of the term. But we can also talk about succession a broad sense, when this refers to any person's *rightful successor*, and this succession can be achieved including the other aforementioned legal operations.

Regardless of the legal operations referred to, we undoubtedly come to talk about the contract consideration or about the legal operation, too, therefore including the value of the traded good. This brings us to the area of the economic approach.

## 2. Land – price and value

When talking about the value of a good or service we think of two forms, namely, the *use* and *exchange* value. The first form refers to the human need to use the good and the second form concerns the connection and the balance between quality and quantity \_ of the goods and services meant to be exchanged.



Regarding our study, estimating farmland value relates to both determining its use and exchange value. Other notions that we find included in the this topic are the *common value*, the *actual value* of the land, the *value* or the *sale or purchase price*, the *venal* or *yield value*, the *affective* or *amateur value*.

Among the cases encountered in the legal and/or economic practice, value of the farmland shall be determined in the sale, annexation and detachment of land, severance from joint tenancy of land, leasing loans with movable or immovable securities, setting taxes, expropriation for public utility, etc. In most cases, determining the *common value* is pursued because this meets those characteristics necessary and useful for balancing the patrimonies of the parties involved in these legal operations. Thus it results the objective value, which is current, impersonal, and tangible.

*The purchase price* is often identical to the sale price, but the farmer who bought a farm or land earlier, the current price may be different than purchase price. When speaking of circulation value, it means the sale or purchase price, valid at a certain time.

To express the *venal value* [1], the land rent is compared with the conversion of capital into money, that one should use to buy securities or the money should be deposited in the bank to have an income equal to or greater than the rent of the land in question. This mode of expression may be called *relative value for sale-purchase*, and not comparative value. Decisive is the *standard rent* that can be achieved through the ordinary operation of the soil. In this case we speak of *common venal value*, unlike the special one which is calculated from the accounting records of the holding. [2]

Amateur or emotional value emerges when apart from the rent, subjective factors become the decisive factors, such as: the satisfaction of possessing land, the attachment to ancestral places, its beauty or that of the village etc. Affective value is thus the standard sale-purchase value and plays an important role in land transactions.

It is important to mention the need to assess land even nowadays, when, in the legal relations between parties, one has to transfer a piece of land or the counter-value of the non-use on behalf of the person who effectively uses the land. The assessment of

this surface can be made by the contracting parties or by a specialist at the request of these parties or at the request of the court, when the parties cannot reach a mutual agreement.

In Romania assessing land was primarily related to the concerns for the estimation of national wealth. For this purpose there were used methods characteristic to the countries in the Western Europe. There were also carried out a series of papers that have studied the prices and trends on the land market in Romania.

After the communist regime, the concerns of the Romanian economists in assessing agricultural land prices were aligned with the theoretical line existing in the socialist countries. We recall that during August 1974 - December 1989 lands were not tradable, which meant that they could not be traded, remised by acts *inter vivos*. What was appurtenant land for houses, inclusively, at the time of transferring the ownership right, was mandatory to be transferred to the state property, under the law.

### **3. Land rent – concept and historical evolution**

The concept of *land rent* is explained by the economist Adam Smith through the economic approach. Thus, the *land rent* is presented to us as part of the new value created in agriculture and the price that is paid for the use of private owned land. The last part of the definition makes us also think of the legal acceptance of the analyzed notion. Only thus is the person's / owner's patrimony balanced by providing indemnification for the non- use of his/ her good.

Referring to the distribution in economic field, Smith believes that the total value of the goods or of the entire product of the company is equal to the sum of wages, profits, and rent, reducing thus the value of the social product to the revenue. He identifies the social product with the national income, a prevailing idea in the economic thought as "Smith's dogma."

The issues of rent forms, content, and calculation in the economic field and even the legal one has come to the attention of most schools, doctrines and trends of economic thought for several centuries. This

concept emerged in the medieval period and has been transmitted to the contemporary times, with extensive use and different meanings, such as: *rent* as standard meaning representing an income received without having to work, *annuity* in classical economics representing the revenue incumbent on the owner in the field of land law or land ownership, and in modern and contemporary sense the *rent* is revenue incumbent on the owner of any production factor whose offer is limited (rigid) or inelastic.

The first approaches to the nature of the rent belong to the English economist William Petty which show that *rent is the surplus obtained from the a plot once the costs of its operation and of the farm worker maintenance have been deducted* [3]

For the first time he defined the natural rent that is surplus production for the consumption resulting from land exploitation by the cultivator, but which comes to the landlord under the ownership right. Along with the *natural* rent, by *ordinary* rent he means the general average of natural rents for a period of seven years (an agricultural cycle). The definition of rent as a residual surplus will be taken over by all economists up to Jean-Baptiste Say.

An important place in the theory of rent is held by the Physiocrat School through its representative, Francois Quesnay, who considers that the rent owes its existence to the forces of nature, agriculture being the only industry in which, with the contribution of nature, the wealth created can exceed consumption.

By introducing land, the universal source of wealth, the economic Physiocrat conception is restrictive in the sense that the agricultural production is considered as the only commodity production. Its particular merit is the introducing the concept of social classes in the economic thought for the first time, thereby securing the place of the individual within society in relation to his/her position to the universal source of wealth, the land. For him, private ownership of land is consistent with the natural order of things.

*The classical school manages to provide a systematic body of knowledge as well-defined economic theory representing one of the peaks economic thinking in the field of land rent. Three of the classical authors*

contribute to the creation of classical economy and to the formulation of a genuine theory of land rent [4].

Adam Smith leaves the Physiocrat approach, acknowledging the contribution of nature to the formation of rent and noting its specific link with price. In this regard he emphasized that *rent is included in forming the price of goods by means other than salaries and profits. Higher or lower salary and profit cause price, high or low, whereas high or low rent represents the effect of this price* [5].

David Ricardo had a decisive contribution to the theory of land rent. From Ricardo, the economic thought inherits the deepest, complex and rigorous analysis of the rent. He argues that the formation of land rent is based on unequal fertility of agricultural land [6].

The doctrine and the specialty studies claim that nowadays the Ricardian theory of rent is still the main point of reference in the field since virtually from Ricardo onwards the economic thought has never made an overview of such a magnitude, operate and indeed there was a dissipation of the theory in various fields. David Ricardo defines the land rent as that *part of the soil product we pay for the right to exploit the productive capabilities, original and non-perishable of the soil* [7]. The concept of rent is thus defined as the price of the land-use right.

The fundamentals of the differential rent theory as they were defined by Ricardo retain their viability and are the basis for the explanation of *differential rent* in whatever sector it appears. Ricardo identifies four causes for the emergence of the differential rent, but he merely describes two types of rent: *intensive* and *extensive* rent.

*Intensive rent* is the result of simultaneous investment of equal amounts of capital in the same field. Due to decreasing returns, first capital installment will give rise to differential rents, while the next installments will produce increasingly less rent. *Extensive rent* is the result of investing equal capital installments in lands that differ in fertility. With fertile plots there will naturally appear a *differential rent*.

Marx studied the land rent thoroughly, relying on the Ricardian theory of differential rent which is kept almost intact in his analysis.

He defines *rent as part of capital gains*, i.e. agricultural and housing extra profit. According to his analysis, land is a natural resource that has no value. Converting land in private regime has two direct consequences: *on the one hand* it is a restriction of free access to a natural production condition, land generating thus social conflicts. *On the other hand*, it is the tool to capture a portion of the social work or agricultural extra profit, converting it into land rent.

Marx's original contribution to the development of the theory of rent is represented by the introduction of the concept of *absolute rent* alongside *differential rent* and by his definition of *monopoly rent*. He also devotes a significant part of the analysis to land price, which is seen as a capitalization of the annual rents to date. He defines *absolute rent* as capital gains received on the least fertile land. Under these circumstances, its emergence is explained by cause and condition.

The evolution of society has given rise to an increased interest in land issues in the contemporary period by a return to the Ricardian tradition, but also by dispersing classical reasoning.

#### 4. The link between land rent and lease

In Romania land exploitation is achieved by direct labor or by *lease* as decided by the owners. The rent that the tenant is compelled to pay will be determined based on *absolute* and *differential* rent and its amount will be set on the rent market, being influenced in a specific way by the binding legal relationship, by the law of land supply and demand.

There is no doubt that in setting a rent, one must proceed from an *absolute rent* as a result of the private ownership of land monopoly and which is likely to be about the same per hectare, to which it will be added a *differential rent*, which is different from one plot to another in relation to its production capacity, its natural fertility, but also the artificial one, added each year with each new production process.

Lease in cash is the amount that a tenant pays to the landlord for the right to use a certain piece of land for a specified period of time. It should be also mentioned that the

lease may consist of products (called rent in kind), not necessarily money. Anyway, it has a complex content. The main component of forming a lease is the *land rent*. Other components include: the *amortization* for investments in various land operations and the *interest* for the capital invested.

In practice it is difficult to demarcate the components of the lease. The size of the lease is in the last resort the outcome of the confrontation between owners and tenants. The tenant farmer shall not pay more per hectare of arable land than it can gain from its cultivation with the best crop. In turn, the owner will lease an acre of land to a farmer only if s/he is sure that s/he won't be able get a better price from another farmer. The lessor will always try to obtain maximum net advantage from leasing land.

When setting the conditions for lease, the land owner seeks not to leave the tenant a share of production larger than the share which allows him/her sufficient means for the latter to maintain the capital used for seed purchase, paying work, buying and maintaining labor cattle and agricultural tools, plus regular profit of capital in the region and, when the lease is renewed, the owner usually requires the same land rent increase as if the improvements were all made at his or her own expense.

The *rent in kind* is expressed by a quantity of agricultural products chosen according to the specific agricultural activity and specificity of the area. The *rent in cash* is the RON equivalent of a rent in kind on the local free market prices at the date of the payment.

There is a close link between rent and land price since both categories of value stand for a number of common factors. It is important to point to the fact that one of the main methods of determining the price of land is represented by the capitalization of lease. Taking the capitalization rate as unaltered, rent and land price evolve in the same direction in the long term, situating itself in a growing trend in real terms. Statistical data from a number of countries show, however, a slower increase of rent and therefore a decrease of its importance as far as the price of land is concerned. This trend is due to an increased contribution on the part of the capital factor in acquiring farm incomes in relation to the land factor, in the same time with the progress of the

agricultural sciences and implementation of their outcomes into production.

## 5. Conclusions

Although the analysis of this topic is an older preoccupation, every time we deal with it with attention, we try to find new challenges.

Studies have been written about land rent from both a legal point of view and an economic one but a blending of concepts and a truly interdisciplinary approach has not yet been taken into account. Perhaps this happened because the two notions were the focused on one at a time, either by lawyers or by economists alone. We hope that the way chosen in order to display the present legal approach will draw the attention of specialists in many other fields, and that our findings will be shared and deepened by those interested.

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# The Macroprudential Policy- Challenges and Perspectives at the European Level

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## Abstract

*The global financial and economic crisis has revealed that the missing pillar of financial stability architecture was the macroprudential approach of the financial supervision and designing of the prudential policy is considered one of the key elements of the post-crisis reforms. The micro-and macro-prudential regulation framework is currently going through a sustained process of revision, both at EU level and at national level. With the new financial supervisory architecture, due to the recent crisis, the area of macro-prudential instruments became much wider.*

*The purpose of our article is to highlight the challenges and perspectives respectively, regarding the implementation of the macro-prudential regulatory tools at European level, with reference to the national level.*

**Key words:** macroprudential policy, financial stability, Basel III, financial crisis  
**J.E.L. Classification:** E44, E58, G01

## 1. Introduction

Ensuring and maintaining financial stability is a key objective, and the designing of the financial stability policy is one of the main elements of the reforms in order to achieve this objective. A number of concrete steps have already been taken to create an appropriate institutional framework for the analysis of systemic risk and macro-prudential policy (the establishment of the European Systemic Risk Board- ESRB).

However, currently, we are in an early stage of implementation and institutional framework, still evolving, varies between jurisdictions.

The purpose of this article is to highlight the main challenges and perspectives of macro-prudential policy at the European level.

The article is structured as follows: Section 2 represents a literature review regarding the definition, the purpose and the instruments of the macroprudential policy; Sections 3 și 4 highlight the challenges and perspectives respectively, regarding the implementation of the macro-prudential regulatory tools at European level, with reference to the national level; Section 4 concludes.

## 2. Literature review

Component of financial stability policy, the macro-prudential policy is often defined by highlighting the differences from microprudential policy [14], [11] and focuses on the linkages of financial system exposures at the expense of individual risk profile, based on a top down approach. Danila submits that the macroprudentiality term expresses "the link between price level stability and smooth functioning of the financial system without liquidity or solvency shortcomings" [10]. The macroprudential approach has two dimensions [4]: a temporal dimension (which analyzes the way in which aggregate risk in the financial system evolves over time) and a transversal dimension (which analyzes the risks allocation in the financial system at a

time). Two issues are essential for the improvement of macroprudential policy: a detailed analysis in order to issue warnings and recommendations on systemic risk and the translation of such warnings in the policies and actions [18].

The literature on macroprudential policy does not provide a consensus on its objectives and instruments [12]. Moreover, the literature review highlights the fact that, currently, at the level of the EU Member States there are no unanimous consensus regarding the definition, objectives and scope of macro-prudential mandate or the organization of macro-prudential supervision and tools used.

In general, financial stability is assigned as purpose to macro-prudential policy, but financial stability does not have an universally accepted definition. Regarding the specific objectives of macroprudential policy, the general opinion converges to the limitations of the risks and costs of a systemic crisis. An alternative vision defined the purpose of macroprudential policy as being the limiting, at the system level, the risk of stress episodes that have significant macroeconomic costs [5]. Caruana explains the macroprudential policy objective as "being the reduction of systemic risk by addressing explicitly the links between common exposures of financial institutions and the financial system procyclicality" [7].

According to Isărescu the main objectives assigned to macroprudential policy are the followings [14]:

- avoidance of maturity mismatches between the assets and the liabilities of the banking system;
- the stimulation to debtors for efficient credit utilization, by covering a share;
- limiting the excessive indebtedness of borrowers and hence credit risk.

Beau, Clerc, and Mojon [2] believe that designing of macro-prudential policy objectives should retain independence in monetary policy decisions in order to facilitate the coordination between the two policies and to limit the conflicting objectives.

In the literature on monetary policy, there is a clear consensus on the role of various instruments. The monetary policy interest rate is considered the first supporting tool [3], while non-conventional tools of monetary

policy are limited to extreme situations, when monetary policy rate is close to zero. Unlike monetary policy, the academic literature on macroprudential policy does not identify a primary instrument and a standard taxonomy tools [12].

Borio [4] believes that the range of macroprudential tools should be as broad as possible. Kashyap et al. [16] considers that the exploration of new tools can be extended to insurance schemes based on aggregated conditions. Isărescu [14] considers that from macroprudential policy toolkit belong liquidity ratio, loan-to value and debt-to-income ratio, the first two of the aforementioned hovering "on the border between micro and macro approach". Borio [4] argues that the distinction between a prudential and non-prudential tool can be veiled, but that "systemic risk should be based on as many instruments, based on their effectiveness".

### **3. Challenges regarding the implementation of the macro-prudential regulatory tools**

With the new financial supervisory architecture, due to the recent crisis, the area of macro-prudential instruments became much wider.

Countercyclical capital buffer and capital conservation buffer are the first instruments of the EU acquis dedicated exclusively to addressing macroprudential issues. The capital buffers will be introduced from 1 January 2016 till 31 December 2018, becoming fully effective on 1 January 2019. Their value will be 0.625% of risk-weighted assets at 1 January 1 2016, increasing thereafter every year with 0.625 percentage points, to reach the final maximum threshold of 2.5% of risk-weighted assets from 1 January 2019.

The determination of the optimal level of banking capital standards was an initial challenge which is still actual [15]. A strong capital base corresponds to the soundness of the bank, but the price consists in lower profitability. The introduction of capital buffers and leverage ratio causes a decline in ROE, but the effects will be felt gradually over the transition period.

The regulatory instruments have been developed specifically to reduce both the

frequency and the intensity of financial crises. Therefore, their consistent implementation is another challenge because such benefits will not materialize under a weakening or delays in implementation. The inconsistency of implementation will emphasize the fragility of confidence in the financial system at the European level. Also, the implementation should be harmonized in order to contribute to an integrated financial system.

The uncertainty surrounds the effectiveness of macroprudential instruments. In the case of capital buffers, a challenge is related to their dependence on risk-weighted assets. The rates on these the assets have been weak predictors of stress during crisis periods.

Another challenge is related to the concealed efforts to ensure that banks capture all risks in a prudent manner. Under a strict definition and higher capital requirements, there will be pressure for banks to underestimate the risk weighted assets. But the introduction of the leverage ratio will manage these tendencies. Beyond the unique effort to align the balance to the new capital requirements, banks are forced to invest permanently in its management capacity. Also, the manner in which the credit institutions will measure exposures and their decisions about engaging in risk reduction are two other challenges regarding the implementation of macro-prudential measures.

Making the transition from general to specific, the ability of National Bank of Romania (NBR) to identify and measure systemic risk and vulnerabilities is a key factor for the successful implementation of macroprudential instruments, because their imprecise timing of application can lead to the failure of macro-prudential objectives. Another challenge is related to the necessity of additional macroprudential tools at the national level, in addition to macro specific Basel III tools, to counter systemic risk. Currently, at the level of the EU Member States, there are no unanimous consensus regarding the definition, objectives and scope of financial stability policy. This is essentially linked not only to the difficulty of defining financial stability in an operational way (such as price stability), but also to the number of relevant authorities (central banks,

banking supervisors), as well as to potential tools often attributed to several objectives. Basel III is necessary but not sufficient [6]. The main reason why Basel III should be supported by additional macroprudential policy tools is that the set of political reforms has not yet been finalized and we can not say that the new regulatory framework incorporates all the lessons learned from the current crisis. Also, well-functioning financial systems are always built on a high degree of confidence. Writing new rules is not enough to restore the confidence in the financial health of the entire system. The international agreements must be translated into national markets, and then domestic rules must be supported by well thought out rules. We subscribe to Isărescu's statement, according to which " it is desirable to avoid introducing too complicated regulations that, in the long term, could have a boomerang effect, during reforming process" [15].

During the transition to the new regime, a challenge is to take advantage of the benefits without imposing unnecessary costs and focusing on economic return (in the long-run) and not on financial return (in the short run).

Romanian banking system is dominated by foreign banks, which will have to meet both regulatory requirements of NBR and requirements of supervisors for subsidiaries of parent banks. In these circumstances, banks will opt for diminished lending or maintaining the same level of exposure. Thus, a challenge is to find measures and alternatives to ensure lending to the economy, for a continuous development [9].

Besides the objective to strengthen the financial stability, prudential regulations should support sustainable economic growth, and restarting global economic growth is a challenge.

#### **4. Perspectives regarding the implementation of the macro-prudential regulatory tools**

Structural reforms are difficult to implement, since their benefits are indirect, are difficult to quantify, and thus reforms are less appreciated by the general public [17]. The European Union consists of 28 heterogeneous financial systems that underpin the single market. The significant differences between national economies and

financial systems in the EU include, for example: the size and structure of domestic banking systems, the exchange rate regime (monetary union, ERM II, currency board), the strategy of monetary and fiscal policy, business cycles and asset prices, supervisory arrangements, the value of assets to GDP. A view widely shared among supervisory authorities in the EU countries, is that in order to mitigate the emerging risks in these heterogeneous systems, local features and their potential consequences must be taken into account when shaping policy and macro-prudential tools.

We subscribe to the opinion of Goodhart and Perotti, who believe that macro-prudential regulatory tools must be flexible in order to adapt to the global market conditions. [13]. We consider that flexibility at the national level, during the transition period would also strengthen the cohesion of the euro area, reducing the rigidity imposed by the single european currency. In assessing the prospects regarding the implementation of macro regulatory instruments and Basel III, generally, we start from Alan Greenspan's statement according to which 'there is a certain degree of historical continuity in the functioning of democratic societies and market economies This means that there is a" persistent stability "useful to forecast the future [15].

A first problem regarding the establishment of the capital buffers refers to the method of identifying the financial bubbles. This task should be given to a macroprudential authority, which has a broad vision regarding the built-up of national and regional risks. According to the rules, each Member State shall designate an authority to establish a reference guide based on the deviation of credit / GDP ratio from its long term trend. Also, the rate of depreciation must be reviewed quarterly, and other variables, including the structural ones.

In table 1 we present the minimum capital conservation ratios a bank must meet at various levels of the Common Equity Tier 1 (CET1) capital ratios. For example, a bank with a CET1 capital ratio in the range of 5.125% to 5.75% is required to conserve 80% of its earnings in the subsequent financial year (ie payout no more than 20% in terms of dividends, share buybacks and discretionary bonus payments).

*Table 1. Individual bank minimum capital conservation standards*

Common Equity Tier 1 Ratio	Minimum capital conservation ratio (percentage of earnings)
4.5% - 5.125%	100%
>5.125% - 5.75%	80%
>5.75% - 6.375%	60%
>6.375% - 7.0%	40%
> 7.0%	0%

**Source:** [1, p.56]

The countercyclical capital buffer will be introduced in parallel with the capital conservation buffer. At the national level, the countercyclical capital buffer will be implemented, as follows [8]:

- the national authorities will monitor the credit growth and other indicators that may indicate an accumulation of risk in the system and will assess if the increase is excessive and leads to the built up of financial imbalances. If circumstances are justified, they will put in place the countercyclical capital requirement.
- internationally active banks will calculate their countercyclical capital buffer as a weighted average of the requirements in force in the jurisdictions in which they have credit exposures. In this context, the mitigation of credit cycle is considered only a secondary benefit. The real value of the buffer would be equal to its weighted average on countries, based on the principle of reciprocity in cross-border enforcement. The principle of international reciprocity of the countercyclical capital buffer is the cornerstone of the instrument, providing a level playing field for institutions in the single market.
- the countercyclical buffer requirement to which a bank is subject is implemented through an extension of the capital conservation buffer.

The table 2 sets out the conservation ratios a bank must meet at various levels of Common Equity Tier 1 capital if the bank is subject to a 2.5% countercyclical buffer requirement.



*Table 2. Individual bank minimum capital conservation standards, when a bank is subject to a 2.5% countercyclical requirement*

Common Equity Tier 1 Ratio	Minimum capital conservation ratio (percentage of earnings)
4.5% - 5.75%	100%
>5.75% - 7.0%	80%
>7.0% - 8.25%	60%
>8.25% - 9.5%	40%
> 9.5%	0%

**Source:** [1, p.60]

It is important to emphasize, however, that authorities should use all available information in making decisions regarding the capital buffers. The indicators used to identify excesses may perform differently at different stages of the business cycle across countries. Therefore, there is the necessity to develop international coordinating mechanisms to identify on time the "periods of excess" in a transboundary context.

A major concern regarding the implementation of macroprudential policy tools is how these tools interact with other policies such as monetary policy or fiscal policy. Macro regulatory instruments and monetary policy may exert a reciprocal impact on their objectives, as follows:

- macroprudential policy instruments can influence the volume of credit in the economy which in turn is likely to affect global economic activity. On the other hand, the economic development is a key concern for monetary authorities, whether they have an inflation target or a dual mandate. Likewise, real economic activity and interest rates affect systemic risk itself. As a result, monetary policy stance could affect macro-prudential policies.
- macroprudential policy tools can also interact with the monetary policy transmission mechanism.
- monetary policy and macroprudential decisions respectively, are taken in practice, based on similar data, indicating potential interactions.

At the european level, the countercyclical policy measures should be introduced gradually to allow addressing any unforeseen consequences. The introduction of leverage ratio may cause a slowdown in lending but,

at the same time, is a clear incentive for banks to strengthen their capital position.

During the implementation process, we consider necessary both the monitoring of financial developments and risks and updating standards on a regular basis. The Basel Committee should be vigilant with regard both to changes in the regulatory area and the activities of the shadow banking sector. We must be aware that Basel III involves a large number of requirements and the risk of error can not be ignored.

At national level, the present mandate of NBR falls between price stability and financial stability. As prudential authority, we consider that NBR will perform the approval task for Basel III regulatory capital reforms and data collection needed to monitor the leverage ratio so that these policy measures to be completed on time.

## 5. Conclusions

The recent international financial and economic crisis has triggered a major re-evaluation of the financial stability policy and the main measure was the change in orientation from micro to macro-prudentiality. But this process of renovation will last and central banks will learn by experimentation and observation. We appreciate that the countercyclical policy measures together with the new requirements regarding the capital and liquidity standards will reduce systemic risk of the banking sector and the negative effects on the real economy. However, the financial crisis will not disappear, but their frequency and gravity can be reduced.

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# The Economic Activities Carried out by Sole Proprietors in the Light of the European Regulations Included in the National Legislation

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## Abstract

*The need for a national legal framework in full compliance with the European one imposed a reassessment of the provisions related to the legal regime applicable to the economic activities performed by sole proprietors. The main purpose of the latest legislative changes in this area was the implementation, in the national law, of the European provisions that require the application of the principle of equal treatment between the men and women engaged in an independent business.*

**Keywords:** activity, economic activity, merchant, professional, patrimony  
**J.E.L. Classification:** K 10-General

## I. Introduction

The legal framework for the economic activities performed by private entrepreneurs has been established by the provisions of Ordinance no. 44/2008 on the economic activities undertaken by certified natural persons, individual enterprises and family businesses (published in the Official Gazette nr.328/2008, with the subsequent amendments). Initially, this law was adopted in order to ensure the conditions necessary to the registration of the applicants by a procedure similar to that undertaken by legal persons. This is because the registration procedure previously regulated by Law no. 300/2004 (now repealed) experienced different interpretations, leading to unjustified differences in the licensing and registration of those who were to undertake such activities.

The adoption of the European Directive 2010/41 EU on the principle of the equal

treatment between the men and women who undertake an independent activity imposed new changes in the applicable legislation in this area. The Law no.4/2014 (the Law supplementing the Government Emergency Ordinance no. 44/2008, published in the Official Gazette no. 15/2014) has been adjusted in order to align the national legislation with the European one by recognizing the activity of those who implicitly ensure the performance of the activities undertaken by certified natural persons (see the explanatory memorandum to the draft law no. 4/2014).

## II. Scope of application

The above mentioned legal provisions establish the legal framework for conducting the economic activities organized individually. In this category of economic activities, there are included any activities performed by the individual worker, regardless of their nature, in order to earn profit (art. 2, letter a, GEO no. 44/2008).

There do not fall into this category the economic activities regulated by special laws and the liberal professions (art. 2, letter a, GEO 44/2008). There are also excluded the activities carried out by the nationals of the EU Member States, established in another Member State, to whom an authorization issued by their State of origin is sufficient (art. 1, paragraph 5, GEO no.44/2008). Therefore, under the freedom to provide the services stipulated in art. 49 of the Treaty establishing the European Community, overtaken in the art. 56 of the Treaty on the Functioning of the European Union, the citizens of the countries belonging to the European Union or to the European Economic Area may carry out economic activities in Romania, not being subjected to

the authorization procedure established by GEO no.44/2008.

In this legislative framework, there can be conducted the activities listed in the NACE Code (the National Classification of Economic Activities), in any area where the law recognizes the free enterprise of professional natural persons. The professional is defined in art. 3 of the Civil Code as the person systematically exercising an organized activity, whether or not for profit. The professional can be a dealer or any other person authorized to do business or a profession (art. 8, paragraph 1, Law no. 71/2011 for the implementation of the Law on the Civil Code no. 287/2009 published in the Official Gazette no. 409/2011). The trader is defined, within the law, in relation to the obligation to register in the Trade Register (art. 6, paragraph 1, Law 71/2011). Thus, the word trader makes reference to all persons who exercise permanently a trading activity, with the title of profession, or who are subject to the registration in the trade register [1].

From the analysis of the above mentioned legal provisions, it can be seen that professionals are all those who operate an economic enterprise [2], whether or not subject to registration.

Professional traders are persons who carry out economic activities in accordance with the special legislation, consisting in either the operation of an individual enterprise or in the operation of a collective enterprise.

### **III. The status of individual professionals**

In accordance with the applicable legal requirements (GEO no. 44/2008), the individual professionals can conduct business as certified natural persons, as holders of an individual enterprise or as members in a family business.

The Directive 2010/41 EU (art. 2, letter a) provides that the activity of self-employed workers is "a gainful activity for their own account, under the conditions laid down by national law". Likewise, the current legislation expressly states that the professional natural person pursues economic activities for profit. Moreover, the profit motive distinguishes the professional trader from the other professionals.

The economic activity of individual professionals must be organized, ongoing and systematic, as an economic undertaking, on the entrepreneur's risk (art. 2, letter f, GEO no. 44/2008).

An entrepreneur can be any "individual who organizes an economic undertaking" (art. 2, letter e of GEO no. 44/2008).

The legislator does not give a definition of the undertaking (or the enterprise), but defines its operation as the systematic exercise of an organized activity (art. 3, paragraph 3 of the Civil Code). In the literature [3], the undertaking (or the enterprise) has been defined as an "organized business", consisting of systematic work, with a specific purpose, which involves taking a risk.

The economic undertaking designates thus the economic activity carried out by natural persons, individually, as certified natural persons, or organized as an individual or family business. Thus, the economic undertaking is presented as a form of organizing the economic activity which the holder, the entrepreneur, understands to carry.

The legal regime applicable to sole proprietors depends on the form of business organization.

Certified natural persons are persons entitled to carry out, under the law, any economic activity, mainly using their own work and professional skills (see art. 2 and 19, letter i of GEO no.44/2008).

The individual enterprise is a form of business organization, by a single person (art. 2 letter g in OUGnr.44/2008).

The individual enterprise is the result of the will of a single person. The individual enterprise offers the natural person the opportunity to operate in an organized framework [4].

The individual enterprise does not acquire a legal personality by the registration in the trade register. The registration takes effect only in respect to the holder who thus acquires the status of trader [5].

Since it is not a legal person, the individual enterprise does not have its own patrimony. For these forms of organizing the economic activities, the legislator accepted the theory of dedicated assets. The patrimony includes all the rights and obligations valued in money, belonging to a natural person or to

a legal entity (art. 31, paragraph 1 of the Civil Code). Everyone has a patrimony, being a "personality attribute" [6].

The nature of the patrimony involves, in the case of natural persons, the impossibility to transmit it between live persons. The patrimony can be split, under the law, into several financial assets and liabilities subject to different rules. Likewise, a part of the patrimony may be affected by the holder's will to exercise a certified profession. An application of the dedicated assets is reflected in the provisions of GEO no. 44/2008. The sole proprietor (the certified natural person, the holder of the individual enterprise, the members of the family business) is able to affect some of its assets for the purposes of economic activities (art. 2, letter j).

A natural person can perform only one activity subject to authorization and registration (art. 14, paragraph 1 of the GEO). In applying this statutory provision, the certified sole proprietor and the holder of the individual enterprise will establish only one dedicated asset for the pursuance of a single activity undertaken. The rule of the uniqueness of the financial assets and liabilities distributed by the natural person for the pursuance of an economic activity does not remove its possibility to participate as a member in a family business (see art. 28, paragraph 2 of GEO no. 44/2008). However, the family businesses can establish, in this situation, a dedicated asset by the contribution of its members in quotas predetermined by the establishment agreement or by a subsequent document. Thus, the natural person can affect a part of his/her patrimony to the individual exercise of an economic activity, and, at the same time, without prejudicing the uniqueness of the dedicated assets, he/she can contribute to the formation of common financial assets and liabilities (the dedicated assets of the family businesses).

The family business is a form of organizing the economic activity by an individual entrepreneur, together with his family (art. 2, letter h of GEO no. 44/2008). Although, at the first glance, it seems a collective association, the family business falls into the category of sole proprietors. The explanation is based on the connections between the persons who are going to

perform the economic activity, i.e. spouse, relatives and in-laws.

#### **IV. The legal regime of sole proprietors**

The legal regime applicable to sole proprietors regards the establishment, operation and termination of their activities.

##### **4.1. The establishment**

Sole proprietors can carry out any economic activity if it is approved and recorded as provided by law. For this purpose, the natural person or the owner of the individual enterprise is required to apply for the registration in the trade register and for the authorization of his/her activities. For family businesses, this obligation is incumbent to the representative chosen by the establishment agreement (art. 7 of GEO no. 44/2008).

The registration and authorization procedure is provided for in articles 7-15 of GEO no. 44/2008.

The application for the registration and authorization, together with the supporting documents, are submitted to the trade registry office in whose jurisdiction the applicant's professional head office enters. After verifying the documents, the Director of the Trade Register Office may order, by resolution, the registration and authorization of the activity carried out by the sole proprietor, organized in one of the forms prescribed by law, and the filling in of the statutory declaration, and the completion of the documentation submitted or the rejection of the application.

If the application has been accepted, the applicant will be issued a registration certificate proving the unique registration number, the confirmation of the company details issued on the basis of the applicant's statutory declaration regarding the compliance with the laws and special regulations in the field where he/she is going to operate (this act is issued in accordance with the provisions of Law no. 359/2004 on the simplification of the registration in the trade register of natural persons, family associations and legal persons, their fiscal registration and the licensing of businesses, published in the Official Gazette no. 839/2004 with subsequent amendments), and

other documents required by law (art. 11, paragraph 2 of GEO no. 44/2008).

Where it is estimated that there should be completed the documentation submitted, the applicant will be given, by a motivated resolution, a 15 days term, which may be extended upon request (art. 11, paragraph 3 of GEO no.44/2008).

If the legal requirements for the authorization and registration in the trade register are not met, the request will be rejected by a motivated resolution. A complaint against the rejection resolution may be submitted to the competent court within 15 days of delivery or notification (art. 12, paragraph 1 of GEO no. 44/2008).

The procedure for registration and authorization of the operation is also applied to subsequent modifications. In this case, a certificate of recorded amendments and a confirmation of company details are issued on the basis of the statutory declaration. The change of the professional office and of the business object requires even the issue of a new certificate of registration (art. 14 of GEO no. 44/2008).

#### **4.2. The operation**

Typically, the certified natural person carries out his/her authorized activity, individually and independently, using his/her own resources. Under the current legal provisions, the certified natural person can employ other persons, through an individual employment contract (art. 17, paragraph 1 of GEO no. 44/2008). Also, the certified natural person can collaborate with other sole proprietors or with other natural or legal persons in order to conduct his/her economic activity, without this collaboration to affect his/her legal status.

The sole proprietor organized as a certified natural person enjoys all the rights that the law gives to employed people. In this sense, the sole proprietor is entitled to be insured under the social security, health and unemployment systems. The social protection regards not only the independent sole proprietor organized as a certified natural person. Under the current law, the husband/ wife of the certified natural person / sole proprietor who, without being registered, participates in its work effectively, can be insured in the public pension system and in the unemployment insurance system (art.

211 of GEO no. 44/2008, introduced by Law no. 4/2014).

The certified natural person is liable for his/her obligations related to the dedicated assets. In addition, he/she is liable with the other goods of his/her patrimony which were not affected by the activity undertaken.

Being a trader, because he/she systematically exercises an economic activity that requires licensing and registration, the certified natural person also gets under the scope of the legal provisions relating to insolvency.

The operation of the individual enterprise follows, basically, the same rules as for certified legal persons. The differences regard the nature of the work undertaken by the sole proprietor, holder of an individual enterprise. The certified natural person can carry out any form of activity. Instead, the individual enterprise is an economic undertaking organized by the sole proprietor who undertakes to carry out an organized, ongoing and systematic activity.

The family business operates under the establishment agreement. The establishment agreement is concluded in written and shall contain, under the penalty of nullity, the data on the family members participating in the undertaking, the data on its representation, as well as the data on how the company's revenues will be divided (art. 29, paragraph 1, GEO no. 44/2008). The family business exercises its rights and fulfills its obligations through its representative. The latter will manage the family business interests based on the proxy received from the other members. The special power of attorney received by the representative takes the form of a document under private signature, signed by all the family members who have the legal capacity and by the legal representatives of those who have a limited legal capacity (art. 29, paragraph 2 of GEO no. 44/2008).

The representative will act in the interests of the undertaking, within the limits provided by law. The representative will be able to conclude by himself/herself, without those who have authorized him/her, any document on the current management of the undertaking. For regulation documents, the representative will need the consent of a simple majority of the members of the undertaking and the consent of the owner of the property that is the object of the

document. The representative may conclude, without prior authorization, legal acts by which there are acquired the goods necessary for the activity of their undertaking. However, the authorization is required if the value of the asset to be acquired exceeds 50% of the value of the assets included in the dedicated assets (art. 32 of GEO no.44/2008).

The members of the family business can be both certified natural persons who hold an individual enterprise, or employees to third parties. Like other individual forms, the members of the family business can be insured in the public pension system and in the health insurance and unemployment systems.

Regarding their activity, compared to the individual enterprise and to the certified natural person, the family business can not hire third parties. Instead, it can work with any legal or natural person, without this collaboration to influence its legal status.

The members of the family business are responsible for the debts incurred by the company representative from the exploitation of the dedicated assets. If there has not been established a dedicated asset, or if the latter is unsatisfactory, they will be liable with their full patrimony, in proportion to the agreed participation quotas.

#### **4.3. Termination of the activity**

The certified natural person and the sole proprietor, holder of an individual enterprise, may cease to operate and can be removed from the trade register in the cases provided by law (art. 21, art. 27 and art. 33 of GEO no. 44/2008).

The first cause for termination is beyond the control of the entrepreneur.

Thus, in the case of the holder's death, the certified natural person ceases its operations by law and it is removed from the trade register. In the case of the death of the holder of the individual enterprise, if there are any heirs, they can continue the work of its author, provided that they manifest their wish to do so. The intention to continue the work should be expressed through an authentic statement within 6 months of the heritage debate. In the event that there are two or more heirs who have expressed their willingness to continue the undertaking begun by the one who let them this legacy, they have the opportunity to continue their

predecessor's economic activity as a family business. For this purpose, they have the obligation to appoint a representative. Whatever the case, the economic activity will be continued under the same firm, and in its content there will be indicated the status of successor of the acquirer. In what concerns the family business, death is a cause for the termination and removal from the trade register only in the event that more than half of its members have died.

The holder's will is the second cause for the termination of the activity. Thus, the economic activity of the certified natural person and of the individual enterprise will be terminated at the request of the holder, addressed to the Trade Registry office from its professional head office. Regarding the family business, such a request must be signed by more than half of its members.

The activity of sole proprietors may cease if the holder is in any of the situations referred to in art. 25 of Law no. 26/1990 (the Law on the Trade Register, published in the Official Gazette no. 49/1998, with the subsequent amendments). This law gives the holder the opportunity to request the cancellation from the trade register where, by an irrevocable court judgment, there were abolished, in whole or in part, or altered, documents that were at the basis of registration.

Cessation and cancellation from the registered office is decided by a resolution motivated by the Director of the Trade Registry. The resolution accepting or rejecting the request is enforceable. A complaint against the resolution may be submitted to the competent court within 15 days from its delivery or communication to the party or to the parties concerned.

#### **V. Conclusions**

The legal provisions governing the economic activity of sole proprietors were constantly reviewed and adapted to the economic and social development.

In this respect, significant changes were made initially by GEO no. 46/2011 (published in the Official Gazette no. 350/2011). Thus, in its original form, GEO no. 44/2008 did not allow the certified natural person to employ, by an employment contract, third parties in order to conduct its

authorized activities; in 2011, the certified natural person was granted this possibility. This resulted in the creation of new jobs, in lower unemployment rates, in the increase of revenues to the state budget, by the contributions for the newly employed persons, and, not the least, in reducing the effects of the global economic crisis.

The latest amendments by Law no. 4/2014 aimed at ensuring the applicability of the principle of equal treatment between men and women carrying out an independent activity provided for in Directive 2010/41/EU, regulation that Romania was forced to implement within its national legislation. This resulted in the introduction in GEO no. 44/2008 of the provisions requiring the sole proprietor, regardless of the form in which it operates its authorized activities, to declare and register in the trade register the note on the spouse's participation in the work they perform. We should also note the provisions introduced in GEO no. 44/2008 referring to the possibility that these individuals be insured in the public pension and unemployment systems.

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## Political and Business Cycles: Interferences and Socio-Economic Implications in Romania and Republic of Moldova

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### Abstract

*The electoral instability falls into the continuous shifts in paradigms, systems, values and economic performance which countries around the world still experience. We believe it is common sense that the election process in a democratic country has an important impact (even a manipulation effect) on its economy. In this context, this paper aims to test the interferences between the political cycle and the business cycle in Romania and Republic of Moldova. The paper aims to verify if the government has an expansionist policy before the elections, which leads to a lower level of taxes and unemployment and contributes, at the same time, to the increase of the consumption per inhabitant, of the GDP and of the subventions granted by the government, followed by a restrictive one.*

**Key words:** business cycle, political cycle, inflation, unemployment, economic growth

**J.E.L. classification:** E32, D72, E52, E61

### 1. Introduction

A cycle can be defined as any phenomenon which repeats itself at relatively regular time intervals. If a system is taken out of its state of equilibrium, its "inertia" will attempt to restore it to the initial state, forming thus a cycle. Although cycles are present everywhere, they never appear at perfect periodic intervals and the length of implementation varies from one cycle to the

other.

During the past decades, researchers observed and studied a phenomenon considered at least interesting for many countries: a correlation between the political cycle and the evolution of the economic cycles. This phenomenon shows that, before elections, the economic policy adopted by the government is expansionist, accompanied by the reduction of taxes and of the unemployment rate and by the increase of the GDP, of subventions and of consumption per inhabitant and that, immediately after the elections, the policy becomes restrictive. This observation is the starting point of our research.

### 2. A brief literature review

The research works concerning the interference between the political cycle and the business one can be divided into two distinct time periods.

In the *first period*, the theoretical basis of electoral manipulations was first laid down by Nordhaus [1975] and Lindbeck [1976]. These researches involve the Philips' curve and the models of economic pre-rational expectations. Nordhaus [1975] proved that governments tend to adopt a series of expansionist macroeconomic policies during the period prior to the elections with a view to reducing unemployment and to increasing their chances of being reelected. Nevertheless, the cost of such a policy consists in the increase of inflation, which is visible only after the elections. Hibbs' model concerning the "partisan" cycles [Hibbs,

1977] focuses on the permanent and systematic differences with regard to inflation – unemployment in the combinations chosen by various political parties.

The *second period* approaches the theory of political cycles from the perspective of the theory of games. It is worth mentioning the reference works of Cukierman and Meltzer [1986], Rogoff [1990], Sibert [1990], Persson and Tabellini [1990] who suggest rational opportunistic models, whereas Alesina [1987] proposes a partisan rational model of political cycles. The models developed during the second period differentiate themselves from those of their predecessors at least through two different hypotheses: a) the rationality of economic operators, which leads to the idea that real economic activity is not influenced by the monetary policy; b) the voters' rationality, which involves the assumption that they cannot be systematically deceived.

The model developed by Rogoff [1990] is the first one which speaks of the presence of political cycles as a consequence of asymmetrical information which travels between the voters and the politicians. Rogoff shows that, if governments want to have a high level of competence, they tend to adopt an expansionist policy in the period before the elections.

Also, the first empirical tests of political business cycles were carried out mainly in developed countries, but produced only mixed results [Alesina and Roubini 1992], [Alesina et al., 1997], [Faust and Irons, 1999], [Heckelman 2006], [Grier 2008].

### 3. Models of political business cycles

There are two theoretical approaches to Political Business Cycles (PBC): opportunistic and partisan. Partisan models (as developed by Hibbs, 1977; and Alesina, 1987) assume a two-party political system in which each party has a different policy platform, with PBC arising due to politicians' pursuit of ideological goals. Opportunistic cycles, as initially developed by Nordhaus [1975], are created by incumbents manipulating economic variables in order to maximize their re-election chances just prior to elections. Opportunistic political cycles in fiscal policy variables occur both in

developed and developing countries, although they are larger in the latter.

The theories of PBC can also be distinguished in models assuming adaptive [Nordhaus, 1975] and rational expectations [Cukierman and Meltzer, 1986], [Rogoff 1990], [Persson and Tabellini, 1990], [Rogoff and Sibert, 1988] of economic actors. In the traditional approaches with adaptive expectations, opportunistic policymakers can take advantage of an exploitable Phillips curve trade-off. Opportunistic policymakers can fool naive voters and stimulate the economy immediately before each election. In the approaches with rational expectations, informational asymmetries between politicians and voters take center stage in explaining electoral cycles. The incumbent exploits his information advantage to signal his economic competence before elections.

The classification based on the two criteria (whether policy makers have opportunistic or partisan motivations and whether voters evaluate candidates retro- or prospectively) allows us to identify four schools of thought in the PBC literature: (i) the pure opportunistic PBC; (ii) the strong partisan theory; (iii) the rational opportunistic PBC, and (iv) the weak (rational) partisan theory.

The pure opportunistic model is centered on the relation between the following two macroeconomic indicators: unemployment and inflation. In economy, in general, it is believed that a reaction of reversed proportionality exists between the level of unemployment and the inflation rate. Thus, the political factor must make a decision with regard to the reduction of inflation with a higher cost of unemployment or the decrease of the last mentioned indicator with a higher cost of inflation [Nordhaus, 1975].

The strong partisan theory was developed by Hibbs [1977] and is based on the correlation between ideological views and economic policies. According to Hibbs' theory, each party can be identified through its ideology. The partisan theory has divided the political spectrum in two guidelines: left and right. Left-wing parties choose a high level of inflation and a low unemployment rate. On the other hand, right-wing parties will opt for a low inflation rate and a high level of unemployment.

The rational opportunistic model

combines classical hypothesis of politicians having an opportunistic behavior with the ideas of competence and asymmetric information [Rogoff and Sibert, 1988]. Contrary to the pure opportunistic model, where voter don't "learn" from the politician's behavior, the term of rationality indicates that every voter try to maximizes individual preference function.

The weak (rational) partisan theory relies on the traditional operator's wish to resort to the "median voter". The obtained cycle is similar to the ideological cycle in which each party has a distinct set of ideologies which are unique. The difference arises from the desire to deviate from these ideologies in order to maximize votes. The logic behind this theory is explained by Alesina, Roubini Cohen [1997].

#### 4. Political business cycles in Romania

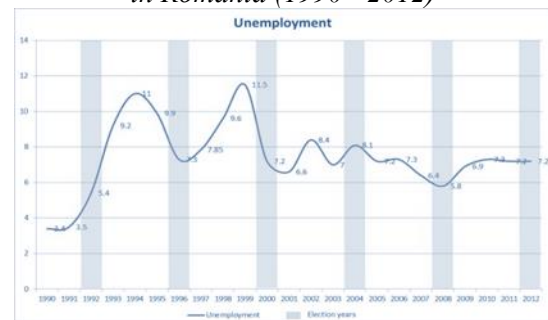
Romania is a 'semi-presidential republic'. The executive functions are held by both the president and the government. The president is elected by popular vote for a maximum of two terms, and since the amendments in 2003, each term lasts five years. He appoints the prime minister, who in turn appoints the Council of Ministers. The legislative branch of the government, collectively known as the Parliament, consists of two chambers – the Senate with 140 members, and the Chamber of Deputies with 346 members. The members of both chambers are elected every four years by simple plurality.

This part of the study aims to test the interferences between the political/electoral cycle and the business cycle in Romania, verifying the hypothesis according to which the Romanian government had an expansionist policy before the elections, followed by a restrictive one.

Following the analysis of the unemployment rate (see the Figure 1), we may notice that the labor force market was affected by severe imbalance over the 1990-2012 period. The most important imbalances are the ones between the active and the inactive population (unemployment rate). The unemployment rate shows signs of cyclicity, with significant decreases during the 1996, 2000, 2008 and even 2012 pre-electoral periods, followed by considerable increases of this index in the following

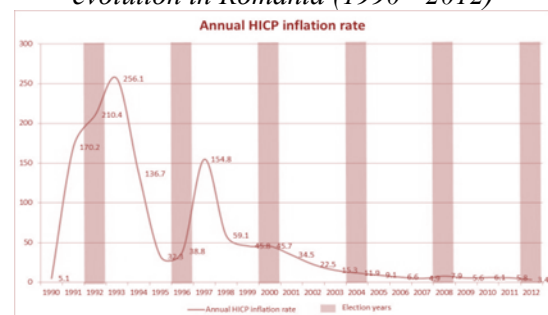
periods (excepting the period after 2012, for which we didn't find data yet). The 1992 electoral year (and pre-electoral period) is an exception from the rule, because this year represents the first democratic election in Romania after a 40 years period of socialism. One can see that 2004 electoral year (and pre-electoral period) is also an exception from the rule, the unemployment rate increasing before the election and decreasing after that, fact explained by the Euro-Atlantic aspiration of the Romanian government (joining NATO in 2004 and European Union in 2007). Also we cannot overlook the fact that the migrating tendency of the Romanian population had an important impact on the unemployment rate.

Figure 1. The unemployment rate evolution in Romania (1990 - 2012)



Source: Authors' elaboration based on Eurostat data

Figure 2. The annual HICP inflation rate evolution in Romania (1990 - 2012)

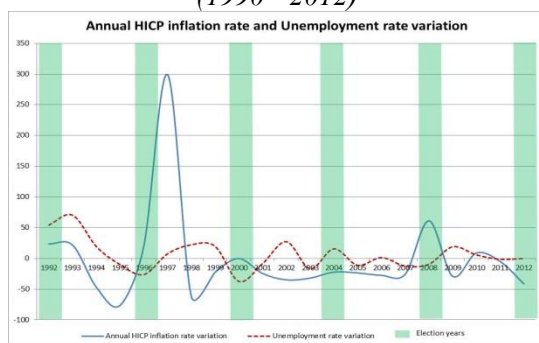


Source: Authors' elaboration based on Eurostat data

Figure 2 presents the annual evolution of inflation in Romania during the 1990-2012 period. The HICP inflation rate was cyclical and highly volatile until 1998. In the 1992 and 1996 pre-electoral periods, we may notice that the inflation rate increased to a significant extent. If the 1992 pro-political cycle evolution can be left to the socialist

period inheritance, the 1996 electoral year (and pre-electoral period) represents a typical political interventions (not policy interventions). Starting with 1998 (with exception of 2008, when the Ministry of Finance unilateral decision to increase VAT from 19% to 24% led to an increase in inflation to 7.9%), the inflation registered a descending trend caused by the efforts of the National Bank of Romania to stabilize the inflation and the setting of the objective of direct inflation targeting in 2005. Overall, this indicator does not follow the trends of the model described by Nordhaus, but rather reflects the conclusions of the economists Alesina, Roubini and Gerald [1999]. The contradictory tendencies that can be traced from 1998 till present may also suggest a high level of independence of the National Bank of Romania.

*Figure 3. The annual HICP inflation rate and unemployment rate variation in Romania (1990 - 2012)*



*Source: Authors' elaboration based on Eurostat data*

All above mentioned findings can be proved using the graph of inflation and unemployment variation (see the Figure 3): excepting the 1992 and 2004 electoral years, before elections, the economic policy adopted by the government is expansionist, accompanied by the reduction of the unemployment rate and by the increase of inflation, and that, immediately after the elections, the policy becomes restrictive.

## **5. Political business cycles in Republic of Moldova**

Republic of Moldova is a unitary parliamentary representative democratic republic. The Constitution of Moldova, adopted on July 29, 1994 sets the framework

for the government of the country. In order to amend the Constitution of Moldova is required a parliamentary majority of at least two thirds, but in time of war or national emergency it cannot be revised.

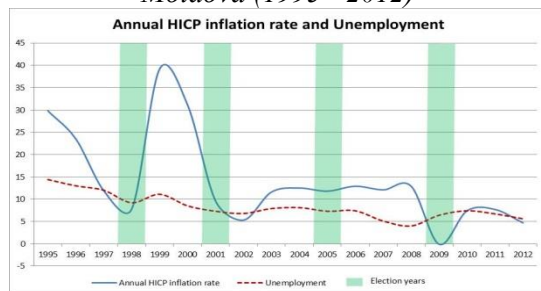
The country's central legislative body is the unicameral Moldovan Parliament (Parlament), which is composed of 101 members elected by popular vote on party lists every four years. Under the electoral legislation, starting 1994 the parliamentary elections take place on the basis of the proportional system, with the whole territory of the country being an electoral constituency which elects 101 members of the Parliament. The elections shall take place not later than 3 months after the end of the mandate or dissolution of the precedent Parliament.

The head of state is the President of Moldova, who is elected by the Moldovan Parliament, requiring the support of three fifths of the deputies (at least 61 votes). The president of Moldova has been elected by the parliament since 2001, a change designed to decrease executive authority in favor of the legislative body. The president appoints a prime minister who functions as the head of government, and who in turn assembles a cabinet, both subject to parliamentary approval.

Analyzing the unemployment rate (see Figure 4), one can see that the trend is slightly downward, without incurring any cyclic movements over the 1995-2012 period. Official statistics registers stabilization of the level of logged unemployment. But, it is just a tip of the iceberg. In reality, more complex processes take place: the gap between registered and general unemployment (determined by the ILO Methodology) increases, the extent of hidden and chronic unemployment rises, outward migration of labor force grows and socio-demographic characteristics of the unemployed change. The emigration of population to other countries and improper definition of unemployment are the most appropriate explanations of the low and decreasing rate. In Moldova, the unemployment rate measures the number of people actively looking for a job as a percentage of the labor force. According to latest surveys, the unemployment has hit more than 80 percent of families that means at least a family member was dismissed or

obliged to take an undesired vacation. Respectively, 25 percent of those who lost their jobs have plans to immigrate to other countries and the "unemployment rate" does not take them into account. The latest statistics indicates a number of over one million persons that works outside the country, especially in Russia and EU countries.

Figure 4. The annual HICP inflation rate and Unemployment rate evolution in Republic of Moldova (1995 - 2012)

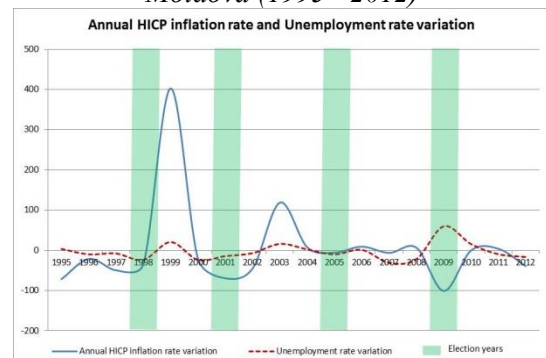


Source: Authors' elaboration based on data provided by NBS of Republic of Moldova

Figure 4 also presents the annual evolution of inflation in the Republic of Moldova during the 1995-2012 period. The HICP inflation rate was cyclical and highly volatile during the analyzed period. In the 1998, 2001 and 2009 pre-electoral periods, one can notice that the inflation rate dropped significantly, but in the period after the election it returns to a high level. The explanation is very simple: the population perceives the change for the better by the prices decreasing (Bernd Hayo demonstrated that the success of the Government depends on keeping the rate of inflation to a level as low as possible). People have become accustomed to low prices when they lived in the Soviet Union. Moreover, they associate the Communist Party with that "good times" when they used to live "well". So why at the beginning of 90' in Moldova arose a pseudo-Communist Party, which speculated on the nostalgic feelings of the population by decreasing the inflation rate in pre-electoral periods and won the 1998, 2001 and 2005 elections. They used the same tactics in 2009, but disappointed population punished them with April Revolution from Moldova (or Twitter Revolution). After a long period of communist's governance, Republic of Moldova returns to democratic aspiration and

Euro-Atlantic Integration.

Figure 5. The annual HICP inflation rate and Unemployment rate variation in Republic of Moldova (1995 - 2012)



Source: Authors' elaboration based on data provided by NBS of Republic of Moldova

All above mentioned findings can be proved using the graph of inflation and unemployment variation (see Figure 5); excepting the 2005 electoral year, before elections, the economic policy adopted by the government is accompanied by the reduction of the inflation, and that, immediately after the elections, it returns to a high level.

All these trends indicate that the Republic of Moldova followed the Model of "Partisan" (Ideological) Cycles, which is based on the correlation between ideological views and economic policies.

## 6. Conclusions

The theory concerning the interference between the political cycle and the business cycle is one of the most controversial theories in modern economy. According to the economic theory, and also to the results obtained above, the economic policy adopted by each government prior to elections is expansionist, leads to a lower level of taxes and unemployment and contributes, at the same time, to the increase of the consumption per inhabitant, of the GDP and of the subventions granted by the government. The government adopts a restrictive policy after each electoral campaign.

The analysis conducted in this paper shows that, regardless of the "ideology" of the governing party, the same tactics were employed to attract voters in the analyzed countries (efforts to reduce the unemployment rate during the pre-electoral

period). Although it involved very high costs, this policy didn't generate the expected result: in Romania all the elections from the 1996-2012 period were lost. It seems that the parties abandon the ideological dimension of the policies they promote. The new governing parties always mention the "difficult legacy" left by the previous government and leave, in their turn, a similar "legacy" to their successors. The analyzed period fits the Model of the Partisan-Opportunistic Cycles perfectly.

Republic of Moldova (non EU member, non-Euro Zone member) shows a different model of interference. Basing its tactics on the correlation between ideological views and economic policies by keeping the rate of inflation to a level as low as possible before the elections, the political parties follow the Model of "Partisan" (Ideological) Cycles. Making abuse of the same tactics during a long period of time and just fooling the people is the best way to be punished by own electorate. An adequate example is the 2009 election year in Moldova, when disappointed people punished the Communist Party during the April Revolution (or Twitter Revolution). After a long period of communist's governance, Republic of Moldova returns to democratic aspiration and Euro-Atlantic Integration.

This study reveals that some tools and means of economic influence are only used in certain electoral period and not in others. The nowadays rational politicians use different ways to intervene in the economy, depending on the election. The incumbents have the ability to choose several ways to affect the economic situation of the voters: besides the unemployment and inflation rates manipulation, they can use the law on the minimum wage or pension benefits, public spending or tax cuts.

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# Mutations Driven by the Global Financial Crisis on the Hierarchy of Monetary Policy Transmission Mechanism Channels in CEE Countries

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## Abstract

*This paper analyzes the importance of monetary policy transmission mechanism channels in the countries of Central and Eastern Europe (CEE) on the road to euro and their changes after the event of the recent financial crisis. We build out study based on the vector autoregression (VAR) model, with emphasis on the types of strategies used by central banks (CBs) in the region. The main results indicated the prevalence of the exchange rate channel in the monetary policy transmission mechanism in selected states, and for the post turmoil period the following results: a reduction in the role of the three channels subject to analysis (interest rate channel, bank lending channel and real estate price channel) for countries in the region with CBs that target the exchange rate and the maintaining of the exchange rate channel importance, increasing significance of the interest rate channel and a limited role of the bank lending channel and the price of real estate in CEE countries with national monetary authorities that use a strategy of inflation targeting (IT).*

**Keywords:** monetary policy, transmission mechanism, autoregressive vector, Central and Eastern Europe.

**JEL Classification:** E52, E43, C58, P48

## 1. Introduction

In this paper we focus on the building of an empirical analysis of the importance of measurable channels of monetary policy transmission mechanisms in the CEE countries acceding to the currency area based on the vector autoregression (VAR) model.

The objectives set aim to identify and compare the significance of monetary policy

transmission mechanisms channels for both the aggregate euro area and for the states of Central and Eastern Europe on the road to euro adoption, separately, depending on the types of monetary policy strategies used by the CBs and determine the impact of the worldwide financial distress on their rankings.

The proposed approach for pursuing our objectives brings several novelty elements: first, the specification of different models for various monetary policy strategies applied in the countries subject to analysis to better capture their specific features; second, determining the consequences of the international turmoil on the monetary policy transmission channels in selected states, because currently there are only limited non-unitary researches treating CEE countries separately.

## 2. Literature review

Presently, we note a new wave of interest towards the study of the recent economic and financial crisis implications on the monetary policy transmission mechanism based on VAR techniques (e.g., [1], [2]).

Research in the case of the CEE region is still at the beginning. We mention the study by [3], which highlights the impact of the recent worldwide distress on the effectiveness of monetary policy transmission mechanism in Poland through a VAR model and a small structural model, pointing out that it depends on both the monetary policy and the structural characteristics of the economy. The financial turmoil, which affected both components, has led to a change in the monetary policy rule and to a significant decrease in the effectiveness of monetary policy. On the same line, [4] emphasized that during the recent crisis, the monetary policy transmission mechanism in a small, open

economy such as Poland suffered extensive disruption, with the interest rate channel being the most affected.

[5] performed an analysis of the monetary policy implications in Hungary through a large-scale Bayesian estimated VAR model (BVAR) for the period 2001:6 - 2010:9 and outlined that despite the significant degree of euroisation, high share of foreign capital in the banking and corporate sectors, exponential levels of public debt, altogether likely to diminish the effectiveness of monetary policy, the decline in economic activity due to the manifestation of a contractionary monetary policy shock appears as obvious and much faster than in advanced economies.

[6] underlined the lack of similarities of the transmission mechanisms between all CEE countries on the road to EZ accession and the Eurozone at the aggregate level, which might lead to the manifestation of clear and strong asymmetries at the time of monetary area entry. [7] researched the effectiveness of monetary policy applied by the monetary authorities in the region in ensuring financial stability and emphasize that the effectiveness of changes in short-term nominal interest rates on asset prices differ according to the type of monetary policy strategy used.

Based on a structural VAR, [8] studied the measures taken by the National Bank of Romania at the beginning of the financial turmoil, and underlined the importance of the interest rate channel, the complex impact of the exchange rate channel and the key role of the need for and implementation of appropriate measures to stimulate demand.

Using monthly frequency data for the period 2001 to 2010, [9] analyzed the functioning of monetary policy transmission mechanism in Romania through a Bayesian techniques estimated VAR model (BVAR). The key findings highlighted by authors stress the importance of the exchange rate channel, which significantly influences the evolution of real economic variables, and the rising importance of the interest rate channel, which over recent years has become more consistent. It should be noted that the authors included in the analysis a real estate market development index, reflecting domestic currency appreciation and the evolution of broad money as decisive factors that have led

to these asset prices boom prior to the emergence of the financial crisis.

### 3. Methodology and data

Given the below system:

$$AY_t = C(L)Y_{t-1} + D(L)X_t + B\varepsilon_t \quad (1)$$

where: the A matrix includes all coefficients describing simultaneous relationships between variables, the C(L) matrix includes all coefficients that describe relations between variables lags, the D(L) matrix includes all coefficients describing relationships between endogenous and exogenous variables, the B matrix is a diagonal matrix and the  $\varepsilon$  vector includes the residuals. By multiplying the VAR system with the inverse of the A matrix, we obtain the followings:

$$Y_t = A^{(-1)}C(L)Y_{t-1} + A^{(-1)}D(L)X_t + A^{(-1)}B\varepsilon_t \quad (2)$$

That can be re-written as:

$$Y_t = aY_{t-1} + bX_t + \mu_t \quad (3)$$

where:

$$a = A^{(-1)}C(L); b = A^{(-1)}D(L) \mu = A^{(-1)}B\varepsilon$$

Equation (1) describes the structural model and equation (3) is the reduced form of the model; the latter can be empirically observed.

Thus, the considered VAR model has the following representation in the reduced form:

$$Y_t = aY_{t-1} + bX_t + \mu_t$$

where:  $Y_t$  is the vector of endogenous variables,  $X_t$  is the vector of exogenous variables,  $\mu_t$  is the vector of the residual terms (white noise),  $a$  is a matrix comprising coefficients that describe the relationship between all the variables, and  $b$  is an endogenous matrix comprising all the coefficients that model the relationships between endogenous and exogenous variables.

Hence, for the euro area the recursive VAR (VAR 1) would have the representation shown in equation (4):

$$\begin{bmatrix} gdp\_r\_ez \\ cpi\_ez \\ m3\_ez \\ ir\_ez \\ reer\_ez \\ pc\_ez \\ pp\_ez \end{bmatrix} = a \begin{bmatrix} gdp_{t-1}\_r\_ez \\ cpi_{t-1}\_ez \\ m3_{t-1}\_ez \\ ir_{t-1}\_ez \\ reer_{t-1}\_ez \\ pc_{t-1}\_ez \\ pp_{t-1}\_ez \end{bmatrix} + b \begin{bmatrix} wcpi \\ gdp\_r\_us \\ ir\_us \end{bmatrix} + \mu_t^{ez} \quad (4)$$

In this case, the vector of exogenous variables includes the followings: global resource prices index (wcpi), U.S. real gross



domestic product ( $gdp\_r\_us$ ) and short-term interest rate in the U.S. ( $ir\_us$ ). The vector of endogenous variables for the Eurozone comprises the real gross domestic product ( $gdp\_r\_ez$ ), consumer price index ( $cpi\_ez$ ), M3 monetary aggregate ( $m3\_ez$ ), short-term interest rate ( $ir\_ez$ ), the real effective exchange rate ( $reer\_ez$ ), private credit ( $pc\_ez$ ) and real estate prices ( $pp\_ez$ ).

For states that use an inflation targeting strategy, the recursive VAR model (VAR 2) is specified according to relation (5):

$$\begin{bmatrix} gdp\_r\_n \\ cpi\_n \\ reer\_n \\ ir\_n \\ m3\_n \\ pc\_n \\ pp\_n \end{bmatrix} = a \begin{bmatrix} gdp_{t-1}r\_n \\ cpi_{t-1}n \\ reer_{t-1}n \\ ir_{t-1}n \\ m3_{t-1}n \\ pc_{t-1}n \\ pp_{t-1}n \end{bmatrix} + b \begin{bmatrix} gdp\_r\_ez \\ cpi\_ez \\ ir\_z \end{bmatrix} + \mu_t^n \quad (5)$$

where n successive = CZ (the Czech Republic), HU (Hungary), PL (Poland), RO (Romania).

Exogenous variables vector for the euro area in this case includes: real gross domestic product ( $gdp\_r\_ez$ ), consumer price index ( $cpi\_ez$ ) and short-term interest rate ( $ir\_ez$ ) and the vector of endogenous variables comprises the real gross domestic product in the selected state ( $gdp\_r\_n$ ), consumer price index ( $cpi\_n$ ), real effective exchange rate for the country in question ( $reer\_n$ ), short-term interest rate ( $ir\_n$ ), the size of the national M3 monetary aggregate ( $m3\_n$ ), private credit ( $pc\_n$ ) and real estate market prices ( $pp\_n$ ).

For central banks using a strategy of exchange rate targeting, recursive VAR (VAR 3) will have the representation in equation (6):

$$\begin{bmatrix} ir\_ez \\ gdp\_r\_n \\ cpi\_n \\ m3\_n \\ ir\_n \\ pc\_n \\ pp\_n \end{bmatrix} = a \begin{bmatrix} ir_{t-1}ez \\ gdp_{t-1}r\_n \\ cpi_{t-1}n \\ m3_{t-1}n \\ ir_{t-1}n \\ pc_{t-1}n \\ pp_{t-1}n \end{bmatrix} + b \begin{bmatrix} reer\_n \\ gdp\_r\_ez \\ cpi\_ez \end{bmatrix} + \mu_t^n \quad (6)$$

where n successive = BG (Bulgaria), LV (Latvia), LT (Lithuania).

The exogenous variables vector include: the real effective exchange rate for the selected country ( $reer\_n$ ), real GDP in the euro area ( $gdp\_r\_ez$ ) and consumer price index in the EZ ( $cpi\_ez$ ). In turn, in this case, the vector of endogenous variables comprises

the short-term interest rate in the euro area ( $ir\_ez$ ), real gross domestic product in the country in question ( $gdp\_r\_n$ ), consumer price index ( $cpi\_n$ ), the expanded national monetary aggregate ( $m3\_n$ ), short-term interest rate ( $ir\_n$ ), private credit ( $pc\_n$ ) and real estate prices in the considered state ( $pp\_n$ ).

In the case of recursive VAR, the identification of shocks implies imposing zero restrictions on the A and B matrices coefficients in the relation  $\mu = A^{(-1)}B\varepsilon$  is achieved through a Cholesky decomposition. In the case of recursive identification, the Cholesky A matrix has a triangular structure, with elements above the main diagonal equal to zero. Given that, we note that the ordering of variables as highlighted by relations (4), (5) and (6) requires implicit assumptions about: (1) what to consider when setting the monetary policy and (2) which variables respond or not respond simultaneously to monetary policy decisions.

The sample used is restricted, including data from the time central banks have adopted the monetary policy strategy currently in application.

Such an aim focused on a time horizon that starts with the adoption of the CB monetary policy strategy was hampered by the availability of real estate prices development data series. Given quarterly data frequency, the application of the two restrictions above mentioned leads to the following intervals for the baseline scenario: Bulgaria: 1997q1:2013q1; the Czech Republic: 2004q1:2013q1; Latvia: 2000q1:2013q1; Lithuania: 1998q4: 2013q1; Poland: 2002q4:2013q1; Romania: 2005q3:2013q1; Hungary: 2001q4:2013q1; the Eurozone: 1999q1:2013q1. For the scenario that covers the period subsequent to the international financial crisis, the time span is 2008q4:2013q1.

The variables included in the analysis are the gross domestic product (gdp) as a fixed-base index (2005 = 100) of real GDP in the euro area, the US and each of the selected countries; consumer price index (cpi) as fixed base index (2005 = 100) of consumer prices for the euro area and for each of the states subject to analysis; broad money (m3) as a fixed-base index (2005 = 100) for euro area M3 monetary aggregate and in each country in the sample; the short term interest rate (ir)

with 3M EURIBOR as proxy for the EZ and its equivalents for other countries, respectively; the real effective exchange rate (reer) as fixed-base index (2005 = 100) of real effective exchange rate (taking into account the 27 trading partners) for the euro area and the selected states; global resource prices index (wcpi ) as fixed-base index (2005 = 100); private credit (pc) as fixed-base index (2005 = 100) of private credit in the euro area and in analyzed countries and real estate price (pp) as a fixed base index (2005 = 100).

Most data is provided by Eurostat, except for the world resources price index retrieved from the World Bank, the size of monetary aggregates taken from monthly bulletins published on the websites of selected CBs, private credit and the price of real estate, where the data comes from the Bank for International Settlements database.

All series except for short-term interest rate and real effective exchange rate has been adjusted to remove seasonal factors using the X12 procedure applied by the U.S. Census Bureau. Also, all series except for short-term interest rates are logarithmic.

We test the variables stationarity by using Augmented Dickey - Fuller test and Phillips - Perron that returned negative results (non-stationary variables). Most variables are integrated of order 1 (I (1)), and some of order 2 (I (2)).

The variables supporting the VAR analysis should not, however, be stationary. Sims (1980), inter alia, argued against differentiation, even if the series contain a unit root, because differentiation causes information losses.

Cointegration testing based on the methodology developed by Johansen shows the existence of a number of cointegration equations,  $r$ , so that  $0 < r < \text{endogenous variable number}$  (in this case 7), at a significance threshold of 0.05 (results based on both the Trace test and the Maximum Eigenvalue test). This outcome, in conjunction with those obtained from stationarity tests highlights the possibility of model estimation with level-expressed variables.

The choice of lags number was based on Schwartz informational evaluation criteria, suggesting in all cases the selection of a single lag. We verified the results by

applying the lag exclusion test to eliminate lags that are not significant. The Lag Exclusion Wald test confirmed the number of lags indicated by the Schwartz criterion.

VAR models are confirmed if they are stable and the residuals are white noise. We verified the stability of the model by applying AR root tests, with results indicating the stability of all VAR models, subunit inverse roots, non-exceeding the circle of unit radius, respectively. Residual serial non-correlation hypothesis testing is based on Portmanteau test; we checked for the normal distribution of errors with the help of Jarque - Bera test, and for the residuals homoscedasticity by applying the White test statistic. The findings revealed a normal, homoscedastic distribution of errors, a number of small problems related to the existence of a serial correlation of residuals; overall, the models are able to provide a good picture of the dynamics of variables interactions. The results of the above mentioned tests can be obtained on request from the author.

#### 4. Estimation results

Testing the importance of transmission channels and associated mutations as a result of the recent financial crisis is supported by VAR models. Hence, the variable specific to each transmission channel is successively treated as endogenous (as in the basic model) or exogenous, following the impulse responses of real activity and inflation expressed by the consumer price index to an unexpected contractionary monetary policy shock. The estimation findings can be found in Annex.

Mutations driven by the global financial crisis influencing the importance of transmission channels reflected by the VAR analysis are summarized in Table 1.

*Table 1 Changes in the importance of monetary transmission channels subsequent to the international financial distress.*

	ERC	IRC	CC	REPC
EZ	-	-	-	-
CZ	=	=	-	-
PL	=	+	-	-
RO	-	+	-	-
HU	=	+	-	-

BG	n.a.	-	-	-
LV	n.a.	-	-	-
LT	n.a.	-	-	-

Source: author's estimation

Notes:

1) The signs "+", "-" and "=" indicate an increase / decrease / maintaining of the monetary transmission channel importance during 2008q4 and 2013q1 compared with extended time range specific to each country/area;

2) n.a. - The comparison is not possible based on the results;

3) ERC - exchange rate channel, IRC - interest rate channel, CC - credit channel, REPC - real estate price channel

3) EZ - the Eurozone; CZ - the Czech Republic; PL - Poland; RO - Romania; HU - Hungary; BG - Bulgaria; LV - Latvia; LT - Lithuania.

The research results indicate a reduction in the importance of the four transmission channels in the euro area, a decreasing role of the three channels for selected countries with central banks targeting the exchange rate and the maintaining, generally, of the exchange rate channel role, rising significance of the interest rate channel and limited importance of the credit channel and the real estate price channel in the CEE countries that implement a strategy of inflation targeting.

## 5. Conclusions

Based on vector autoregression (VAR) model, the analysis of the monetary policy transmission mechanism in the CEE countries acceding to the currency area relative to the EZ has led to essential findings customized to the monetary policy strategy applied by each central bank.

Firstly, the study has indicated the prevalence of the interest rate channel within the transmission mechanism of the single monetary policy, the significance of the exchange rate channel and the rising importance of interest rate channel during the last years for the CEE countries with monetary authorities targeting inflation and also the central place of the interest rate channel in the transmission mechanism for the selected CEE states that target the exchange rate.

Secondly, for the post-crisis period, the analysis revealed a limited role of the four transmission channels in the euro area, diminishing importance of the three channels

for states in the CEE region with CBs that use a strategy of exchange rate targeting and the maintaining of the exchange rate channel role, increasing significance of the interest rate channel and limited importance of the bank lending channel and of the real estate prices channel in the CEE states with national monetary authorities geared towards direct inflation targeting.

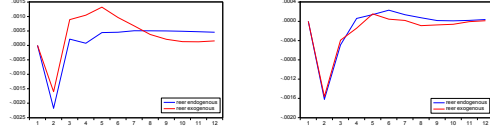
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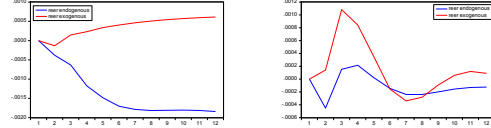
Annex  
 The case of Czech Republic

Exchange rate channel

GDP response to an interest rate shock  
 2004q1: 2013q1      2008q4: 2013q1

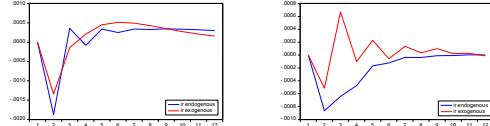


CPI response to an interest rate shock  
 2004q1: 2013q1      2008q4: 2013q1



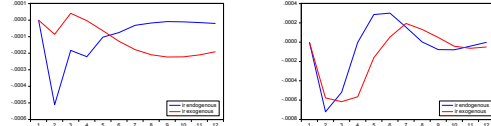
Interest rate channel

GDP response to an M3 shock



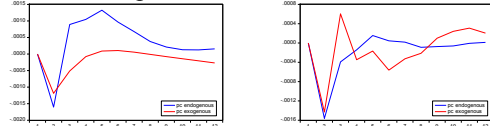
Interest rate channel

CPI response to an M3 shock



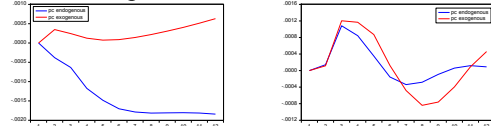
Bank lending channel

GDP response to an interest rate shock



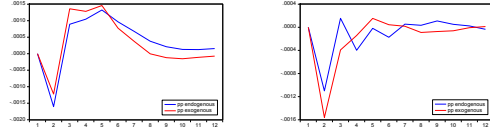
Bank lending channel

CPI response to an interest rate shock



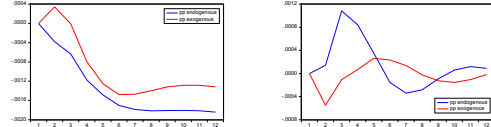
Real estate price channel

GDP response to an interest rate shock



Real estate price channel

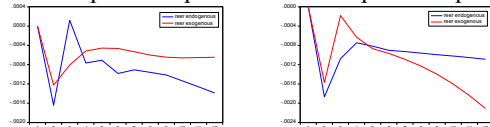
CPI response to an interest rate shock



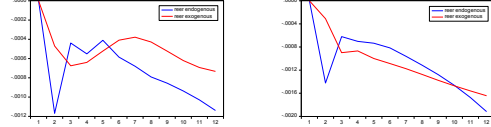
The case of Poland

Exchange rate channel

GDP response to an interest rate shock  
 2002q4: 2013q1      2008q4: 2013q1

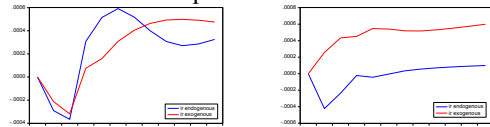


CPI response to an interest rate shock  
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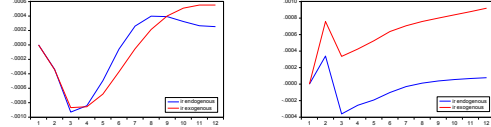
Interest rate channel

GDP response to an M3 shock



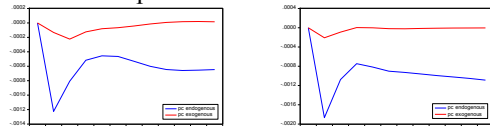
Interest rate channel

CPI response to an M3 shock



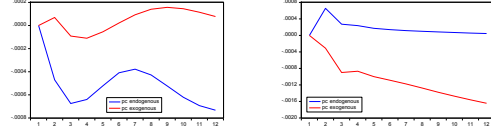
Bank lending channel

GDP response to an interest rate shock



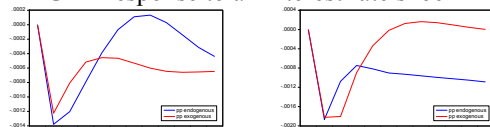
Bank lending channel

CPI response to an interest rate shock



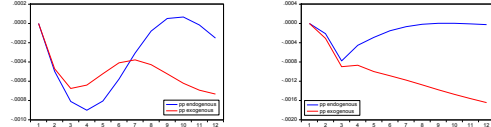
Real estate price channel

GDP response to an interest rate shock



Real estate price channel

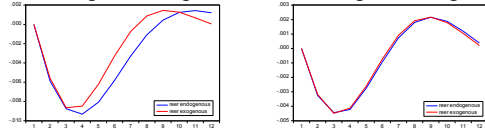
CPI response to an interest rate shock



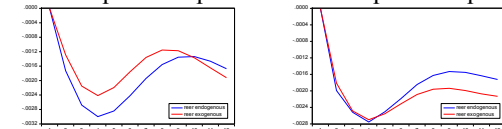
The case of Romania

Exchange rate channel

GDP response to an interest rate shock  
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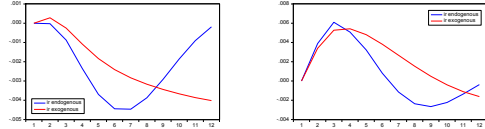


CPI response to an interest rate shock  
 2005q3: 2013q1      2008q4: 2013q1



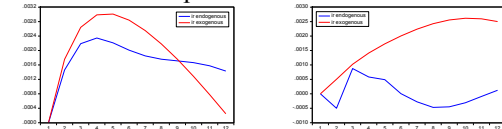
Interest rate channel

GDP response to an M3 shock



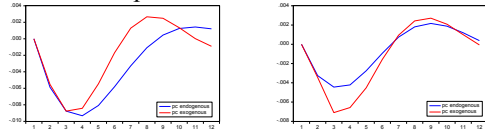
Interest rate channel

CPI response to an M3 shock



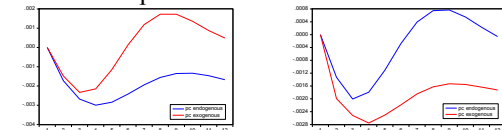
Bank lending channel

GDP response to an interest rate shock



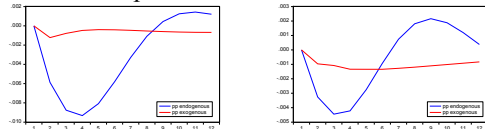
Bank lending channel

CPI response to an interest rate shock



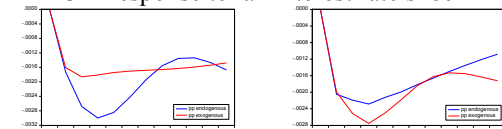
Real estate price channel

GDP response to an interest rate shock



Real estate price channel

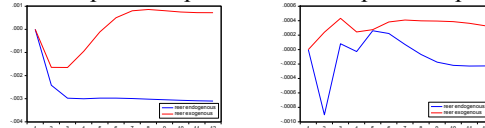
CPI response to an interest rate shock



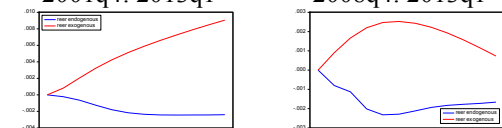
The case of Hungary

Exchange rate channel

GDP response to an interest rate shock  
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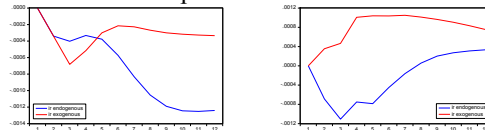


CPI response to an interest rate shock  
 2001q4: 2013q1      2008q4: 2013q1



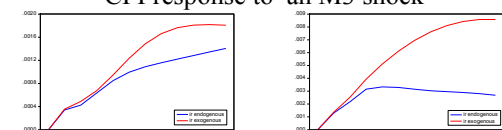
Interest rate channel

GDP response to an M3 shock



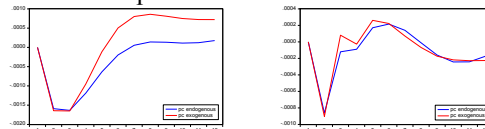
Interest rate channel

CPI response to an M3 shock



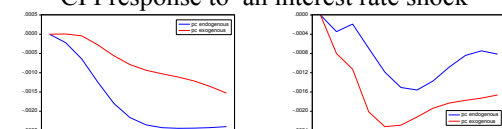
Bank lending channel

GDP response to an interest rate shock



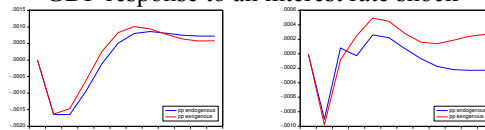
Bank lending channel

CPI response to an interest rate shock



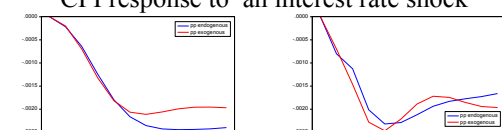
Real estate price channel

GDP response to an interest rate shock



Real estate price channel

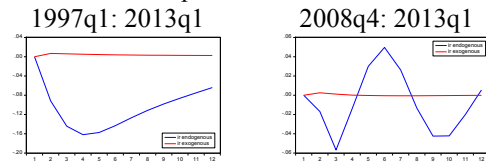
CPI response to an interest rate shock



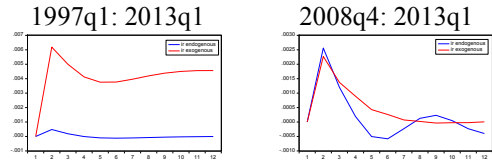
The case of Bulgaria

Interest rate channel

GDP response to an M3 shock

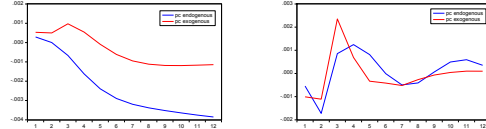


CPI response to an M3 shock



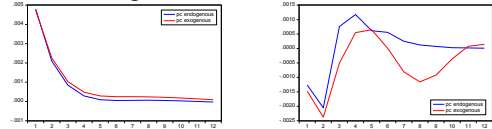
Bank lending channel

GDP response to an interest rate shock



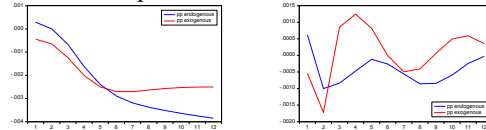
Bank lending channel

CPI response to an interest rate shock



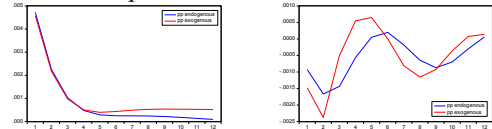
Real estate price channel

GDP response to an interest rate shock



Real estate price channel

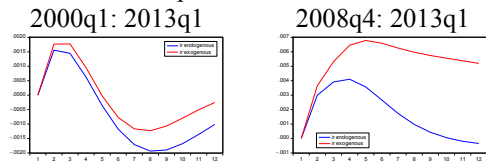
CPI response to an interest rate shock



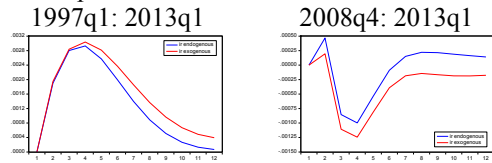
The case of Latvia

Interest rate channel

GDP response to an M3 shock

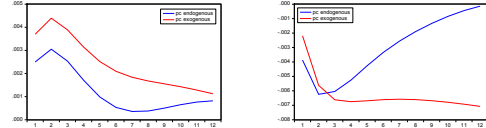


CPI response to an M3 shock



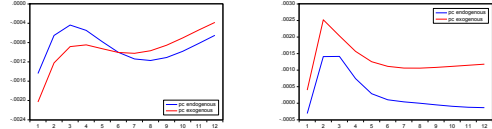
Bank lending channel

GDP response to an interest rate shock



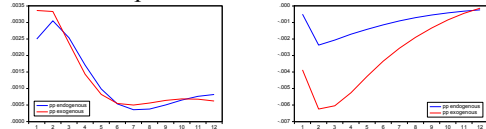
Bank lending channel

CPI response to an interest rate shock



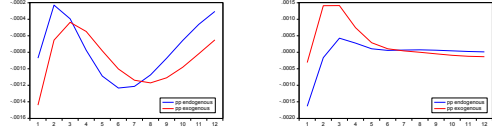
Real estate assets price channel

GDP response to an interest rate shock



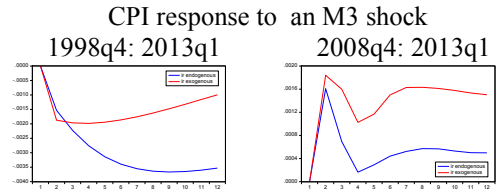
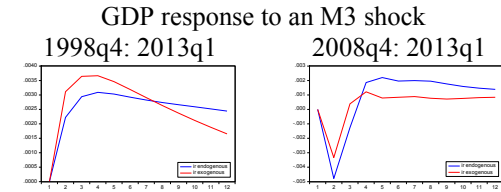
Real estate price channel

CPI response to an interest rate shock

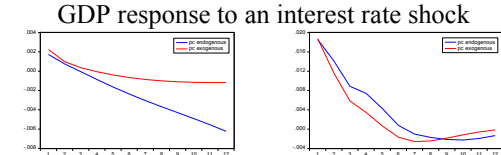


The case of Lithuania

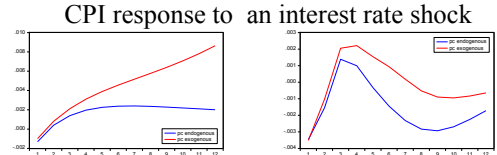
Interest rate channel



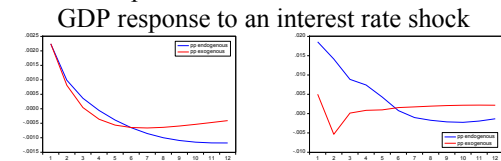
Bank lending channel



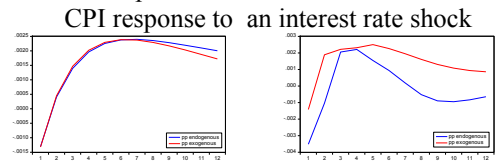
Bank lending channel



Real estate price channel

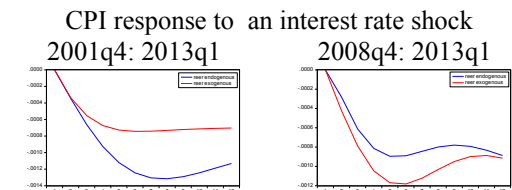
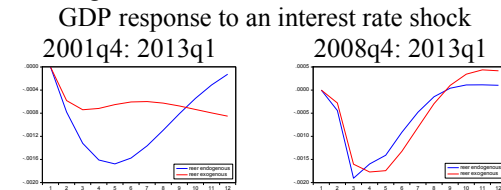


Real estate price channel

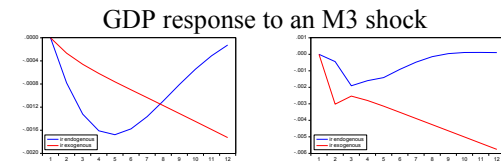


The case of euro area

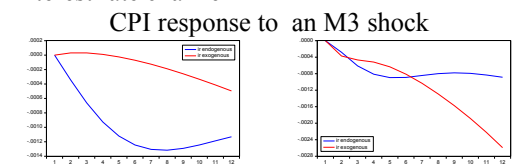
Exchange rate channel



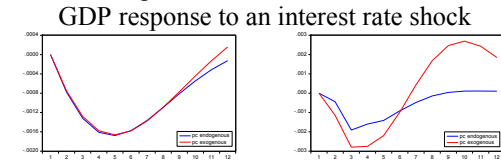
Interest rate channel



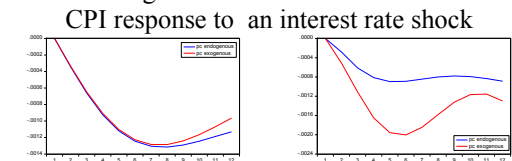
Interest rate channel



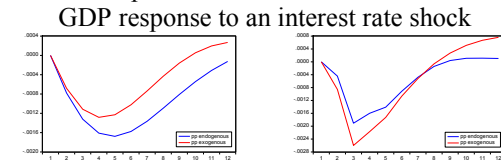
Bank lending channel



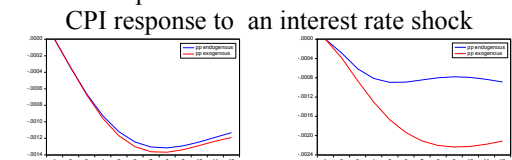
Bank lending channel



Real estate price channel



Real estate price channel



# The Institution of Rehabilitation in the Current Legal and Criminal Law Regulatory Context

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## Abstract

*Rehabilitation may be included among those legal institutions whose purpose is in the service of promoting the idea of order and discipline in the activity and conduct of all citizens, one of the fundamental requirements of the advance of our society. Rehabilitation highlights two categories of interests, the individual and the social, which are fully consistent with each other. By the perspective it opens to each convict, rehabilitation exerts a positive influence in perfecting the process of social re-adaptation of convicted persons, thus being an active factor in fighting crime recidivism as an aggravated form of crime.*

**Keywords:** rehabilitation, conviction, social reintegration, court of law, rights

**J.E.L. Classification:** K3

## I. Introduction

The specialized literature [1] mentions that rehabilitation represents a cause which eliminates in the future the criminal and non-criminal consequences arising from a final decision of conviction, allowing the former convict to enjoy again, without restrictions, all individual, political and social-economic rights of the citizens.

It can be achieved in virtually any conviction, regardless of its severity and the nature of the offense underlying the conviction, of its classification (in the Criminal Code, in special criminal laws, in non-criminal laws with criminal provisions etc.) [2]. It can also be obtained for convictions rendered abroad, provided that they are issued by a legally constituted court. At the same time, rehabilitation is a means of reintegration in society of the former convict.

Rehabilitation refers to the person and not

the conviction, which is why it regards the whole past of the person and, in the case of successive convictions, it has effect upon all, thus being indivisible. Due to its importance, rehabilitation enjoys a legal framework set out both in the Criminal Code (art. 42 and art. 165-171), and in the Criminal Procedure Code (art. 527-537). While benefitting from a generous legal framework, we should mention that rehabilitation is not expressly defined either in the Criminal Code, or in the Criminal Procedure Code. Rehabilitation is not an act of leniency of the state authority, but a right of the former convict. Regardless of its kind, rehabilitation has the same effects.

The existence of the institution of rehabilitation is warranted [3] by the fact that after the convict has served his/her sentence, which has as main role straightening and correcting him/her, and after a certain period of time prescribed by the law in which the former convict does not commit any other offence, society gives him/her another chance, by removing all incapacities, prohibitions and disqualifications arising from the conviction, meaning that in the future it will be deemed that he/she did not commit any crime and that he/she can again exercise all the rights they had before conviction.

Had there not been an institution of rehabilitation, we would have witnessed a tacit acknowledgement of the impossibility to straighten offenders by the application of sanctions, these remaining for the rest of their lives with the limitations and incapacities arising from a conviction, no longer being able to enjoy all the right they had before their conviction. Since rehabilitation offers the prospect of eliminating the consequences of conviction, this stimulates the former convicts to pursue honest activities and to having a faultless conduct, thus contributing to the implementation of the criminal policy



of the state, which is mainly aimed at preventing crime.

As regards the legal nature of rehabilitation [4], it is an institution of substantive criminal law and of criminal procedure law. Thus, in the Penal Code are stipulated the conditions for obtaining it and in the Criminal Procedure Code the special procedure for obtaining it, only in the case of judicial rehabilitation. Rehabilitation is a cause which ends all future limitations, incapacities and prohibitions arising from a conviction, these being removed from the personal criminal record of the former convict.

In the Romanian criminal legislation, rehabilitation may be [5] by spent conviction (or legal), characterized by its occurrence by default, *ope legis*, when certain conditions are met, and judicial, characterized by its granting at the request of the former convict, by the court of law which finds the fulfilment of the conditions set by law. These relate to how and under which conditions rehabilitation can be obtained. Depending on the type of person it refers to, rehabilitation can be for the natural person or for the legal person.

## II. Rehabilitation by spent conviction

This is the form of rehabilitation which operates automatically, in the case of lighter sentences, by law (*ope legis*), being gained by simply meeting the conditions required by law in this respect, without the need of a formal finding by means of a special procedure; therefore it has an acknowledging effect [6] of the rights and not a constitutive effect like the judicial rehabilitation.

Rehabilitation by spent conviction has a narrower scope than the judicial one because it refers to lighter sentences. It benefits from a regulatory framework set out in articles 165 and 169 of the Criminal Code and article 528 of the Criminal Procedure Code. Rehabilitation by spent conviction does not have a procedure specifically provided in the Criminal Code or in the Criminal Procedure Code. As for the conditions in which it occurs, they are divided in three categories and refer to conviction, the rehabilitation period and the person of the convict.

Thus, rehabilitation by spent conviction intervenes in lighter convictions, namely

fining convictions (regardless of the amount) or imprisonment not exceeding two years. This condition refers to the sentence applied by the court and not to the one provided by the incrimination rule. Rehabilitation by spent conviction shall not operate if within three years of the execution of the sentence, the convict commits a new crime, whatever the form. If a person has undergone several convictions, some qualified for rehabilitation by spent conviction and some by judicial rehabilitation, for the removal of all the consequences of conviction, judicial rehabilitation has to be undergone [7].

With regard to the rehabilitation period, it is provided in the text of law that the intervention of the rehabilitation by spent conviction is subject to the passage of a fixed period of three years from the execution of the sentence or from the moment it is considered executed. The period is calculated the same way, regardless of the nature the nature of the penalty, be it imprisonment or fine, and starts from the moment the penalty was executed or is extinguished in a manner provided by the law (pardon or prescription).

With regard to the person of the convict, he/she should not commit another crime within the three year term; the only exception is made for amnestied crimes.

As for the rehabilitation by spent conviction of the legal person, The Penal Code has also instituted three categories of conditions: regarding the conviction, the rehabilitation period and the person of the convict. Thus, there has to be a condemnation by fining (regardless of the amount) by one of the additional penalties. In the case of the legal person, the intervention of rehabilitation is also conditioned by the passing of a fixed period of three years from the execution of the penalty or from its extinction. The period is calculated the same way, regardless of the nature the nature of the penalty, be it imprisonment or fine, and starts from the moment the penalty was executed or is extinguished in a manner provided by the law (pardon or prescription). Finally, the convict should not commit any other crimes within the three year period; the only exception is made for amnestied crimes, like the case of natural persons (according to art. 528 of the New Penal Procedure Code, entered into force on 1 February 2014).

### III. Judicial rehabilitation

This is the type of rehabilitation granted upon the request of the former convict, by the court of law, after checking the fulfilment of all the conditions laid provided by law [8].

Unlike the rehabilitation by spent conviction, it has a constitutive effect on the rights and it can only be obtained in court. It occurs in all cases in which there cannot be rehabilitation by spent conviction, thus having a much wider application, with no convictions excluded from the benefit of rehabilitation. Due to the means of obtaining it, the judicial rehabilitation enjoys a special procedure, specifically provided in the Criminal Procedure Code (art. 527-537). In order for the judicial rehabilitation to be performed, several conditions specifically prescribed by the law have to be met. They refer to conviction, the rehabilitation period and the convict's conduct.

Regarding the first condition, we mention that any conviction, regardless of the crime and of the applied penalty may be the object of judicial rehabilitation, including the penalty through imprisonment replacing life imprisonment, provided that it does not draw rehabilitation by spent conviction. The petition for rehabilitation, when amnesty subsequent to the conviction has taken place, is permissible, since rehabilitation has stronger effects than amnesty [9].

Regarding the period of rehabilitation (these are specifically provided in art. 166 of the New Penal Code), the convict may be rehabilitated upon request by the court of law, after a period of:

- 4 years, in the case of conviction to imprisonment for more than 2 years, but not exceeding 5 years,
- 5 years, in the case of conviction to imprisonment for more than 5 years, but not exceeding 10 years,
- 7 years, in the case of conviction to imprisonment for more than 10 years or in the case of the conviction to life imprisonment, switched with or replaced by imprisonment,
- 10 years, or in the case of the conviction to life imprisonment considered executed as result of pardon, the expiration of the limitation period of the execution of the penalty or parole.

It can be observed that the rehabilitation

periods are proportional to the length of the penalty applied by the court. The period of the judicial rehabilitation is determined based on the main penalty applied to the convict for a single offense or for a series of offenses and not base on the executed penalty, which may be reduced following a partial pardon. In the case of successive convictions, the period of rehabilitation starts from the date of the execution of the last penalty, and its duration will be determined against the most serious conviction.

The periods of judicial rehabilitation are substantial periods and are calculated according to article 167 of the Criminal Code, which provides that the month and year are considered fulfilled a day before the day corresponding to the date from which they started to run. The latter runs from the date when the execution of the main penalty ended or from the date it was otherwise extinguished.

In case of full pardon or the pardon of the remaining penalty, the period of rehabilitation starts from the date of the act of pardon. In case of imprisonment, the period starts to run upon the final release from the pace of detention. If for the last part of the penalty the convict was released on parole, the rehabilitation period starts from the date of fulfilment of the conviction and not from the date of the release on parole [10].

If by switching preventive arrest there is no penalty left to be executed, the period of rehabilitation is calculated from the date of the final conviction decision. If the execution of the applied penalty was made under preventive detention which ended before the final judgment of conviction, the period is calculated from the date of the final conviction decision.

If the last conviction was suspended conditionally, the rehabilitation period for previous convictions is calculated from the date the test period was met. In the case of the fine, the rehabilitation period starts from the moment the amount was paid or the date of the payment of the last instalment, or its execution was otherwise extinguished.

As for the conditions with regard to the convict's conduct, we have to specify that during the period of rehabilitation, the convict must not undergo another conviction. If the new conviction refers to a decriminalized or amnestied offense, the

condition is met. At the same time, the convict requesting rehabilitation must earn a living through work or other honest and lawful means, and to have had a good conduct during this whole period.

Along all these conditions [11], the law also provides that in order for the judicial rehabilitation to be performed, the applicant must pay the full legal costs and the civil damages which he/she was forced to pay, unless the aggrieved party gave up the claims for damages or the court finds that the convict has regularly fulfilled his/her obligations relating to civil damages under the decision of conviction. If the failure to pay for the legal costs and of the civil damages is not due to the bad faith of the convict, rehabilitation may be decided upon.

Observing that all the above mentioned conditions are met, the court has to accept the petition for rehabilitation. If the petition for rehabilitation is not accepted due to the failure to comply with some terms of form or substance, a new petition can be made.

In case of rejection of the petition for rehabilitation based on form, it can be renewed according to the provisions of the Criminal Procedure Code. Thus, according to article 532 of the Criminal Procedure Code, the petition for rehabilitation is rejected for non-compliance with the conditions of form, in the following cases: when it was entered before the legal term, when the address of the former convict is missing and the petitioner failed to show at the time of the hearing, when any of the following is missing: the conviction for which rehabilitation is requested, the offence for which the sentence was given, the localities where the former convict lived and his/her workplaces for the entire time between the execution of the penalty and the introduction of the petition, the grounds for the petition, useful information for the identification of the file and any other data for the settlement of the claim, and the petitioner failed to fill in the petition at the first hearing and by the term granted for this purpose.

If the petition is rejected on the ground that it was brought before the legal term, a new petition will be possible to be made as soon as the legal term is met. If the petition is rejected based on the other reasons of form shown above, a new petition can be made anytime, but with proper form.

The periods above are calculated from the date of the rejection of the petition, hence from the final decision of rejection of the petition. Introducing a petition before the terms above are met constitutes a formal reason for the rejection of the petition, which will allow the formulation of a new petition after the completion of the respective term.

#### **IV. The effects and limitations of rehabilitation**

The effects of rehabilitation are the same, regardless of its type, rehabilitation by spent conviction or judicial rehabilitation. They are specifically provided in article 169 of the Criminal Code and consist in the termination of all disqualifications, prohibitions and incapacities arising from the conviction. The ex-convict regains through rehabilitation the state previous to conviction.

If after rehabilitation the ex-convict commits a new offense, he/she will not be in a state of recidivism (art. 41 of the Criminal Code) and the sentencing to imprisonment does not longer an obstacle in the granting of suspension under supervision. With regard to limitations, rehabilitation does not result in the obligation to reintegrate the offender in the position he/she was removed from following conviction, or to recall the offender among the permanent staff of the army or to give them back the lost military rank, so it does not function as *restitutio in integrum*. Rehabilitation does not affect safety measures or the civil rights of the aggrieved person, which may include some regular benefits.

Rehabilitation should not be mistaken with amnesty occurring following conviction or the execution of the sentence. In the event in which it occurs following conviction, amnesty will remove both the execution of the sentence and all the other consequences arising from conviction. Sometimes [12], in amnesty documents there are specific provisions regarding the removal of all disqualifications and incapacities arising from conviction, and the consequences arising from conviction are always removed through amnesty when they concern criminal law.

## V. Annulment of the judicial rehabilitation

The annulment of the judicial rehabilitation is regulated in article 171 of the Criminal Code and article 536 of the Criminal Procedure Code. The judicial rehabilitation will be annulled when, after its granting, it is discovered that the rehabilitated person had suffered another conviction, which, had it been known, would have led to the rejection of the petition for rehabilitation.

The annulment of the judicial rehabilitation is decided *ex officio* or upon the request of the prosecutor, by the competent court to decide upon rehabilitation (either the court which tried the case in the first place and decided upon the conviction for which rehabilitation is requested, or the appropriate court in whose jurisdiction the convict resides).

## VI. Conclusions

Etymologically, the concept of rehabilitation comes from the French term “*réhabiliter*”, which is synonymous to recovering or regaining the good reputation or prestige [13]. Thus, by means of rehabilitation, the former convicts may again enjoy the right they had before conviction.

Its usefulness is undeniable. It occurs only when the former convict demonstrates that through the application and execution of the penalty he/she mended their ways and that there is no risk that they might commit another crime in the future.

The social reintegration of the former convicts is achieved in accordance with the principle of the humanity of the criminal law, which enables all people to participate in the social life, regardless of their past negative behaviour. Reintegration allows a reuse of the human resources recycled from the behavioural and functional point of view; the unseen correspondence exchanged between the society and the individuals undergoing reintegration should lead to a new character: another person, other concerns, other results at work and in the family, another image to those around and to the values of the society in general.

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# Interdisciplinary Aspects on the Convictions Which Do Not Attract Relapse

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## Abstract

*Relapse is one of the causes of punishment aggravation because the offender persists in criminal activities. Relapse and recidivism constitute elements of study not only in criminal law but also in other sciences such as criminology, sociology of deviance etc.*

*Relapse is one of the worst forms of crime manifestation because it expresses an enduring and lasting tendency of individuals to intentionally harm the social values protected by the criminal law. It is the evidence that the offender continues to ignore the law after he/she was tried and convicted of a crime and even after he/she executed a penalty, and that he/she did not draw the corresponding conclusions and that he/she did not change his/her behavior despite previous experiences.*

**Keywords:** relapse, criminal law, crime, conviction, recidivist

**J.E.L.classification:** K3

## 1. Introduction

Nowadays, relapse is a very common phenomenon, varying between 30 and 50% of all crimes [1]. This is why statistics increasingly take greater account of relapse and, after 1982, the Swiss Federal Statistical Office has created a database focused on relapse.

Relapse is one of the most complex criminal law institutions with many theoretical and practical implications in many institutions of criminal law. Relapse played an important role in crime, especially in contemporary crime, i.e. together with other factors, it contributes to the reduction of crime by specific means [2].

"Any man can happen to fail – Cicero

stated - but only the fools persist in error" [3]. This also means that the sentence has not fully exercised its educational role unto the offender, requiring harsher measures, and harsher penalties.

Since ancient times, there has been felt the need to punish recidivists more severely. Herodotus says that the Persians paid great importance to the offender's past behavior. Aristotle stated that recidivists should be punished more severely, and Plato proposed to double their punishment. The Romans also took the relapse into account and hardened their penalties.

In the Middle Ages, Charlemagne's rules, called "Capitulatio", stated that the thieves would be punished first by removing an eye, then by cutting off their noses, and, the third time, if they stole, they would be killed. In order to qualify an offender and to apply a harsher punishment in case of relapse, the sentenced offender used to be seared on the body.

The literature has found that the resumption of the criminal activity after being sentenced for another previously committed offense is an indication of incorrigibility [4]. It is noteworthy that recidivism can not be based on the mere statements of the defendant, but it is determined by the criminal record.

From a criminological perspective, relapse and recidivism are subject to special concerns in the research field on the causes of recidivism, as well as on the features characteristic to the personality of the recidivist offender [5].

## 2. The definition of relapse

In everyday language, relapse is synonymous with the phrase "making a mistake again" [6]. In a broader sense, relapse means the offenders' reiteration. In legal literature, it has been argued that

relapse is not a stable concept, but a conventional notion that depends on the apprehension of the Criminal Code which regulates it, on the considerations in the jurisprudence and on the doctrine.

Thus, from one perspective, there is relapse whenever an offender commits a new offense of the same kind and for the same reasons as the previous offense.

In another perspective, relapse is the reiteration of offenses with the same form of guilt, but taking into account the essential fact that one of the offenses had already been judged (and given a final court decision) when the other was committed, i.e. "the individual's state, after having been irrevocably sentenced to a penalty, when he/she commits a new offense which triggers a new criminal conviction", or it simply involves committing a new offense after the final conviction for a previously committed criminal offense.

In our legislator's perspective, relapse is generally seen as "the situation where after a final conviction (served or not) the convicted offender commits a new offense" [7].

Within this perspective, it has been emphasized that relapse, in its broadest and general sense, means the relapse into crime after a previous conviction [8] or it can be defined as the state of the person who commits an offense after having been previously convicted or after having previously served his/her term for another offense [9].

### 3. Convictions that do not entail relapse

For the existence of relapse, in its various forms, certain conditions should be mandatorily met, conditions which must be established in each case; otherwise we can not talk about relapse. Since the relapse occurs only in their presence, these legal conditions are known in the legal literature as positive conditions [10].

The positive conditions for relapse, however, are not sufficient; they must be combined with other conditions, which we are going to present in the following lines. Thus, for a final conviction that meets the positive conditions imposed by law, in order to establish the first term of relapse, it is necessary that the later meets other conditions, which are called negative

conditions and which are referred to in article 42 of the new Criminal Code. These conditions are called negative conditions, since their existence, their intervening excludes the relapse. Therefore, the relapse requires that these conditions should not be met, they should miss; thus, their absence or presence should be established.

#### 3.1. Convictions regarding the acts that are not provided as offenses under the criminal law

A negative relapse condition, provided by article 42, letter a) of the Criminal Code, refers to the acts that are no longer provided by the new criminal law, i.e. these acts have been decriminalized.

The expression "acts that are no longer provided as offenses by the criminal law" means that these acts have been removed from the criminal sphere, following the downright decriminalization (the express or implied repeal of the criminal law rules) of these acts.

The provision of article 42, letter a) of the Criminal Code, which provides for this exclusion case of relapse, is the consequence of the principle provided for in article 4 of the new Criminal Code, referring to the retroactivity of the decriminalizing criminal law. According to this text, the criminal law does not apply to the offenses committed under the old law, if they are not provided by the new law; it causes the termination of the execution of sentences, of the safety and educational measures imposed under the old law, and of all the criminal consequences of the court decisions regarding these acts. One of these consequences would have been that it could have given rise to relapse in the event of committing a new offence; by removing it, *ope legis*, it triggers the disappearance of relapse.

In these circumstances, if the offender commits a new offense after a final conviction (served or not), for an act that has been decriminalized, he/she will be considered primary offender [11].

Regarding the decriminalization of the offense for which a final conviction has been delivered, we must distinguish between certain situations. Thus, if the decriminalizing law occurs before committing a new offence, it prevents the

very emergence of relapse; if it occurs after the commission of the second term, it removes the relapse. If the decriminalization occurs after a final court decision which took into account the relapse status of the offender, then the relapse will be removed, with the corresponding consequences of punishment decrease. With no relapse, there is also created the possibility of applying, where appropriate, the acts of amnesty and pardon [12].

### **3.2. Convictions related to amnestied offenses**

The amnesty is the act of clemency of the Romanian Parliament whereby, for reasons of criminal policy, the criminal liability is removed for the offences committed before the issue date of the amnesty law [13].

Criminal literature has shown that the reason for this negative condition is that the offenses within the structure of relapse should also keep their concrete criminal relevance upon the establishment of relapse. If the offense for which the offender had been previously convicted was amnestied, and, therefore, entailed the removal of the execution of the sentence, the conviction has become devoid of its object, so that it can no longer represent the first term of relapse.

The relapse status arises from the time of committing the second offense, which represents the second term. Therefore, if the amnesty of the prior offense occurs before the commission of the second offense, it prevents the very establishment of relapse. However, if the amnesty occurs after the commission of the second offense and up to its final judgment, it removes or dispels the relapse status existing until the amnesty [14]. In other words, it is considered that the relapse is determined upon the judgment of the second offense. In this way, the court will not take into account the relapse if, until the final settlement of the case, the offender is granted an amnesty related to the offense subject to the first conviction.

In judicial practice, it has been correctly held that, as long as the provisions of article 42 of the new Criminal Code do not contain any limitation, if the amnesty occurs after serving the sentence, this conviction is not taken into account when determining the relapse status of the offender. If the

defendant had previously benefitted from the conditional pardon of an offence and during the test time he/she committed a new offense, the court, finding that, meanwhile, the previous offense has been amnestied, it can not withhold the relapse status.

At any stage, the convicted recidivist offender, during the execution of the sentence for the offense that represents the second term of relapse, may receive an amnesty to the first term of relapse and, afterwards, since he/she is no longer a recidivist, he/she may also claim the amnesty for the subsequent offense whose sentence he/she is serving (if this offense would also determine the conditions required by the act of clemency [15]). However, the amnesty should intervene before the full execution of the sentence for the new offense. If it occurs after the complete execution of the sentence delivered for the second offense, the latter remains legally enforced. In this situation, the only legal consequence is the perpetrator's classification as primary offender, in the future.

If the amnesty was granted for the second offense, it entails the disappearance of relapse. If the offense that was the object of conviction was amnestied abroad, this conviction is no longer taken into account in determining the relapse [16].

### **3.3. Convictions related to strict liability offenses**

The provision of article 42, letter c) has a great impact on the regulation of all forms of relapse. A conviction for a series of offenses, among which there is also a strict liability offense, will represent the first term of relapse, if at least one of the competing intentional offenses has been sanctioned by an imprisonment period exceeding one year [17].

The commission of a new intentional offense, for which the law provides for an imprisonment period exceeding one year, does not entail relapse if the previous conviction decision consists in a prison sentence of one year or less, fixed for an offense committed intentionally, and in a prison sentence exceeding one year for a strict liability offense, if, by the un-merge of the criminal punishments, it is found that the sentence for the offense committed

intentionally does not meet the requirements in order to represent the first term of relapse [18].

### **3.4. Convictions where rehabilitation has occurred or wherefore the rehabilitation period has ended**

Article 41 of the new Criminal Code provides for the last relapse negative condition, i.e. for the prior conviction, rehabilitation should not have occurred or the rehabilitation period should not have ended. In the regulation of this condition, our criminal law started from the principle that relapse is not perpetual, and, therefore, the idea of criminal perseverance underlying the regulation of relapse would be difficult to support if the second offense would be committed after a long period since the previous conviction.

We note that this latter case excluding relapse is considering two different scenarios [19]: the conviction wherefore rehabilitation has occurred; the conviction wherefore the rehabilitation period has ended.

In the first case, since it is about a conviction wherefore rehabilitation has occurred, it is natural that the relapse can not be based on it, because „the rehabilitation discontinues the limitations, prohibitions and incapacities arising out of conviction" (article 169 of the Criminal Code). The current Criminal Code regulates both the judicial rehabilitation and *de jure* rehabilitation. The achievement of both forms of rehabilitation is subject, however, to the following requirements: during the rehabilitation period, the convict should not have committed a new offense (for *de jure* rehabilitation); he/she should not have been convicted again and he/she should have had a conduct which would justify the granting of rehabilitation (*de jure* rehabilitation) [20].

The rehabilitation periods (*de jure* and judicial) start lapsing according to article 167 of the Criminal Code, since the date when the execution of the sentence ended or since the date when it was prescribed, and, for the total pardon or for the pardon of the rest of the penalty, since the date of the act of pardon.

For those released on parole, the rehabilitation period starts lapsing from the end of the sentence and not from the parole date because, according to article 106 of the

Criminal Code, the penalty shall be considered executed from this date. In the case of successive convictions, any conviction (hence the conviction for a strict liability offense), which occurred within the rehabilitation period, has an interruptive effect so that a new rehabilitation period shall begin at the date of the execution of the last sentence and shall be calculated in relation to the heaviest punishment [21].

### **4. Conclusions**

The relapse is a reality of our times. Unfortunately, often, those who commit offenses once usually repeat the same negative habit. Therefore, the harsher punishment of recidivist offenders is fully justified. However, when applying the sentence in case of relapse, we must also find out the reason or cause that made the same person resort again and again to this type of behavior. Only by eliminating this cause, we can also eliminate its future effect.

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## The Impact of Capital Flows on the Real Exchange Rate: the Case of Romania

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### Abstract

*This paper examines the influence of the capital flows on the real exchange rate of the Romanian leu against euro. Many studies which are analysing the fundamental determinants of the exchange rate of the leu, show that the appreciation of the currency, before the financial crises from the last years, was due to the real convergence of the Romanian economy. In our study we have showed that the capital account contributed to the appreciation of the leu, rather than the influence of the Harrod-Balassa-Samuelson effect. We found a long-run relationship among the real exchange rate, foreign direct investments and workers remittances from abroad.*

**Key words:** Capital flows, real exchange rate, Harrod-Balassa-Samuelson effect, Johansen cointegration

**J.E.L. classification:** C10, F31, F32

### 1. Introduction

Before the global financial crisis, that started on 15 September 2008, for several years, consecutively, the Romanian leu has appreciated considerably. Many studies attributed this appreciation to the manifestation of the Harrod-Balassa-Samuelson effect (HBS), which assumes that countries with high levels of relative

productivity will have their currencies appreciated.

In order to investigate the influence of the capital flows on the real exchange rate of the Romanian leu, we have made an empirical analyze of the relationship between the real exchange rate, relative productivity and net capital flows in the long-run. The data used in this paper come from IMF and Eurostat databases.

Applying the Johansen cointegration method we found that foreign direct investments and workers remittances from abroad were the main determinants of the movements of the real exchange rate in the analysed period of time.

We have structured our paper as follows: in section 2 we made a review of the existing literature on the Harrod-Balassa-Samuelson effect and capital flows as determinants of the real exchange rate, in transition economies. In section 3 we have described the econometric procedure used in the study. In section 4 we highlight the empirical results of our study, and, finally, we point the main conclusions of our empirical analysis.

### 2. Literature review

Considering the participation to the ERM II, many studies for CEE countries, investigate the issue of the equilibrium of the exchange rate and implicit, the fundamental determinants of the real exchange rate [18], [1], [13], [2]. Most of the empirical studies have found that the Harrod-Balassa-

Samuelson (HBS) effect have determined the changes of the real exchange rate in these countries. This effect was introduced by Balassa [3] and Samuelson [19] and implies that countries with high growth of relative productivity will have their currency appreciated, due to the higher relative prices in non-tradable sector of the national economy. Jazbec [11], Rawdanowicz [18], Lojschová [14], Mihaljek and Klau [16] showed that the HBS effect was the main determinant of the currency appreciation for the transition countries acceding to the EU. For Romania the evidence for HBS effect was provided by Égert [10], Dumitru [9], Dedu and Dumitrescu [8].

Some studies on the determinants of the real exchange rate in transition countries, showed that the capital flows variable, also have determined significantly the variation of the real exchange rate [1], [13], [15], [4].

In order to investigate the effects of the capital flows on the real exchange rate, recent studies applied dynamic panel data approach as econometric technique [12], [6]. Other studies used for this purpose the error-correction models [7], [17].

### 3. Methodology

In order to identify long-run relationship among the non-stationary variables, we have considered that the most appropriate methodology is the Johansen co-integration.

The econometric methodology for this model can be described as follows.

Let us consider the p-dimensional VAR(k) model:

$$x_t = \prod_1 x_{t-1} + \dots + \prod_k x_{t-k} + \phi D_t + \varepsilon_t$$

where:  $x_t$  is a vector of the p endogenous variables at time t;  $\Pi_i$  – p x p matrices of parameters and  $D_t$  – a vector of deterministic components (constant and seasonal dummies).

To account for the non-stationarity of the data, the error-correction form of the VAR (k) model can be written as:

$$\Delta x_t = \prod x_{t-1} + \sum_{i=1}^{k-1} \Gamma_i \Delta x_{t-1} + \phi D_t + \varepsilon_t$$

where:

$$\Pi = \sum_{i=1}^k \Pi_i - I_p \text{ and } \Gamma_i = -\sum_{j=i+1}^k \Pi_j$$

If we assume that the VAR(k) model contains processes with unit roots, when  $\Pi$  has a reduced rank r,  $r < p$  and  $\Pi$  can be expressed as:

$$\Pi = \alpha \beta'$$

where  $\beta$  is the co-integrating vectors and  $\alpha$  is the adjustments coefficients.

The co-integrated form of the VAR model becomes:

$$\Delta x_t = \alpha \beta' x_{t-1} + \sum_{i=1}^{k-1} \Gamma_i \Delta x_{t-1} + \phi D_t + \varepsilon_t$$

To determine the co-integration rank mainly are applied two tests: Trace and Maximum Eigen Value tests:

$$\lambda_{trace}(r) = -T \sum_{i=r+1}^g \ln(1 - \hat{\lambda}_i)$$

and

$$\lambda_{max}(r, r+1) = -T \ln(1 - \hat{\lambda}_{r+1})$$

where: T – sample size; r - number of co-integrating vectors;  $\hat{\lambda}$  – squared canonical correlation between the linear combination of the levels and a linear combination of the differences.

The difference between these two tests is that the Trace Test is testing the null hypothesis,  $r \leq r_0$  versus  $r > r_0$  and the Maximum Eigen Value:  $r = r_0$  against the alternative hypothesis  $r_0 = r_0 + 1$ .

### 4. Empirical results

#### 4.1. Data

In order to investigate empirically the long-run relationship between the real exchange rate, relative productivity and capital flows, the real exchange rate variable was defines as a function of the following variables:

$$rer = f(tnt, fdi, W)$$

where: rer- real exchange rate; fdi – foreign direct investments and W-workers remittances from abroad.

We included in the co-integrating equation only the variables of foreign direct

investments and workers remittances from abroad due to the fact that, as we can see from the figure 1, these two variables were the main triggers of large inflows of the foreign capitals into Romanian economy.

The current transfers to the Central Government from abroad were relative small, and large inflows of the portfolio investments were recorder only in the last two years.

In our analysis, we used quarterly data covering the period from the first quarter of 2001 to the fourth quarter of 2011 (44 observations).

To calculate the real exchange rate variable (rer) we have considered an average nominal exchange rate EUR/RON, deflated by the consumer price indexes (CPI) in both countries. A decrease of (rer) denotes a real appreciation of the national currency, and an increase indicates a real depreciation of the national currency. The variable was expressed in natural logarithms.

The variable of the relative price of non-traded to traded goods (ltnt) was determined as the ratio of the domestic consumer price index (cpi) to the domestic producer price index relative to the foreign ratio [5]. The variable was expressed in natural logarithms.

Also, we considered the foreign direct investments (fdi) and workers remittances (W) variables, expressed as ratio in GDP.

Due to the structural shift in the workers remittances series, we have introduced a dummy variable, which takes value 1 in 2005Q1 and 0 otherwise.

The main sources of the data are the Financial Statistics of the International Monetary Fund and Eurostat.

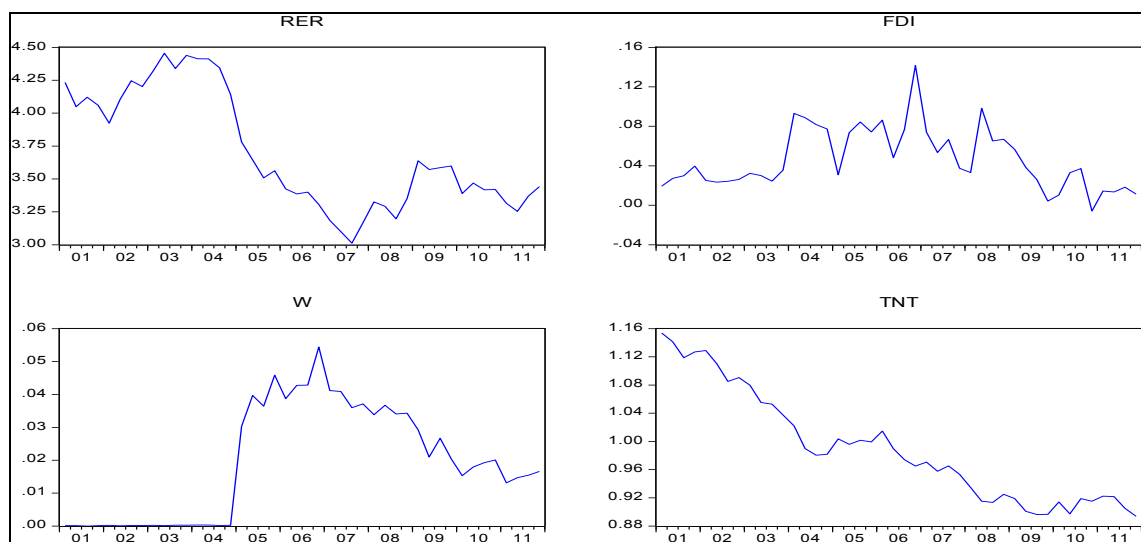
Data analysis from the figure 1 suggests that the changes in the EUR/RON real exchange rate reflect the evolution of the relative productivity, workers remittances and foreign direct investments variables.

To confirm these findings further we investigated the long-run relationship among the real exchange rate and considered variables.

#### 4.2. Unit roots test results

In order to test the series for stationarity were applied two tests: Augmented Dickey-Fuller and Phillips-Perron tests.

Figure 1. Evolution of determinants of the real exchange rate of Romanian leu against euro, for the period 2001-2011



Source: own simulation based on the data provided by Eurostat and IMF, International Financial Statistics Database

With respect to the equation of the performed test, we decided to include a time trend and a constant for the equation of the

series in levels and a constant for the equation of the series in first differences.

The results of the ADF and PP tests in level on the series mentioned above,

suggested, that the null hypothesis, that considers the fact that a series has a unit root, cannot be rejected at the 5 percent level and that the time series variables are all non-stationary in the level form. The series

therefore, were differenced and the unit root tests were run again. From the table 1 we can see that both tests indicated that the variables in their first difference are all stationary at the 5 percent significance level.

Table 1. Unit roots test results

Variable		Series in levels		Series in first differences	
		ADF test	PP test	ADF test	PP test
Lrer	t-statistic	-1.2364	-1.5425	-5.2767	-5.2638
	p-value	0.8899	0.7988	0.0001	0.0001
Ltnt	t-statistic	-2.0243	-2.0427	-6.4115	-6.4151
	p-value	0.5718	0.5619	0.0000	0.0000
W	t-statistic	-1.1467	-1.1708	-6.6428	-6.6407
	p-value	0.9087	0.9039	0.0000	0.0000
Fdi	t-statistic	-3.1044	-3.0086	-7.2431	-10.2239
	p-value	0.1182	0.1417	0.0000	0.0000

Source: Author's calculations

### 4.3. Cointegration test results

Due to the fact that all series have the same order of integration, I(1), we next proceeded with testing for the existence of a long-run relationship among them. First, we estimated the baseline VAR model and checked the validity of the estimated model. Based on the Akaike information criterion (AIC) and sequential modified LR test

statistic, the lag length of the unrestricted VAR model was set to be 4.

From the table 2 we can see that the estimated VAR model passed all the diagnostic tests, entitling us to determine the co-integrating rank.

Table 2. Diagnostic tests results

VAR check	stability condition	No root lies outside the unit circle VAR satisfies the stability condition			
<b>Autocorrelation LM test</b>					
- LM-statistics		LM1	LM2	LM3	LM4
- p-value		25.7127 (0.0582)	20.7201 (0.1895)	18.5201 (0.2943)	12.9969 (0.6730)
no serial correlations					
<b>Heteroskedasticity test</b>		$\chi^2(330)=333.4097$ (0.4372) no heteroskedasticity			
<b>Normality test (Doornik-Hansen)</b>		JB: $\chi^2(8)=5.8850$ (0.6601) normally distributed			

Note: figures in (.) indicate probability

Source: Author's calculations

The co-integrating rank was determined by applying two tests: Trace test and Maximum Eigen Value test.

In the co-integrating equation was included an intercept. The results for these two tests can be seen from the table 3.

Table 3. Cointegration test results: Testing for cointegration rank

Hypothesized No. of CE(s)	Eigen value	Trace statistic	Maximum-Eigen statistic
None	0.5619	52.9607*	33.0176**
At most 1	0.2412	19.9431	11.0420
At most 2	0.1422	8.9010	6.1389
At most 3	0.0667	2.7621	2.7621

Note: \*rejection of the hypothesis at the 10% level, \*\*rejection of the hypothesis at the 5% level

Source: Author's calculations

Using trace statistics we determined that one co-integrating relationship among the variables exists at 10% significance level. The results of the second test showed at most one co-integrating relationship among the variables, at that at 5% significance level.

The estimated coefficients of the co-integrating equation are presented in the table 4. All coefficients are significant and plausible.

*Table 4. Estimation of co-integrating coefficients*

<b>lrer</b>	<b>ltnt</b>	<b>fdi</b>	<b>W</b>	<b>C</b>
1.0000	-0.7080	-4.8396	9.1114	-1.3774
	(0.2807)	(1.0307)	(1.6435)	
	[-2.5221]*	[-4.6952]*	[5.5437]*	

Note: figures in (.) indicate probability and in [.] indicate t-statistic, \*rejection of the hypothesis at the 5% level

**Source:** Author's calculations

As we can see, in the long-run the real exchange rate of Romanian leu against the euro was not determined entirely by the Harrod-Balassa-Samuelson effect. The relative price of non-tradable to tradable goods in Romania, relative to the Euro Area, as was expected, influenced positively the real exchange rate of the national currency relative to the euro, but besides productivity factor, the flows of foreign direct investments and workers remittances from abroad had even greater influence on the real exchange rate in the long-run.

From all analysed variables, the workers remittances variable was the most influential on the real exchange rate of Romanian leu against the euro. A rise of the amount of workers remittances from abroad determined an appreciation of the national currency. This can be explained by the fact that, after 2005, Romania signed the EU Accession Treaty, and many Romanian citizens benefited from the possibility to work in the EU countries. Many of these workers used to remit earned money home, increasing the offer of euros on the Romanian exchange market.

Regarding the foreign direct investments variable, although in many studies was found that this variable influences negatively the real exchange rate in the long-run, in case of Romania an increase in this variable was associated with a depreciation of the Romanian leu. This can be explained by the fact that in the case of transition economies, substantial inflows of foreign investments can deteriorate the current account through

increased imports of technologies from abroad and remittances of income obtained from productive investments [15].

## 5. Conclusions

In our study we have analysed the long-run relationship among the real exchange rate of the Romanian leu against euro, capital flows and the relative productivity.

As we showed earlier, many authors considered the Harrod-Balassa-Samuelson (HBS) effect as the main determinant of the appreciation of the Romanian leu relative to euro. Our research is one of the few, which beside the HBS effect, accounted also, for the capital flows effects on the real exchange rate. In this study we came to the conclusion that for transition economies, like Romania, not only the Harrod-Balassa-Samuelson effect should be considered as the fundamental determinant of the real exchange rate. The capital account position and current transfers, also, could determine the real exchange rate movements in the long-run term.

By applying Johansen cointegration method we provided evidence for the fact that, foreign direct investments and workers remittances from abroad had a higher contribution than relative productivity to the appreciation of the real exchange of the Romanian leu relative to the euro.

In this research paper, we have analysed the effects of the net capital flows on the real exchange rate, but following the Jongwanich

[12] work, for the future research we could consider also, a separate investigation of the effects of the capital inflows and outflows on the real exchange rate, in order to determine if the direction of the capital flows could determine the variation of the real exchange rate. Also, in this study, the real exchange rate was considered as a function, only of three variables: relative productivity, foreign direct investment and workers remittances from abroad. In order to check the robustness of our results, it would be advisable to consider a larger set of fundamental factors with potential influences on the real exchange rate of Romanian leu against euro in the long-run.

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## The Influence of Lending on Business Cycles

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### Abstract

*Access to finance remains one of the fundamental problems of Romanian companies, influencing the continuity of their economic activity and determining the maintenance of their long term commercial relationships. This paper aims to reflect the links and influences between business cycle and lending relationship, focusing on difficulties and constraints that appear in a debtor-creditor partnership. The credit market is seen from the perspective of principal-agent theory and the channels of risk between the financial sector and the real sector are judged from the financial accelerator perspective.*

**Key words:** business cycle, , credit, risk

**J.E.L. Classification:** E32, E51, G32.

### 1. Introduction

Credit risk is the main feature of the company's funding relationships. Access to finance is a very important factor for companies, especially SMEs, in order to maintain business and to achieve long-term goals. Financing difficulties represent a real constraint in the current context, meaning disappearance and damage of the funding sources.

### 2. The links between lending and business cycles

Difficulties in relationships between the companies and the funding bodies led to numerous research. A recent study [1] of Ferrando and Grieshaber, highlighted the links between company characteristics such as size, age, economic autonomy and ownership in a company are valid predictors

for financing obstacles in credit relationships. The results confirmed that the overall age structure and capital holdings are robust variables in assessing financing obstacles. Size and economic activity also have an impact, but they are not explanatory variables. Financial relations between firms and banks are virtually the expression of the linkages between financial and real sectors. A study of the European Banking Federation [2], based on research EMAC (European Marketing Academy), highlight the existence of three risk channels between these two sectors. The first one is the debtor's balance sheet channel, meaning that negative financial shocks may reduce demand for loans to borrowers and economic downturn. The second transmission channel is the bank balance sheet channel, including credit and traditional channel through which monetary policy can determine the cost and availability of bank credit. A third canal, the liquidity channel can lead to liquidity problems for the banks. The first two channels are considered financial accelerator channels.

In some views, the debtor's balance channel is considered the transmission channel of financial shocks to the real economy, amplifying business cycles fluctuations.

Financial accelerator works by the cost of the loan which depends inversely on the debtor's wealth, meaning that a decrease in real asset prices leads to higher costs of borrowing.

At the same time, it takes place a reduction of expenses and in terms of business and this means a reduction in the economic activity.

The damage in bank balance amplifies negative shocks. It has been shown that a tightening of monetary policy leads to a strong decline in credit supply. Reducing granting loans to debtors and small firms



may lead to a reduction or cancellation of bank expenses as there is a dependence between bank business and the lending function. Therefore, the real and financial shocks are transmitted to the real economy through the credit channel.

An European Banking Federation econometric research demonstrated the causal relationship between the economy, GDP and the credit level, reflecting the fact that GDP growth causes an increase in the level of lending. The relationship between credit growth backwards and GDP growth was found to be uneven. Credit cycles generally have higher volatility compared to the volatility of economic activity, but lately there has been a decrease in the credit cycles amid the higher correlation between credit growth and economic activity. This correlation increases, but the possibility of systemic risk requires the adoption of integrated macro-prudential policy measures at European level where financial market integration remains a key objective.

In this context of the relationship between credit and economic situation credit and credit risks have the role of warning indicators of economic imbalances at macro and micro level. According to the studies of the European Central Bank, currency and credit indicators can act as extremely useful tools for anticipating growth cycles and sharp declines (boom and bust) of asset prices. This is the reason for banks to closely monitor these variables. The analysis concluded that boom and bust cycles in asset markets have been from a historical perspective closely related to large fluctuations recorded by monetary and credit aggregates.

The influence of lending on business cycles is an issue to be studied in the general context of the economic life. This general context has determined the 73rd place of Romania in the World Bank -International Finance Corporation top on the ease of doing business (Doing Business 2014 - Economy profiles Romania)[3].

At the basis of this hierarchy are analyzed and evaluated a number of ten criteria including: starting a business, dealing with construction permits, getting/access to sources of electricity, registering property, getting credit, protecting investors, paying taxes, trading off borders , enforcement and

compliance with contracts and the way are handled the cases of insolvency .

In the context of the ease of doing business in Romania, lending contributes through two mechanisms:

- Credit information systems ;
- Collateral laws and bankruptcy law.

Credit information systems allow the access for creditors and debtors and store information regarding credit financial history and are taken into account when assessing risk. They also permit borrowers to establish a good credit history that will allow easier access to credit. Sound collateral laws enable businesses to use their assets, especially movable property, as security to generate capital.

The evaluation of the ease of doing business in terms of access to credit is based on several indexes: the quality of debtors and creditors' rights law (strength of legal rights index), the scope and accessibility of credit information (depth of credit information index) distributed by public credit records and private credit bureaus, coverage of private credit bureaus, coverage of the public registers.

The results can be summarized as follows:

**Table no. 1 Relevant indicators for the assessment of the ease of getting credit in Romania**

Criterion/Indicator	Rank
Strength of legal rights index	9
Depth of credit information index	5
Public credit registry coverage	11,8
Private credit bureau coverage	46,9

Source : International Finance Corporation, Doing Business 2014- Romania, p. 60

The level of all the indicators has significant relevance in the international context through comparative analysis with other countries. If the score for the strength of legal rights index is 9, Romania is closer

to the average in Europe and Central Asia (the level of index is 7). In terms of the scope and accessibility of information provided by registers and credit bureaus, the level of the indicator is situated at the average level of the European region in which we stand. In terms of degree of coverage of the credit bureau and credit register, the levels of indicators are located below the European average (33.9, for the credit register and 48.2 for credit bureaus), due to debtors market segmentation, the credit register covering only credit information over a certain limit (20.000 Ron) and the credit bureau covering only the individual borrowers risks. Credit records include information on the type of guarantees and in addition, if there is a movable asset as collateral, in Romanian banking system there is a Special register called the Electronic Archive of Real Movable Collaterals that consolidates all the information about setting up these guarantees (date, creditors, debtors, existing tasks). A complete analysis of the influence of credit on business cycles requires references to states of failure for firms and insolvency and bankruptcy procedures. These procedures act as a filter to ensure the survival of viable companies. The connection with the loan is the fact that the proper functioning of the insolvency systems provide and facilitate access to financing for businesses that can be saved, and consequently contributing to economic growth.

According to the same report mentioned above [3], insolvency is evaluated and analyzed on a multiple basis due to the following indicators:

- The time required to recover debt (years)
- Costs to recover the debt (% of debtor's assets);
- Results;
- The rate of recovery for creditors.

The study based on the data collected and evaluated by the International Finance Corporation, concluded that resolving insolvency in Romania requires an average of 3.3 years, costing 11% of the debtor wealth, Romania ranking the 99<sup>th</sup> place in a series of 189 economies, in terms of ease of resolving insolvency.

### 3. The cost of financing and its perception

According to a recent study of the National Bank of Romania (2013) [4] regarding the Romanian companies' access to finance, the result of the analysis of the companies perception regarding the influence of the financing cost reveals the existence of two categories of dominant opinions, as follows:

- There are companies for which the cost of financing is not important, as the external financing is not a funding source;
- There are companies for which the cost of existing funding affect the repayment capacity and activity as a whole.

The study provides an overview of the perception of firms regarding the cost of financing, it is necessary an analysis by category of companies for a more accurate illustration of the effects.

It also reveals the existence of an asymmetry in the way the Romanian companies are affected by the interest rate developments. The asymmetry is caused by the current level of financing costs. According to the National Bank Report, most of the SMEs have contracted loans at an average interest rate between 9-11% and for corporate financing the cost is below 9%. These differences may be the explanation for the reactions recorded in the event of an increase in interest rates in national currency. If for corporation increases between 1 and 3 percentage points are considered tolerable variations, for SMEs, business is affected even by the current level of interest rate and small increases, put pressure on the ability to service the debt. Regarding foreign currency lending, the perception of variation is similar to that mentioned above, SMEs considering the current level of interest rates high enough to affect their working capacity..

The analysis cannot be complete without a study of the effects of the currency risk. The general perception of an unfavorable evolution of the exchange rate of the national currency against the euro is that the affordability is best for corporations compared to SMEs. Another difference in terms of influences can be made between importing and exporting companies, resulting

that the first category are affected by the actual currency exchange rate, regardless of firm size and the existence of loans in foreign currency, while for the exporting firms significant levels of currency depreciation adversely affect their business.

#### 4. Financial accelerator and business cycles

The aim of our approach in this paper was the determination of the existing links between lending and business cycles. For this reason, we could refer to the financial accelerator theory, that large fluctuations in economic activity often come in small pulses [5].

We have already mentioned the financial accelerator before, when we analyzed the three channels of risk between the financial sector and the real sector. In this context, the credit market can be seen from the perspective of principal-agent theory.

One of the implications of the financial accelerator theory is related to the fact that small firms affected by the credit market prices are likely to bear the greatest difficulties of an economic recession. According to Bernanke (1996), this influence is reflected in reduced access to credit products compared to other companies and the extremely reduced life of the business. On the contrary, all small firms are those that react quickly in situations of economic upswing.

Given the current market conditions increased importance in terms of the influence they exert on real life, the financial accelerator establishes a link between credit market imperfections and recession, acting as a propagation mechanism.

As a result, the existence of the financial accelerator requires actions which are focused on principal-agent problem solving. Principal-agent problems are problems arising mainly from costs and according to most opinions are based on three assumptions [5] :

- That external financing is more expensive compared to internal financing;
- There is a direct relationship between the amount of external financing and the risk premium or the cost of this funding;
- A drop in debtor's income reduce the domestic funding base and requires

external financing and hence costs.

Financial accelerator establishes strong links between credit and business cycles. Regardless of the method of analysis, the credit is tied to the real economic life of the companies, through its two typologies explained by Ludvig Von Mises [6], real credit (seen as a transfer from the one who saves money to the one who needs them) and circulation credit (from bank funds specially created for this purpose). The essence of economic equilibrium and the role of credit in keeping this balance and mitigate cyclicity would be correct circulation credit management and its use only to cover the idea of strict needs of companies to develop their business. According to Mises[6], credit expansion can only lead to a crisis, and this is the reason for never overestimating it.

#### 5. Conclusion

In the current economic business environment, the phases of the economic cycle should be reviewed and assessed in terms of their opportunities . The idea of the risk in the economy can also be seen as an opportunity. In this respect, the economic cycle should be seen as an instance of normality. Explosions and boom states require caution and depression should be seen as a normal phase which is needed prior to return to balance.

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# Romanian Banking System in the New Regulatory and Economic Post Crisis Framework

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## Abstract

*We talk about crisis since 2008 and we still do not know if it's over, how and when it will end, what it will be after this period. It was a lesson for the whole system to have new standards when it comes to the financial system - banking, or just a new way of reshaping the human concept of "having", "saving", "investing" and finally "living"?*

*The questions above have given rise to many questions, contradictions, debates but still not clearly established what we do and especially what we could do after the crisis.*

*During this period it was acclaimed that this crisis started from the greed of banks and the financial system as a whole.*

*This paper tries to highlight some of the Romanian banking guidelines in a future post crisis period in accordance with the new regulations appeared.*

**Keyword:** crises, relation bank-customer, banking products, wealth management, customers expectations

**JEL Codes:** G21, G23

## 1. Introduction

The relationship between customers and the banks will never be the same - banks promise in "post- crisis era" more professionalism, but the customer expects more responsibility. Strengthen relationships with customers is the new direction of the post- crisis banking strategy, in the conditions in which the banks are forced to regain customer confidence, shattered by more than five years of crisis.

Although macroeconomic indebtedness is low compared to other European countries (38 % of GDP), the Romanians gets to pay the highest rates at the bank in relation to their monthly income.

While the recent global economic decline, the banks lead to a new assessment as to the sustainable level of debt, and to a gradual recovery in lending activity at least in the short -term, and believe that credit expansion accompanied by long -term economic growth will prove to be a secular growth trend.

Within the overall loan growth trend, the banks will benefit from retail customers. In almost all of the markets, retail lending, particularly in the form of residential mortgages, the process has only just started. A case in point is mortgage penetration: it equals about 15% to 20% of GDP in the most developed markets, while in the European Union it reached an estimated 50%.

## 2. Behavior of banks in the years preceding the crisis

The most important emphasis is primarily on commercial element with regard to convergence with the EU states and is manifested primarily through investments primarily in distribution area: workstations network/ IT systems oriented sales support.

The employment in Romanian banking system has been made in shoal and was followed by a rapid expansion of the network [6], in a tight labor market – the quality element did not always win (in the period 2004-2007 the number of employees in banks increased from 49522 persons to 63487 persons).

Commercial efforts were oriented to credits sale - inevitable in a construction environment and strengthen of the financial intermediation. Support functions are performed by transferring regulatory and practices (know how) from the parent groups, but were generally undersized on highly specialized components.

Operational risk and audit function has also been undersized or not given so much importance, the market and the actors

(banks, employees and regulatory factors) are not as those from Western European countries.

The explanation of this approach lies in the fact that products portofolium was relatively low complexity, profit margins were covers (customers do not feel a burden through the cost of client-bank relationship management), and especially from the concept of sustainability of the convergence process in high rates and over a long period in the context of abundant foreign capital (increase credit lines from foreign parent banks).

### **3. Challenges of the new regulatory and economic framework**

The new Basel III reglementations [5] wants to increase complexity of strategic planning level capital and liquidity mainly through increases in capital requirements and liquidity management as a rare resource.

It also requires improving operational efficiency through IT systems that enable greater granularity of information (High Definition) and creating/calibrating analytical models to size in personalized customer risk and to extract extra business.

Technological developments is manifested by increasing the speed of transaction – EG: high frequency trading and Algorithmic trading - the context of the evolution of banks have increasingly placed more in global financial markets (even banks that do not act on the financial markets can be influenced indirectly by customer behavior contaminated by the financial markets )

The appearance of online banks and online products may be favored by the new Basel III . The growth of smartphones and tablets is fuelling mobile banking adoption, conditioned as their users have already become to other automated banking channels, such as online banking.

In accordance with the latest innovations in delivery financial services, mobile financial services is approaching a tipping point. The analysis assessed consumer behavior across three decades of distribution channel innovation, revealing how the current peace of mobile adoption exceeds past innovations including ATMs, debit cards, and online banking.

To be competitive in the new economic and regulatory context, banks in Romania have to consider improving support functions of strategic planning and comprehensive risk assessment and strategic planning resources of competence - attracting and training key persons who have systemic understanding both within each institution, and the system as a whole.

To be in line with technology and latest technical issues, banks need to invest in IT development by balancing multichannel distribution, knowledge of customer behavior in real time, reducing "time-to-market" product allocation of costs and centralizing logistics functions and acquisitions.

The future growth of banks could be based on core strategies such as focusing on and exploiting core business potentials; building a strong retail franchise; targeting a home market of people; transferring the multi-channel distribution model from their headquarters.

Bank strategies that were not built on lending responsibility or that did not strike a reasonable balance between customer segments and geographies had to be adjusted.

Banks need to focus their commercial efforts on areas with the greatest potential for growth in the near future, to know closely the needs of clients.

Launching a new banking product may result from two approaches: a technical approach and a commercial approach. As with consumer products, these alternative approaches should not be only associated.

As a strategic role, the new product can cover the opening of new markets, providing leadership in a market segment, defending the market position, improving or maintaining innovative image. Newly produced product may be offensive or defensive when innovation is designed to protect the interests of the market.

Innovation is a defining process in the development of banking products. During the development of the banking system and relationships with customers continuously expanded range of banking services, loans and deposits considered traditional banking services are accompanied by attached products.

There is in the market a trend to subsegment products for launching a new product, leading to a situation in which

differentiation will consist of corporate brand behind the product, the set of values associated with it, the most valued attribute for consumer products banking is its safety.

According to recent studies, 40 % of the working population from Romania has a relationship with the bank through a single product, usually payroll card, and the banks are looking to diversify its portfolio of standard products.

In today's context, retail and SME banking [2] are very attractive for a number of reasons:

- ✓ it offers a compelling business case that is built on market leadership,
- ✓ a favourable risk-reward profile and the principle of self-funding;
- ✓ comprehensive scope in terms of product offering,
- ✓ covering simple and understandable products with substantial cross-selling potential;
- ✓ the opportunity to operate in well diversified markets both geographically and in terms of market maturity.

The business case is characterised by a number of favourable parameters: market leadership gives a competitive edge in terms of pricing power, makes it easier to attract deposits, especially in tougher economic times, and offers a more diversified revenue base. The business case also benefits from a favourable risk reward profile resulting in a lower level of revenue and risk cost volatility than experienced in corporate or investment banking.

The retail and SME banking activities are not focused on a niche, but cover a comprehensive range of standard banking products that are simple, easy to understand and serve actual customer needs. The depth of the product range, comprising current accounts, debit and credit cards, deposits and investment products, as well as mortgages and consumer loans, also translates into meaningful cross-selling potential within the existing customer base. The wide product mix also adds to customer and geographic diversification and means that can draw on the broad product knowledge.

Another market segment that can provide advantages of development banks are the private banking clients. Private banking activity envisages the unique needs of each

client. Depending on the risk appetite, objectives and desired structure it occurs the selection of products to build a coherent portfolio customized for each client. Globalization of financial markets has facilitated access to private banking customers to more products, contributing to efficient portfolio diversification as a performance enhancer. Private Banking clients benefit from a direct relationship with a personal banker, as the sole representative of the bank. Personal banker acts as a binder between the client and divisions/departments within the bank, in order to meet its financial needs in the most easy and complete way. The idea of a personal banker relies on the existence of a special employee of the bank. The employee must advise the customers both in terms of ways to accumulate capital and in terms of how to preserve its value. The customer will be advised only in the direction that he should take the amount invested, and the bank will even say what share of capital it holds and which placement tools are the best.

As a first form of private banking, exclusive services were offered to certain customers since inception institutional banking activities. Delivering a distinct service to business and private banking service significant development took place in the 19th century in Europe, but as "private banking" it was first used in the interwar period. Private banking service is a luxury service for luxury clients. Customers who have in their accounts at least 100,000 euros can all benefit from such a service: advantageous interest and fees on loans, product packages, cards that includes all kinds of facilities (including an assurance or discounts).

Assets of over one billion euros in Romania enjoy a "VIP treatment" being managed by private banking systems. There are assets held by over 10000 Romanians and foreign businessmen operating in Romania and are exclusivist customers of banks offering private banking services (BCR Erste, BRD Groupe Société Générale, ING, Bancpost, Raiffeisen, Credit Europe Bank, etc.). The number of banks offering this service is increasing as the number of potential private banking clients grow.

On the other hand, the benefits of private banking are increasing. Besides personal banker and the possibility to build your own

investment portfolio based on risk profile, private banking client receive zero commission for the overall package and the main banking fees are reduced to the normal rate. This is possible precisely because the banks are receiving large amounts of money. Due to the increasing trend of assets, banks plan to expand investment portfolio components. In addition to investments in fixed income, foreign exchange and the capital market, financial institutions will introduce housing component (financing for the purchase of property in New York, London, Spain and Greece proposed BANCPOST), the only condition being imposed the investor to choose an estate of less than one million.

Private Banking clients benefit from their personal banker which offers an absolute discretion, even when you go to the bank. Most financial institutions have built a special location for top customers, where does not enter any person and which is located in the central area. Customers benefit from the services of a dedicated personal banker, advisor to clients, which has the mission to develop bank -client relationship by adapting global investment solutions to each particular client.

The system is still in its infancy, despite the advances that took lately. In mature markets in Europe, the private banking is practiced at larger scale.

First will increase competition by the number of financial institutions that are interested in entering to this market.

As customers become more prosperous, another source of long-term growth will be wealth management, which covers the banking and fund management activities. Irrespective of when this business actually becomes meaningful, the bank is already uniquely positioned to benefit from any such development:

The growth dynamics in fund management differ fundamentally from those experienced in standard banking products, in so far as meaningful growth typically kicks in at a later stage of economic development. Based on historic trends in countries such as Spain or Austria [1], the estimates that growth in fund management reaches critical mass when nominal GDP/capita substantially and sustainably surpasses the EUR 10,000 mark [4] (in Romania, the fund management

market is in the very early stages of development, with funds under management standing at EUR 60 per capita).

#### 4. Conclusions

The macroeconomic improvement should result in gradually declining risk costs and higher profitability. The latter is expected to be supported by a solid operating performance as a result of mid-single digit loan growth, resilient margins and strict cost management.

Rising fee income on the back of increased demand for asset management products, insurance products as well as debt capital market transactions should have an additional positive impact on the operating result.

Bank policies are certainly consistent with the policies of the states and interests in finance or certain sectors of its economy. As the vast majority of banks in Romania are actually subsidiaries of foreign banks, it is more than obvious that the directions of development are dictated by the guidelines of international financial groups.

How will this guidance and will be following up policies in the banking sector, we may discover in the next period. Everyone expects a revival of the situation but none of the actors (customers or bank financial institutions) are not taking the first step, expecting the other one to act for more than five years till now.

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# Econometric Model to Quantify the Performance of Romanian Banking System

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## Abstract

*This paper is a stage of creating, testing and validation of a multiple regression equation of economic and financial performance for a statistical population of Romanian banking system in 2008-2013.*

**Key words:** bank, profitability, multiple linear regression model, performance indicators, performance optimization

**J.E.L. classification:** M41, G21

## 1. Introduction

In the field of the economic literature we can conclude that econometric modeling of economic and financial performance is important for academia, thereby developed models differ depending on the author's perspective on the notion of performance.

Indicators as profitability, return, liquidity, cash flow, solvency, but also a number of non-financial factors, such as product quality, customer satisfaction or other specific aspects to banks, have made performance variables of financial institutions used in developing econometric models. These models have been developed to increase the efficiency of investment decisions, the impact of these decisions on the share price, and the detection risk of bankruptcy that hovers over banks.

This econometric approach includes a performance review, but our goal is focused on a more holistic approach that goes beyond the study of the performance from the perspective of investors and creditors, and cover issues of interest that prevail in performance, regardless of the quality of

players interested in its intensity..

Basically we wanted to asses from statistical point of view, the links and interdependencies between performance of Romanian banking system in 2008-2013, synthesized by economic rate of return and various performance targets traced through performance indicators.

Econometric modeling method, as process of scientific knowledge involves a simplified representation of reality by identifying and reproducing relations between phenomena or processes in the real world, for research, understanding, and their functionality, simulation, prediction and to manage their future development. [1]

In this sense, a multiple linear regression model implement the stochastic dependence between the endogenous variable (explained, dependent, resultant) and a lot of exogenous variables (explanatory, factors, independent, predictors) as the equation: [2]

$$y_i = b_0 + b_1x_{1i} + b_2x_{2i} + \dots + b_kx_{ki} + \theta_i$$

where:  $b_0, b_1, b_2, \dots, b_k$  = estimates for parameters  $\beta_0, \beta_1, \beta_2, \dots, \beta_k$  ;

$\theta_i$  = residual term ;

Estimation of the parameters  $\beta_0, \beta_1, \beta_2, \dots, \beta_k$ ; related to linear regression model is made using ordinary least squares method (CMMPO); values obtained by minimizing the sum of squared adjustment errors, explicit links between the dependent variable and each of the independent variables in the entire population statistics..

In order to develop a multiple linear regression model is necessary to formulate a hypothesis on exogenous variables, namely: independent variables are random and

between independent variables included in the regression there is no linear relationship..

In order to test the validity of the hypothesis based on the regression model and the parameters of the model for predicting, testing of these parameters and validation of the regression model, various statistical tests provided by different software can be used.

To develop an econometric model designed to improve the economic and financial performance in the Romanian banking system, we proceeded to the formation of a homogeneous statistical population indicators listed later, by procuring the necessary information from the website [www.bnr.ro](http://www.bnr.ro) in September 2009 - September 2013..

Thus the first stage of the model development was to analyze the available data for the indicators taken into account.

The set of indicators used in the population tests, econometric methodology used, and the obtained model is developed in the following paragraphs.

For the development and foundation of the regression model we used SPSS software tools..

## 2. The endogenous variable of the regression model : the economic rate of return

The dependent variable of a econometric model regarding economic and financial performance must be the variable that best summarizes the performance concept in the Romanian banking system and whose development, networking and variation are of interest and useful to policy makers.

In the scientific literature, economic and financial performance includes the most varied notions such as effectiveness, ability to generate cash flows, competitiveness, value creation, revenue, profitability, efficiency, making the act of transposing the concept of performance in a single variable to be a real challenge with a high degree of subjectivity.

Of all the economic and financial performance valences listed above, financial rates of return included under various economic and mathematical models have demonstrated the best so far their usefulness and practical importance in decision making.

Testing intensity of the relationship

between the dependent variable and the group of independent variables relevant to model

To assess the degree of relevance of the model in relation to the extent to which the independent variables introduced in the model explains the variation of the endogenous variable, we determined the correlation coefficient (R), the coefficient of determination (R<sup>2</sup>) and the adjusted coefficient of determination, changing the coefficient of determination, and testing the significance of the change from adding each block of variables, results obtained being listed in Table 1. [3]

Table 1. Coefficient of determination

Model Summary(f)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.998(a)	.997	.995	.02746
2	.998(b)	.997	.995	.02613
3	.998(c)	.997	.995	.02621
4	.998(d)	.996	.995	.02538
5	.998(e)	.996	.995	.02632

a predictors: (Constant), NPL ratio, Loans Deposits, solvency ratio, rate of return activity, ROE, Leverage, Credit risk

b predictors: (Constant), NPL ratio, Loans Deposits, Solvency Ratio, ROE, Leverage, Credit risk

c predictors: (Constant), NPL ratio, Loans Deposits, Solvency Ratio, ROE, Credit risk

d predictors: (Constant), NPL ratio, Loans Deposits, ROE, Credit risk

e predictors: (Constant), NPL ratio, ROE, Credit risk

f Dependent Variable: ROA

Source: own calculations using SPSS

The table contains values of the coefficients mentioned above, measured at the level of different groups of variables that make up a particular regression model, distinctly underlined on each stage of the backward process for appreciation of the optimal combination of variables in the linear regression model..

With regard to our study (model 5), due to the calculated value for the coefficient of determination, R<sup>2</sup> = 0.998, we can state that its level equals the qualifier "good" for the regression model in terms of its functionality, meaning that a percentage of 99.8 % of the variation of the endogenous variable is

explained on the account of exogenous variables..

The difference corresponds to the influence of random factors (residual).

The same conclusion can be obtained by analyzing Table 2 ANOVA.

The most important information in the case of ANOVA table, is the F statistic, with which we tested the global significance of the independent variables, where one can see that the recorded value of Sig. is below the threshold of significance (0.05), which means that the independent variables explain the variation in the dependent variable selected, confirming the working hypothesis that the regression equation is globally significant.

Table 2. ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.193	7	.313	415.404	.000(a)
Residual	.007	9	.001		
Total	2.200	16			
Regression	2.193	6	.366	535.257	.000(b)
Residual	.007	10	.001		
Total	2.200	16			
Regression	2.193	5	.439	638.251	.000(c)
Residual	.008	11	.001		
Total	2.200	16			
Regression	2.192	4	.548	851.152	.000(d)
Residual	.008	12	.001		
Total	2.200	16			
Regression	2.191	3	.730	1054.712	.000(e)
Residual	.009	13	.001		
Total	2.200	16			

a predictors: (Constant), NPL ratio, Loans Deposits, solvency ratio, rate of return activity, ROE, Leverage, Credit risk

b predictors: (Constant), NPL ratio, Loans Deposits, Solvency Ratio, ROE, Leverage, Credit risk

c predictors: (Constant), NPL ratio, Loans Deposits, Solvency Ratio, ROE, Credit risk

d predictors: (Constant), NPL ratio, Loans Deposits, ROE, Credit risk

e predictors: (Constant), NPL ratio, ROE, Credit risk

f Dependent Variable: ROA

Source: own calculations using SPSS

### 3. Estimation the parameters of the regression model. Testing the significance of the model parameters

The determination of parameters to regression model represents the way to express the links between variables in the entire population statistics. Increased importance of obtaining model parameter values lies precisely from the utility and purpose of creating a regression equation which is to identify and explain the endogenous variable, when the value of the exogenous variable increases by one unit.

Estimated the parameters of the regression

model and testing the significance of these parameters requires analysis of the results in Table 3. In this table, in the first part, appears the regression model coefficients (column B), standard errors, the t-test statistics for each factor separately, and significance threshold (Sig.).

As the case of multiple regression, the second part of the table specified collinearity statistics tolerance and variance inflation factor (VIF), as shown in Table 3.

Therefore, performing estimation approach for multiple linear regression model with variables validated in the previous stage, led us to the following model estimated [4]

$$\text{Rec} = 1185-0043 * \text{solvency indicator} + 0.98 + 0.52 * \text{leverage effect} * \text{ROE}-0008 * \text{Loans / Deposits}-0019 * \text{Credit risk} + 0.27 * \text{nonperforming loans ratio}$$

The solvency indicator (0.29), the leverage effect (0.34), key loans / deposits (0.13) credit risk ratio (0.55) nonperforming loans (0.22) are the five variables whose coefficients, significance level of the t-statistic is below but very close to the minimum threshold of significance, which is why we keep these variables in the linear model, but we will consider in future attempts to improve this model.

Table 3. Parameters of the regression model

		Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.185	.678		1.747	.115	-.349	2.720
	Indicatorul_de_solvabilitate	-.043	.039	-.055	-1.114	.294	-.131	.045
	Efectul_de_parghie	.052	.052	.053	.996	.345	-.066	.170
	ROE	.098	.002	.969	39.342	.000	.092	.103
	Rata_rentabilitatii_activitatii_de_baza	.000	.001	-.006	-.233	.821	-.002	.002
	Credite_acorcate_Depozite_atrase	-.008	.005	-.058	-1.655	.132	-.018	.003
	Rata_riscului_de_credit	-.019	.016	-.272	-1.167	.273	-.055	.017
	Rata_creditor_neperformante	.027	.020	.314	1.319	.220	-.019	.072
2	(Constant)	1.139	.617		1.846	.095	-.236	2.513
	Indicatorul_de_solvabilitate	-.041	.036	-.052	-1.147	.278	-.121	.039
	Efectul_de_parghie	.047	.046	.049	1.033	.326	-.055	.149
	ROE	.098	.002	.967	43.485	.000	.093	.103
	Credite_acorcate_Depozite_atrase	-.007	.004	-.056	-1.727	.115	-.017	.002
	Rata_riscului_de_credit	-.019	.015	-.284	-1.316	.217	-.052	.013
	Rata_creditor_neperformante	.027	.019	.324	1.463	.174	-.014	.069
	3	(Constant)	.682	.431		1.582	.142	-.267
Indicatorul_de_solvabilitate		-.008	.016	-.010	-.497	.629	-.042	.027
ROE		.098	.002	.970	43.753	.000	.093	.103
Credite_acorcate_Depozite_atrase		-.004	.003	-.031	-1.422	.183	-.010	.002
Rata_riscului_de_credit		-.026	.013	-.387	-2.009	.070	-.055	.003
Rata_creditor_neperformante		.037	.016	.441	2.300	.042	.002	.073
4	(Constant)	.560	.343		1.632	.129	-.188	1.307
	ROE	.098	.002	.970	45.206	.000	.093	.103
	Credite_acorcate_Depozite_atrase	-.004	.003	-.030	-1.407	.185	-.010	.002
	Rata_riscului_de_credit	-.029	.012	-.426	-2.501	.028	-.054	-.004
	Rata_creditor_neperformante	.040	.014	.478	2.806	.016	.009	.072
5	(Constant)	.087	.073		1.200	.252	-.070	.245
	ROE	.100	.002	.987	54.739	.000	.096	.104
	Rata_riscului_de_credit	-.026	.012	-.376	-2.177	.049	-.051	.000
	Rata_creditor_neperformante	.036	.015	.427	2.474	.028	.005	.068

a. Dependent Variable: ROA

Source: own calculations using SPSS

Analyzing the results of Student's t-test it is seen that for 5 from the 8 coefficients, significance level (Sig.) is very close to the minimum threshold of significance value set at 0.05.

#### 4. Conclusions

Studying economic and financial performance by transposing it as an econometric model, which describes in a simple form of expression, the relationship between a dependent variable and one or more independent variables leads to greater knowledge about the links between

phenomena or practical elements characterizing the performance of the Romanian banking system as well as the identification of new legitimacy and influences that govern the real activity of credit institutions.

By the way captures and explains the links between phenomena and processes in the real economic world, an econometric model is an important step for a better understanding, interaction and even the intervention on a complex and dynamic environment, such as the existence and functioning of credit institutions.

Taking into account all the issues raised, we want to emphasize again the importance of adopting and using existing scientific

developments (in terms of evaluation and performance management, technical and computing technology and data processing, etc.) for efficient practical activity of credit institutions.

Applicability and practicability of our regression model making decisions will be demonstrated and supported in a subsequent study.

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# The Liturgical Mission of the Church in the Age of Mondialization

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## Abstract

*The Christian mission is the sending of the Church in the world for the Evangel to become universal and for people to become part of God's Kingdom, founded through the redeeming work of Jesus Christ, inaugurated as its anticipation in the Church. The missionary calling of the Church has to do with its apostolical character. The Christian Church is apostolical not just through its apostolical origin but also for the fact that it has been sent on a mission. It cannot cease to be a missionary Church. Christianity is really interesting for today's man, to the extent to which it presents the message of the personal, living and loving God, the Only One Who can save man here and in the eternity, communicating to him life and an eternal love as neither the material goods, nor the modern ideologies can give him.*

**Key words:** Church, society, mission, evangelization, unity

**J.E.L. classification:** Z 120

## 1. Introduction

The mission of the Church in relation to the world is realized through the action of the Church outside itself. Missionary, in its essence, the Church is the sense of the mission itself. The most conclusive illustration of the connection between Church and mission could be this quotation: "The Church lives by mission as a fire that lives by burning." [1]. Being sent in the world, the Church, in general, and especially the Orthodox Church has always taken seriously both history and those who make history: men, nations and peoples. The Orthodox Church has not formulated a particular social doctrine. Both the doctrine of the total separation of the Church from the world and the theory of the two kingdoms, formulated

by the Blessed Augustine - not shared by the Orthodox Church - just as the system of Constantine's era, or any other form of relation with the world, represent real, yet relative possibilities, according to the Orthodox teaching, for the relation of the Church with the world [2].

If the mission of the Church is not taken all the way through, instead of life, joy and eternal life, which man thirsts for, in his quality of image of God, the contemporary man discovers sadness, solitude and spiritual emptiness, becoming a slave of the economy and of the systems he invented.

In order to help man discover the true sense of Christian life, the mission and ministry need to be exerted so as to help man go over the dualism between private life and social life, and parish communities should be a place where the believers pray together and celebrate together, find support in trouble and feel a true brotherly solidarity. The separation between private and social spirituality lies at the heart of secularization and sectarianism. Consequently, this fundamentalist misunderstanding needs to be overcome, as the Christian spirituality and morals do not fragment the human existence into isolated domains, but has in view its entirety. Social problems are finally spiritual problems as well [3].

Mission means, therefore, sharing in the loving life of the Holy Trinity even since this earthly life, having as concrete visible means the Word of the Evangel and the grace-giving mysteries through which the Spirit of the Truth is at work.

## 2. The notion of mission: sphere and content

Particularly important is the precise understanding of the term "mission".

"Mission" (in Latin "mittere"= sending) represents the apostolic calling of the Church to preach Christ's Evangel to all the nations,

calling them to reconciliation in the name of Christ through Repentance and Baptism: "Go ye therefore, and make disciples of all the nations, baptizing them into the name of the Father and of the Son and of the Holy Spirit" (Matthew 28:19).

Mission is an act of sending: "As the Father sent me, so I am sending you." (John 20:21), of confessing Christ's resurrection: "they declared all that God had done with them, and how he had opened a door of faith to the Gentiles" (Acts 14:27).

Mission is a fundamental criterion of the Church, not just in the sense that the Church is the "instrument of redemption", but also that the Church is the aim or the realization of the mission. The Church's missionary call has to do with its apostolical nature.

The mission is an act of faith entrusted by the Church to the twelve "cornerstones" and the twelve apostles of the Lamb: "twelve names of the twelve apostles of the Lamb" (Revelation 21:14). This highlights the universal value of the Evangel's message [4]: "Without question, the mystery of godliness is great: he was revealed as a human, declared righteous by the Spirit, seen by angels, preached throughout the nations, believed in around the world, and taken up in glory" (1 Timothy 3:16).

Mission is the action of announcing and implies two senses: a strict one of evangelization, namely the oral preaching of the Evangel or the ministry of the word: "But we will continue stedfastly in prayer and in the ministry of the word" (Acts 6:4).

Preaching is essential for the mission of the Church, as the proclamation of the Word lies at the basis of faith: "But how can they call on Him they have not believed in? And how can they believe without hearing about Him? And how can they hear without a preacher?" (Romans 10:14). It also involves a larger sense, of testimony "martyria", which refers to the totality of the Christian life: divine service, Holy Mysteries, prayer, spirituality. One can fully confess Christ through a life of holiness that has a value of theophany. "In the same way, let your light shine before people, so they can see the good things you do and praise your Father who is in heaven." (Matthew 5:16).

The mission was conceived as a work of the divine love, which wanted everyone of us to enjoy the blessings of the embodiment of

God's Son and be "adopted" as God's son, through Christ.

The Christian mission "springs" from Christ's mission, which was to "summarize" the whole universe in Himself, to make it participate to His glory. Actually, the Holy Apostle Paul clearly states that God's plan was to reunite in Christ all the things in heaven and on earth: "to bring all things together in Christ, the things in heaven along with the things on earth" (Ephesians 1:10), and this "plan" was transmitted to the Church [5].

The missionaries have always been concretely convinced that all the people outside Christianity have been "meant" for the Church, starting from the teaching on the divine will of universal redemption. Based on this will, the missionary will was one of sacrifice, of "salvation" of the whole mankind.

Another permanent "aim" of the missionary activity was the ideal of universal spiritual unity, unto an eschatological perspective. The missions have been inspired by the support of the universal unity.

This has also been the desire He expressed, namely that *all may be one*. The Founder of our Church, God Himself, was the first missionary, Apostle and Overseer of the testimony for us and just as the Father sent Jesus, in the same way, Jesus sent His disciples, the Apostles, who, in their quality of missionaries of faith, had to go throughout the world and teach all the peoples, "sowing the seed of the Evangel and tending to bring all things on the way to salvation" [6].

In Christ, the world is created anew, renewed by grace, through God's eternal love, "being justified by His grace as a gift, through the redemption that is in Jesus Christ!" (Romans 3:24). According to the words of the Scripture: "to open their eyes, that they may turn from darkness to light and from the power of Satan unto God" (Acts 26:18), every man's duty is to talk to those "still living in darkness" about the love of Jesus and about salvation in God. Our duty, the duty of each one of us is to talk about Christ. Indeed, this is our responsibility in front of God, and it should not leave us indifferent. The sense of this duty should guide our thoughts. The first mission is to "awaken the soul". But before that, we need to understand very well that the desires of a

man "not born again" – who, according to the Holy Scripture is "dead in sins and lawlessness" – are "unclean" and then we should realize that such men do not know this truth, because the vain things of a passing world seem to them as the only ones worth wanting. The mission is to "open their eyes", to make them realize that these things are not the immortal "pearls" and to advise them to look for the divine "pearl".

### **3. The missionary calling of the Church**

The missionary calling of the Church has to do with its apostolical character. The Christian Church is apostolical not only by virtue of its apostolical origin, but also because it has a mission entrusted to it: just as the Son was sent by the Father, so were the Apostles sent by Jesus Christ.

The mission is, therefore, an essential dimension and component of the Church. The Church is in a continuous state of mission. It cannot cease to be a missionary Church.

To nowadays' man, who, for many reasons, suffers from loneliness and lack of authentic sense, and is looking for a real and sincere communion able to fight off selfishness, individualism and consumerism, the community of the parish should provide the arena of this communion. It should accomplish its role of restoring the communion among men, providing a concrete testimony of true communion, which can only be found in the middle of those who believe in God, Who has taken on a body to fully commune with mankind.

Offering this communion, the testifying parish community can bring man in communion with God, as he enters in communion with those who believe in Him. Christianity is really interesting for today's man to the extent to which it presents the message of the personal, living and loving God, the Only One Who can save man here and in eternity, communicating to him life and an eternal love, things that neither the material goods, nor the modern ideologies, nor the impersonal oriental religions can offer him. And God does it as He helps man live, here and now, the anticipated presence of this love in the community of the Church, in the community of the believers [7].

### **4. The liturgical dimension of the mission**

The Church is the extension of the life of Christ into the believers who constitute His body, on their way towards an abundance of life. It is a divine-human, seen-unseen reality, the communion of the saints and the community of the believers. The mission consists in the service of extending the presence and the life of Christ in the believers, under the form of the Church, in history, and of the lifting of the believers to a more and more comprehensive communion with God - the Holy Trinity. The mission is that activity in which God's work comes together with man's work, according to the measure entrusted to each one of us, activity by which Christ's sending of the disciples in the world becomes permanent until the end of the age (Jn. 20:21; Mt. 28:18-20).

The mission is a redeeming calling addressed to those outside the Church and aiming to make the human existence a partaker of the Divine Liturgy in the Church, to give to it a liturgic-sacramental, baptismal, Eucharistic and Resurrection rhythm, to change and renew man during the wait until the ultimate renewal in God's Kingdom [8].

In the process of the Liturgy are attracted not just the Christians as individual persons, but also the community as such. The missionary calling of the Church is common, not just individual. The liturgical community is a missionary community; it is a visible testimony for the conversion of others. The Holy Liturgy is co-advancement towards God's kingdom and at the same time a place where the Christians get ready for the mission. They are called to mediate for others, as well, the communion they are celebrating in the Holy Liturgy. This is why the Holy Liturgy ends by a sending act: "Let us go forth in peace!" This liturgical sending is exerted by the evangelical testimony, the calling to conversion and the love for our fellow. It is a responsibility of the state of being Christian - as praise and thanksgiving offered to God for the redemption He offered to us through His Son -, to mediate this redemption for others, as well. Saint John the Ladderer says that the Christian is responsible not just for his own salvation but also for Christ's redeeming work, which concerns the whole world, making every believer part of a commitment: "Save, you,



who have been saved by God. Save, you, who have been saved, save the one carried away to death, and do not spare anything to ransom those being killed by the devils. Because this is the great fight before God, greater than all the work and contemplation of men and angels. The one washing and cleansing, with the cleanliness entrusted to him by God, the dirtiness of others, and making, out of the dirty ones, purified gifts that he offers to God, proves to be co-worker of the unbodily and understanding powers. This and only this has always been the work of those who liturgize for God. "For all those around Him will bring gifts to Him" (Ps. 75, 11) [9].

This is the incessant cosmic Liturgy demanded by God: to bring ourselves and to bring everyone and one another cleansed to God, together with all the things given by Him.

The Church needs every believer's evangelical testimony, as no gift from us is as welcomed by God as that of bringing to Him souls speaking to Him through their repentance. Because the value of the whole world does not equate the value of one soul. The world passes away, while the soul is imperishable and remains. This is why, we should not say "Blessed are you" to those who bring goods; but we should call blessed those who bring speaking sheep to Christ.

We all need to bring ourselves as gifts to God, but also one another, because we have all been given to one another as gifts by God. Yet, we cannot offer one another to God as objects but as subjects, through the freedom that we increase to one another, and enriched in the connections between ourselves. By our offering others as gifts to God, or by others offering us as gifts to God, they offer themselves and we offer ourselves to God, yet through mutual encouragement. Our sense is therefore to encourage one another to this. And we can do it by a mutual encouragement to leaving our sins behind, through repentance. Because sin is nothing else but man's refusal to offer himself as a gift to God. And in awakening one another's repentance, each one of us has an important role to play, accomplished by our word, and especially by our example.

The sense of this mission has to do with the nature of the Evangel, as it is mentioned in an Orthodox document on mission and

ministry: "We do not have the option of keeping the Good News only for ourselves. Sharing in the Word, transmitting the word and confessing the faith already given to the saints is part and parcel of man's growth in the image and the likeness of God and the realization of his deification (*theosis*). Just like the Holy Apostle Paul, the believer needs to be able to say, about all those who do not know life in Christ, what he was saying on his conationals: "my heart's desire and prayer to God on behalf of my fellow Israelites is for their salvation" (Rom. 10:1). The Evangel (the Good News), not transmitted, is a contradiction in terms" [10].

## 5. Mission in the contemporary society

On the background of a religious and cultural pluralism, in the contemporary Europe we are witnessing the marginalization of the Church, of the religious element and of the Christian values. This sad reality makes people talk about a new Europe and a new European with a new identity. Starting from this general vision, we need to emphasize the significant role of Christianity and of its structures in the construction of Europe, on the one hand, and, on the other hand, we need to analyze the reasons why Europe has drifted away from its Christian roots, the self-"apostasy" promoted by the laycist, relativist and pragmatist trends, all promoted by an atheist culture.

Culture has its variations, while the Revelation is constant and eternal. This explains why culture is being evangelized and the Evangel culturalized. This is the divine pedagogy that can be contemplated all along the divine Revelation inserted in history and expressed by it.

Beyond these aspects, we are nevertheless witnessing a renewal of the spiritual life, a delineation of some firm and mature Christian consciences and a reconsideration of the Christian moral values in the public area. This is why we need a qualified, active Christian community, adaptable to the socio-cultural changes, inspiring the non-Christians' behavior. But, in order to get

there, the people in Europe need more faith in God and more trust in man.

## 6. Conclusions

The Christian mission is the sending of the Church in the world for the Evangel to become universal and for people to become part of God's Kingdom, founded through the redeeming work of Jesus Christ, inaugurated as its anticipation in the Church.

The mission was conceived as a work of the divine love, which wanted everybody to enjoy the benefits of God's Son's Embodiment and to be "adopted as a son" through Christ.

The Church needs the evangelical testimony of every believer.

The missionary calling of the Church is common, not just individual. The liturgical community is a missionary community; it is a visible testimony for the conversion of others. The Holy Liturgy is advancement in fellowship towards the kingdom of God and, at the same time, a place in which the Christians get ready for their mission.

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**Section I**  
**International Affairs and European Integration**

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**Subsection 3**  
**Regional Development Strategies**

## Analysis of GDP, Labor and Unemployment evolutions in Romania during the Financial Crisis

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### Abstract

*The present paper aims to reveal the result of a graphical analysis made over the Standardized unemployment (SER), Total employment (TEM), Gross domestic product at market price (GDP), Labor Productivity (LPR). The time period covered the quarterly values recorded from years 2000 to 2013 (second quarter) for Romania. The methodology used is graphical analysis considering the evolutions of each of the four indicators recorded and their trends. The main objective was to determine the influence of the financial crisis over the GDP and the employment. The analysis showed that the most influenced indicator was the unemployment and even that the other three ones were somehow influenced their evolution was slightly affected. The conclusion reveals that the way how the indicators are influenced by the financial crisis*

**Keywords:** unemployment, GDP, labor productivity, trends.

**Journal of Economic Literature (JEL)**

**Classification: E24.**

### 1. Introduction

The unemployment rate is an important economic indicator for a community. It is low during good economic times and high during recessions. In an economic downturn, the rate tends to underestimate the number of unemployed because some people become discouraged and stop looking for work.

At the individual level, unemployment reduces household income, limits access to

health insurance, and contributes to psychological stress. At the community level, a rise in joblessness reflects a lack of employment opportunities and places demands on community services [3].

Measuring Gross domestic product (GDP) is complicated (which is why we leave it to the economists), but at its most basic, the calculation can be done in one of two ways: either by adding up what everyone earned in a year (income approach), or by adding up what everyone spent (expenditure method). Logically, both measures should arrive at roughly the same total.

As one can imagine, economic production and growth, what GDP represents, has a large impact on nearly everyone within that economy. For example, when the economy is healthy, you will typically see low unemployment and wage increases as businesses demand labor to meet the growing economy. A significant change in GDP, whether up or down, usually has a significant effect on the stock market. It's not hard to understand why: a bad economy usually means lower profits for companies, which in turn means lower stock prices. Investors really worry about negative GDP growth, which is one of the factors economists use to determine whether an economy is in a recession [4].

Productivity growth is important because it contributes to growth in output, income and living standards. Since GDP is both a measure of income and output and since GDP per hour worked is a measure of labor productivity, growth in productivity will raise income per person [5].

## 2. Data

The data considered for the present analysis, imported from European Central Bank – Eurosystem, are the following economic indicators [1]:

- Standardized unemployment (SER) [%] – rate, Institution originating the data flow: Eurostat. Unemployment rates published by the European Commission (Eurostat) and conform to International Labor Organization (ILO) guidelines. They refer to persons actively seeking work as a share of the labor force, using harmonized criteria and definitions;
- Total employment (TEM) [x1000 of Persons]. Employment covers employees and the self-employed working in resident production units. Employment data are measured in number of persons in employment and total hours worked; other possible measures for employment are number of jobs and full-time equivalents;
- Gross domestic product at market price (GDP) [Millions LEI] - reference year 2005. GDP is the value of an economy’s total output of goods and services less intermediate consumption, plus net taxes on products and imports. GDP can be broken down by output, expenditure or income components. The main expenditure aggregates that make up GDP are household final consumption, government final consumption, gross fixed capital formation, changes in inventories, and imports and exports of goods and services (including intra-euro area trade);
- Labor Productivity (LPR) [LEI] - reference year 2005. Labour productivity reflects the output that can be produced with a given input of labour. It can be measured in several ways, but is commonly measured as GDP divided by either total employment (by people in employment, i.e. including both employees and self-employed) or total hours worked. The headline ECB measure calculates labour productivity as GDP divided by persons in employment..

The indicators were recorded quarterly between years 2000 and 2013 (until 2013 second quarter).

## 3. Methodology

The methodology consists in graphical analysis of every considered indicator (SER, TEM, GDP and LPR).

The general tendencies and certain specific evolution will be investigated. Also, the certain time periods are emphasized for a more profound analysis and conclusion.

## 4. Graphical representation and analysis

For a better understanding and more profound analysis of the evolutions and tendencies of the four indicators, two graphical representations were used. First the yearly quarterly evolution of each indicator was determined. Second type of figures considers certain time periods where every indicator has a particular evolution and if the other three indicators have the same evolution.

In order to understand the evolution of considered indicator trend lines were created for a better view and analysis.

Using the considered indicator the following graphic representations were determined:

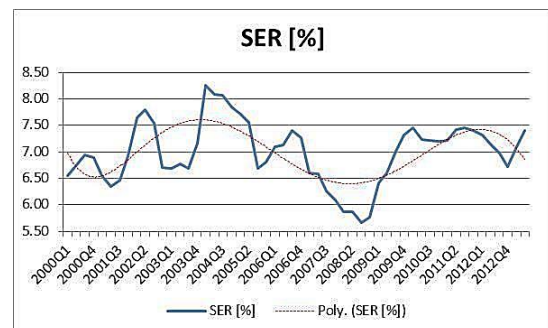


Figure 1. Standardized unemployment (SER) [%], quarterly evolution.

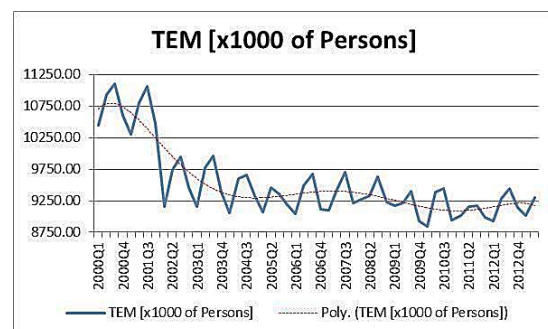


Figure 2. Total employment (TEM) [x1000 of Persons], quarterly evolution.

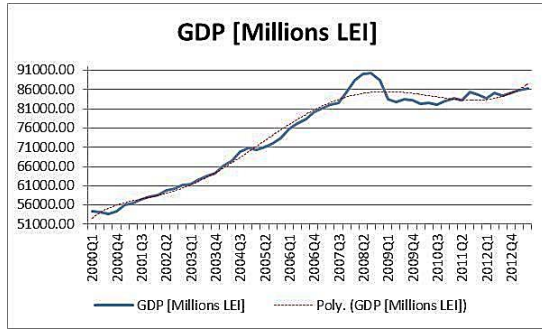


Figure 3. Gross domestic product at market price (GDP) [Millions LEI], quarterly evolution.

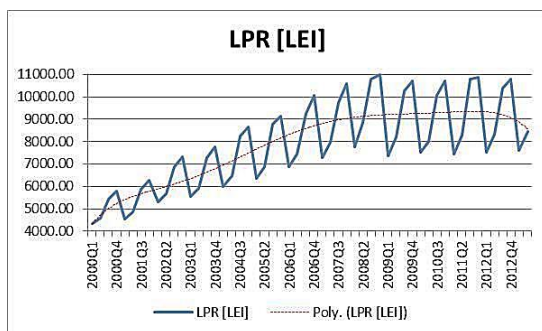


Figure 4. Labor Productivity (LPR) [LEI], quarterly evolution.

Poly. Represents the trend line determined by the MS Excel for the every graph considered [2].

Considering the above graphics the following conclusions were determined, considering consecutively the four indicators:

#### *SER's evolution.*

The SER evolution had 3 main variation points: first at the 2004 first quarter (Q1) when after a period of growth, a period of decrease follows until Q3 of 2008, from which another period of growth follows until Q3 of 2011 when an almost constant period continues.

In the same period, considering the variation points, the other 3 indicator had the next variations:

- Until 2004's Q1: TEM had a strong decrease, GDP had increased and LPR also slowly increases;
- Until 2004's Q1 and 2008's Q3: TEM had a slow increase followed by a decrease, GDP had increased and LPR also slowly increases;

- Between 2008's Q3 and 2011's Q3: TEM had a slow decrease followed by a small increase, GDP still increased and LPR also slowly increases;
- After 2011's Q3: TEM is constant, GDP slowly increases after a small decrease and LPR is almost constant.

In order to demonstrate the above analysis, the graphics can be zoomed in, for example on the first chosen interval 2000's Q1 until 2004's Q1 (figure 5-8).

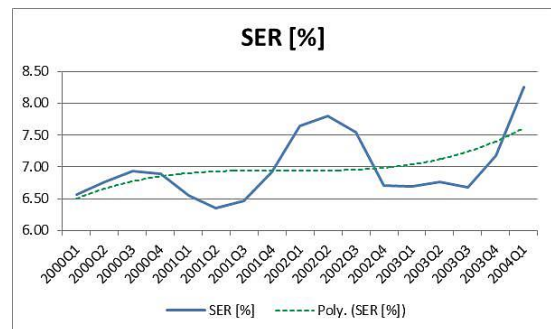


Figure 5. Standardized unemployment (SER) [%], between 2000's Q1 and 2004's Q1.

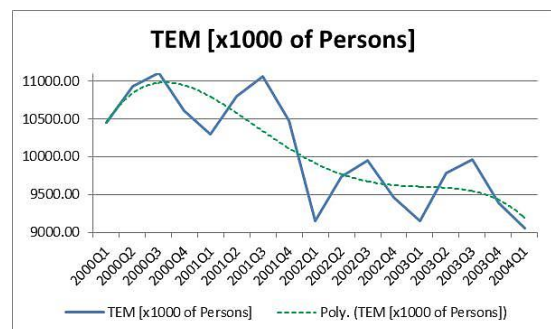


Figure 6. Total employment (TEM) [x1000 of Persons], between 2000's Q1 and 2004's Q1.

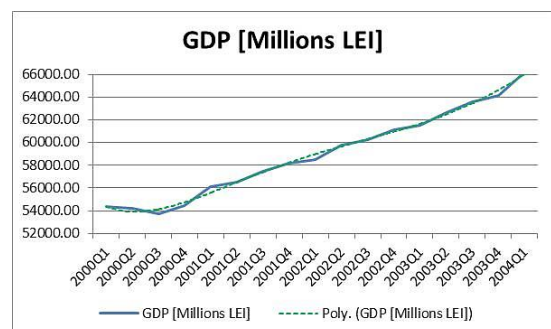


Figure 7. Gross domestic product at market price (GDP) [Millions LEI], between 2000's Q1 and 2004's Q1.

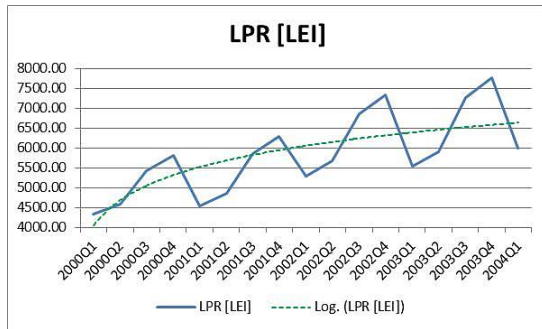


Figure 8. Labor Productivity (LPR) [LEI], between 2000's Q1 and 2004's Q1.

#### *TEM's evolution.*

The TEM evolution had 2 main variation points: first at the 2003 fourth quarter (Q4) when the TEM had a serious decrease, followed by a period of almost constant evolution until Q4 of 2009 were a small decrease is revealed.

In the same period, considering the variation points, the other 3 indicator had the next variations:

- Until 2003's Q4: SER had small increase followed by a decrease, GDP had increased and LPR also slowly increased;
- Between 2003's Q3 and 2009's Q4: SER had a decrease followed by a increase, GDP still increases and LPR also slowly increases;
- After 2009's Q4: SER is constant, GDP slowly increased after a small decrease and LPR almost unimportant increases.

#### *GDP's evolution.*

The GDP evolution had 1 main variation point in the 2009 fourth quarter (Q4) when after a continuous increase, the GDP had a small decrease followed by another increase in 2011's Q2. In the same period, considering the variation points, the other 3 indicator had the next variations:

- Until 2009's Q4: SER had an increase followed by a decrease, TEM had a sinusoidal evolution with a serious decrease at the beginning of the interval increased and LPR also increased;
- After 2009's Q4: SER is constant, GDP slowly increased after a small decrease and LPR almost unimportant increases.

#### *LPR's evolution.*

The LPR evolution had 1 main variation

point in the 2007 second quarter (Q2) when after a continuous increase, the LPR had a period of almost a constant variation. In the same period, considering the variation points, the other 3 indicator had the next variations:

- Until 2007's Q2: SER had an increase followed by a decrease, TEM had a sinusoidal evolution with a serious decrease at the beginning of the interval increased and GDP also increased;
- After 2007's Q2: SER increase, GDP slowly increased after a small decrease and TEM decreases and after that increases.

## 5. Conclusion

The authors concluded that the most influenced indicator evolution from is the standardized unemployment. Its trend decline started in the beginning of 2010 and ended somewhere in the third quarter of 2011. Regarding the other three indicators their trends are less influenced by the crisis. So, in the same time that as the SER important decrease, the total employment has a decrease but with a smaller trend, gross domestic product at market price actually increases and the labor productivity is almost constant.

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# Implications and Modalities to Mitigate Seasonality in the Romanian Seaside

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## Abstract

*In the current economic conditions, tourism can become one of Romania's strong export industries that can compete effectively with other countries with tradition in this area. Negative aspects regarding the whole tourism product standards and tourist services are the result of a period of about 20 years of weak investment in tourism or no change related to the transition to a market economy.*

*This paper deals with the phenomenon of seasonality tourist activity, because Romania is particularly affected by this phenomenon, due primarily temperate continental climate. Combating seasonality is very difficult to remain on the coast of the Black Sea as coastal tourism usually practicable only during the summer. Lately, efforts focus seaside entrepreneurs to find viable ways to mitigate this phenomenon and to develop tourism in this area.*

**Keyword:** seasonality, tourism implications, seaside

**Clasificare J.E.L.:** M29

## 1. Introduction

Problems arising from the concentration decrease implications seasonal tourist activity in certain periods of the year, respectively, of extending the season are as old as tourism itself. The phenomenon of concentration of tourist activity and the need to mitigate the phenomenon of seasonality in tourism were not shown but never so acute as today. In this contribution, on the one hand, the increase in the number of tourists traveling during full season, and on the other hand the efforts of

providers that are aimed at extending the season.

## 2. Implications and opportunities for mitigation of seasonality in tourism industry

In today's competitive environment, tourism development should help to create a favorable environment for the sector because tourism is a "multidisciplinary enterprise" that needs a bold strategy, sector specific, established with the support of state authorities at the operational level to provide a vision, a model able to guide the production and marketing of tourism products.

In Romania tourism is one of the economic sectors with real meanings long-term development and a means of creating and improving Romania's image abroad. It also is a source of increasing foreign exchange earnings, is a safe market labor is a means of economic and social development through both revenue created, and through interpersonal exchanges, cultural, which he realizes is a unique way to exploit the rich and diverse natural potential of the country, which cannot be exported in the rough, but can be an important source of export by turning to the spot, it is a means of preserving and exploiting the potential of historical, cultural, folk country and promoting compliance with the principles of sustainable development.

Issues related to reducing the burden caused by seasonal concentration of tourism activity in certain periods of the year, respectively, extending the season are a topical issue nowadays irrespective of tourism and geography. As the duration of the tourist season in an area is determined primarily by climate and weather, the use of



effective trade policy instruments are designed to compensate for the diminishing attractiveness of natural factors with a set of additional unit incentive tourism potential to harness more effectively heritage tourism by maintaining demand for tourist services in a reasonable volume and level providers, for a period of time in a year as long as possible.

To understand better the implications of seasonality in the tourism industry, it is necessary to know the frequency of service requests in a calendar year, his oscillations while the volume and intensity of visitor flows in different areas and tourist resorts inters.

Depending on natural conditions, geographical location of the receiver territory to domestic and international tourist circuits of the attractiveness and diversity of services are three basic variants of seasonality in tourism activity curve. Thus, in Romania were three types of seasonal variations [2]:

- manifestation of tourism activity in a single season, a season characterized by the fact that the offer optimum quality meets one time per year and for a limited time. This seasonality is typical Romanian seaside, where demand and consumption occurs between May to September, the maximum period 15 July to 15 August, in the other months of the requests are rare or completely absent;

- manifestation of tourist activity in the two periods of the season, is characterized by two seasons with intensities close to tourist activity, length of time and reasons for travel are different however. Mountain resorts are responsible for this type of oscillation, namely: winter snow and white sports, summer, rest, hiking, climbing. Maximum intensity periods are from December to March (for winter) and May-September (for summer). Mountainous is that during the season the demand is not reduced to zero (weekend travel, business travel);

- permanent tourist activity. In this type include: spas where tourist arrivals are distributed relatively evenly during the year and urban centers where tourist traffic is permanent due to the diversity of activities (conferences, fairs, exhibitions).

Analyzing these curves variants of seasonality can set the following stages of travel season[2]:

- the full season, marked by the maximum

intensity of the peak season of tourism activity;

- periods start and end of the season, marked by less intense stress;

- low season periods, characterized by reduced activity or, in some cases, the termination of the provision of tourism services.

Logical sequence of these stages illustrates the complexity of organizational and economic activity, which aims to offer the most efficient correlation of interest with seasonal fluctuations in the demand for services.

Another aspect to be underlined is that on seasonal variations are recorded in all tourist countries. These oscillations show a trend increase in volume and intensity so that the concentration of seasonal tourism is a constant phenomenon of tourist movement generated by the character and nature of these flows. This increasing concentration increase caused a series of phenomena of interest, among which may be mentioned [1]:

- invasion, more or less intense, holidays in the old and new regions and tourist areas;

- overuse, almost unbearable, network rail, road, sea and air, the maximum concentration during seasonal tourist traffic;

- insufficient number of accommodations in hotels and the need to create new possibilities for new form of accommodation;

- growing tensions in the relationship between service requesters and providers of tourist services units;

- insufficient public services that are not proportionate to the level and intensity of the stresses in peak periods such parking.

In the future, this situation tends to worsen. Hence the need to consider seasonal inconveniences arising from the increasing concentration as a natural and inevitable consequence of tourism traffic.

In the economic literature attention is focus on economic aspects of the unequal distribution, seasonal demand frequency of travel and seek solutions to avoid possible negative influence of them. But before you try to give solutions to mitigate seasonal fluctuations in tourism, it is necessary to examine cases they generate, which will allow you to better know the specific nature of these variations. Analyzing seasonal variations in tourist movement can highlight a number of factors influencing the

attractiveness of some resorts and seasonal activity areas considered. It can thus be concluded that the following factors may cause seasonal changes in tourism:

- growing needs of recreation, in all their known;
  - natural resources and values;
  - household income;
  - duration, availability and structure of leisure time for recreation;
  - economic and organizational factors : the structure of school / university, production in various branches, paid holiday schemes and their duration.

### **3. Aspects of seasonality in the Romanian Black Sea coast**

Romanian seaside resorts on the Black Sea are the most affected by seasonal phenomenon mainly due to climatic conditions. Arrivals in the period 2000 - 2013 has seen a negative trend for almost all seaside resorts pronounced decrease occurring in Eforie South , where the number of tourists has decreased by more than 70 %. A better outcome had Mamaia and Vama Veche, which in the past few years have seen an occupancy higher than other resorts. Regarding foreign tourists, the number is quite modest, and the major emitting countries are: Germany, France, Italy [4].

Seasonality is pronounced in seaside resorts, the busiest period is from June to August, with a peak in the period July 15 to August 15 in August, both in terms of foreign tourists and the Romanian. Neptun and South Eforie resorts are most affected by seasonality, but a balanced distribution of the number of tourists is observed in Mangalia resorts and Techirghiol where treatment profile is more pronounced. The seaside resorts have a number of features seasonal dependence due to natural conditions demand, stocked character of tourism services, offering rigidity. The seasonal variation of coastal tourism activity are more pronounced, have direct and indirect implications and possibilities of their mitigation are relatively limited and require great efforts from the organizers holidays.

Thus, in the tourism activity, seasonality is reflected, on the one hand, incomplete use of the material and labor costs and adversely affecting the quality of tourism services, the

return on investment, on the other hand, low level of meeting the needs of tourists, affecting the frequency of trips.

Focusing demand for a limited period lead to overloading of transport, accommodation and catering spaces, resulting in a reduced quality of benefits, increased tensions in relations between sellers and consumers. From the point of view of the tourist, seasonality has implications for psychological and economic.

Congestion in transport or on the road when traveling with their own risk of not finding suitable accommodation desires, long waiting time for obtaining tourist services causes mental and physical fatigue, reducing the effects of holiday entertainment. Also, negative influences on tourist and have its budget prices services located beyond the means of the tourist, and the lack of consistency between price and quality of services.

The other branches of the economy, seasonal tourism demand and consumption acts either directly by additional requests for the areas of (transport, food industry, agriculture, trade), or indirectly through the effects of regular employment, staff limitations and redistribution to other sectors.

### **4. Modalities to mitigate the seasonality in seaside resorts**

As stated above, the seasonality in seaside resorts is very sharp and existing treatment facilities contribute in a small measure to reduce them. The magnitude of seasonal fluctuations has consequences both on tourism development in the coastal zone and its efficiency and on other sectors of the economy which is tourism inter-relationships. Ways to mitigate the phenomenon of seasonality can be achieved by actions on both the supply and demand, and what they should aim to:

- attracting segments of tourists can travel off-season, such as participants in various congresses, pensioners, young people. The current trend is manifested to the detriment of tourism weekend stays classic and therefore the proposal on the establishment of the great conference center in Constanta may also contribute to doing business in season;
- treatment facilities need upgrading

especially in wellness services, with a view to the sea average length of stay for tourists who come, especially seasonal combination of "3S" (sun, sand, sea) [3];

- by continuing national programs for tourist season, "Black for all" is organized by FPTR, ANAT and Tourism Committee Seaside - Danube Delta. The purpose of this program is to increase the Romanian seaside tourist flows in May- June and September-October; "Holidays in the country" - which financed campaign aims to promote and low season periods April-June and September-November, "A recovery week", "10 days treatment", "Let's bathrooms", "Wellness treatments".

- low season marketing specific programs need to consider the cost / benefit of their European and specific markets (similar markets in Central and Eastern Europe, customer representative Western European market: the older people wishing wellness treatments);

- services included in the Romanian programs to reduce seasonality should be more attractive, diversified and multiple activities include entertainment, sports, wellness and fitness. Providing travel packages offered in season for foreigners (including transport, entertainment) would be an advantage;

- development and improvement of infrastructure and superstructure through significant investments, large, measures that can improve, modernize and diversify seaside resorts and the demands of international standards. This should be continued efforts Romanian seaside investors who took it before the government strategies for tourism development;

- modernization of public utilities (water, sewage, municipal waste storage) related to coastal resorts in the area;

- layout and equipment standards of European tourist resorts - pilot profile representative of the Romanian offer spa: Eforie Nord and Mangalia. It will focus on retrofitting existing treatment facilities, modernization and to increase comfort for shelters, expansion of leisure facilities and specific and general; reviving and expanding gerontological cures and other treatments Romanian originator (Gerovital Aslavital, Pell - Amar) and their intensive promoting European and international markets;

- developing a tourism product such as "traditional dishes Road" may reflect the specificity of this region as culinary traditions from Dobrogea are into historical influences. Peoples who have passed or those that have stopped in this region have contributed to the perfection of traditional dishes, new ways of cooking or adding specific flavors or spices. The tourism product can address both gourmets and culinary arts specialists, but may be related to both local tourism products such cultural and trekking routes to cities and places full of historical artifacts [8];

- development of adventure tourism and sports tourism offerings by introducing specific facilities for adventure tourism, extreme sports or rarely practiced as boating or sailing, horseback riding, biking, scuba diving.

- development of water activities (cruises, boat rides). Since the water carries specific requirements, including these services in the tourism supply requires knowledge necessary facilities, specific infrastructure but also demands water sports practitioners and typology. In the EU has developed a new strategy to promote marine tourism in coastal areas in Europe. Maritime tourism in coastal areas is considered to be one of the key drivers for economic growth and creating jobs, particularly in coastal areas of the EU, which often face high levels of unemployment. It is a sector which employs 3.2 million people and generate a total gross value added of 183 billion to the EU economy, accounting for over a third of the crude maritime economy. Tourism is a booming economy: in 2013 the number of nights spent in hotels and similar establishments in the EU reached a peak of 2.6 billion nights, an increase of 1.6 % compared to 2012 [7];

- improving transport solutions tourists. It may be aimed at increasing the number of charter flights Kogalniceanu Airport by ongoing efforts to attract low-cost transport providers to Constanta airport to increase publicity and intended to facilitate and shorten the path traveled by tourists from the residence to the seaside;

- facilitate access and providing tourist information services. This area addresses to travel agencies and tour operators, the solution accessibility audit of tourist

destinations. In this way, a travel agent will know whether a tourist destination is easy / difficult to access for certain types of customers. Tourism operators (public or private) will provide best practice solutions on tourist information, online information service type, modalities to comply with the specific needs of people with disabilities. In this way, they will be able to implement the best solutions so that tourists to enjoy all the benefits and opportunities of a certain tourist destination;

- development and implementation of marketing strategies and policies applied touristic product. Among these are part of the restructuring that marketing specific product policy, adopting flexible strategies of price and tariff policy, diversification of distribution channels and promoting an active promotional products tailored tourist resorts. It is recommended to apply flat price strategy - travel arrangements applicable marketed under the formula "all inclusive" - which is well suited for coastal tourism due to the necessity of preserving unity touristic product. Currently seaside are few hotel complexes offering tourism services "all inclusive" Mamaia, Costinesti, Neptune, Jupiter and Saturn;

- adopting policies and non-governmental development and support coastal tourism through: attracting foreign investment capital especially from countries with tradition in the field and building with companies from abroad of hotel complexes ; diversification of collaboration and cooperation with foreign companies for making complex treatment centers and leisure parks, clubs and other facilities [5];

- develop government policies, which ensure the organization and development of urban settlements and land. In this respect but it requires the establishment of local budgets of a fund for promoting forms of tourism that efficiently exploit the tourism potential of the area;

- introduce policies to encourage businesses to develop structures and tourist facilities modeled Greece, Turkey and Bulgaria have created extremely favorable climate for investors who want to develop tourism business. These policies have beneficial effects for equity and targeting resources to modernize and re-equipment attracted treatment bases parallel to the

accommodation facilities, catering, leisure or other facilities within which related activities, development sightseeing with lid SMEs in rural areas and potentially misused.

## 5. Conclusions

As a general conclusion, it is a certainty that in Romania offer-season products already exist, but the problem of seasonality is far from solved. In this sense measures that can be taken are long-term measures involving all stakeholders in the tourism sector.

International experience has shown that countries that do not have a tourism policy and tourism development efforts and mitigate seasonality lose time position in the international tourism market in favor of competition and subsequent miraculous solutions in this area are hard to find.

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## Aspects Concerning Certain Powers of Regional Collectivities in EU Countries

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### Abstract

*The regionalisation forms existing in the European States correspond to political and administrative appropriate realities, where, applied models being different from one country to another, depending on the powers granted to regional authorities (by Constitution and legislative federal/national acts), institutions involved, the degree of decentralisation shown.*

*The regional powers area may be, in some countries, broader, more varied, while for others, the regional level has a limited number of tasks so that it cannot outline a scheme for them in Europe, but it can be identified the existence of some common elements relating to the powers of regions.*

*The paper presents the ways of exercising certain duties incumbent upon regional collectivities, considered by the typology of functions (social, economic and general), with exemplification of the areas of intervention in certain European countries.*

**Keywords:** regional powers, functions, regional collectivities.

**JEL Classification:** R11; R58

### 1. Introduction

Conscious of the important role that regional policies could play in balanced development of territories, over the last few decades, European States have also led, towards a new model of socio-economic development, consisting in the transfer of some prerogatives of central administrative systems to local communities.

Promoting regional policies was aimed at re-launching economic and social development, at local level, economic recovery of the poor developed areas, reducing the disparities among the

development levels of regions, action that also involves a need for increase the public authorities efficiency in the use of the resources they dispose of, respectively, of the way they develop economic and financial policies aimed at boosting investments, increasing employment, improving living conditions. [3,2]

By the administrative process of regionalisation, the states define new territorial-administrative units, large areas of cooperation - regions - representing a second level of government, a new subnational entity, but over local, aiming to support the actions of balanced development of the respective areas. In this respect, European countries have institutionalised regional policy instruments, a measure that involves taking into account of certain factors with relation to EU policies, spatial planning, financing policies, geographical position etc. . [4]

By the transfer of power at regional level, the action of regionalisation creates the possibility of policies restatement, to meet the local requirements and needs, a trend that has occurred in the whole European area, by the variety of regional projects within the Member States. [1]

The regionalisation forms existing in the European States correspond to political and administrative appropriate realities, where, the applied models being different from one country to another, depending on the powers granted to regional authorities (by Constitution and legislative federal/national acts), institutions involved, the degree of decentralisation shown. [4]

### 2. Responsibilities of regional collectivities in certain countries of EU

The regional powers area may be, in some countries, broader, more varied, while for others, the regional level has a limited

number of tasks, so that it cannot outline a scheme for them in Europe, but it can be identified some common elements relating to the powers of regions, assigning criteria, their homogeneity, from one region to another. [5]

According to the studies carried out at the level of certain EU institutions, a way of grouping competencies was made after the typology of functions that they cover, existing a distinction among social, economic and general functions, in most countries, collectivities covering these categories, existing in a larger or smaller share, in relation to the emphasis that countries provided to one or another group of functions. [5]

These ways of exercising certain responsibilities incumbent upon regional collectivities, can be shown through the exemplification of their areas of intervention in some European countries, such as:

**A. Social functions** refers to the fields on the aid and social assistance, health, education, a large number of European regions having responsibilities in this area. [5, 6, 7, 8]

*Poland:*

Region's powers include:

- public education (with an emphasis in higher education);
- health: health regional policy, the management of the health care units, occupational health service;
- social assistance and family policy;
- unemployment fighting and re-launching of local labour market.

*France:*

Regions (do not have their own legislative power), they have been returned the competence in the social field, mainly, education (maintenance, construction, high schools endowment, their functioning, vocational training).

*Germany:*

Regional government offices shall represent the land government in the region and shall entirely be responsible for developments in social life.

*Italy:*

Regional authorities acts for:

- protection and safety at the workplace;
- education (the autonomy of education institutions);
- health care services;

- sports activities;
- supplementary and complementary pensions.

*Slovakia:*

Among the sectors to which regions act, can be found:

- social care;
- vocational secondary education, of art;
- the management of certain categories of hospitals.

**B. Economic functions** - cover areas of activity referring to economic growth, employment, industry (carried out parallel to social functions), having a higher or a less degree of representation. [5,6,7,8]

*Belgium:*

• regions have their own legislative power - administration system is asymmetric, specialized institutions in different regions do not have the same powers;

- powers include issues related to economy and employment, agriculture, public works, energy, water management, transport.

*Denmark:*

Regional Council have been returned competences in the field of regional infrastructure.

*France:*

Regions have been returned the following competences:

- planning and intervention in the economic area;
- the management of public services in region;
- equipments for ports and airports;
- regional railway transport organization;
- management of regional interest communication networks;
- maintenance, construction, endowment and functioning of high schools.

*Italy:*

Regions manage:

- ports and civil airports;
- transport and navigation networks;
- energy production, transport and distribution.

*Spain:*

Activities of regions consist of:

- promoting the economic development of the region within the

objectives laid down by the economic policy at the central power level;

- public works of regional interest;
- railways, roads within the territory of the region;
- agriculture and livestock farming in accordance with the general organization of the economy;
- hydraulic facilities planning, construction, exploitation;
- inland waters fishing.

**C. General functions** - there are included activities concerning regional development generally and, in particular, issues relating to planning, programming and strategic development. In the same category may be considered powers aimed at planning and territorial arrangement, the physical layout of the region, the environment, infrastructure, road transport, as well as activities in the field of culture, sports and tourism. [5,6,7,8]

*Belgium:*

The regions are part of this group of functions, through the activities in areas such as:

- territorial planning (regional and urban planning);
- preservation of environment;
- functioning of municipalities and provinces;
- research issues and international relations.

*Denmark:*

The Regional Council has tasks relating to:

- environmental protection;
- civil protection;
- public transport.

*France:*

Among the activities can be mentioned:

• Research and technological development:

–defining and developing regional technological poles;

–laying down multiannual programmes of regional interest.

• Territorial planning:

–drafting contract concerning State-Region project;

–Regional Scheme of Territorial Development.

• Environmental issues:

–regional plan for air quality;

–parks;

and

–natural reservations.

*Germany:*

Regional government offices (representing the government of land in region) have duties, such as:

–transport planning;

–environmental protection;

–nature conservancy.

*Poland:*

Among the competences of the regions can be found:

• urbanism;

• modernization of rural areas and environmental protection;

• water management, especially, equipment and maintenance of regional dams for water retention;

• public roads and public transport;

• policies making and strategies for regional development including:

–promotion of culture;

–encouragement of economic activity and innovation;

–preservation of natural environment and cultural heritage.

*Slovakia:*

The regions duties include:

• regional and inter-regional cooperation;

• regional planning;

• civil defence (in cooperation with state administration);

• improving promotion of culture: regional theatres, museums, cultural centers;

• the development of regional tourism.

The assignment of regional powers in European States is in relation to a number of issues that explains the action, such as:

– the adoption of the principle of subsidiarity (introduced by Maastricht Treaty), which presupposes the transfer of responsibilities and decision powers at regional or local level, but also at overnational level.

- the decision rights assigned meet the interests of the community, create the economic opportunity to act at regional level and the effectiveness of providing a number of services;

- it responds to the need of coordination and integration of policies at

regional level, of resources concentration, of their supervision at local level. [5]

In terms of **uniformity** of powers at regional level, can be referred to situations in which within certain states are assigned distinct competences for some areas:

- France: regional collectivities (26) have the same powers with the exception of the "overseas" four regions;

- Spain: a harmonisation of powers among autonomous communities, the exception being given by the Basque Country, Navarre Country and Catalonia;

- Finland: two (out of 20) regions have distinct powers - Åland, which has autonomous status and Kainuu has extensive competences on the basis of a pilot project.

- Italy: the distinction is given to the five autonomous regions with special statute against the other 15 regions.

- United Kingdom: there are different powers among four regional collectivities (Scotland, Ireland, Wales, Greater London) versus other administrative regions.[5,6]

The relationships between the levels of government, central and local, respectively, referring to tasks share, can take the changes generated by the actual possibilities of their achievement. [4]

### 3. Conclusions

European States have institutionalised regional policy instruments aimed at the economic and social development at local level, the economic recovery of the poor developed areas, diminishing current gaps.

The fields of activity of regional collectivities in Europe are varied and cover different issues of the operation of a territory. As a rough guide, in most Member States, regional collectivities, with intermediary level of government, have been assigned coordination functions of territorial development.

One of the common characteristics come from the wide and varied range of powers: except for some situations, the areas of activity are similar, with different emphases from one country to another. The assignment of powers to regional collectivities is an evolutionary process, able to adapt to the national and international evolving context.

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## The Maritime Law System in Romania

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### Abstract

*Financial relations are defined as a set of social relationships, having economic features, arising from the realization and distribution of monetary resources necessary for carrying out the tasks of the state. There is a close relationship between the development of financial relationships and the development and the evolution of the state. The study of the financial relationships is close related to other sciences. Among all these sciences are public finances - studying the conditions that ensure the operation of the public sector and reports between public spending and the system of taxes and other financial resources. The legal rules governing financial relationships are studied by financial law as a branch of legal science. There are other relationships that are not state financial relationships: payment of goods, services, wages, private loans etc.*

**Keywords:** Maritime Law, Vessel, Ship crew, Commander of the ship;

**J.E.L. classification:** K 30;

### 1. Introduction.

Romanian crew consists of all persons, regardless of nationality, who have patent or certificate, obtained or recognized in accordance with the legal provisions which entitle them to perform functions on board. Evidence of the crews is carried out by Romanian Naval Authority using the registers of seafarers. Any ship using the Romanian flag is served by a crew that ensures safe ship operation and environmental protection and performs other activities on board. The crew consists of operational sailors and staff, and its composition is determined according to the type and destination of the ship. The possibilities of working of the crew on board of the Romanian ships could only be met by seafarers who possess patents or certificates

of competency. Regarding training of seafarers in 1978 in London under the auspices of the International Maritime Organization has been adopted the International Convention on Standards of Training, Certification, Certification and Watch keeping (STCW) which aims to recommend conditions necessary for the development of secure sea transport for protection of human life, save in case of danger and for protecting of the environment. Thus, at Community level are laid down rules on standards of competence for seafarers in accordance with the requirements of the STCW Convention. Member States which recognize a certificate issued by the competent authority of another Member State of the European Union must first approve it. In recognition of these certificates/ diplomas, it provides a separate procedure, in accordance with the STCW Convention. Thus, to ensure maritime security, a Member State may recognize a certificate /certificate of competency issued outside the Community if it is issued by a state party to the STCW Convention and whether the Maritime Safety Committee of the International Maritime Organization standards deemed to be satisfied. Also, have been established penalties and disciplinary measures when a company or a master has engaged a person not holding an appropriate certificate, when exercising a function is allowed to board without a patent or certificate of properly or when a person commits fraud. All crew members must demonstrate that they meet minimum age and health conditions laid down in national regulations and international agreements and conventions to which Romania is a party [1]. The law establishes the hierarchy of the ship's functions in relation to the type of vessel:  
- For ships: commander, second deck officer, chief mechanic, deck officers, engineer officers, other officers, certified personal capacity, and staff;

- For inland vessels: leader ship helmsman river fluvial chief engineer, mechanic, certified personal capacity and staff. Agencies providing crew, Romanian legal entities to operate must be authorized by law and shall:

- To comply with the international conventions to which Romania is party, concerning the legal provisions about crew;
- To provide security to assure the payment of money not paid on time and the costs of repatriating crew members when the ship owner or operator fails to fulfill these obligations. The Romanian authorization is not required for crewing agencies providing persons of Member States of the European Union or the European Economic Area that without establishing in Romania, providing intermediation services. The employment of crew members shall be determined in accordance with labor laws, agreements and conventions to which Romania is a party based on individual and collective labor contracts.

Seafarers have the following rights, according to O.G.nr.42/1997:

- Accommodation and free food on the ship or the daily food allowance, which is granted in the amount and under the conditions established by collective agreement and /or the individual boarding for companies or by Government decision to public institutions or agencies.
- The daytime in currency during international voyage, minus provided food value;
- Compensation for its equipment lost or destroyed during embarkation due to the navigation service or unpredicted event without fault;
- To require repatriation or further compensation existing rights for navigation in war zones.

## 2. Commander of the ship.

The commander / captain is the person who exercise command ship during the trip and is invested with authority over people embarked on the ship and perform tasks incumbent according to national law, the owner or operator instructions and agreements and international conventions Romania is party. The powers of the

commander in the commercial exploitation of ships can be grouped into:

1. *privileges water* - it is always authorized to take any necessary action to save the people on board, to protect the ship and its cargo and to keep safe the ship documents; as well, he is obliged to provide necessary assistance to other vessels being in distress.
2. *privileges trade* - Commander is an agent of the owner regarding the trade voyage and directly responsible for the mistakes in this capacity. The carrier shall ensure that the goods are properly protected and instruct in this respect the Commander, but for his mistakes or omissions will be responsible the owner. As well, we are in the presence of liability of the carrier for the acts of its servants in the performance of the given assignments.
3. *public officer* - Commander may be considered an agent of necessity [2]:
  - has the right to isolate any person on board if their actions endanger the safety of the ship, persons or things are on the ship;
  - has the obligation to make inquiries where required on board are revealed elements of an offense, to give the accused the right to defense, to protect the accused person and its property, and to deliver them to the competent authorities of the first port of call along with documents issued during the investigation.
  - is required to record in the logbook births, marriages and deaths that occur on board and has the right and obligation to certify the last will of a person on board, as an equivalent to the certification issued by a public notary.

## 3. Mining methods.

The commercial operation of ships takes place in two distinct ways, namely irregular navigation (tramp) and regular navigation or line navigation.

*The irregular navigation.* The vessels used in irregular navigation roams the seas and oceans in search of freight transport docking in some ports where some chargers offers the best transport conditions, hence their name "tramp". Each race has a tramp is based on a contract between the ship-owner and charterer advance, known as charter party (charter party), the contract will specify the shipment in question. Alternate form of irregular navigation is line navigation, ie a

navigation and permanent scheduled between certain ports of shipment and destination. The line carriage is working after a default route and timetable known clients, offering shippers who have not consigned goods in small quantities. In this case, the transport contract takes the form of Booking Notes (note the reservation of space transport vessel line) and/or bill of loading.

#### 4. Charter contract.

This type of contract is available to the charterer of a ship, parts of it or "a room" by the owner. Under this contract mainly transported mass merchandise in bulk to occupy space transport vessel in whole or in part, the parties establishing the port of loading and destination.

Charter contracts may take the following forms:

- Contracts charter voyage (voyage charter-party);
- Time charter contracts (time charter party);
- Partial charter party (booking notes);
- Quantitative charter party (affreightment);

Voyage charter contract is a contract under which one party (the owner) undertakes to carry goods by sea the other party (charterer) for a sum of money called freight. Time charter contract is the contract between the ship-owner and charterer, whereby charterer hires a ship and crew services for a fixed or indefinite period of time. Partial chartering agreement, known as the booking note is used in both ways commercial operation of vessels, indicating that the charterer using irregular shipping does not have sufficient capacity to full the ship. Quantitative charter contracts end when the available amount of cargo charterer cannot be the subject of a single expedition.

#### 5. Conclusions.

Voyage charter is the agreement by which the owner undertakes, for a price called freight, sea transporting goods entrusted by the charterer and delivers them to the destination of the entitled person.

Legal characters of the contract:

- Bilateral - reciprocal obligations of the parties are interdependent. So that if one party does not fulfill its obligations, the other

party is entitled to rely on its failure and to require termination of the contract;

- Contract -ending consensus by the parties on the terms and conditions stipulated in the contract.
- Character consideration, each party seeks an equity interest in exchange for the obligation incurred;
- Character commutative - parties know the existence and extent of the obligations from the conclusion of the contract;
- Alternatively character, the owner has the opportunity to replace the ship that will transport;
- Character successive performance contract, performance of the contract cannot be achieved practically by a single supply.

*The form of the contract*

Charter contract is concluded in written form (art.557 Commercial code). In practice most often used type of standardized contracts developed by international organizations such as BIMCO has drafted and circulated latter date, that GENCON CHARTER PARTY 1994 [3]. Agreement has two parts, Part I containing 26 boxes below to complete, and in part II provided 19 descriptive terms that can be added other clauses. The advantage of this system is that if the Contracting Parties wish to amend the standard terms, they will have to complete only Part I, Part II is incorporated by reference. Charter contract is concluded between the carrier and the charterer. *Ship owner* - under the law, the owner is the person who arms the ship, appoint the master and crew choose. The owner may be a natural or legal person who has acquired ownership of the ship. Carter may be the owner or charterer of the ship. *Charterer* is the person paying a sum of money called freight; he rent a ship or part of the ship to carry a large cargo. The contract voyage charter - chartering shall in this case be ship and cargo. According to art.557 paragraph 2 C.com, the charter shall contain the name, nationality and vessel capacity. The essential condition is the seaworthiness of the ship and maintained in this condition throughout the contract. The voyage charter contracts, description of goods is made in general terms, the amount of transported rule being defined approximately.

*Price (freight)* is the price charterer pays to the ship-owner for moving goods from one

port to another on the most direct route with reasonable diligence. According to art.571 C.com, freight is regulated by agreement between the parties, evidence of which is performed with the charter or charging policy. The parties may agree a global freight (freight lumpus), ie a fixed amount of money for use of the entire transmission capacity of the ship, regardless of the amount of cargo actually loaded or its actual volume [4]. On the other hand freight can be calculated taking in account the actual amount charged.

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## Aspects of Unemployment in Onești Depression

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### Abstract

*Along with the transition to the market economy, the phenomenon of unemployment has become more and more present in the Romanian society; in the Onești Depression there are localities that present an alarming high level of this scourge. It is the result of restructuring local industries, especially the important units from Borzești Platform, the entry into bankruptcy of some traditional factories from the region, and subsequently the decrease of activities in sectors such as woodworking, textile, which have employed some of the dismissed resulted from the first stages of dismissals. The most important number of unemployed is in towns and among the villages, in Oituz; these are settlements with the highest workforce contingent. By the level of education, over 80% of the unemployed have primary education, 15% secondary education; those who graduated from university worry less about getting unemployed. Of the total number of unemployed, most are compensated.*

**Keywords:** unemployed, unemployment rate, Onești Depression

**J.E.L. Classification:** E24, J64

### 1. Introduction

Onești Depression is located in the lower basin of Trotuș, being framed by the various authors as belonging to Moldavia Sub-Carpathians; it occupies 6.2% of their extent and 1.52% of the Sub-Carpathian arch [5]. In Bacău county the studied area is of 3.49% of the surface, 14.9% of the population and about 40% of industrial production, when large factories were fully operating [9].

The term *unemployment* comes from the French language, which appears as "chômage"; it was borrowed from Latin,

from the word "caumare", which has its roots in the Greek word "cauma", used in the sense of great heat, during which the work was interrupted [4].

Over the past century, unemployment has spread more and more in the world, becoming a feature presence of the economy of each country, with extensive social implications; although some states have developed and implemented some of the most modern programs to combat this scourge, the unemployment further remains one of the worst aspects of society nowadays.

In Romania, although it was unknown during the communist regime, it had the form of disguised unemployment, especially in large enterprises in the 80's. In post-revolutionary period it was one of strongest negative phenomena, strongly imposing on the economic and social life of our country, and in recent years, it has reached alarming proportions in certain localities or regions.

Unemployed people are those aged over 16 years and until fulfilling the conditions for retirement, which, although would like to work, cannot hold a job because of its absence, the mismatch with their level of training or by not accepting the conditions imposed by the management of the companies offering available jobs; they do not have a profit or they obtain an income from authorized activities lower than the gross national minimum wage. They have a health condition like physical and mental capabilities that make them able to pursue a work, are willing to start working in the next period if they got a job and are registered at the National Agency for Employment [7].

Among the causes of unemployment in the Onești Depression are: the restructuring of industrial branches, especially of the large units on Borzești Industrial Platform, the difficulties undergone by the energy and petrochemical industry from the area, (after some companies were privatized, others are still owned by the state, where the

mismanagement has pushed some companies that were profitable to insolvency or bankruptcy), the reduced activities from textile or services domain, that have assumed some groups of redundant employees from the main local factories, the fierce competition in some sectors or the emergence of economic crisis in recent years led to many companies be closed and thousands of unemployed workers.

## 2. The number of unemployed

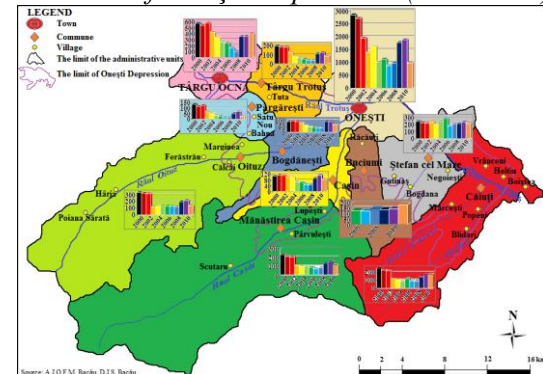
For the localities from Onești Depression, the average number of unemployed registered maximum values during 2000-2002, as a result of waves of layoffs began in 1999; there was a stagnation during the years of the mid-decade, because part of the unemployment left to the European countries, where they can work. A lower level increase was between 2009 and 2010 due to the global economic crisis, with impact on the area too.

In the region the highest averages in the number of unemployed are in the two towns: Onești - between 1400-1800 people/year in search of a job (figure 1) and Târgu Ocna with 350 people without a job during the year [8]. In this respect their position is normal, as long as urban areas also concentrated the largest share of the labour force, and after 1990, towns have undergone most major changes from the economic point of view, many jobs have disappeared, others were created but their existence has imposed the retraining of the unemployed, or even increase the number of commuters, this time in the opposite direction towards the industry and services from the rural areas.

On the contrary, in the rural settlements, economic activities were developed more than during the last 20 years; many small businesses in general have put down roots in some of the villages of the area, mainly using the labor of the active population of those localities. There are also unfortunate cases where economic underdevelopment of the village imposed the straightening of those left without work in industry and other activity sectors of the town towards agriculture, or even towards a prolonged unemployment. Such examples can be easily seen in the increased number of jobless, Ștefan cel Mare parish almost always being first in the entire region (220-240 unemployed/year) and

Buciumi and Răcăuți villages, which detached from the old parish, also have a high level (145 unemployed/year). These settlements are a special case because they are located near Onești, and the big number of unemployed was affected by the layoffs from Borzești Platform; very few of them have managed to get another job in town, while the villages that form the 2 parishes are underdeveloped economically, the most important company having only 20 employees.

Figure 1. The number of unemployed in localities of Onești Depression (2000-2011)



Source: County Agency for Employment Bacău

Somewhat higher values are found in the Oituz parish (180-200 unemployed/year), reported to the most significant rural labour force in the region and the III<sup>rd</sup> largest in the county, resulting in a much lower unemployment rate than in other places, as it is also the most economically developed rural settlement in the territory of Onești Depression, with many sectors, covering a part of the labor market demands [3]. An important number of unemployed is also present in the villages of Căiuți (140-160 people without a job/year) and of Mănăstirea Cașin (130-140 unemployed/year), both of which constitute good labor supply for industrial companies in Onești, and by restructuring a fraction of commuters were reintegrated into the several units dealing with woodworking economically dominating these areas.

On the "positive pole" stand the smallest administrative units in the area: Bogdănești with averages between 60-70 unemployed/year, which although the labour force has suffered due to the new conditions imposed by the market economy, there are a few

companies and specialization in horticulture that hire staff between 18-62 years. Pârgărești commune has the lowest levels of unemployment in each of the years analyzed, as the employable people from these villages are working mostly in construction, one of the fastest growing sectors in recent years and also one of the "engines of the economy" so that the number of 60 unemployed/year represents only those few of other professions, that don't have a job yet.

### **3. The educational level of the unemployed**

After 1990 people with primary education were most affected by unemployment throughout the country; in the area they recorded a score of 75-85% of the total number of those without a job. In the absence of a qualification, the representatives of this category are forced to accept the lowest paid jobs, but also the hardest working conditions, however, these are limited too and many of them seasonal, then they return to the stage of unemployed workers. When not accepting these conditions, individuals with poor training are doomed to inactivity indefinitely.

The highest number of unemployed workers is to be found in Onești directly affected by restructuring the units from Borzești Platform, town that is part of the mono-industrial towns that have undergone major transformations after 1989 by not adapting the production units to the market economy [1]. Thus, only between 2005 and 2008 the number of unemployed workers fell below 1000 and in 2000 showed a maximum of 2354 workers. Târgu Ocna town has between 270-290 people with secondary and professional education/year that are looking for a job [9]. Rural areas are even more clearly characterized by this "scourge", because people have a lower standard of living as a consequence they are less educated; job cuts for workers negatively influenced employment in these settlements, that hardly find a job in the town, where until recently there was a significant number commuters and even more difficult in rural areas, some even without companies with over 10 employees.

Only 15-18% of those with secondary education were unemployed, because they can better adapt to market conditions, they retrain easier and cover deficient jobs that

show up, according to a certain time. If in Onești their number went over 400 unemployed/year only between 2000 and 2001, among the parishes, only Oituz exceed a level of 50 people with high school or post-secondary education without a job/year. People with higher education are normally free from the unemployed, most of them filling jobs that are indispensable to the effective functioning of a company, others have public jobs, and some of the graduates of a faculty are working in areas totally different to their specialization, in addition they may even have two jobs. Although they are also unemployed with an university degree, looking for a first job, or many of the companies require candidates with some experience; and there are differences between what they offer and what they get from employers such is the case of those in age who are in transition from a well paid job to one of the same level or even higher, due to the expiration of the contract or the closure of the unit.

Regarding the settlements, only Onești has a much higher number of highly skilled unemployed, the values going between 50-70 people/year; after 2009 there was a doubling of these due to the increasing number of graduates that hardly manage to succeed on the labor market. Except the mentioned period, in the other localities numbers are very low, 4-8 individuals/year that are still unemployed.

### **4.Characteristics of female unemployment**

In a society in which inequalities can sometimes become very obvious, feminine persons can impose harder before men, particularly in the presence in the region of some industrial branches that very much require a work force largely male, a major impediment for not hiring representatives of the "gentle sex". Thus in the case of several waves of layoffs in the chemical, energy and wood processing industries, women are most likely to become unemployed.

In the analyzed period, the number of unemployed in the area ranged from 1000-2000/an, of which over half are recorded in Onești, because in the main urban centre of the region, female workforce is much higher than in the other town or in parishes, where women are mostly housewives and those who



are working, do it in safer fields (education, health, public administration), so get harder to cease work and to figure in the statistics of the unemployed. This is reflected also in the sex ratios accounted for in the total number of unemployed in towns, which is 50% for women in towns and with values of 35-40% in rural areas, where women are less interested in having a job, being susceptible to devote themselves to family care, pushed by the low number of jobs available in their own localities.

### 5. Compensated unemployed

Favoured as a category of the unemployed, due to the financial benefits they receive, even if they cannot be compared to the salary received until recently and do not provide support for too long; at a medium level without taking a job, in many cases, the money received is the only support for whole families.

After the wave of layoffs in 1999, the percentage of paid unemployed in the region raised to 87% next year, gradually reducing to a minimum of 37% in 2004, followed by stabilization at 44-46% between 2005 and 2008, after which the new unemployed occurred with the last years crisis raised the rate to 70% in 2010. The two periods are also required to highlight the number of unemployed people/year: 4,000 average for the region, including more than 2,000 in Onești, 470 in Târgu Ocna, over 200 in Oituz or each 200 in Ștefan cel Mare and Căiuți parishes between 2000-2001, and a lower number at end of the first decade of this century: 2,000 compensated unemployed people each year throughout the region, more than half coming from Onești [8].

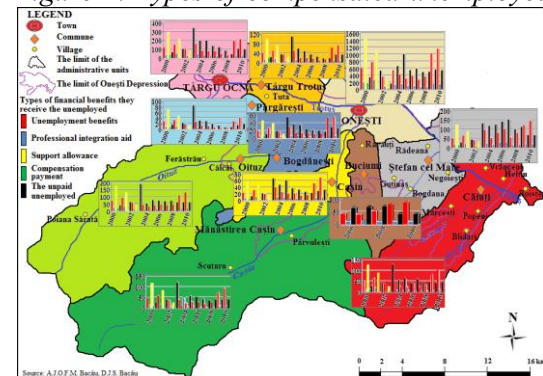
Among the compensated unemployed, the largest share goes to those with a primary education (66%). Those with a secondary education represent 27% of the unemployed who benefit from financial earnings, in the towns: 200-300 people/year show up in Onești, 40-50 individuals/year in Târgu Ocna and 40 unemployed/year in the villages. Compensated people with higher education represent 7% of the total and are especially found in urban centers.

### 6. Types of compensated unemployed

Within Onești Depression, the most numerous unemployed were receiving unemployment benefits, their percentage increased from 25% in 2000 to 74% in 2005, peaking at 88% in 2010, due to the disappearance of support allowance and compensation payment that were granted. In 2010 a total of 2,208 unemployed people in the region have received money through this payment, most of them in the analyzed period. As for towns, 50% of them were from Onești, 10% lived in Târgu Ocna, while values above 5% were met in the settlements of Oituz, Ștefan cel Mare and Căiuți.

The unemployed recipients of professional integration aid had a fluctuating evolution in the Onești Depression, from 8% in 2000, their share rose to 20% in 2003 and 27% in 2005, then fell again to 18% in 2008 and 12% in 2010. Each year, during 2000-2010, more than half of their number was from Onești, a normal aspect given the fact that it is the largest demographic and economic centre of the region. For other localities, the proportions are even lower in relation to their importance, very rarely passing a limit of 40 people/year.

Figure 2. Types of compensated unemployed



Source: County Agency for Employment Bacău

At the beginning of the past decade the full effects of the layoffs in 1999 could be felt, so that, if in 2000, 59% of the compensated unemployed received support allowance, in the next year there was a total of 50%, and only 33% in 2002 and infinitesimal values over the past two years when they were provided. In Onești the number of those receiving support allowances was high between 2000 and 2001,

more than 1,000 people each year, compared to one hundred unemployed in the rest of the settlements (figure 2). For beneficiaries of compensation payment from the region the proportion was always low (8% in 2000 and 5% in 2002) dominated by workers (89% in 2000) and only some increases of those with secondary education (40% in 2002). Regarding the towns in the area the values are very low; only in Onești a value of almost 200 people was reached in 2000 [9].

## 7. The unpaid unemployed

Being in the most difficult situation, as they are deprived of secure income, they earn their living from performing work by the day, selling harvested products or the children's allowances, far too little to ensure themselves and their families a decent living, the worst being the fact that they are among those with the most members.

The proportion of unemployed continuously varied: 13% in 2000, a record 63% in 2004 when most of those left jobless finished each and every form of financial support from the state, and then it passed on a downward slope, 54% in 2006 and 29% in 2010 following the departure of a large part of the workforce abroad, where they found a job. Onești Depression presented much lower values in 2000, with over 600 unemployed people who came out of the period for financial benefits, a jump a maximum of nearly 2,500 unemployed in 2002, a slightly higher level of 1700 unemployed in 2004, after which it was generalized to more than 1000 unemployed in the years that followed. Onești town normally has 500-600 unemployed/year in this situation, but peaks appear as they were in 2002 or 2004 with a doubling of the number. Târgu Ocna town enrolls in an average of 100-200 unemployed without benefits/year, and besides the Ștefan cel Mare parish with an average of mostly over 100 unemployed/year, the others register 50-70 unemployed/year [8].

Depending on the level of education, overwhelming is the proportion of those with primary education not receiving financial support, although the average is 92% of the total; there are years when values indicate 98% (2002 and 2003), with a minimum of 84% in 2004. This reinforces the reflection that by the lack of studies, people of working

age are prone to unemployment and when they are without work, it is even more difficult to get hired again in a labour market in a permanent restriction. People with secondary education represent 6% of the unpaid unemployed, rarely exceed 10% as it was in 2004, and college graduates are rare among these unemployed because they don't even reach 2%, the situation is in particularly a transition from one firm to another. If among the unpaid unemployed with primary and secondary education, half come from Onești, in the case of those with higher education, the percentage increases even up to 85% because they often lack in rural areas. Women account for 38% of unemployed people without benefits, but there were years, like in 2003, when they represented 55% or 2000 with only 23%, depending on various factors that characterize the labour market. In the Onești Depression the highest values were between 2002 and 2004, with a maximum of 1020 unemployed females/year; otherwise there is an average of 300-400 unpaid people without a job. Out of these 200-300 resided in Onești, 50 in Târgu Ocna, 30-40 in Oituz or Ștefan cel Mare and a minimum of 10 people lived in Pârgărești [8].

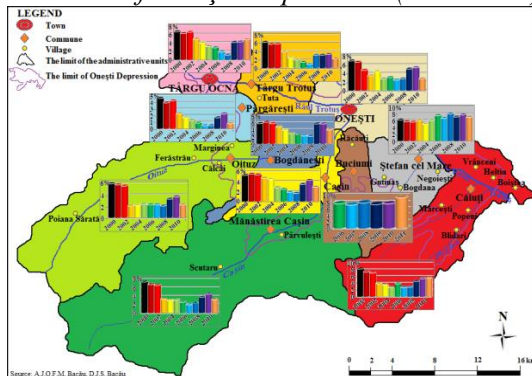
## 8. Evolution of the unemployment rate in the localities of Onești Depression

The unemployment rate is an indicator that represents the ratio between the number of unemployed registered at employment agencies and civil active population according to the methodology balance workforce. In cases when the obtained values do not exceed 3%, they are certified as being in the normal range, showing a use of labour in good conditions, although their variability over time can be quite high [2].

In the localities of Onești Depression the unemployment rate calculated according to the Emergency Writ no. 24/1998, which sets deprived areas (ratio between the number of unemployed and constant population between 18-62 years) fluctuated between 0.5 and 9.7% during 2000-2011, the average per county ranging from 2.6 to 11.3%. Onești town presented higher values during 2000-2001 of 6.7 to 7% and from 2009 to 2010 of more than 5%, the rest were normal averages between 2.5-3.5%, due to a stabilization of the labour market [6]. Târgu Ocna town is

characterized by a greater variation in the unemployment rate, the highest of 6.7% was recorded in 2000, and the lowest of 1.2% was in 2008 (figure 3), the cause of this instability is given by a stronger influence over towns with a less active population on different evolutions of the local economy, 1-2 branches strictly dominating the basic profile of the town, them being able to operate at normal parameters, as well as they can indefinitely enter the inactivity.

Figure 3. The unemployment rate in the localities of Onești Depression (2000-2011)



Source: County Agency for Employment Bacău

In rural areas the highest unemployment rate shows up in Buciumi parish (8.1%), with a value of 9.7% for 2011, not a single more important firm being present, the biggest part of the labour force worked in the units from Onești; once dismissed, the people remained in a prolonged unemployment, very few of them have turned to agriculture. The situation is almost similar for Ștefan cel Mare parish, this having a lower unemployment rate (6.6%). Căiuți parish presented higher rates, but they were mostly the result of some years: 2000-2002 (7.5%). Instead Oituz parish, although it generally had a larger number of unemployed than other rural settlements surrounding, reported to its active population, had an unemployment rate between 3-4%. Even lower was the one from Pârgărești (below 2.5%), where the labour force is specialized in construction.

## 9. Conclusions

As it could be seen, the number of unemployed remains high in the Onești Depression, and between 2012-2013 several other large industrial units have closed or

will close down in the future, throwing in unemployment hundreds of people, who would further thicken the ranks of those who have nowhere to be working. For them, for 2 decades, the Local Agency for Employment organize free training and retraining courses; although many unemployed have gone to these classes, being also forced by cutting the financial support from the state, few have managed to find a job having a new skill, given that the available job market is under a constant restriction, and some do not want work any longer. Even more, since 2010 the situation worsened as the local agency was transformed into a division of the CEA with just two employees, the person in charge of the training of unemployed was dismissed, and the courses are held only in Bacău because, supposedly, there is no interest in the formation of groups of learners. The same indifference was also manifested over the years towards other programs, with different organizations, which came to support high school or vocational school graduates, those left without jobs, a sign that the people who end up in this situation care the less.

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## Characteristics Regarding the Restructuring of Borzești Industrial Platform

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### Abstract

*Borzești Industrial Platform was built after the year of 1950 as a result of country's industrialization made by the communist administration. Thus, the great industrial units appeared: the Refinery no. 10, the Chemical Plant, the Synthetic Rubber Plant which formed the Borzești Petrochemical Platform, the Steam Power Plant and the Chemical Equipment Enterprise were also remarkable and in all these over 22,000 of employees were working as of the late 80's. In the post-December period these industrial units have passed to massive restructuring because they had reduced very much the activity, moreover numerous sections ceased activity due to the lack of raw materials as a result of loosing certain marketplaces or of the reduced investments during the last decades. After the year 2000 the industrial giants from the platform barely work and a few companies have closed turning into unemployed thousands of people, who had to search for work abroad.*

**Keywords:** Borzești Industrial Platform, employees

**J.E.L. Classification:** O1, O11

### 1. Introduction

After the Second World War, in Romania under the new economic and social conditions a high industrialization of the country has been aimed, from the numerous branches considered for a strong development (energetic, metallurgic, the light industry), a special place was occupied by the chemical industry, which even if it had been advantaged by the existence on our country's territory of the most of the raw materials (oil, natural gas, salt, sulfur, potassium, wood, reeds, straw), it did not participate in the

national industrial production but with a percentage of 2.2%. Much of the raw materials have been exported at low prices in countries from Europe, Asia or Africa and we can mention here the oil and the salt during centuries as example, and then Romania became an importer of the most different products of the chemical industry: medicines, soda, paper, cosmetics.

Another direction aimed in the economic growth of Romania was the raising of certain regions without industry or with a poor representation in the territory, because in the late 40's the industrial activities were concentrated in for main areas: Bucharest-Prahova Valley up to Brașov, Banat (Reșița-Timișoara-Arad), the center of Transylvania (Cluj-Napoca-Câmpia Turzii-Mediaș-Târgu Mureș), Brăila-Galați, a few secondary zones: Bacău-Buhuși-Piatra Neamț, Sibiu-Cisnădie-Tâlmăciu, Hunedoara-Călan and a few larger cities: Iași, Oradea, Constanța which concentrated 70% of the number of employees, 80% of the installed driving force and these were realizing 75% of the country's industrial production [6], most of the territory being framed within the characteristics of the economic non-development (Oltenia, Dobrogea, Crișana). The region of Moldavia also was one of the most deficient concerning this chapter and for this reason begun the raising of some important industrial centers.

Among the objectives of the socialist industrialization, an important rank has been occupied by the building of some huge industrial platforms specialized on certain branches. These industrial concentrations which from the very beginning have been designed to become oversized for the zonal resources they were part of, attracted a considerable number of employees, within these giants acting thousands or even tens of thousands of employees, less from those localities, but some of them coming from

other regions, settling there and becoming local in time, but a great number of them remaining travelers which assured the work force for these economic giants.

As in Romania the chemical industry has appeared during the second half of the 19<sup>th</sup> century in few centers from Prahova Valley, just in 1911 another chemical plants concentration formed at Turda, after previously at Ocna Mureș a soda plant was put into operation in 1896. Natural gas was also modestly valorized at Copșa Mică for obtaining carbon black, in this field more important being the units from Făgăraș. The big urban-industrial centers such as Bucharest, Timișoara, Galați had enclosed in their profile this branch but much under their development possibilities and in Moldavia, Mărășești was the only locality specialized on the chemical industry, but of low importance [6]. On the rest of the territory, for that period of time, there were only small workshops producing soap, fat acids, oils, varnish-paints, but they were rudimentary equipped, with a reduced number of employees and production in consequence.

Benefitting from important resources in the area: petroleum from Moinești and Oituz, salt from Târgu Ocna or coals from Comănești, which could have been locally industrially valorized and also benefitting from a favorable position compared with other regions, in 1952 through the Decision of the Council of Ministers no. 1635 the raising of Borzești Industrial Group with petrochemical profile and of a new town, Onești to host the working force necessary for such a project, was decided [5].

Given that in 1950 an ample program for the electrification of Romania started, the installed power for the entire country was of only 740 MW and the yearly production exceeded less than 2 billions of Kw/h, in Moldavia, only at Galați there existed a small fuel oil power plant and at Comănești a coal plant was built, which has been operating since 1954, these yearly producing 240 millions of Kw/h [2] and as a result of Borzești Industrial Platform occurrence, expected as an important thermal and electric energy consumer, but also as a result of the existence of certain fuel oil and residual gases quantities obtained from the plants' technological processes and for providing the city's energy supply, in the autumn of the

year of 1952 there were initiated the works for Borzești Power Plant, the largest in the country at that time, designed to be achieved in a few stages.

Between 1956-1959 three units of 25 MW each were put into operation, in the second stage the installed power increased more, the first group of 50 MW was finished in May 1960 and two more units of 50 MW in April 1962, respectively of 60 MW in July 1966, in the end the total installed power was of 235 MW. The third stage imposed full development of Borzești Power Plant, as the authorities from that time found out that in Moldavia there was a deficit at the level of the energy production, considering the stronger and stronger industrialization of this region, which remained behind the other regions of the country. All culminated with the inauguration of two groups of 210 MW in March and June 1969, that were operating using fuel oil and natural gas, thus the entire power as of the end of the 60's within Borzești I Electric Central Heating reached 655 MW [7]. Between the years 1968 and 1985 the second unit (C.E.T.2) was set, being designed for 300 MW. At the middle of the 80's the installed power was of 250 MW, using as raw material the brown coal and less the marsh gas and the fuel oil, during the respective period the total power in these units reaching 905 MW [2].

Since 1952 the works to achieve the Refinery no. 10 have started and from the very beginning this was the largest in the region and one of the most modern at that time from Romania, having broad market sales for its products.

Refinery I entered into production starting on August the 1<sup>st</sup>, 1956 with the atmospheric and vacuum distillation unit, which was able to process 1,5 million t/year of sour crude oil and sweet crude oil. The delayed cocking unit and the coke calcination unit started the operation in 1961, having a processing capacity of 300,000t/year. After four years the aromatics separation unit was raised, having a yearly production of 100,000 t.

During 1979-1980 the Refinery II was put into operation for processing the sour crude oil. In 1980, the gasoline hydrofining plant was built being able to prepare the feed for the catalytic reforming unit with a processing capacity of 800,000t/year. In the same year, the catalytic reforming unit also appeared,

with a total of 500,000t/year and it was modernized in 1995. Another unit is that of catalytic cracking appeared in 1982, having a processing capacity of 1,2 million t/year. The hydrogen plant has completed the refinery's activity since 1984, with a capacity of 7,200 Nm<sup>3</sup>/h. The gas oil hydrofining plant went into production in 1985, at a processing capacity of 700,000t/year. Among the last built there was the Detol plant which has been producing benzene since 1986.

Borzești Chemical Plant had been raised since 1954 and after 5 years the first unit, namely the oxygen factory, has appeared. Since August 1960 the Soda Plant formed by the Diaphragm Electrolysis Unit, the Liquid Chlorine Unit, the Synthesis Hydrochloric Acid Unit, the Evaporation-Melting Unit, the Monochlorobenzene Unit, the Detoxan Unit and the Hexachloride Unit have started to produce. Between the years 1960 and 1963 the Polyvinyl Chloride Plant formed along with the following units: Acetylene, Monomer, Emulsion of Polyvinyl Chloride, Suspension of Polyvinyl Chloride [5].

In 1964 an electrolysis unit went into production and there was obtained caustic soda lye of high purity. In February 1971 the Alkylamination Unit appeared as a result of a Canadian project and during the 80's the following units started to produce: the Alkeno-benzene Unit, the Captan Unit, the Ammonia Chlorine Unit and the Sulfide Isobutane Unit. In November 1996, by ample investments, the newest section of this unit, "Soda M".

The Synthetic Rubber and Petrochemical Products Plant from Onești has been started to be built since 1957. After five years the first unit for producing isopropylbenzene, phenol and acetone was put into operation and the next year the polystyrene unit started to produce, but especially started to obtain the first quantities of Romanian synthetic rubber, named "Carom" and since 1976 the plant has started to achieve the polyisoprene rubber.

The works for Borzești Chemical Equipment Enterprise have started since in 1973 and after 2 years it has been noticed for producing and trading technological equipment used in the chemical, petrochemical, metallurgical, energetic or machines construction industry, in industrial metallic constructions or metallic confections

and assembly pieces. Starting with the year 1980, the company from Onești got exclusivity in achieving test units for the chemical industry [3].

## **2. The importance of Borzești Industrial Platform during the communist period**

In 1973 the three representative units: the Refinery no. 10, the Chemical Plant and the Rubber Plant were reunited under the name of Borzești Petrochemical Plant, one of the largest in the country. In 1970 the Plant achieved 11.5% of Romania's chemical industry, only 5.8% in 1978 and during the 80's the weight came to be between 15-25% and for the petroleum products the values reached 18% from the ones of the country [3]. Strictly related to products, in 1969 it fabricated: 18% of the national production of gasoline, 15% of the national production of gas oil, 10% of the fuel oil or 8% of the electric and thermal energy production [1], in 1979 it got 97.5% of the synthetic rubber production and 25% of the one of caustic soda, 19.4% of the one of vermin destroyers, 16% of gas oil, 15% of gasoline, 9.8% of plastics and synthetic resins at Romania's level. In 1988 it fabricated 92% of the synthetic rubber production and 26% of the caustic soda produced in the country [3]. Thus, during that period there was achieving almost 100 types of products of which 30 types were going to the export in over 40 countries from 6 continents.

Within Bacău County the domination was clearer regarding a series of sectors of the industry, as in 1968 Borzești Industrial Platform held 99.8% of the chemical industry, 81.5% of the electric energy industry and 45.7% of the branch which processed the crude oil and it participated also with 9.4% in the industry of machines construction [5].

The importance of this platform also came out from the weight of its industrial production in the total of the county, thus, the participation of Onești registered in 1965 a value of 39.2%, a leap has been made and in 1970 the value was of 41.2% and in 1974 of 48.7%, given that the industry of Bacău Municipality, an urban center by far the largest in this region, held a value around 40%. For the 9<sup>th</sup> decade of the past century, the industrial production of the analyzed

space registered evolutions with small oscillations: 35.7% in 1981, 40.5% in 1985 [8] determined by the reduction of the investments on this platform, by the growth of the other centers in the region, emphasizing the county seat.

The Thermal Power Plant increased the production of electric energy from 3,400 GWh in 1971 to 4,000 GWh in 1989 and that of thermal energy from 4,350 T cal to 8,750 T cal during almost the same period. Also within the other units increase was registered for any of the products: for the synthetic rubber the obtained quantity increased from 30,820 tons in 1963, the first time when this product was obtain in the country, to 155,909 tons in 1985 and in 1970 it fabricated only 87,703 tons of caustic soda, but the values reached 188,645 tons after 15 years and for the plastics the production increased with about 10,000 tons [3].

As of the late 80's, Borzești Industrial Platform held 1,8% of the country's production, it covered an area of 1040 hectares and 22,000 employees performed the activity within, of which over 14,000 of them were the employees of the three plants, almost 800 of them had higher education. Moreover, the Thermal Power Plant was registering 2,600 employees and Borzești Chemical Equipment Enterprise with 1,500 members. Also on the Industrial Platform other 3,000 workers were performing, of which 2,000 workers belonged to the Industrial Constructions Pool and they were involved in various activities for assembling new sections or modernization works.

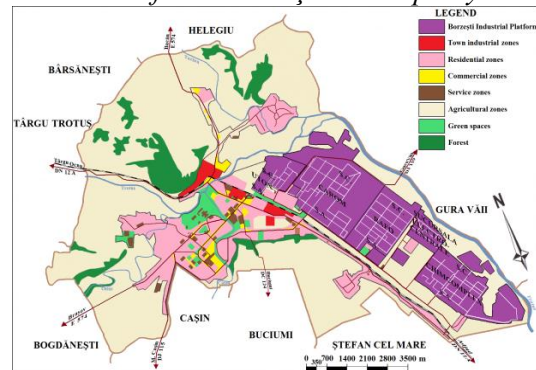
### 3. Platform's evolution after 1990

After 1989 Borzești Industrial Zone passed through major transformations, as well as regarding the other in the country. Each of the existent units chose its own way and thus S.C. Rafo S.A., S.C. Carom S.A., S.C. Chimcomplex S.A., and subsequently S.C. Uton S.A. or Electrocentrale Borzești Departament (figure 1).

In 1996 these companies achieved 47.2% of the county's industrial production, while Bacau only held 30.1%. In 2000 the weight of Onești decreased to 21.9%, due to the fact that the refinery has been shut down, but during the following periods increases were registered every year (30.5% in 2001, 48.5%

in 2002, 49.1% in 2003 or 58.4% in 2004) [8] after which beginning on 2005 the stagnation was obvious considering the difficult conditions that affected these units.

Figure 1. Position of Borzești Industrial Platform in Onești Municipality



Starting with the year of 1990 the companies from Borzești Industrial Platform fully supported the adverse effects of the changes related to next years, as they were not prepared to face the major modifications that followed and they were stuck by the difficult attempts to which they were submitted by the transition. This was mainly due to the collapse of certain retail markets (demolition of the Council for Reciprocal Economic Aid, the difficult situation concerning the countries from Asia or Africa), to the problems in providing raw materials either from the domestic market or from the Arabian countries relation, but also due to the inadaptability to the conditions imposed by the Western space that determined a great part of the crisis of the companies from Borzești Platform.

But there are also special cases related to various conjunctures and the best example is S.C. Rafo S.A which after more unsuccessful privatizations and so weak hopes for crude oil supply, the refinery from Onești combines long periods of inactivity with intervals of low operation, given that this is one of the largest and most modern in the country, the only one from Moldavia that is able to assure such products, needed also by the surrounding areas, taking into account that the Republic of Moldova does not possess such an industrial unit.

The weight of the incomes increases by over 20% when it functions, because Rafo is the largest industrial unit in the county, having the most important effects on the

evolution of the production from Borzești Platform. But, this happens only when it receives certain transports of raw material brought from Constanța, because there are also intervals when it passes on processing of raw materials put at disposal by different customers, for which it encashes only a fee and then the incomes considerably decrease.

Considering these factors, the Refinery from Borzești Platform continuously reduced its staff, if in 1990 there were 3,600 persons providing a good operation (figure 2), a lot of redundancy stages followed, in 1994 a restructuring program was established and yearly about 300 peoples had to leave in order for in 2000 the refinery to get around 2,000-2,400 employees, situation that has been observed with small differences, thus in 1998 staff's chart has been reduced with 300 employees and in 1999 a number of 235 persons have left, the total of the remained persons being of 2,800 during the same year.

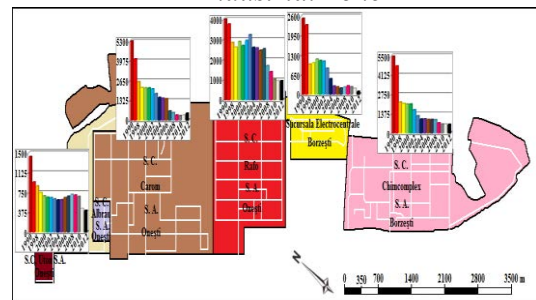
Staff's reduction continued in a more accentuated rhythm and within a short period of time big reductions have been applied due to the overcharged chart and to the prolonged inactivity, thus in 2008 a number of 800 persons became unemployed and during the following years other 700 employees left the refinery, so in December 2010 there were only a few over 1000 employees and only 500 in 2013 [4]. Because the perspectives are bleaker and bleaker and even if Refinery's start up is still waited, only since 1990 this has reduced its effectives with over 80% leaving behind a lot of unemployed, which have not been able to integrate in other companies and the hopes are weak also for the ones who are still this company's employees.

S.C. Carom S.A. was the first and therewith the largest producer of synthetic rubber in the country, but after 1990 it shut down many of its production lines. In good times it had almost 5,500 employees, but beginning with the year 1992 redundancy occurred and in 1994 a staff reduction of 800 peoples applied. These have been determined by the closure of numerous sections that were no more registering profit, by the strong competition on the market, by the lack of certain raw materials.

In 1995 the plant was numbering only 4,100 employees and after only three year much less, namely 2,570 employees and the

reductions kept going with 300 unemployed in May 1999, at the end of the year 2001 there were only 2,164 employees, in this decade the decline being more evident, in December 2005 the number of paid persons was of 1,484, thus after renouncing at 900 employees in 2006 and at 1,010 in 2008, presently the plant registers 450 employees. This reduction with over 5,000 employees is normal considering that from the entire plant only a few sections are still functioning [8].

Figure 2. The evolution of the number of employees within the units from Borzești Industrial Zone



Source: County Statistics Directorate of Bacău

A similar fate had the former Borzești Power Plant, the first thermo-heating plant in the country and the first industrial unit which was raised on this platform. At the beginning it had only 120 persons, then the total reached 1,700 persons in 1977 and the staff's chart got larger and larger reaching the top of 3,034 employees in 1994, but applying reductions of 300 persons per year and even of 1,000 persons only in March 1999, in 2003 the plant registered only 1100 employees and when it ceased the activity in 2013 there were only 100 employees [4].

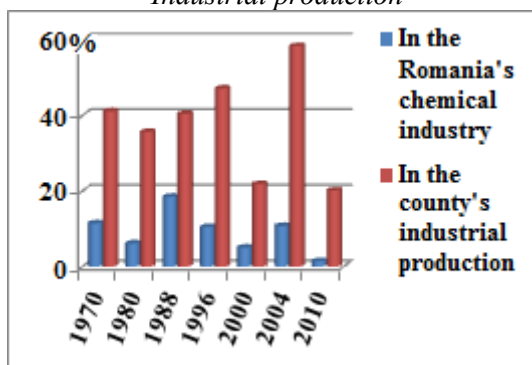
Electrocentrale Borzești Departament has received plainly the hits of the market economy and if for a decade longer it succeeded in passing over them, caught under the umbrella of the National Energetic System, that provided its financing by the time it did not operate and this was due to the fact that many of the industrial companies from the platform gained their energetic independence renouncing to the services of the former supplier.

One of the largest companies from Borzești Industrial Platform is S.C. Chimcomplex S.A., which is important by its contribution to the local economy,



corresponding to the number of employees totalizing 5,500 persons during the socialist period. The restructuring of this unit started in 1990, by shutting down first the pollutant plants, then the ones large energy consumers, thus reaching a production structure that uses only 70% of the initial capacity.

Figure 3. The share of Borzești Platform Industrial production



Source: County Statistics Directorate of Bacău

Implicitly, the number of employees has been permanently reduced, only in 1997 a number of 1,400 persons being unemployed and the next year other 550 persons left, a part of them passing within some sections which had been privatized. From those 1,096 employees, only during September-October 2004 a number of 200 persons became unemployed, followed by other waves of restructuring, thus in 2013 the plant numbers 500 employees, much under the staff registered not too far in the past.

Even if until 2010 the former Borzești Chemical Equipment Plant operated at maximum capacity, it passed through many restructuring stages, from 1,500 employees during 1990 to 610 employees during a 20 year period, since 2012 it has been facing big problems that could determine it's shutting down.

Either regarding the small companies providing repair and modernization services the situation is not brighter due to the lack of money, the large companies from the platform renounced to contact them and the effects were among the worst being forced to reduce very much the activity by passing people unemployed or being forced to search for work abroad, but this was not a solution for a long period of time, so many of these companies entered into bankruptcy.

#### 4. Conclusions

Borzești Industrial Zone, built as one of the largest from Romania, passed through the most difficult situations during the transition period, its experience being hampered by many factors which reflect in the occurrence of some of the most unwanted social and economic cases, namely unemployment, poorness and even bankruptcy of some companies, once among the most profitable of the country. Thus, from teams numbering almost 23,000 employees during 1989, currently only less than 2,000 persons are still employed, the reduction being substantial, due to the most different reasons and from here there is the large mass of unemployed people, who, unfortunately, had no other fields to act. Due to the fact that the large companies did not operate, also the participation in the county and national industrial production has considerably decreased (figure 3).

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**Section II**  
**Business Economy and Administration**

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**Subsection 1**  
**Economic and Social Studies**

## Legal and Economic Perspectives on Cash Payments made by Professionals

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### Abstract

*We focus the present study on cash payments made through fiduciary money (banknotes and coins), without elements of extraneity such as scriptural money or payment instruments, in order to try to configure the legal elements that fall within it, as well as the roots and economical reasoning of instituting certain interdictions and limitations for cash payments.*

**Key words:** payment, cash, card, cap on cash payments

**J.E.L. Classification:** E42, H32

### Introduction

The reference commercial doctrine [1] launches the expression "contracts on the trading activity" and it is held that "...we must acknowledge the existence of the contracts on trading activity. These contracts have a partially different legal regime than that of the contracts concluded by mere individuals, aspect that grants them a certain specificity".

At the same time are laid down the rules of the performance of contracts regarding trading activity, rules that comprise the principles of the performance of contractual obligation, stipulated by art.1.516, (1), art.1480 and art. 1.492 of the Civil Code (NCC), namely: the principle of the execution in kind, the principle of specific performance and that of cooperating in performing the contractual obligations [2].

### I. Legal perspectives on the professionals' obligation to pay in cash

#### 1. Payment: benchmarks of the definition

*Sedes materiae* is mainly situated in the NCC, the provisions established therein representing the common law in the field of payments, and are composed of the provisions under Chapter I of Book V "Performance of obligations" which is made of 6 sections, from art.1469 to art.1515 as follows: *General provisions; Subject of payment; Payment conditions; proof of payment; Imputation of payment; Ab ignition* we shall reiterate the definition of the term "payment" as it appears in the NCC, art. 1.469 and art.1.470.

In explaining the term of "payment" [3] state that classifying it distributively as a legal fact and a legal act would be more reasonable. The consequences of the classification of payment are relevant practically under evidential aspect, as it is revealed by Vasilescu [4], an aspect which we will get back on below.

The dual meaning of the term "payment" and the consequences from a practical point of view can be found in Pop, Popa si Vidu [5], namely a means of voluntary discharge of an obligation and legal act, and the payment as means of voluntary discharge of an obligation in *lato sensu* designates the voluntary discharge of any positive or negative obligation to give, do or not do, and *strictu sensu* it designates the discharge of the obligation to pay a sum of money, this being also the meaning evoked in the present study.

The obligation to pay a sum of money, in the consideration of the principles of carrying out the contractual obligations indicated *ut supra* is regulated by art. 1488 and art.1489 of the NCC:

## **2. Currency of the payment;**

The provisions of art. 1488 of the NCC reconfirm the principle of the monetary nominalism for the obligation to pay a sum of money, namely in the pecuniary/monetary obligations. In accordance with this principle, developed in Pop [6], the debtor of a sum of money shall pay the amount set in the established currency, by remitting the monetary instruments to the creditor, irrespective of the changes in the monetary value that occurred after the moment the obligation arisen.

The payment currency may be the national currency or a foreign currency. Two relevant aspects regarding the payment currency are indicated in Carpenaru [7]: - "the exchange rate of the Leu is determined daily on the interbank market" in accordance with the regulations of the National Bank of Romania; - payments, cash-ins, transfers shall be operated in the national currency, with certain exceptions.

## **3. Place of payment;**

The place of payment is regulated by art. 1494 and art.1489 of the NCC.

- a) monetary obligations must be performed at the residence or place of business of the creditor at the moment of the trade;
- b) the obligation to hand over an individually determined good must be performed where the good is located when the contract is concluded;
- c) the other obligations being performed at the residence or place of business of the debtor at the moment contract is concluded;

It is obvious that the parties of the legal relation may establish the place of payment, the rules enshrined by art. 1494 are to be applied only in the case where the place of payment was not agreed by the parties through a stipulation contrary to these rules.

As for what regards here the monetary/pecuniary obligations, they must be carried out, in absence of a contrary stipulation, at the place of payment or where

the place of payment cannot be established *in accordance with the nature of the benefit or on the grounds of the contract, of the practices established by the parties or of the customs, in accordance with provisions of art. 1494 (1), (a), the place of payment is the residence or place of business of the creditor at the moment contract is concluded.*

Hence, in what concerns the observations of Pop, Popa and Vidu [8] and Vasilescu [9] we conclude that by deviation from the traditional regime provided by art.59 of the Commercial Code, explained in Carpenaru [10] according to which the payment of the monetary obligations can be carried out at the residence or place of business of the debtor, in the monetary system instituted by the NCC, in accordance with the provisions of the art. 1494 (1) (a) the payment can be carried out at the residence or place of business the creditor had at the time the contract was concluded.

Given the fact that the rule instituted by art. 1494 (1) (c), for the "other obligations", that are not monetary obligations, determines whether the payment is to be carried out at the residence or place of business the debtor. The provisions of article 1494 (1)(b) regulate the obligation to hand over an individually determined good at the place where the good is located at the time the contract is concluded;

Although the portability of the payment tends to assure creditor's protection, taking into account that the payment of monetary/pecuniar obligations between professionals are carried out by the using bank transfers and payment instruments, situation generated by the legal regulations instituted in the field of payments, which are supposed to restrict the cash payments, as well as by the regulations established through the agreement of the parties in the contracts assumed by the professional in carrying the economic activity of an enterprise, it is obvious that in practice, the application of the principle is well watered-down.

## **4. Date of payment**

The date of payment is regulated by art.1495, art.1496 and 1497 of the NCC

The date of payment is the date on which the debt becomes due ; this date can be agreed by the parties and shall be the date on

which the payment obligation of a sum of money becomes due, being called the "*due date of the obligation*".

The date of payment is relevant because in relation to it is determined the on time fulfillment or non-fulfillment of the payment obligation, and in case of non-fulfillment it is from this date on that the penalty, moratory interests are calculated, which sanction the late payment of the obligations.

In the absence of a date of payment stipulated by the parties or determined on the grounds of the contract, by the practices established by the parties or by the customs, the payment obligation shall be carried out immediately, in accordance with art.1495 (1) of the NCC.

The provisions of art.1495 (1) remove any doubt regarding the expedience of the execution of the payment obligation in the monetary system of the NCC, for any category of obligations, in the case where the parties did not establish a date for it.

The additional rule regarding the date of payment as it is instituted by art. 1495 (1) is called by Baias [11] *the rule of the chargeability of the payment obligation at the moment of the contract conclusion, which is the chargeability at the moment the contract is concluded.*

Moreover, the court may establish a due date when certain circumstances impose it: nature of the benefit, place where the payment is to be made. But according to what Baias says [12], the court is not called to decide but in the case where the parties do not agree on the due date of the payment obligation.

The date of payment, as due date of the payment obligation, is the date on which the debt becomes chargeable, resulting in the start of calculation of the moratory damages. Initially, this date is left by the lawmaker to the decision of the parties to be agreed upon.

In the situation where the date of payment was not established by the parties through a contract having as endpoint the date of payment, or the date was not set by means of an agreed method, there shall be applied the rule of the chargeability of the obligation at the moment the contract is concluded, according to art.1945 (1) of the NCC.

As we have indicated *ut supra*, the court may set a due date when certain circumstances impose it: nature of the

benefit, place where the payment is to be made but the court is not called to decide but in the case where the parties do not agree on the due date of the payment obligation. Therefore this due date should not be confused with an additional due date and/or the reasonable due date for carrying out the obligations by the debtor.

Consequently, the obligation becoming due at the moment the contract is concluded, the moratory damages shall be calculated starting with this date, the chargeability date matching the date when the contract is concluded.

In practice, we consider that this last case in which a due date for the payment was not set by the parties, having as endpoint the payment date or this date was not set through the contract or by means of an agreed method, is rarely encountered in the contractual relations between the professionals.

## 5. Proof of payment

The principles applicable in the matter of proof of payment are developed in Vasilescu [13] in relation to whether the payment is a legal act or a legal fact as principle, the proof of payment can be made with any means of proof if the law does not provide otherwise.

The analysis of the regulation applicable in the matter of proof of payment require *ab initio* the reiteration of the distinction between the proof of the legal relation from which the debt results and the proof of the respective payment, comprised in Baias [14].

In developing this distinction we find that the proof of payment is subordinated to the means of payment set by the parties in the contract in the case where such clause exists within the contract, an example being the payment through bank transfer, where the proof of payment can be made through the payment order stamped by the bank.

In the case of cash payments between professionals for the obligations assumed in carrying the economic activity of an enterprise, the proof of payment is made by debtor of the payment obligation issuing the receipt.

Under the provisions of art.1503 it is instituted the presumption of settlement of the obligation through payment, by the creditor remitting to the debtor, one of the

co-debtors of the surety, the original document proving the debt

As a consequence, the payment obligation of a sum of money shall be governed by the principle of the monetary nominalism. The payment is portable meaning that it must be carried out at the residence/place of business of the creditor, on the due date. The date of payment shall be agreed by the parties or in the absence of the agreement it shall be applied the rule of the chargeability of the obligation at the moment the contract is concluded. The proof of payment is subordinated to the means of payment established by the parties through the contract. These are the legal elements that fall within the scope of the payment obligation of a sum of money, background on which are cumulated the limitations and interdictions in the field of cash payments carried out by professionals for obligations assumed in carrying the economic activity of an enterprise.

## II. Economic perspectives on cash payments carried out by the professionals

Cash payments are presently regulated through Government Ordinance 15/1996 on strengthening the financial-currency discipline, with the subsequent amendments and supplements. In accordance with this GO the daily caps on cash payments are set as follows [15]:

- 10 000 lei/day – the cap for cash payments made by legal persons;

- 5 000 lei/ day - the cap for cash payments made by the same supplier;

- 10 000 lei/ day – the cap for cash payments in the case of payments toward store network such as Cash&Carry, that are organized and carry their activity in accordance with the law in force.

The same legal document sets contraventional fine ranging from 5000 to 10000 lei for the case where a legal person pays in cash to another person sums that exceed the cap of 5000 lei/day or that exceed the total cap for daily payments toward legal persons of 10000 lei [15].

The economic context has suffered significant changes since the date of the last amendment of this ordinance (2004), hence certain amendments are required in what concerns the cash payments carried out by professionals. It is of relevance an analysis of the number of active cards as well as of the demand deposits in lei and foreign currency, as well as of the economic operators' term deposits in lei and currency.

From the information made available by the National Bank of Romania [16] it can be observed in Table 1 the evolution of the number of issued, active and valid cards as well as the value of the transactions carried out with cards between 2008-2013.

*Table no. 1 Evolution of the number of issued, active and valid cards as well as the value of the payment transactions carried out with cards between 2008-2013*

Date	Number of issued bank cards (including co-branded and operating as e-money) (units)	Number of valid bank cards into service (including co-branded and operating as e-money) (units)	Number of active bank cards (including co-branded and operating as e-money) (units)	Value of the payment transactions carried out with debit cards (millions of lei)
Dec. 2013	42,677,409	14,148,692	11,332,368	6,477.03
Dec. 2012	39,446,289	13,705,007	11,082,608	5,711.44
Dec. 2011	35,422,029	13,348,529	10,771,042	4,750.63
Dec. 2010	30,197,848	12,604,226	11,200,867	3,844.05
Dec. 2009	25,272,697	12,886,339	11,536,052	3,181.22
Dec. 2008	22,851,795	13,584,130	11,075,764	3,284.01

Source: <http://www.bnr.ro/Raport-statistic-606.aspx> accessed on 16 April 2014

Hence the number of bank cards issued increased every year together with the amounts operated. However, the number of active cards registered a fluctuating evolution. The lowest value was registered at the end of 2011, while the value registered at the end of 2013 is below that of 2009.

This fluctuating evolution can be explained by the Romanians' preference for cash payments in the detriment of card payments.

This fluctuating evolution can be explained by the Romanians' preference for cash payments in the detriment of card payments.

In Table no. 2 can be seen the evolution of demand deposits of the economic operators, as well as that of the term deposits.

*Table no. 2 Evolution of demand deposits of the economic operators and the evolution of the term deposits between 2008 – February 2014*

Date	Demand deposits of the economic operators - millions of lei -		Term deposits of the economic operators -millions of lei -	
	in lei	in foreign currency	in lei	in foreign currency
Feb.2014	26 554.11	11 196.08	23 219.55	11 280.96
Dec. 2013	28 421.40	9 869.10	23 722.44	11 512.27
Dec. 2012	22 551.80	10 140.90	19 341.12	11 002.01
Dec. 2011	23 288.12	8 998.12	20 776.34	11 565.50
Dec. 2010	22 127.96	9 364.39	19 861.20	14 620.23
Dec. 2009	19 171.92	9 668.14	17 823.82	14 921.82
Dec. 2008	20 656.20	8 350.14	19 333.33	12 919.38

Source: <http://www.bnr.ro/Raport-statistic-606.aspx> accessed on 16 April 2014

Demand deposits as well as term deposits of the economic operators, in lei or in foreign currency, register a fluctuating evolution (increasing and decreasing) during the period of time under analyze. Neither of these indicators have a tendency towards growth.

In other words the banking system does not manage to draw a significant number of economic operators to deposit money into the current account or in term deposit. Based on these facts we can ascertain that the economic operators in Romania prefer cash to the detriment of payments made through the banking system.

That is precisely why it would be welcomed the passing of a law that would bring amendments in what concerns cash payments.

Drawing such law should set-off from the following grounds:

- the need to strengthen the financial discipline
- the need to reduce tax evasion, where the increase of the level card usage to the detriment of making cash payments would cause this effect;

- the recommendations of the European Commission on restricting the usage of cash payment.

The new law proposes [17]:

- extending the limitations for cash payments to other economic operators than legal persons, such as: natural persons authorized to carry out economic activity, individual companies, sole proprietorship, family owned company, self-employed, associations and other bodies having or not legal status, to the daily cap of 5.000 lei/person but no more than a total cap of 10.000 lei / day;

- limiting daily receipts and payments in cash to 5.000 lei/person in the case of:

- operations of cash receipt carried out by economic operators towards natural persons representing payments for delivery of goods or services, equities, assignment of claims or other rights, payment of loans or other finance;

- operations of cash receipt carried out by economic operators from natural persons, representing assignment of claims or other rights, granting loans or other finance;

- limiting the operations of cash receipt carried out by economic operators from natural persons, representing payments for delivery of goods or services, by instituting a daily cap of 10.000 lei/ person;

- limiting the cash receipts and payments carried out by the natural persons by instituting a daily cap of 10.000 lei/ transaction.

The noncompliance with these provisions is sanctioned with a fine of 25% of the cashed/paid amount that exceeds the cap established for each type of transaction, but not less than 100 lei.

### Conclusions

Capping the cash payments aims at strengthening the financial discipline. Guiding the money flow toward the banking system will result in business transparency and thus in reducing tax evasion. The sanctions provided for those who will not comply with these caps and the consistent enforcement of these sanctions will only support this undertaking.

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## Romania's Investment in Renewable Energy – Positive or Negative Results?

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### Abstract

*In times of crisis, renewable energy sources have become more attractive for investors. It is considered that investment in renewable energy will provide medium and long term practical solutions for multiple economic crises, will improve the life quality, will eradicate poverty population, sustain the environment development and rebalance the economic situation for the states.*

*Energy crises at states levels and their extension in time lead to a shift regarding the investors concern in fields that are updated to the current market needs.*

*This paper will explore renewable energy sources reported to the global and local results. This study will identify potential investments in this sector in Romania taking into account the positive results and their effects on current and future energy market. In this way it shall be explained if Romania is an attractive area for investments in renewable energy and if the results of these investments are a solution or a risk for the Romanian economy.*

**Key words:** Renewable Energy, Sustainable Development, Investment, Economic Recovery, Risk.

**J.E.L. classification:** E20; REL Code: 8E

### 1. Introduction

Some forms of natural resources are closely related to human welfare that represents the development degree of a society. The fact that these natural resources are limited and that they can be irreversible losses describes a restraint of our ability to

solve problems in the future. Biodiversity essentially helps to create eco-goods and services, which in turn are transformed into economic value, and that creates an agreement between these two concepts.

Green goods are those goods with lower impact on the environment and they are less harmful to human health than the traditional goods. Green products are formed wholly or partly of recycled components and are manufactured in an energy conservative or sometimes these two traits go together. Green products are products that have the highest environmental or ecological criteria, according to EU labeling schemes or other instruments and initiatives [1].

As a concern at the European level, in 2005 there were approximately 3.4 million employees working in the environmental field [2], estimating that by 2020 this number will increase to 2 million jobs in the green sector, as European Council of Energy sources expected. What will this mean? Of course, the fact that there is potential in the green economy, and especially in the renewable energy sector.

Regarding the necessary costs for encouraging energy efficiency and renewable energy production, we can say that they are minimal, demonstrated by the savings they create on energy from conventional sources. It is all about using new technologies that promote savings on energy consumption and their effects are consistent with environmental protection.

The main sectors that provide jobs in the green economy are:

- Waste management, recycling, water and air quality;
- Renewables;
- Services to ensure energy efficiency.

The general trend of world states is to increase investments in the green sector by exploiting renewable energy sources, while trying to provide sustainable services in terms of economy, society and environment. The problem is that many countries are exposed to extremely high costs of oil imports, they are spending billions to ensure the population's energy requirements. In this way, we are trying to find relevant solutions for greening the energy sector by exploiting renewable resources, in order to improve energy efficiency and considering the net economic benefits.

It is estimated by experts that energy will increase in the coming years due to increasing population, due to the income levels in order to meet the development needs of the individuals that make up society. By adopting the green economy, the society aims to eradicate poverty which is one of the main objectives of this concept. There are 1.4 billion people in the world who have no access to electricity and 2.7 billion people who depend on biomass for cooking activity according to the International Energy Agency sources. By exploiting renewable energy resources it is expected to solve these problems of population by ensuring energy security at local, central and global level, and in order to realize this it requires investments in green energy.

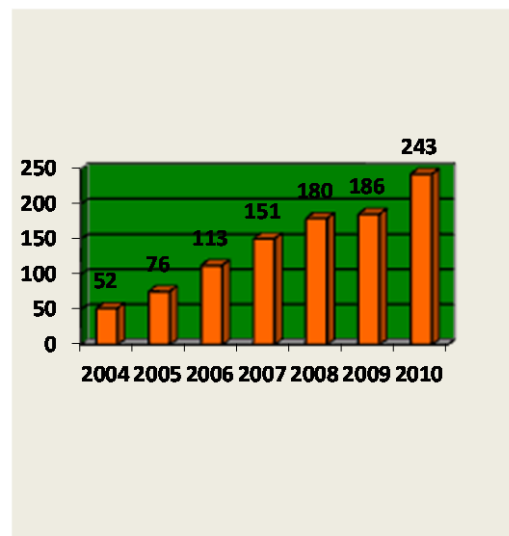
Basically, the renewable energy sector has become a trend and Romania is trying to line at it. The country has great potential in terms of renewable energy multitude of categories that can be produced. Thus, in Romania there can be produced all types of renewable energy: wind, solar, geothermal, biomass, which is a real focal point for investments in the sector. As for investment attractiveness, Romania meets the required points and efforts which are made to ensure the legal framework suitable for such investments, and in order to increase renewable energy production, the investors can receive significant amounts of money from the Romanian government and they can find funding opportunities in this sector from the European Social Fund through European grant programs. Although investments in this sector are often classified as high in relation to other areas, it seems that it is necessary to create their harmonization and balancing.

## 2. Investments in the global green sector

The main concern for developing world countries is investing in green energy and it is all based on the fact that energy will increase in the coming years, while conventional resources of energy are limited and will be exhausted. This makes a necessity in identifying alternative energy possibilities and creates a system to facilitate the development of renewable energy production in order to replace gradually the classics.

One such example of investments in the green sector is represented in 2010, when they increased globally by 30% and reached a record high of 243 billion dollars. By 2008 the average annual growth rate was 37%, but in 2009 there was a significant development in investment area [3].

*Figure 1: Investments in Green Energy at Global Level (billion USD)*

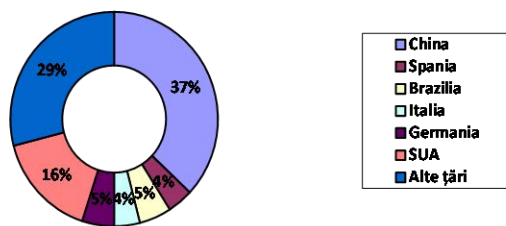


At the country level there can be remarked that the largest investment in the green sector places is China. Green economy in China has started to develop slowly and later than in other country in the recent years and the results are promising. The success of this country it seems that stands behind the research investments that propelled her toward positive results and growth even during the economic crisis. In 2010, the installed capacity of wind turbines in China was the first in the world. It seems that turning solar energy, for example, was placed on top in this field worldwide. Chinese authorities are directly assigned in the years

2011-2020, for investing a total of 5.000 billion Yuan for developing energy sectors: wind, solar, biological and hydropower to meet the needs of production and daily life of the population, with new type of energies [4]. China is a country with consuming energy and its prospects of plans is to dominate the renewable industry worldwide.

To promote job growth, China has focused on investment funds directed to green energy as the basis for global development. Since 1999, China has achieved about 1% of solar photovoltaic cells placed to generate electricity. In 2009, China has a 40% market share in this area. Companies in China expected to achieve more than half of solar panels in 2011 and almost 80% of solar units produce hot water. The country covers a leader in the green energy and can be considered the main candidate in market exports.

Figure 2: Investments in green energy states of the world in 2010



Source: Bloomberg Agency Report 2011 of Green Investing 2011

As it is shown in the figure above, most green sector investments were made in China, and the least investments in this field have been made individually by Italy and Spain.

### 3. Promoting Renewable Energy

Energy consumption has increased a lot lately due to human development and technological development. Green energy market presents some key issues that shape the future at international level. It is estimated that global energy demand will increase by 50% in 2030 compared to 2005. World consumption of oil reserves will be provided only until 2040, while the natural gas until 2070. Regarding the European Union's energy dependency it is estimated

that natural gas imports will increase from 57% (2005) to 84% in 2030, while the oil from 82% (2005) to 93% in 2030.

Green energy market development objectives aimed in particular for encouraging the use of renewable resources as an alternative to classical ones to achieve the principle of sustainable development and environmental protection. Promotion of renewable energy sources can be accomplished by:

- Increased exploitation of renewable energy resources for power generation in terms of economic efficiency;
- Accessing funds to support renewable energy projects;
- Free support renewable energy resources;
- Investing in green energy.

Both the European and Global institutions focus on developing green energy markets, especially because the classical energies are pollution sources and limited. To ensure energy requirements in all states it is useful addressing and implementing projects to support the transition from conventional energy to renewable energy. Global climate change is a highly debated topic that has negative consequences for the society in which we live. Technologies using renewable resources for energy production are a mean of reducing carbon dioxide emissions and mitigate global climate change.

There are three ways to ensure the success of renewable energy sources, namely:

1. The care of existing fuel reserves
2. The protection of the environment
3. Assuring government support through financial incentives and appropriate programs

Energy market is one of the most complex process and the costs for energy production is very high. IEA report in 2011 estimated that if renewable energy sources become cheaper, the classic sources of energy will be more expensive due to the method of obtaining them. It is expected that renewable energy technologies will improve with the development of their use [5].

Renewable energy sector is characterized by fast development and power generation technologies begins to decline in terms of cost, although experts references on this market show that prices are still very high.

There is a strong concern to achieve research in this area with the introduction of mechanisms in order to facilitate the integration of renewable energy on liberalized energy market.

To this end, several countries have developed policies to facilitate the development of this market that has two main objectives: the liberalization on green market and the reduction emissions of gases. As regarding the renewable energies in the context of energy market liberalization, renewable energy production is less competitive with the one obtained from conventional sources, mainly because in a liberalized market the effect of decreasing energy prices is desired and this concrete case shows the opposite situation.

Market penetration of renewables is difficult due to a number of factors such as significant subsidies for electricity generation from conventional sources (fossil fuels and nuclear) and the low subsidies for electricity generation from renewable sources; the costs of energy production from conventional sources do not include the full cost of pollution (negative externalities) technologies used to produce renewable energy that are expensive; most renewable energy sources are not constant (wind, sunlight, waves, water flow) resulting from difficulties in forecasting energy production, which translates into additional costs, due to particular characteristics of renewable energy sources (local and difficult to predict), and the facilities used for the generation of energy from these sources are located disparately and have small capacity.

These facts show that there are efforts made in order to provide premises for market renewables in theory, but in practice there is competition between producers of green energy.

Political support for renewable energy is always present and it is justified by objectives such as:

- Environmental benefits in terms of reducing local air pollution;
- Reducing dependence on imported energy;
- Creating jobs in rural and remote areas;
- Creating export opportunities for domestic industries [6].

#### 4. Renewable energy sources in Romania and their potential investments

Romania is a country with a very high potential in terms of renewable energy sources and renewable energy production. Although Romania can produce renewable energy from all the existing sources, there are technological limitations, environmental restrictions and deprivation of economic efficiency that prevent the use of these sources at full capacity.

*Table 1 - National Renewable Potential in Romania*

Renewables	The potential annual energy	Energy saving equivalent (toe)	Application
-solar			
-thermal	60x10 GJ	1433,0	Thermal Energy
-photovoltaic	1200 GWh	103,2	Electric Energy
Wind Energy	23000 GWh	1978,0	Electric Energy
Hydropower, of which (below 10 MW)	40000 GWh	3440,0	Electric Energy
	6000 GWh	516,0	
Biomass and biogas	318x10 GJ	7597,0	Thermal Energy
Geothermal Energy	7x10 GJ	167,0	Thermal Energy

*Source: National Action Plan for Renewable Energy (2010)*

Currently, the costs of electricity production from renewable sources in Romania are higher than those using electricity from conventional energy sources. To increase investment in renewable energy production requires an appropriate support of those who are involved in energy production in this sector [7].

Primary energy consumption increased significantly in the last decade, registering a major difference between the growth rate and the growth rate of energy consumption. Thus, higher energy consumption occurs at a much higher speed than economic growth, this is caused by the global energy crises. Romania has limited reserves of conventional energy resources, which leads to the achievement of energy imports. Internal energy production is characterized by constant fever and lack of development of energy from renewable sources and this will lead to lower energy sources that provide domestic consumption

of the population, and indirectly this situation will generate an import increase.

The problem of energy from renewable sources is the high cost of unconventional energy sources. Most installations producing energy from renewable sources are not properly equipped, are outdated and need an update to the current requirements on this market. Basically, it takes a refurbishment of such equipment and the purchase of new equipment and investment in infrastructure, in order to develop energy from renewable sources.

In this way, there is a legal framework under Community law which was adopted partly in Romania since joining the European Union. National energy policy goals aims at stimulating investment in renewable energy through money allocated to producers of unconventional energy from the institutions and from European grant programs in this area.

Romania is a country with great potential for investment in renewable energy, but it requires development and production of new technologies.

It is necessary to continue the process of improving institutional capacity in renewable energy, ensuring economic stability and harmonization of conventional energy production prices to attract investments in this sector.

## 5. Conclusions

Romania is an attractive country in terms of the multitude of renewable energy sources in its possession. To attract investments in this area it is needed to further steps regarding the institutional framework for conducting such activities. It is also necessary to find concrete solutions for accessing European funds for the development of unconventional energy sources and encourage such energy producers.

Given the high costs of energy production from renewable sources it is needed to bring them and encourage the development of non-conventional energy market. For the period 2012-2020 it is estimated that 10 billion euro will be needed for investments in renewable energy development. The money will come from the European Social Fund and may be accessed by producers and public or private

institutions. The Romanian state will pay part of the money and unconventional energy production will gradually fill traditional energy production.

Major public and private actions will be:

- Network takeover of renewable electricity
- Continue to obtain financing from European funds
- Promoting the use of renewable energy sources both for industrial consumers and for the individual ones
- Harmonization price of conventional energy production compared to the classical one
- Encouraging the development of energy efficiency programs

In order to achieve investments in this area we should consider eliminating any risk that may further exacerbate the economic crisis we face. Encouraging investments in renewable energy is considered to be a solution that will generate economic growth. Given the structure and content of this paper and its conclusions that can be drawn, we can note that investments in renewable energy do not pose a risk to the Romanian economy, but rather a solution of comeback given the development possibilities. The only problem we have with these unconventional energy sources is the high production cost which cannot be harmonized fast, but only with time and with increasing number of producers of renewable energy.

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# Exploring the Long-Run Relationship between GDP and Private Consumption of Romania through Cointegration Analysis

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## Abstract

*The Romanian economy has been for a long time based on household consumption, as the private consumption accounts for more than 60% of GDP. The dependence between GDP and private consumption is of great importance for macroeconomic policies and has been extensively analyzed through econometric methods but the literature lacks studies of their long-run comovement by cointegration analysis.*

*This paper examines the long-run relationship between GDP and private (household) consumption of Romania through cointegration analysis procedure.*

*Results from the unit root tests reveal relatively conflicting outcomes and the Engle-Granger two-step residual-based cointegration procedure shows that GDP and household consumption do not share a long-run equilibrium relationship for the case of Romania in contrast with the expected results of the economic theory.*

**Keywords:** Cointegration, GDP, Household Consumption, Engle-Granger

**J.E.L. classification:** C22, E21, O11

## 1. Introduction

The article is exploratory in nature as the purpose is to identify the existence of a long-run comovement of GDP and private consumption of Romania through cointegration analysis.

The specialized literature regarding this subject is limited in the case of Romania, a study concerning specifically cointegration between GDP and household consumption being inexistent for this country.

However, there are a couple of articles

that address other possible long-term relationships in Romania such as the nexus: GDP-government expenditures [1], GDP-investments-exports [2], GDP-electricity consumption-capital [3] and other macro-indicators [4].

Regarding the study of a long-run relationship between GDP and household consumption Knetsch [5] has identified cointegration between GDP and private consumption among other expenditure components and compared the results in the case of Germany, France and Italy.

Another case investigated by Gomez-Zaldivar and Ventosa-Santaularia [6] found GDP and consumption to be cointegrated in the case of US but have not found long-term relationship between the variables in the case of Mexico.

For India, the results of a study regarding this subject revealed no cointegration between GDP and household consumption on a small sample-size of 30 cases [7].

Also, an interesting research on causality and cointegration between consumption and GDP in 25 OECD countries conducted by Guisan [8] revealed no cointegration among the two variables in question in the case of Britain, the author explaining this result as a possible limitation of cointegration approach.

In this context, the present paper concerns on how the consumption and GDP of Romania behave on the long-run. Considering this, the purpose of this paper is to explore if GDP shares a common trend with household consumption by having a long-term relationship and if it is found such a relationship, how rapidly this relationship adjusts to its equilibrium after a shock reflected by short-run dynamics.

Therefore as many studies show that there is a strong influence of household consumption over GDP, we chose to show whether this dependence exists on the long-

run in the case of Romania and revealing a possible long-term equilibrium relationship between the two variables.

## 2. Data and method

The variables used for the analysis are Gross Domestic Product (GDP) and Household Final Consumption Expenditure (CONS) and the data was retrieved from the WorldBank Online Database for the available period 1990-2012 (23 cases), measured in constant 2005 U.S. \$. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. Household final consumption expenditure is the market value of all goods and services, including durable products (such as cars, washing machines, and home computers), purchased by households. We test whether the series GDP and CONS share a long-term relationship through cointegration analysis.

Two series are cointegrated if they are integrated of the same order and the linear combination of them is integrated of an order at most equal to the order of the considered series [9]. The general case of cointegrated series is represented by two series that are integrated of order one  $I(1)$  and the linear combination of them is stationary or integrated of order zero  $I(0)$ . A series is said to be stationary (in level) if the mean and the variance are constant. In case the series is non-stationary, through transformations like differencing or detrending it will be obtained a stationary series. Therefore the order of integration is the number of subsequent differences necessary to obtain a stationary series [10].

In general, a regression involving the levels of non-stationary series will produce misleading results, with conventional tests for coefficient significance spuriously showing a significant relationship between unrelated series [4], [11].

Considering the economic nature of the variables GDP and CONS and their evolution we can assume that the series are non-stationary, random walks, representing stochastic processes. This assumption is not surprising as the variables are measured at macro level and the macroeconomic processes are in general stationary at first

difference or  $I(1)$ .

To demonstrate that, we tested our series to see if they are non-stationary and if they are, of what order they are integrated. Main criticism is that the power of the unit root tests is low if the process is stationary but with a root close to the non-stationary boundary, in other words these tests are likely to detect a unit root when it does not exist and vice versa. One way to resolve this is to use a stationarity test as well as unit root tests [12].

We used unit root detection tests such as Augmented Dickey-Fuller (ADF), Phillips-Perron (PP) and the stationarity test Kwiatkowski – Phillips – Schmidt – Shin (KPSS), the most known and used tests in such a case. The ADF and PP test the null hypothesis of a unit root existence and the KPSS tests the null hypothesis of a stationary process.

As we have only two variables to analyze there may be just one possible cointegration relationship to find, therefore we chose to apply the Engle-Granger [13] two-step residual-based test to verify if the series are cointegrated.

The first step of this procedure is to estimate the static regression model (1) with the dependent variable GDP and the regressor CONS by Ordinary Least Squares (OLS) method and to save the residuals  $u$  of the estimated equation.

$$GDP = \alpha + \beta * CONS + u \quad (1),$$

where  $\alpha$  represents the constant (drift),  $\beta$  the parameter of CONS and  $u$  the residual variable assumed to be a white noise error process.

It is well-known that if the series are cointegrated, OLS estimation (static OLS) of the cointegrating  $\beta$  parameter in (1) is superconsistent, converging at a faster rate than is standard [14].

The second step is to test the residuals  $u$  to see if they are stationary or not. If the residual series is stationary  $I(0)$  then the series are said to be cointegrated, the cointegration relationship being given by the previously estimated equation known as the cointegration equation. All procedures were performed by using Eviews 6.0 software. The results are discussed in the next section.



### 3. Results and discussion

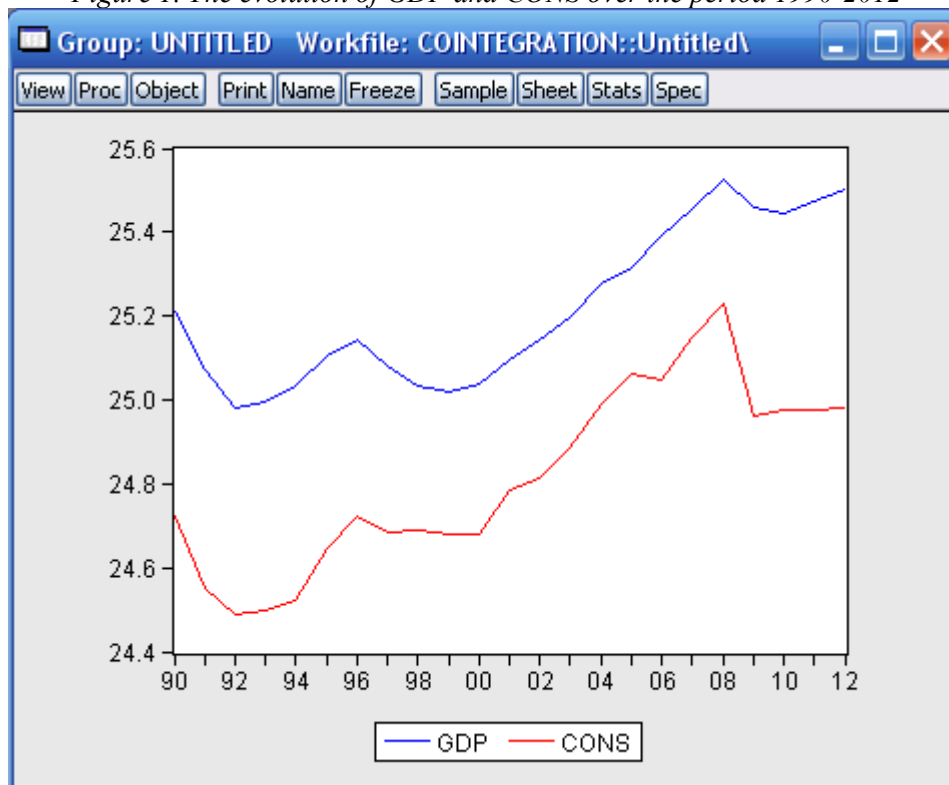
The analysis has been performed on the log-transformations of the variables GDP and CONS as they are said to be superior and that provide more consistent empirical findings [15] than by using the original values. Figure 1. shows the evolution of the log-series of GDP and CONS that have a general upward trend over the main period under consideration 1990-2008 with a drop in 2009 as the consequence of the economic and financial global crisis. Beginning with 2010 GDP started to grow back reaching in 2012 its value before the crisis (2008) while the

household consumption remained constant, close to the 2009 value in the last three years.

This means that even though GDP recovered in real terms after the crisis, the distrust and economic insecurity of the population combined with the reduction of budgetary salaries with 25% in the summer of 2010, as an anti-crisis measure, have led to a contraction of household consumption that continued until 2012.

The Pearson correlation coefficient reveals a statistically significant strong positive connection between GDP and private consumption (CONS) with a value of 0.90.

Figure 1. The evolution of GDP and CONS over the period 1990-2012



Source: author's own calculations based on data from WorldBank online Database

The unit root test results were performed with ADF, PP and KPSS for GDP and CONS, with the default maximum lag length of 4 based on Schwarz Information Criterion (SIC) for ADF test and using Bartlett kernel

spectral estimation method based on Newey-West Bandwidth for PP and KPSS tests. The results are shown in Table 1.

Table 1. Unit root test results for GDP and CONS

Test options	GDP			CONS		
	ADF	PP	KPSS	ADF	PP	KPSS
Without constant or trend	I(1)*	I(1)*	NA	I(1)*	I(1)*	NA
With constant	I(1)*	I(1)*	I(1)*	I(1)*	I(1)*	I(1)*

With constant and trend	I(2)*	I(2)*	I(1)*	I(1)*	I(1)*	I(0)*
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Note: \*significant at 5% level; NA – Not Applicable. I(0) – integrated of order zero (stationary series in level), I(1) – integrated of order 1 (stationary series after first differencing), I(2) – integrated of order 2 (stationary series after the second differencing).

Source: author's own calculations based on data from WorldBank online Database

Following the ADF and PP tests it results that the logarithmic series GDP and CONS are I(1) with most of the model option of the 3 existing (without constant, with constant, with constant and trend). KPSS test identifies the series GDP as I(1) process in both models whereas CONS is found to be I(1) only in the model with constant, whereas in the model with constant and trend CONS series are apparently found to be stationary I(0), which is not the case if we also consider the evolution in Figure 1.. In general the most used option for the unit root tests in this case

is "without constant" or "with constant", the last option being the most restrictive one.

In what follows we assume that both series are I(1) in log-transformation. We test for cointegration using the Engle-Granger [13] two-step method based on residuals. The method was applied on the logarithmic series expecting to find that this model is more stable than by using the original series.

We estimated a static regression model by OLS method with the results shown in Figure 2. regarding the logarithmic series.

Figure 2. Estimated equations results by OLS using the logarithmic series

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.474378	2.009564	2.724162	0.0127
CONS	0.795609	0.080979	9.824912	0.0000

R-squared	0.821321	Mean dependent var	25.21746
Adjusted R-squared	0.812812	S.D. dependent var	0.187739
S.E. of regression	0.081226	Akaike info criterion	-2.100225
Sum squared resid	0.138550	Schwarz criterion	-2.001487
Log likelihood	26.15259	Hannan-Quinn criter.	-2.075393
F-statistic	96.52889	Durbin-Watson stat	0.293314
Prob(F-statistic)	0.000000		

Source: author's own calculations based on data from WorldBank online Database

The estimated model coefficient for CONS is significant at 1% level (Prob. of t-Statistic < 0.01) with an R-squared of 0.82 and with the F-statistic validating the overall performance of the model being significant also at 1% level. The Durbin-Watson (DW) statistic reveals a positive autocorrelation of the residuals (Figure 2.), the test value of 0.29 being below the lower critical value for DW with 2 parameters (including intercept)

and 23 cases  $d_{lower}=1,26$ .

However, we cannot draw any conclusions regarding cointegration based only on this estimated model. We saved the residuals from the estimated equation (RESID) and tested with the usual tests to see if they are stationary or not with results shown in Table 2.

Table 2. Unit root test results for RESID

Test options	RESID		
	ADF	PP	KPSS
Without constant or trend	I(1)*	I(1)*	NA
With constant	I(1)*	I(1)*	I(0)*
With constant and trend	I(1)*	I(1)*	I(1)*

Note: \*significant at 5% level; NA – Not Applicable. I(0) – integrated of order zero (stationary series in level), I(1) – integrated of order 1 (stationary series after first differencing).

Source: author's own calculations based on data from WorldBank online Database

Based on the results obtained after applying the Engle-Granger residual-based test for cointegration, it appears that the series are not cointegrated, the residuals of the estimated model being in most of the test cases non-stationary in level and stationary in first differences I(1). As Engle-Granger suggest to test the residuals for unit root only in the case "without constant and trend", we conclude that GDP and household consumption (CONS) of Romania do not have a long-term equilibrium relationship. Although the results of the estimated model in Figure 2. are not validating the overall performance it is known that in most cases the distribution of the estimated regression parameter, though superconsistent in the case of cointegration, does not have a t-statistic standard distribution and inferences cannot be made from the models. Only if the regressor is strictly exogenous and the errors are homoskedastic, serially uncorrelated, and normally distributed, then the OLS estimator is also normally distributed (conditional on the explanatory variables) and the t-statistic has an exact t-distribution [16].

#### 4. Conclusions

The main purpose of this study was to analyze the possible existence of a long-run relationship between the GDP and household consumption (CONS) of Romania as they have registered consistent growth since 1990, household consumption accounting for over a half of GDP being well-known that the Romanian economy has been based generally on private expenditures.

For the analysis we preferred the Engle-Granger method for cointegration testing as we had only two variables to test and just one possible relation of cointegration. We found that both variables are non-stationary in their level form but stationary in first difference

form. The Engle-Granger residual-based test for cointegration revealed that the residuals of the static model are non-stationary processes meaning that the variables are not moving together in the long-run. This finding is in contrast with the common sense of the macroeconomic theory and especially with the structure of Romanian economy, indicating that on the long-run GDP and private consumption will follow different paths.

The results of the study must be carefully interpreted as it may have the following limits:

- the size of the series is rather small, only 23 observations, the ADF test results specifying that is using 20 observations for computing the critical test values and the test associated probabilities and may not be accurate for a sample size of 19 cases remaining after adjustments in unit root testing for residuals, based on MacKinnon computed values [17];
- the conventional unit root tests such as ADF and PP tests are widely reported to have low power performance when time-series sample size is small [18], [19].
- the drop in values of both variables in 2009 as a consequence of the economic and financial world crisis may represent a change on long-term in the future structure of Romania's economy.

Further analysis is needed in order to obtain more stable and consistent results regarding cointegration between GDP and household consumption by using an increased time series for the variables when the data will be available.

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## Underground Economy - Evolutions and Trends in Romania

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### Abstract

*Romania is one of the countries where the underground economy is more manifested than in developed countries. The extent of the underground economy and informal employment in Romania has taken alarming proportions, which can threaten the macroeconomic and macro social balance.*

*The unstable political climate, the low living standards, the high taxes are just some of the most eloquent reasons that can support the statement above. A high scale of the underground economy has as the main negative effects the decrease of the growth rate for the official economy.*

*Thus, increasing the share of the underground economy in the economic activity in a fast pace requires due consideration of the phenomenon and seeking measures for its mitigation. Our paper shows the importance of the phenomenon by analysing certain aspects related to the current trends of the underground economy in Romania.*

**Keywords:** shadow economy, undeclared work, corruption, underground economy

**J.E.L. Classification:** O17

### 1. Introduction

Pisces Pierre's definition, according to which the shadow economy is "all the economic activity occurred outside the criminal, social or fiscal laws or the ones that escape the national inventory", is considered by specialists as being the most comprehensive definition of the informal economy [11].

In other words, the underground economy is all undeclared economic activities that are not reported to the IRS and evade taxation. This includes undeclared work; production activities or unfair design, undeclared ones; based on the use of large amounts of cash, whose movement is difficult to control, is escapist and very profitable for sellers. According to some authors underground economy is characterized by three major aspects: size, legality and difficulty of measuring. [5]

Therefore, underground economy is not a deviation from the economy regarded as a system, but it is a part of it which contains activities that cannot be quantified.

The origin of writings in the field of "underground" economy dates back to 1971, when the economic literature reported for the first time the term "informal economy" used by Keith Hart in a study on the economy of Ghana, to characterize the dualistic model of urban employment. [12]

The activities within the underground economy also contain the trade in stolen goods; production and distribution of drugs; prostitution; fraud and unregistered gambling.

The growth of the underground economy is caused by a combination of different factors, among which the most analysed ones are: increasing tax burden, tightening regulations in the formal economy, especially in the market, forced reduction of working hours, early retirement, rising unemployment, the decline of civic virtue, the loss of respect and loyalty to public institutions. [2]

## 2. Current trends in the underground economy

To perform an analysis to reveal trends of the underground economy, the argument of globalization should be noted and brought to consciousness. In itself, this process of globalization is not treated like phenomena with negative character, but judging from the whole context and considering the fact that we perform an analysis of the underground economy, should be noted that this worldwide expansion inevitably attracts what it is called the sphere of underground activities.

In the West some part of every component of the underground economy is already included in the national accounts, except fraudulent and criminal activities. According to some authors it seems that USA and Italy have taken into consideration some of these activities. Therefore, the underground activities represent almost 15% of GDP in the Western countries. By deepening, tax fraud and illegal employment total 13% of GDP, the remaining 2% represent criminal activities. Domestic work plays an important role in the underground economy especially in the developing countries. Therefore, this type of economy tends to expand more and more without someone or something being able to stop it. [3]

According to some authors, we are witnessing a dramatic transformation in recent decades the productive activities in the formal area move to a level of informal domestic organization, which according to Gershuny is a significant economic mutation. Maybe also because of this cause, in 1989 domestic production value was estimated in the case of Western countries between 1/3 and 1/2 of GDP.

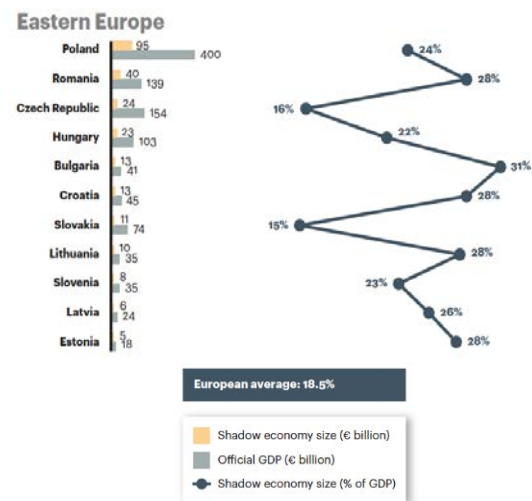
The underground economy is definitely an area characterized by dynamism. Taking this into account, it can be seen both a diversification of the underground activities, as well as a globalization process. Among the latest such underground manifestations we include speculations on the financial markets, the internationalization of drug trafficking networks, the emergence of tax havens etc.

Regarding the developing countries the underground economy can penetrate more easily, there are even dual economies where the state is virtually non-existent, or countries

where the underground economy is so strong that this is the main way of production and distribution. One may say that such countries are the next target in the path of the underground phenomenon that seeks to install as strongly as possible in them.

In Romania, a very important aspect to be analysed is the underground economy. A recent EU survey shows that the underground economy in Romania in 2013 had a share of 28% of GDP, totalling 39.5 billion Euros (Figure 1). Bulgaria stands the worst regarding this aspect of the EU with a level of underground economy of 31% of GDP. The countries with growing economy not subject to taxation are: Lithuania (28%), Estonia (28%) and Latvia (26%). Poland occupies the eighth place with 25% and Greece ranks ninth, with 24.3%. Hungary is ranked 11 (22%) and the Czech Republic 17 (16%). To note is that Austria, Luxembourg, Netherlands and Switzerland register the lowest share of the underground economy at EU level under 10% of GDP. [9]

Figure 1. The shadow economy in relation to GDP in Eastern Europe, 2013



Source: Kearney A.T. and Schneider F., *The Report The Shadow Economy in Europe 2013*, University of Linz, Austria, 2013, pp.4

The existence of underground activities at the level of any field of activity produces negative effects both domestically and internationally.

The negative effects of this factor may have multiple directions, as follows:

- it affects the competitive process by creating a favourable environment for the tacit understandings between bidders and buyers;
- state income decreases by avoiding the payment of taxes that generates budget decrease for each area; [7]
- it leads to price increase as cash transactions are preferred;
- because these activities cannot be quantified, statistical analysis underlying the development plans may not fully indicate the reality; [8]
- it causes rising unemployment; more and more unemployed people are drawn to the underground economy, which can result in exploitation of workers who work illegally.

### 3. Undeclared work

Informal employment is defined as the 'total number of informal jobs, whether carried out in formal sector enterprises, informal sector enterprises, or households' (ILO).

In Romania, informal employment is present in many sectors, especially in construction, services and agriculture. Informal employment in Romania can take the form of false-declaration of income, employment with incomes above the declared and recorded ones. These situations are supported by employees who enjoy getting untaxed income and the employer that thus evades the payment of taxes and contributions for its employees. Surely, there are situations where some people opt for employment outside the formal system, but others have no choice in terms of informal employment. [6]

Currently, in Romania the tax burden on labour for the employer is 45% of the cost of labour, which puts Romania in 7th place in the European Union. Therefore, in order to reduce undeclared work, only measures penalizing those involved and not enough, but we also need to reduce this tax burden. For example, reducing social security contributions for employers would stimulate job creation, would increase the attractiveness of the Romanian business environment and would reduce informal employment.

The employee also has advantages from

informal activity, but these benefits are only short-term. The employee, through the informal employment benefits of higher finances but he is disadvantaged on the long term, because they no longer benefit from wage increases, per diems and allowances, leave, insurance, pensions and benefits.

Sectors where it is practiced informal work are about the same in all EU countries, such as the fields of construction, repair of cars, clothing, tailoring, agriculture, tourism, barber shops, street vendors or at home, housekeeping, childcare, Legal advice, tax or accounting. Despite the apparent heterogeneity, these industries have some common points: they require little infrastructure and can be made more often at home or in small units. [1]

People who accept illegal work are generally people with low education, people who have real difficulties in finding a job or those who prefer activities free of constraints. At the other extreme, but in small numbers, there are super-qualified people who, benefiting from higher education and intellectual capacity are willing for amounts of money, to get involved in organizing and carrying out economic activities such as informal ones.

Thus, people who choose undeclared work in Romania base their decisions on causes related to high taxation, lack of trust that the benefits obtained by employing in the formal economy outweigh benefits from undeclared work, reduced quality of health services and social assistance provided by the public sector, reduced penalty for these activities.

Informality in Romania is above all an expression of the lack of trust in public institutions, the negative perception of the role of the state and the limited understanding of the benefits derived from social security.

Among the measures that may reduce undeclared work there are: reducing the social contributions of employees, the employer tax reduction, the stimulation of SME development. Furthermore, the promotion, development and implementation of training and learning create the conditions for the security of the workplace along their entire lives. The existence of a qualification limits undeclared work, the greatest need is training for the less qualified workers.[1]

#### 4. Corruption

Corruption is a widespread phenomenon worldwide, today mostly in developing countries. This phenomenon produces negative effects on the competitive process, on the allocation public expenditure and economic resources, on economic development, overall.

In order to reduce corruption in Romania it has been developed a project entitled *Measures to accelerate the implementation of the national strategy*, which aims to combat corruption, by including in the action plan the following measures: providing greater transparency throughout the entire project for the fight against corruption, effective involvement of civil society representatives in the evaluation of programs and projects initiated in this area. Citizens have a very important role in order to reduce corruption, participating more actively in actions to fight corruption. Therefore, the first step is the implementation of strategies to raise public awareness of the negative effects this phenomenon has on the whole country, which is reflected in the standard of living.

At the institutional level, there are some guidelines that can help reduce the level of corruption, by reducing the role of the state in certain activities; institutions should become accountable towards citizens and institutional structures should be more flexible and there should also be a higher responsibility to fight corruption.

According to studies carried out with the support of the IMF, the major consequences that corruption has on the economy can be identified, implicitly on how market competition takes place: the decrease in the general level of the efficient use of production factors; the depreciation of the competitive environment; the limitation of economic freedom; the decrease in the level of investment and in the growth rate of GDP; the creation of situations where the diversion of the purpose of government spending occurs; the loss of eligibility for international or community programs; the existence of a close correlation between corruption and crime. [10]

Corruption Perceptions Index is an indicator used by *Transparency International* NGO, to show the citizens' perception of corruption in a country. At the end of 2011

Corruption Perceptions Index ranks Romania 75th out of 183 countries analysed, with a score of 3.6 out of 10. With this score Romania again failed, ranking 25th among the 27 EU countries, followed only by Greece (3.4) and Bulgaria (3.3), countries where citizens' discontent has escalated in recent years into violence and corruption. [13]

In early 2012, according to a Euro barometer survey conducted by the European Commission, 96% of Romanians "totally agree" that corruption is a major problem in their country. The situation is even worse in Greece, where 98% of citizens consider corruption as a major problem in their country. In Portugal and Cyprus, 97% of respondents shared this opinion. There is an improvement in the perception of police corruption at EU level, while in the case of Romania the number of those who believe that corruption in the police has increased (14%). [14]

European Commission Report on the evolution of corruption in Romania, presented in February 2012, shows that the Romanian authorities have a positive response and had significant developments in the project to eliminate corruption, however the European Commission's guidelines for reducing corruption in our country must be pursued further.

#### 5. Conclusions

The existence and functioning mechanisms of the underground economy under the current crisis have become an undeniable reality. In a context similar to the present one, phenomena of this kind proliferate and produce significant effects, in the absence of clear and consistent measures able to stop its boom. Regardless of the methods used, some simple, others more complex, the phenomenon is more one of nature to be approximated. Therefore it is necessary to ensure agreement among experts to identify the most appropriate measures to mitigate these phenomena.

Indeed, some economists show that sometimes underground economy activities can positively influence the proper conduct of the economic environment, by satisfying the demand for some services, by creating certain markets, by supporting consumer



spending for those involved in these activities by providing subsistence income for some people, however, in the long run in terms of increasing the share of the informal sector in relation to the formal economy, it creates imbalances in the economy, such as reducing revenues to the state budget, increasing the number of socially assisted persons when they do not pay health insurance contributions or pensions, exploitation of people working illegally, etc.

The measures which the authorities can take differ from country to country and produce effects over time. The reduction of activities in the informal economy requires changes in attitudes, perceptions and trust of the people. Information campaign on the benefits of legal work and risk of informal work, on the long-term effects of the activities of the underground economy on the living standard may gradually change people's perception. As these things cannot happen overnight, Romania needs to improve policies and regulations in the field as soon as possible.

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# Cost Optimization of a 3-index Maritime Container Transportation Problem using the Modified Han Algorithm

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## Abstract

The Modified Han (MH) algorithm aims at providing a cost optimized solution to real world maritime container transportation problems, which often are unbalanced and inconsistent. By modelling a 3-index container transportation problem as an inconsistent systems of linear inequalities, we apply the MH algorithm and get the transportation cost that is then compared with the one provided by the classical Simplex algorithm. The results show that the MH algorithm may have an effect on cost reduction for inconsistent container transportation problems and it can be a viable solution for solving them.

**Keywords:** container transportation, cost optimization, Han-type algorithms

**J.E.L. Classification:** C61

## 1 Introduction

Reduction of shipping costs as much as possible is an important objective in container transportation, given that these costs have a considerable effect on the final price of the product. A classical transportation problem implies finding the minimum cost of transporting certain quantities of a single type of commodity from a given number of loading ports (sources) to a given number of unloading ports (destinations). At each source  $(S_i)_{i \in \{1, \dots, n\}}$ , supplies  $(s_i)_{i = 1, \dots, n}$  of some goods are available, and at each destination  $(D_j)_{j \in \{1, \dots, m\}}$  some demands  $(d_j)_{j = 1, \dots, m}$  are requested. Table 1 illustrates the classical transportation problem,  $(c_{ij})_{i \in \{1, \dots, n\}, j \in \{1, \dots, m\}}$  being the costs of shipping one unit of com-

modity from source  $S_i$  to destination  $D_j$ .

Table 1: The classical 2-index transportation problem

	$D_1$	$D_2$	$D_3$	...	$D_m$	Supply( $s$ )
$S_1$	$c_{11}$	$c_{12}$	$c_{13}$	...	$c_{1m}$	$s_1$
$S_2$	$c_{21}$	$c_{22}$	$c_{23}$	...	$c_{2m}$	$s_2$
...	...	...	...	...	...	...
$S_n$	$c_{n1}$	$c_{n2}$	$c_{n3}$	...	$c_{nm}$	$s_n$
Demand( $d$ )	$d_1$	$d_2$	$d_3$	...	$d_m$	

The problem of the container transportation is defined as follows: to program the transport of a number of containers by full container ships from several ports of departure to several ports of destination at minimum transport costs and taking into consideration the possibility to storage them into the initial and final ports. The most important particularity of the transportation problem applied to maritime transport is the fact that for the general cargo transportation in our days, the containers capacities are different, so the cost of a unit of transport is different for a particular route. The twenty-foot equivalent unit (TEU) is the standard size of a container; the most common types of containers, their dimensions (length, width, height) and the equivalence in TEU are presented in Figure 1. Due to the containers different size, in a maritime container transportation problem the shipping costs will refer to TEU and not to each container (see e.g. [7]). Also, the number of containers transported to a given destination will be restricted by the destination dimensions, which in this case is a warehouse with specific dimensions. Hereinafter, we will assume that all the warehouses are rectangular buildings, with length (L), width (W) and height(H). Thus, the containers will be stored on superposed rows in each warehouse. Hence, an improvement for the container transportation problem is pos-

sible, among other things, by optimizing the transport plan of containers for some given destinations.

Figure 1: Types of containers

Abbreviation	Length	Width	Height	Volume	TEU
Type(1)	20ft(6.1m)	8ft(2.44m)	8ft6in(2.59m)	1,360 cu ft (38.5m <sup>3</sup> )	1
Type(2)	40ft(12.2m)	8ft(2.44m)	8ft6in(2.59m)	2,720 cu ft (77m <sup>3</sup> )	2
Type(3)	45ft(13.7m)	8ft(2.44m)	8ft6in(2.59m)	3,060 cu ft (86.6m <sup>3</sup> )	2 or 2.25
Type(4)	48ft(14.6m)	8ft(2.44m)	8ft6in(2.59m)	3,264 cu ft (92.4m <sup>3</sup> )	2.4
Type(5)	53ft(16.2m)	8ft(2.44m)	8ft6in(2.59m)	3,604 cu ft (102.1m <sup>3</sup> )	2.65
Type(6) (High cube)	20ft(6.1m)	8ft(2.44m)	9ft6in(2.90 m)	1,520 cu ft (43m <sup>3</sup> )	1
Type(7) (Half height)	20ft(6.1m)	8ft(2.44m)	4ft3in(1.30 m)	680 cu ft (19.3m <sup>3</sup> )	1

http://en.wikipedia.org/wiki/Twenty-foot\_equivalent\_unit

Let us consider a maritime container transportation problem with the sources  $S_i, i = 1, \dots, n$  and the destinations (warehouses)  $D_j, j = 1, \dots, m$  and let us assume that each source  $S_i$  provides  $x_{ijl}$  containers of Type( $l$ ),  $l = 1, \dots, 7$  (see Figure 1) to warehouse  $D_j$ . The mathematical model of a 3-index maritime container transportation problem has the following form:

$$\min \sum_{i=1}^n \sum_{j=1}^m \sum_{l=1}^7 c_{ijl} x_{ijl} = \min \sum_{i=1}^n \sum_{j=1}^m \sum_{l=1}^7 \tilde{c}_{ij} q_l x_{ijl} \quad (1)$$

$$\text{s.t.} \quad \sum_{i=1}^n \sum_{l=1}^7 x_{ijl} \geq d_j, j = 1, \dots, m$$

$$\sum_{j=1}^m \sum_{l=1}^7 x_{ijl} = s_i, i = 1, \dots, n$$

$$x_{ijl} \geq 0$$

$$i = 1, \dots, n, j = 1, \dots, m, l = 1, \dots, 7$$

where

1.  $c_{ijl}$  is the transportation cost of one container of Type( $l$ ) from source  $S_i$  to warehouse  $D_j$ ;
2.  $\tilde{c}_{ij}$  is the transportation cost of one TEU (one unit of commodity) from source  $S_i$  to warehouse  $D_j$ ;
3.  $q = (q_1, q_2, \dots, q_7)$  holds the TEU's equivalent weights of the container types considered (in the last column of Figure 1) and it is used in cost computation:  $c_{ijl} = \tilde{c}_{ij} * q_l$
4.  $s_i, i = 1, \dots, n$  are the sources of containers;
5.  $d_j, j = 1, \dots, m$  are the destinations of containers (warehouses).

The first set of constraints means that the demand at each destination must be "at least" satisfied (e.g. the construction of a building will not be started if we do not have at least a minimal amount of materials), whereas the second denotes that the supply at each source must be completely used.

The problem is called **balanced** if  $\sum_{i=1}^n s_i = \sum_{j=1}^m d_j$ , and **unbalanced** otherwise. In the balanced case or the unbalanced one with  $\sum_{i=1}^n s_i \geq \sum_{j=1}^m d_j$ , the linear program (1) is consistent and it can be solved by well known methods, including Simplex-type algorithms (see [5, 8]). We will consider in this paper the unbalanced case

$$\sum_{i=1}^n s_i < \sum_{j=1}^m d_j \quad (2)$$

for which the linear program (1) becomes inconsistent (i.e. the set of feasible solutions is empty).

Considering the containers different sizes, to the supply/demand restrictions from (1), we must add the restrictions (inequalities) imposed by the dimensions of each warehouse according to the specific lengths of the containers:

$$\sum_{i=1}^n \sum_{l=1}^7 v_l x_{ijl} \leq T(j), j = 1, \dots, m \quad (3)$$

where  $v = (6.1, 12.2, 13.7, 14.6, 16.2, 6.1, 6.1)$  is a vector containing the lengths in meters from the second column of Figure 1 and

$$T(j) = L(j) * C(j) * R(j), j = 1, \dots, m \quad (4)$$

where  $L(j)$  is the length of the warehouse  $D_j$ ,  $R(j)$  and  $C(j)$  are the number of rows and columns of containers, respectively, stored in a warehouse (for more details see [2]). Shortly put,  $T(j)$  represents the maximum length of a series of containers that can be stored in  $D_j$ , expressed in TEU, assuming that they were placed in a straight line.

## 2 Modified Han algorithm for inconsistent linear inequalities

Let's consider

$$Ax^* \leq b, \quad (5)$$

in which the inequalities are component-wise. If the system (5) is inconsistent, which means that at least one inequality is violated, one way to solve it in a least square sense is by Han-type algorithms (see for details [4, 1, 3]). Here we give a brief description of the Modified Han (MH) algorithm, proposed by us in [1]:

Let  $\langle \cdot, \cdot \rangle$ ,  $\| \cdot \|$  denote the Euclidean scalar product and norm, respectively, and consider **ALG** an iterative algorithm which approximates the minimal norm solution of a linear least squares problem of the form

$$\| Bx - c \| = \min! \quad (6)$$

where  $B$  is an arbitrary rectangular matrix and  $c$  an appropriate vector.

**Algorithm MH.** Let  $x^0 \in \mathbb{R}^n$  be arbitrary fixed; for  $k = 0, 1, \dots$  do:

**Step 1.** Find  $I_k = I(x^k)$  and compute an approximation  $d^{k,j} \in \mathbb{R}^n$  of the minimal norm solution of the linear equalities least squares problem

$$\| A_{I_k} d - (b_{I_k} - A_{I_k} x^k) \| = \min! \quad (7)$$

by performing  $j \geq 1$  iterations of the algorithm **ALG**, with 0 as initial approximation on (7).

**Step 2.** Compute  $\lambda^{k,j} \in \mathbb{R}$  as the smallest minimizer of

$$\theta(\lambda) = f(x^k + \lambda d^{k,j}), \lambda \in \mathbb{R}.$$

**Step 3.** Set  $x^{k+1} = x^k + \lambda^{k,j} d^{k,j}$ .

As **ALG** in Step 1 of the algorithm MH we

used the Kaczmarz Extended (KE) algorithm from [6].

In our computations implemented in Matlab R2010a, all runs with respect to **MH** algorithm are started with the initial approximations  $x_0 = (y_0^T, 0)^T$  with  $y_0 \geq 0$  and are terminated if at the current iterations  $x^k$  satisfy

$$\| A^T (Ax^k - b)_+ \| \leq 10^{-14} \quad (8)$$

where, for  $z \in \mathbb{R}^n$ ,  $z_+ \in \mathbb{R}^n$  denotes the vector with components  $(z_+)_i = z_i$ , if  $z_i \geq 0$  and  $(z_+)_i = 0$ , if  $z_i < 0$ .

Also, in [2] we proved a result that gives us the possibility to express in an equivalent way the primal-dual pair of linear programs

$$\min \langle c, y \rangle \text{ s.t. } By \geq d, y \geq 0, \quad (9)$$

$$\max \langle d, u \rangle \text{ s.t. } B^T u \leq c, u \geq 0, \quad (10)$$

$B: m \times n, c, y \in \mathbb{R}^n, d, u \in \mathbb{R}^m$ , as the linear system of inequalities (5) where

$$A = \begin{bmatrix} c^T & -d^T \\ -B & 0 \\ 0 & B^T \\ -I & 0 \\ 0 & -I \end{bmatrix}, \quad b = \begin{bmatrix} 0 \\ -d \\ c \\ 0 \\ 0 \end{bmatrix} \quad (11)$$

So, instead of solving the linear programs (9) and (10), one could solve the system (5) by applying the MH algorithm.

## 3 Numerical experiments

In this section we present some numerical experiments on a model problem: an unbalanced and inconsistent maritime container transportation problem. The experiment is performed with the Modified Han algorithm and the Matlab R2010a *linprog* implementation of Simplex solver.

Let us suppose that there exist 7 sources of containers  $S_1, \dots, S_7$  and 7 warehouses  $D_1, \dots, D_7$ , whose dimensions are those from Figure 3 below. We consider the unbalanced and inconsistent transport problem described in Figure 2.

Figure 2: The unbalanced and inconsistent transportation problem

	$D_1$	$D_2$	$D_3$	$D_4$	$D_5$	$D_6$	$D_7$	Supply(s)
$S_1$	3	3	4	12	20	5	9	1050
$S_2$	7	1	5	3	6	8	4	350
$S_3$	5	4	7	6	5	12	3	470
$S_4$	4	5	14	10	9	8	7	600
$S_5$	8	2	12	9	8	4	2	600
$S_6$	6	1	8	7	2	3	1	480
$S_7$	9	10	6	8	7	6	5	450
Demand(d)	455	320	540	460	760	830	780	

Figure 3: The dimensions of the warehouses

Characteristic / Warehouses	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	D <sub>6</sub>	D <sub>7</sub>
Length [L] (m)	125	78	87	95	72	65	85
R	13	8	11	15	20	21	24
C	5	5	4	6	6	5	6

According to the result presented in previous section, in order to apply the MH algorithm over our inconsistent container transportation problem, we have to shape the system of inequalities (5) with  $A$  and  $b$  as in (11). First, we renumber the unknowns as

$$x_{ijl} \rightarrow y_k, i \in \{1, \dots, 7\}, j \in \{1, \dots, 7\} \quad (12)$$

$$l \in \{1, \dots, 7\}, k \in \{1, \dots, 343\}$$

Let  $T, d, s$  be defined as (see (4) and Figure 1)

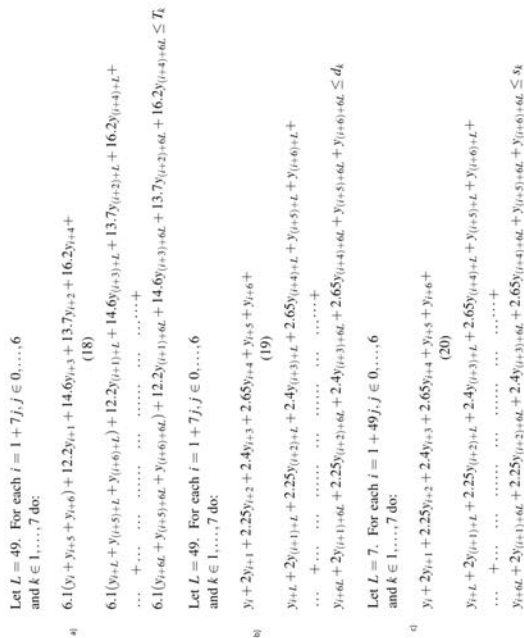
$$T = (8125, 3120, 3828, 8550, 8640, 6825, 12240)^T$$

$$d = (455, 320, 540, 460, 760, 830, 780)^T$$

$$s = (1050, 350, 470, 600, 600, 480, 450)^T.$$

Under these considerations, the constraints from (1) are presented in general form in Figure 4: a) the storage inequalities, b) the demand inequalities and c) the supply inequalities.

Figure 4: The general form of the constraints of the model problem



The cost vector  $c \in \mathbb{R}^{343}$  is computed using the cost vector  $\tilde{c} \in \mathbb{R}^{49}$  in Figure 2, following a relation of type

$$c_k = \tilde{c}_{ij} * q_l$$

$$i = 1, \dots, 7, j = 1, \dots, 7 \quad (13)$$

$$l = 1, \dots, 7, k = 1, \dots, 343$$

Let us denote by  $B_0, B_1, B_2$  the  $7 \times 343$  the matrices corresponding to the inequalities (3), the first 7 inequalities in (1), respectively the last 7 equalities in (1). Then, the above problem can be written as follows

$$\min \langle c, y \rangle \quad (14)$$

$$\text{s.t. } B_0 y \leq T$$

$$B_1 y \geq d$$

$$B_2 y = s, \quad y \geq 0$$

If we define the matrix  $B : 28 \times 343$  by

$$B = [-B_0^T B_1^T B_2^T - B_2^T]^T \quad (15)$$

and the vector  $d \in \mathbb{R}^{28}$  by

$$d = [-T^T d^T s^T - s^T] \quad (16)$$

the problem can be written as

$$\min \langle c, y \rangle \quad \text{s.t. } B y \geq d, \quad y \geq 0, \quad (17)$$

with the corresponding dual problem given by (see e.g. [8])

$$\max \langle d, u \rangle \quad \text{s.t. } B^T u \leq c, \quad u \geq 0, \quad (18)$$

According to the discussion from the section 2, solving the pair of dual problems (17)-(18) is equivalent with solving the systems of inequalities  $Ax \leq b$  where  $x = [y^T, u^T]^T \in \mathbb{R}^{371}$  and  $A, b$  are constructed as in (11) using (13), (15) and (16).

Table 2 shows the results of **MH** and Simplex algorithms for the 3-index inconsistent container transportation problem.

Table 2: Results for the model problem

Algorithm	cost	$\ (\hat{A}x - \hat{b})_+\ $
<b>MH</b>	15336	38.7529
Simplex	31235*	146.0675

In Table 2, \* denotes that the Simplex algorithm failed to solve the problem, returning instead a result that minimizes the worst case constraint violation (see [8]).

Figure 5: The Simplex (linprog) solution for the model problem

	D1	D2	D3	D4	D5	D6	D7
S1	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[0.000156,600.0]	[0.000239,620.0]
S2	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[0.000132,070.0]	[0.000000]
S3	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[0.000152,830.0]	[0.00024,520.0]	[0.000000]
S4	[0.000000]	[0.000000]	[0.000000]	[0.00092,450.0]	[0.000133,960.0]	[0.000000]	[0.000000]
S5	[0.000000]	[0.000000]	[0.000145,280.0]	[0.00081,130.0]	[0.000000]	[0.000000]	[0.000000]
S6	[0.0001,880.0]	[0.000120,750.0]	[0.00058,490.0]	[0.000000]	[0.000000]	[0.000000]	[0.000000]
S7	[0.000169,810.0]	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[0.000000]

Figure 6: The MH solution for the model problem

	D1	D2	D3	D4	D5	D6	D7
S1	[0.000000]	[5.80 11.70,13.04 13.74 15.28 6.17 5.68]	[21.21 43.18 47.62 50.65 56.45 21.97 21.76]	[0.000000]	[0.000000]	[15.72 31.27 34.77 37.11 41.28 15.61 16.16]	[0.000000]
S2	[0.000000]	[0.000000]	[0.000000]	[15.03 29.14,32.94 34.63 37.98 14.31 14.82]	[0.000000]	[0.000000]	[0.000000]
S3	[0.000000]	[0.000000]	[0.000000]	[3.88 6.97,8.01 8.79 9.23 4.15 3.65]	[10.04 18.52,21.29 22.09 24.47 9.21 9.70]	[0.000000]	[7.15 12.63 14.69 15.14 16.58 6.82 6.66]
S4	[18.05 35.86 40.37 42.59 47.30 18.01 18.44]	[7.23 13.05 15.01 15.94 17.50 7.27 6.66]	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[0.000000]
S5	[0.000000]	[0.000000]	[0.000145,280.0]	[0.00081,130.0]	[0.000000]	[0.000000]	[25.22 49.27 54.92 58.62 64.91 25.09 25.16]
S6	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[19.89 39.69,44.220 47.40 52.14 19.98 19.64]	[0.000000]	[0.000000]
S7	[0.000000]	[0.000000]	[0.000000]	[0.000000]	[1.09 2.34 2.64 2.55 2.56 1.83 0.97]	[17.33 34.63 8.93 41.97 46.23 17.28 18.16]	[0.000000]

Figures 5, 6 and 7 show the results obtained by the Simplex and MH algorithms and the general form of solution of the model problem, respectively.

Figure 7: The general form of solution for the model problem

	$D_1$	$D_2$	$D_3$	$D_4$	$D_5$	$D_6$	$D_7$
$S_1$	$[x_{11}, x_{12}, \dots, x_{17}]$	$[x_{121}, x_{122}, \dots, x_{127}]$	$\dots$	$\dots$	$\dots$	$\dots$	$[x_{171}, x_{172}, \dots, x_{177}]$
$S_2$	$[x_{21}, x_{22}, \dots, x_{27}]$	$[x_{221}, x_{222}, \dots, x_{227}]$	$\dots$	$\dots$	$\dots$	$\dots$	$[x_{271}, x_{272}, \dots, x_{277}]$
$\dots$	$\dots$	$\dots$	$\dots$	$\dots$	$\dots$	$\dots$	$\dots$
$S_2$	$[x_{71}, x_{72}, \dots, x_{77}]$	$[x_{721}, x_{722}, \dots, x_{727}]$	$\dots$	$\dots$	$\dots$	$\dots$	$[x_{771}, x_{772}, \dots, x_{777}]$
$S_1$	$[y_{12}, \dots, y_{14}]$	$[y_{83}, y_{84}, \dots, y_{86}]$	$\dots$	$\dots$	$\dots$	$\dots$	$[y_{43}, y_{44}, \dots, y_{49}]$
$S_2$	$[y_{50}, y_{51}, \dots, y_{56}]$	$[y_{57}, y_{58}, \dots, y_{63}]$	$\dots$	$\dots$	$\dots$	$\dots$	$[y_{92}, y_{93}, \dots, y_{98}]$
$\dots$	$\dots$	$\dots$	$\dots$	$\dots$	$\dots$	$\dots$	$\dots$
$S_2$	$[y_{95}, y_{96}, \dots, y_{99}]$	$[y_{302}, y_{303}, \dots, y_{308}]$	$\dots$	$\dots$	$\dots$	$\dots$	$[y_{337}, y_{338}, \dots, y_{343}]$

#### 4 Conclusions

In this paper we considered an unbalanced and inconsistent maritime container transportation problem and proposed a mathematical model for it (Section 2), then we solve it by the Modified Han iterative algorithm from [1] and compare the result with those provided by the Matlab *linprog* routine. We observe that the **MH** algorithm gave a better (smaller) total cost and a more reliable solution than the Matlab implementation of Simplex algorithm.

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# The Functions of the Exception for the Non-performance of the Civil Contract

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## Abstract

*From a legal perspective, a contract has the binding force of law between the parties, so that problems arise when the obligor fails to fulfill its obligations, breaking the principle "pacta sunt servanda" and creating an imbalance between the contracting parties, in relation to the other contractor which has fulfilled its obligations or which is ready to fulfill them. Therefore, the exception for the non-performance of the contract is a legal institution that enjoys a broad practical applicability because, along with the termination of the contract, it has true remedies of non-performance, i.e. rights of the creditor for any non-performance of the obligor's obligations.*

*By analyzing the legal bases of the exception for the non-performance, I am going to reveal its functions, which determine the effectiveness of the legal mechanism, which I will present throughout this article.*

**Keywords:** contract, exception for non-performance, civil obligations, good faith, warranty.

**J.E.L. Classification:** K

## 1. Introduction

The legal basis of the exception for the non-performance of the contract consists mainly in the legal connection between the parties' mutual obligations, arising directly or indirectly from their contractual will, based on the underlying principles of good faith and fairness. Thus, it can be inferred that the functions of the exception for the non-performance of a contract are: a means for defending the party claiming it, a way to

constrain the other party and a warranty for the fulfilment of correlative obligations[1].

### 2.1. The exception for non-performance as a preventive means of defense:

By invoking this exception, there is protected the contracting party which fulfilled its contractual obligations in good faith or which is ready to fulfil them. Having the right to refuse to carry out its performance, the obligor, which, at the same time, is also the creditor, can avoid the possible concurrence of the other creditors of the contractor. For example, if the seller were obliged to hand over the sold item although he/she was not paid the price, in order to execute his/her right to claim, he/she should bear the concurrence of the other creditors of the buyer.

This means of defense may be used both as a defense in a civil lawsuit or in an extrajudicial one, directly between the contracting parties, as I am going to show, in detail, in the section on the procedural rules governing the exercise of the exception for non-performance.

Thus, in civil cases, by the exception for non-performance, there is aimed at the dismissal of the court proceeding, filed by the counterparty[2]. The party claiming the exception does not dispute its partner's claim but, on the contrary, this defense is an acknowledgment of that claim and, also, an implicit acknowledgment of the obligor's decision to perform its own obligations when the contractor fulfills its own obligations.

On the other hand, from an extra-judicial perspective, starting from the reciprocity and interdependence of obligations in synallagmatic contracts (which transform each mutual obligation into the legal cause of the other), it was determined that a specific effect of these contracts is the exception for



the non-performance of the contract, as a defense available to the party which is asked to fulfil its obligation, when the other party claiming this performance did not fulfil of its own obligations. This involves the simultaneous fulfilment of these obligations, and therefore, the possibility of claiming the exception for non-performance, if simultaneity is not observed.

In the case law[3], it has been established that, "in synallagmatic contracts, a party cannot claim anything without fulfilling its own obligation, otherwise its claim would be rejected by the exception *non adimpleti contractus*. This exception involves simultaneous mutual obligations, the good faith of the party claiming it and the proportionality with the seriousness of non-performance". Therefore, the exception for non-performance is a specific penalty which applies when the party claiming the fulfilment of an obligation does not intend to fulfill its own contractual duties.

## **2.2. The exception for non-performance as a means to constrain the other contracting party:**

This legal institution has a very effective nature, being an important means of constraining the contracting party of bad faith. To the extent that the latter needs the other's correlative performance, in order to obtain it, he/she will be forced to immediately proceed to the performance of the service or services to which he/she is indebted; thus, the exception is not only a means of defense available to any party in a synallagmatic relation, but also a private means of constraint for the fulfilment of the obligations by the other party to this legal relationship.

This function of the exception for non-performance results from its suspensive effect. Thus, the exception for non-performance discontinues the fulfilment of the obligation by the party claiming it until the other party performs its own obligation. The claiming party is assimilated to the party that benefits from a term, and the contract remains temporarily (provisory) non-performed[4]. Therefore, the effect of the exception for non-performance consists in the suspension of the binding force of the contract and not in the termination of the

contract or in the extinguishment of the obligations of the parties, as in the case of resolution or termination.

Resulting in the suspension of the binding force of the contract, the party entitled to refuse the performance of its obligations cannot be required to pay moratory damages because it delayed the performances it owes to the other party.

The exception for non-performance may be opposed to both the other party and to all the persons whose claims are based on that contract. Thus, it can be claimed against a creditor of the other contracting party, which seeks an enforcement order by an oblique action. The French legal doctrine stated that this exception may be also claimed against the unsecured creditors that would seek, under their general lien, a good owned by the party claiming the exception and refusing to surrender it, due to the legal connection between the obligation to remit the good and the mutual obligation of its obligor[5].

*Per a contrario*, it cannot be opposed to those parties which claim a personal and absolutely distinct right, born of that contract, through a direct action[6], such as: the action of the workers employed by a contractor against its principal agent, in order to obtain the payment of the amounts to which they are entitled to for the work performed under the provisions art. 1856 of the new Civil Code; the principal's direct action against the substitute trustee regulated by art. 2023 of the new Civil Code; the direct action of the victim who suffered a damage against the civil liability insurer under Law no. 136/1995 on insurance and reinsurance in Romania[7]; the direct action of the user from the lease contract against the provider of the good that was leased by the funder, under GO no. 51/1997 republished[8]; the direct action of the preferential creditors, mortgagees and pledgees of the indemnity, granted in case of the perdition or destruction of the good over which he/she bears the right (privilege, mortgage or lien), according to art. 2330 of the New Civil Code; the temporary employee's direct action against the user of temporary employment, for the payment of salary, of the due and payable contributions and taxes, according to articles 87 -100 of the Labor Code[9].

Another effect of the exception for non-performance is to compel the contractor to

immediately fulfil its obligations. The party against which the exception is claimed, being deprived of the performance by the party that claims it, shall be compelled to perform its own obligations, in order to benefit from the effects of the contract, which it had in view upon its conclusion[10]. In this respect, the case law established that the exception for the non-performance of the lease contract, claimed on the assumption that the owner rendered tardily the leased space to the tenant, does not meet the conditions of admissibility if it does not result, from the evidence analyzed within the case, that the claim of the exception took place directly, between the parties, by formulating the objections on this issue, especially since, within the contract, there has not been set a delivery deadline[11].

**2.3. The warranty function of the exception for non-performance** is similar to the one fulfilled by the lien because the party which claims it avoids the concurrence of the other creditors or the risk of a possible insolvency of the obligor.

Therefore, the exception is not only a defensive means available to one of the parties to a synallagmatic relationship, but also a private means of constraint, for the performance of the obligations belonging to the other party to this legal relationship. Thus, it is an indirect way to achieve the actual execution of the contract.

As I have previously mentioned, *exceptio non adimpleti contractus* is based on the idea of a legal interconnection in a synallagmatic relationship[12]. The assumption that one of the parties would be required to perform its obligations before the other entails to a modification of the contract. However, the temporary suspension of the execution, as the effect of the exception for the non-performance, is the means to obtain the performance of the contract under the terms established upon its conclusion[13]. In this regard, it has been noted that the principle of the binding force of the contract is placed under the sign of good faith and fairness. Therefore, claiming the receipt of the performance, without fulfilling your own obligations, is contrary to these fundamental principles. The fact that the exception for the performance was not expressly regulated by the Romanian Civil Code of 1865 has not

been an obstacle to the application of the mechanism of this institution, because the exception for non-performance is an indirect means by which the party to whom the obligation is not fulfilled, constraints the other party to fulfill this obligation.

Moreover, it would be impossible to justify the non-recognition of this institution of civil law, as long as the party to whom the contract has not been executed can require its rescission. *A fortiori*, it can turn to a simple suspension of its obligations, because the fundamentals of the rescission are also found in this case[14].

However, there is also a drawback, i.e. the possibility to misuse the exception for the non-performance of the contract, when the party invoking it tries to avoid the performance of its own obligations or when it opposes, in bad faith, this exception to its contractual partner for the minimum non-performance of its incumbent obligations. In these situations, when a party claim this exception, it is necessary to exercise a judicial control, which leads to the punishment of the party which abusively exercises this right.

By definition, the exception for non-performance implies that the party claiming it is actually the obligor of an exigible obligation and that it has no other reason to refuse the performance of its own obligations than the other party's refusal to perform its correlative obligation. Therefore, the exception for non-performance involves the good faith of the party claiming it, and, subsidiarily, a certain degree of seriousness due to non-performance, and also the need for a balance between the non-performances of contractual obligations.

In legal literature, the abuse of rights means the exercise of a subjective civil right by breaking the principles of its exercise[15].

Under these rules, any civil subjective right should be exercised under the following conditions:

- compliance with the law and morality, under article 14, paragraph 1 of the New Civil Code (according to this text of the law, any natural or legal person must exercise its rights and perform its civil duties in good faith, in accordance with the public order and good morals);

- good faith, so as not to violate the legitimate rights or interests of others, under article 14, paragraph 1 of the New Civil Code and article 57 of the Constitution;

- within its external limits of material and legal substance;

- within its internal limits, i.e. only in accordance with the economic and social purpose for which it has been recognized by law, and not in order to injure or harm another or in an excessive and unreasonable way, contrary to good faith, under article 15 of the new Civil Code.

The judicial practice also retains the possibility that the subjective rights be exercised abusively and makes applications of the abuse of rights to specific cases. Thus, the decision of the Supreme Court no. 743/1989, of the civil section, states that "when the civil rights are diverted from the purpose that justifies their existence, or when they are exercised in bad faith, their exercise becomes abusive and, in this case, they can no longer enjoy the protection of law"[17].

The French legal literature has shown that a contractor who benefits from a partial performance cannot abuse of the exception for the non-performance of the contract in order to free itself from the execution of its own obligation. In this respect, it was held that, in cases of partial non-performance, the contractor-creditor shall be able to suspend the execution of its own performance only in proportion with the part of the obligation that was not performed by the other contracting party[18].

The abuse of rights must be circumscribed to the situations where the subjective right is diverted from its purpose (its economic and social purpose) or is exercised in bad faith and should be sanctioned by refusing to grant protection to the right exercised in this way. For these reasons, the party claiming the exception for non-performance, in order to avoid the fulfilment of its own obligations, or the party opposing, in bad faith, this exception to the contracting party for a minimum non-performance, shall be brought to trial. In such circumstances, the defense must be rejected as unfounded as it is exercised in an excessive manner, characterized by the lack of good faith, which causes an injury or an inconvenience to the contracting party, regarding the exercise of its own rights.

### 3. Conclusions

The legal functions of the exception for the non-performance of the contract provides the legal effectiveness of this mechanism, which has a wide practical application, enabling the contracting-party which fulfilled its obligations, in good faith, to restore the contractual balance that has been affected by the non-performance of the obligor's obligations.

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## Quality of Services between Expectations and Performance

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### Abstract

*In this paper we highlighted the importance and the role of service quality in increasing the quality of welfare. In the twentieth century quality has become a fundamental and necessary value for progress, indispensable for "mastering" the future, in which the customer is important, he has absolute priority being a central character, and the company management must consider improving the production process, finding solutions, and involving staff. Therefore, quality leads to lasting customer satisfaction, meets the needs and expectations and helps to improve efficiency and effectiveness. Quality in services contributes to attracting new customers, the loss of fewer clients by providing quality services that require the presence of skills, wisdom, determination, and energy among the basic characteristics of the service provider. The importance of quality is reflected in its ability to meet people's needs and to increase the standard of living.*

**Keywords:** quality of service, quantifiable, consumer, customer, loyalty, customer retention.

**JEL Classification:** A19, D04, E21, I00, J01, J08, K20, O10

### 1. Introduction

In the last decades, the service sector has experienced a considerable expansion in many countries, especially in the developed ones. There are countries in which services contribute more than 50 % to GDP creation. Also, the service sector includes a complex and diverse range of businesses and organizations such as: local and central

government, private non-profit organizations and private for-profit organizations. Interest for quality in the field of services began to evolve into a true global trend with the realization that a quality product itself can not "conserve" the competitive advantage of a company. Many researchers like the idea that quality services can provide for a company a sustainable competitive advantage and at the same time, can tip the balance between success and failure in both the firms producing goods, as well as those providing services [1].

Since the '80s, concerns for improving the quality of products and services have become key elements of business strategies. The efforts to define and assess the quality came mainly from the property sector.

Parasuraman describes quality as an "elusive and difficult to distinguish construction" [2] which makes informational luggage related to products to be insufficient to understand quality in services. He said that, for a comprehensive understanding of service quality issues it must be taken into account three characteristics, namely intangibility, heterogeneity and inseparability. Thus [3]:

◆ Most services are intangible; because they are more "performances"/acts and not objects, precise quality specifications applicable in industry rarely can be used in services. In almost all cases, the quality can not be assessed by testing, measuring, checking, etc. prior to the sale. Due to the intangible nature, firms face difficulties in terms of understanding customer perceptions regarding the services and quality assessment.

◆ Services, especially those incorporating intensive labor, are heterogeneous in the sense that performance can vary from one provider

to another, from one consumer to another and even from one day to another. Consequently, it is difficult to ensure uniform quality because what companies intend to offer can be completely different from what consumers receive.

◆ The production and consumption of many services are inseparable and, consequently, the quality can not be predetermined / predefined. For example, in terms of intensive-labor services, quality occurs during the act of performance, the interaction between customer and the provider staff. Also, in areas where services require greater involvement of consumers / beneficiaries (e.g. hairdressing, medical examinations, etc.) the possibility of management control at the firm level decreases. In these situations, consumer input has a critical role in terms of achieving a certain level of quality.

Providing companies are forced to provide quality service as a necessary condition to ensure prosperity in a competitive environment, national or international. Despite the extension of services in many economies of the world, the concepts and practices of service quality are not as well developed as in the industrial sector. The literature reveals that the companies providing services are less advanced in the implementation of TQM practices in order to achieve their goals. The beliefs and ideas of the so-called "quality gurus", as outlined above, are circumscribed and applied mainly in manufacturing; in recent years the attempts to adapt and apply them in the service sector have expanded. The theoretical foundation and TQ practices allow their use both in industry and in the services, which reveals that the idea of "quality" acquires universal meanings.

Given the fact that today are increasingly well understood the differences between manufacturing a product and providing a service, the concept TQS (Total Quality Service) captures increasingly more attention. Essentially, TQS derives from TQM applied to firms providing services, limitations arising from features that customizes services. Quality rating outputs becomes more difficult than in the case of goods because services have a more abstract and less concrete nature, rather transient than

permanent and mostly psychological than physical [4]. Consequently, TQS is not synonymous with TQM; TQM can not directly measure customer satisfaction, but can lead to the creation of an organizational culture important for achieving the desired level of quality. TQS requires also a continuous improvement process that establishes a relationship between organizational culture, leadership and employee involvement; This relationship is illustrated in the figure below.

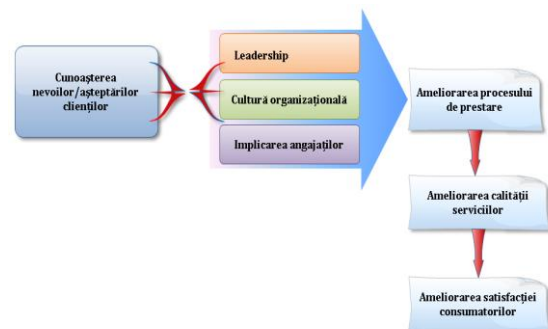


Figure no.1. TQS model

Source: After Atul Gupta a.o, *Quality management in service firms: sustaining structures of total quality service*, *Managing Service Quality*, Vol. 15 No. 4, 2005, pp. 389-402, Emerald Group Publishing Limited

1. Knowing the needs/expectations of customers
2. Leadership
3. Organizational culture
4. Employee involvement
5. Improving the delivery process
6. Improving quality service
7. Improving customer satisfaction

It is obvious that the TQS model focuses on customer needs and expectations, the final result being improving consumer satisfaction determined by raising the quality of services. The ultimate goal of TQS philosophy can be considered *to create and maintain a sustainable competitive advantage* of firms providing services.

Reviewing the literature developed around the concept of service quality, Parasuraman concludes that [5]:

✓ For consumers is more difficult to evaluate the quality of services than the quality of goods;

✓ Perceptions on service quality derive from a comparison of consumer expectations with actual performance of services;

✓ Assessments regarding the quality of services are not made exclusively on the basis of the result, but considering the whole act of performance.

## **2. Quality – determinant factor of profitability**

More and more authors analyzed and confirmed/argued in their work the importance of certain basic principles in achieving quality, namely: customer orientation, customer satisfaction, customer positioning first, continuous improvement, involving all staff, promoting the principle of "zero defects", emphasis on prevention, competitiveness, internalization of customer-supplier relationship, strong involvement of top management etc.

If, when purchasing a good, the consumer has some tangible evidence to assess quality, in case of services such evidence is usually limited to equipment and facilities provided by the provider and staff who deal directly with consumers. A comprehensive description of the concept of quality in services is therefore a difficult endeavor (it is understood that this approach inevitably encounters the subjectivity inherent in any person namely emotions, thoughts, expectations, desires, social trends, technological "ruptures", the cultural matrix to which each person belongs, education, training, religion, etc.; any aspect of the type alleged is almost impossible to be precisely quantified and considered by providers when improving or launching new services), compared with production of material goods. For material goods there is the possibility to eliminate scraps due to the possibility of assessing the quality level using rigorous parameters which are measurable, quantifiable as well as due to the possibility to set and use quality classes, while for services such possibilities do not exist.

Most researchers and managers of companies providing services agree, however, that the evaluation of service quality is derived from the comparison

between expectations and performance, and customer satisfaction is given by the confirmation or invalidation of expectations which they have emerged.

Another point of view which is increasingly agreed is that an evaluation of service quality can not consider only the result, that the service itself as well as the process of service. In this sense, Parasuraman evokes authors who discuss two types of service quality, namely the technique one (what actually receives the consumer) and the functional one (the manner in which the service is provided) [6]. Other analyzes/studies assume that the service sector, *quality is evidenced in the interaction between the consumer and the manner of organization of the act of performance*. From this perspective, quality includes three facets, namely physical, interactive and corporatist. *Physical dimension* refers to specific aspects necessary for the performance act such as: buildings, equipment, software, etc.; *Corporatist dimension* derives from the image/profile of the company; *Interactive dimension* is given by the interaction between consumers and staff of the company, but also between consumers [7].

We observe therefore that all efforts to clarify the issue of quality in the services sector have as coordinates/poles of comparison *consumer expectations and what they actually receive*. Therefore, the quality of service can be assessed by "its ability to meet the needs of consumers or beneficiaries" [8] through the gap between customer expectations and perception of quality after using the service (as the picture below illustrates) etc.

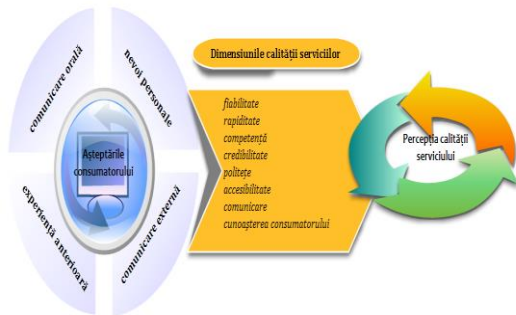


Fig. no. 2. The process of evaluating service quality by the consumer

Source: After Toqner G., Langlois M., *Marketing des services. Le défi relationnel*, Gaëtan Morin Editeur, Dunod, Paris, 1992

1. Oral communication
2. Personal needs
3. External communication
4. Previous experience
5. Consumer expectations
6. The dimensions of service quality:  
reliability, speed, competence, credibility,  
courtesy, accesibility, communication,  
knowing the consumer
7. The perception of quality of service

Therefore, we can talk about a relationship between the benefits obtained and the benefits hoped for, as well as about *quality* when the service is as expected or exceeds those expectations (If the quality offered is according to the consumers' expectations he will be happy and will become a regular customer of the provider unit. Otherwise, he seeks other providing units and will be won by competition.).

Extrapolating, we deduce that the quality lies in its ability to meet the population expectations and the lack of quality leads to a state of anxiety, loss of time, higher costs and frustration. All these shortcomings were highlighted by Genichi Taguchi through a "reverse" interpretation of quality, i.e. through the losses induced on society (between the conclusions we arrived through the conducted research, we remember that such "losses" translate into the real economy through bankruptcies, layoffs, reduction in income, unemployment, unnecessary use of resources, economic domination of countries from other countries, economic "wars" won or lost in global competition by different

"actors", difficult negotiation rounds under the GATT/WTO, radicalization of positions between the EU and other centers of global power, the elimination of Romanian companies in some EU market, adverse social reactions between consumers and companies, etc.); justification is that quality products generate the lowest losses for society [9].

Therefore, for any organization, quality must become a priority and improving it a goal to achieve, because it makes the difference between companies (in terms of market position and profitability, and for some areas differentiates success from failure) in the competitive conditions of the market economy and globalization of trade. It follows therefore that in order to achieve the desired level of quality it is required a greater focus on measures such as recruitment, staff training, staff motivation, staff awareness towards its contribution to improve the quality of services, etc.. In this context, the staff of a company is the main resource on which the quality management in services is based services and motivation becomes therefore vital.

### 3. Quality in services - versus consumer loyalty

Relating to customer expectations towards service quality we emphasize that its improvement translates usually in increasing consumer loyalty towards the service, respectively, increasing market share, reducing complaints, higher productivity and profitability. Therefore quality generates sustainable customer satisfaction, responds to the needs and expectations of the customer and allows increased efficiency and effectiveness.

Evaluation/assessment of quality is achieved by a complex of "evidence" that can not exist by itself, but only in relation to the needs expressed or implied of consumers and society. The effect can be translated into a greater or smaller difference between the level expected by the consumer and the received one; the result of the comparison that consumers make between the desired service and the received services is appreciated by the consumer according to the experience they have during the performance, due to objective or subjective interpretations .



It should not be ignored the fact that, in certain circumstances, when providing a service there may arise unforeseen circumstances that do not fall into the "specifications" predefined; this aspect is important for quality management in terms of ability to manage it in the best possible conditions .

Returning to the interaction between the provider and the consumer, we note that the role that the consumer has in assessing and evaluating the quality is often crucial because consumer perception prevails, and evaluating the service carried out only after its provision consumption, bears in most cases a subjective impression.

Identifying subjective elements which influence consumers' perception of quality of service (we discussed previously of such subjective elements, considering that it is almost impossible to measure precisely aspects related to the training of consumer, their desires, social trends, relations from one generation to another of the population, consumption traditions etc.) is important to reduce the gap between expectations and benefits, which will be reflected primarily in customer loyalty and in generating of an effect of "multiplication" [10]. Consumer demands, which determine both expectations and perceptions are influenced by a number of factors more or less subjective, of the nature of the individual and of the company. (Figure no.3. )



Figure no.3. Influence factors of consumer demand

Source: After Cetină Iuliana (coord), *Marketingul serviciilor. Abordare teoretică și studii de caz*, Editura Uranus, București, 2004, p.58

1. Interpersonal communication
2. Publicity
3. Consumer demand
4. Previous experience
5. Personal needs
6. Price

It is obvious that consumer expectations depend on their requirements, their training, education, culture, personal habits, etc., transmitting various information to service providers in terms of service quality. For example, some experience in receiving services (tourism, catering, aviation, medical, etc.) will influence customer expectations upside.

Regarding interpersonal communication, respectively information received from other customers, they have an important role on the formation of an image on the services of the company and in most cases is more important than advertising carried by media (In this case the company must take into account the "rule of 250", that a consumer dissatisfaction is transmitted to other consumers affecting the image of the providing company.) [11].

Price is one of the messages transmitted directly by the company regarding the activities they carry out, and can influence consumer perception.

Although the essence and determinants of quality are quite difficult to describe even by the beneficiaries/consumers of services, their importance for companies providing services is unequivocal. The characterization made by Crosby, "Quality is ballet, not hockey" [12], does not provide economic arguments, but outlines a suggestive image.

#### 4. Conclusions

Quality has become a fundamental value, necessary for progress, indispensable for "mastery" of the future in which the customer is important, has absolute priority, is a central character, and company management must consider improving the production process, finding solutions, involving staff. Therefore, quality leads to lasting customer satisfaction, meets the needs and expectations of customer and helps to improve efficiency and effectiveness.

Evaluation of service quality by customers is made by comparing

*expectations* with *perceptions*, and hence customer satisfaction can be the one predicted and/or lower than desired, situation in which it can be found a gap between service quality and consumer expectations. Avoiding these situations requires recourse to quality standards, including building and maintaining the will and capacity to provide services to requested quality standards among company personnel through its compensation as well as through incentives.

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# Quality Assessment of Romanian's Diet by Healthy Eating Index

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## Abstract

*The Healthy Eating Index is a summary measure of the overall quality of people's diets designed to compare compliance with key diet quality recommendations. The quality of people's diet is concern because poor eating patterns are major factors in the increasing rate of obesity and cardiovascular diseases and are contributing factors to related health outcomes. This study provides a better understanding of the quality of Romanian's diet and the areas that need to be improved by analysing their Healthy Eating Index components and total score. The results of the study indicated that the Romanian's diet needs improvement. Particularly, people need to increase the consumption of whole fruit, dark green and orange vegetables and legumes. On the other hand, people need to decrease their consumption of saturated fats sodium and extra calories.*

**Key words:** HEI, diet quality, risk factors, chronic diseases, health.

**J.E.L.Classification:** I15

## 1. Introduction

Food quality is a concern because it directly affects the population health. It is known that certain poor food patterns are associated with 4-10 causes of death (coronary heart disease, some cancers, stroke, type 2 diabetes mellitus). Also, a healthy diet can reduce major risk factors for several

chronic diseases such as obesity, blood pressure, high serum cholesterol, etc. It is estimated that the main way of improving the population health is improving its food [1].

## 2. Materials and methods

To assess and monitor nutrition, we used the Healthy Eating Index (HEI) developed by the U.S. Department of Agriculture's (USDA) Center for Nutrition Policy and Promotion (CNPP), consisting of 10 components, each representing an aspect of healthy nutrition:

- components 1-5 measure the degree to which a person's diet conforms to serving recommendations for the five major food groups of the Food Guide Pyramid (cereal products, vegetables, fruit, milk and dairy products, meat and eggs);
- component 6 quantifies the total fat intake, expressed as a percentage of total calories intake;
- component 7 measure saturated fat consumption expressed as a percentage of total calories intake;
- component 8 quantifies the total cholesterol intake;
- component 9 measure the sodium intake;
- component 10 quantifies a person's diet variety.

Each HEI Index component can range from 0 to 10 points. The maximum overall score for the 10 components combined is 100 points. High components values indicate near intake recommendations and an inferior components value indicates their lower intake recommendations. A HEI Index value

above 80 points indicates a diet considered adequate, a value between 51 and 80 points indicates a diet that needs improvement, and a HEI Index value below 51 points indicates a poor diet. We can appreciate that HEI Index provides an overview of the food preferences of the population indicating the share of each group of foods in the diet, the compliance of the population diet structure and specific dietary recommendations and of the level of dietary diversity [2].

This study aims to assess the quality of food in Romania, in the year 2013, using this assessment tool.

Food Pyramid dietary recommendations [3] are meaningful for each food group to ensure a healthy diet (table 1). The number of servings is customized for each individual by recommended calorie intake according to age, sex and physical effort made.

Table 1. Components of HEI Index and scoring system

Components	Score <sup>1</sup>	Criteria for maximum scoring – 10 points	Criteria for minimum scoring – 0 points
Cereal products consumption	0-10 points	6-11 servings <sup>2</sup>	0 servings
Vegetables consumption	0-10 points	3-4 servings <sup>2</sup>	0 servings
Fruit consumption	0-10 points	2-4 servings <sup>2</sup>	0 servings
Dairy products consumption	0-10 points	2-3 servings <sup>2</sup>	0 servings
Lean meat, eggs, beans, nuts consumption	0-10 points	2-3 servings <sup>2</sup>	0 servings
Total fat consumption	0-10 points	30% or less of total energy intake from fat	45% or more of total energy intake from fat
Saturated fat consumption	0-10 points	Less than 10% of total energy intake from saturated fat	15% or more of total energy intake from saturated fat
Cholesterol intake	0-10 points	Maximum 300 mg	450 mg or more
Sodium intake	0-10 points	Maximum 2400 mg	4800 mg or more
Diet diversity	0-10 points	Minimum 8 different foods consumed per day	Maximum 3 different foods consumed per day

<sup>1</sup>intake between minimum and maximum quantity shall be scored proportionately

<sup>2</sup>number of servings depends on recommended energy intake

Processed based on Basiotis, P.P., ș.a., (2002); Graur, M. (coord) ș.a., (2006)

In terms of total fat consumption a maximum score of 10 points was given for a total fat intake less than or equal to 30% of total daily energy intake. This amount was based on the recommendation of the Nutrition Society of Romania published in

the *Guide for healthy eating*. Total fat consumption over 45% of total daily energy intake is assigned 0 points, and total fat intake between 30-45% of total daily energy intake is scored proportionately.

Saturated fat consumption of less than 10% of total daily energy intake was assigned with 10 points as the recommendation of Nutrition Society in Romania. In contrast, consumption of saturated fat greater than or equal to 15% of daily energy intake was assigned 0 points, while the consumption of saturated fats 10-15% of total daily energy intake was scored proportionally. Upper limits of saturated fat consumption (45% and 15%) were based on consultation with nutrition researchers and exploration of the consumption distribution of these components.

Ten points were assigned to a daily intake of maximum 300 mg cholesterol, while a daily intake of 450 mg cholesterol was given 0 points. When daily intake reached a level of 450 mg or more, a score of zero was assigned, and when intake was between 300 and 450 mg, a proportionate score was assigned. The 300 and respectively 450 mg limits was set based on consultation with nutrition researchers and exploration of the consumption distribution of this component on foods.

A score of 10 points was assigned to a daily sodium intake of 2400 mg or less, while 0 points were assigned for a daily sodium intake of 4800 mg or more, intermediate quantities being scored proportionately. Sodium intake limits were established following the recommendations of nutritionists and distribution analysis of sodium in foods.

Although specialists in nutrition indicate the importance of diet diversity, there is no consensus on how quantify diet variety. In these conditions, in determining HEI Index, the diet variety was monitored by summing the number of aliments consumed by a person during the day, in sufficient quantity, at least half a serving of the food groups (see food pyramid). All ingredients used to obtain culinary food were counted in the food group they belong. Foods that differ only in method of preparation have been grouped as belonging to the same food groups. Different kinds of food, although belonging to the same food groups were counted separately.

For example, each type of fish (mackerel, tuna, trout) were considered different foods. To assess food diversity, the maximum score of 10 points was given if a person consumed at least half a portion, at least 8 different types of food in one day. Minimum score of 0 points was given where in a day were consumed no more than 3 different types of food, in an amount corresponding to at least a half serving. Intermediate scores were obtained in proportion. Minimum and maximum limit values were established in consultation with specialists in nutrition.

For HEI Index calculation we used data from the National Institute of Statistics [4] on *Yearly average consumption, for the main food products and beverages, per capita*, for the year 2013, *Daily average food consumption, per capita, expressed in calories and nutrients*, on types of calories and nutrients and on food groups, for the year 2013 and respectively the analysis of food distribution in saturated fat and cholesterol.

### 3. Results and discussions

HEI Index was calculated based on yearly average consumption, for the main food products and beverages, per capita, based on which daily average consumption was determined, for the main food products and beverages, per capita.

HEI Index characterizing the Romanian population diet, in 2013 was calculated as follows:

$HEI\ Index = \sum_{i=1}^{10} C_i$ , where  $C_i$  – components of HEI Index.

$HEI\ Index = 10 + 7,60 + 2,56 + 7,02 + 5,30 + 10 + 1 + 0 + 1,58 + 8,20 = 53,26$

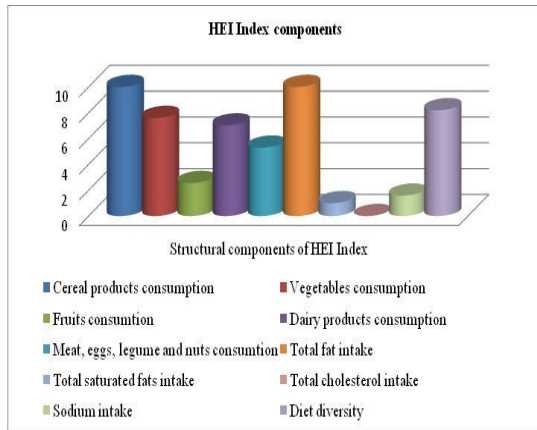
As can be seen in Figure 1 the Romanian population specific diet in 2013 is characterized by:

- High consumption of cereal products, which can be explained by the relatively high consumption of bread and loaf products, specifically for the Romanian inhabitants than those in other parts of the world;
- Vegetables and milk and dairy products consumptions under the nutritional recommendations;

- A low fruit consumption that associated with vegetables consumption which is lower than nutritional recommendations lead to essential nutrients deficiencies and thus affect the population health;
- A relatively low consumption of meat, eggs, vegetables and nuts which can be explained by the relatively high prices of meat due to a relatively low purchasing power of people. It is also noted the high share of pork consumption, a traditional characteristic of the Romanian population and a very low fish consumption;
- An appropriate content of total fat intake, expressed as share percentage of daily energy intake, per capita, of 28.62% corresponding nutritionists recommendations;
- An inadequate saturated fat intake, expressed as share percentage of daily energy intake, per capita, of 14.5%, due to a significant share of animal dietary lipids;
- A high cholesterol daily dietary intake, much over nutritionist's recommendations, due to mainly a relatively high consumption of pork and fat dairy products. The high cholesterol level in the diet population impaired the quality of food and can be correlated with the high frequency rate of hospital morbidity due to the disease of circulatory system and the high mortality caused by the same type of causes;
- A high sodium intake that is considered another important risk factor on population status health, favoring the blood pressure growth, knowing that 14% of cerebrovascular accidents and 9% of heart stroke occur due hypertension due to excessive sodium consumption [5]. The sodium daily intake among Romanian inhabitants in 2013, of 11.25 g is much over the WHO target of reducing sodium intake to 5 g /day, respectively to 2 g / day for people aged over 51 years, or those with hypertension, diabetes type 2 or chronic kidney disease. Among food consumed the largest sodium intake has homemade foods. Knowing that, unlike other countries, in Romania the daily diet consist of homemade products is need to educate the population downward sodium content in preparing these dishes.

- A degree of diversity of daily diet slightly lower than nutritionists recommendations.

Figure 1. The HEI Index components properly Romanian population diet in 2013



Fibres from cereals were associated with reduced risk of heart disease and myocardial infarction. The results of some epidemiological studies specifies that a consumption of 15 g dietary fibre / day as ideal.

Vegetables consumption, except potatoes, was associated with reduced risk of chronic diseases. It is considered that a consumption of 5 servings' vegetables / day is ideal and reflects the current dietary orientations, materialized in a variety of intervention studies to counter the risk factors of cardiovascular disease.

Fruit consumption was associated with reduced risk of cardiovascular disease and cancer. According to current nutritional guidelines consumption of 4 serving's fruit / day is considered optimal.

Its recommended daily intake of 2-3 servings of milk or dairy products, preferably skimmed, these foods being an important source of calcium, protein, riboflavin and vitamin B12.

Consumption of white meat (chicken and especially fish) was associated with a decreased incidence of cardiovascular disease and cancer, while consumption of red meat (especially pork), with an increased incidence of certain cancers. Ideally is recommended a consumption share  $\geq 4:1$  in favor of white meat, this value was chosen arbitrarily, but associated with food consumption patterns that have shown maintaining the health status of the body.

Plant proteins from legumes and nuts were associated with decreased cardiovascular disease, consumption of one serving / days being considered ideal.

Healthy eating should not contain a total fat intake greater than 30% of total daily energy intake. Of these, 10% will come from saturated fatty acids, 10% from monounsaturated fatty acids and 10% from polyunsaturated fatty acids. Consumption of 1-2 g / day of  $\omega$ -3 fatty acids is recommended to maintain good health status, while more than 10 g / day would have a significant positive impact on other specific conditions, such as mental health, arthritis, and dermatitis atopic.

An apport lower than 10% of saturated fats is associated with reduced risk of atherosclerotic cardiovascular disease.

High concentrations of LDL-cholesterol and respectively, low concentration of HDL-cholesterol are associated with increased cardiovascular disease. Intake / excessive cholesterol synthesis contributes to the development of plaque or extra vascular cholesterol deposits such as xantoms, xantelasms, corneal arc.

A twice a week fish consumption reduce coronary mortality and the consumption of docosahexaenoic acid and eicosapentaenoic acid reduces the risk of cardiovascular mortality in those who already had a cardiovascular event.

A high sodium intake is an important risk factor, favoring high blood pressure. A daily intake of salt up to 5 g / day is considered optimal, and 2 g / day for persons aged over 51 years or those with hypertension, diabetes or chronic kidney disease.

Diet diversity provides coverage of the body needs nutrients. It recommends a minimum daily consumption of eight different foods.

The HEI Index ranging between 51 and 80, the quality of the Romanian population diet in 2013 requires improvements to avoid health status population depreciation. Additional information may be obtained using the same instrument to analysing the diet quality of consumers groups according to their demographic and socio-economic characteristics. HEI Index is expected to increase with increasing of education level and population income. This emphasized the need to develop programs and respectively to

adapt food and nutritional policies of the state to meet the needs of certain population segments, especially those who have a poor diet with high risk of impairment the population health status.

The food consumption of Romanian population analysis revealed that a number of nutrients are below recommended levels such as: vitamins (especially A, B and D), calcium, due to low consumption of fish and respectively dairy products consumption much lower than nutritionist's recommendations, vitamin C, folic acid, iron (due to low consumption of fresh fruits and vegetables). Deficiencies of vitamins and minerals, especially on children can lead to dramatic effects on long term as visual acuity depreciation due to vitamin A deficiency, anemia on lower rate of iron absorption from food, especially for children with deficits of vitamin C, high risk of diarrhea and respiratory diseases caused by lack of iron [6, 7].

Compliance for religious customs, especially in rural households, creates deficiencies of protein and calcium due to abstinence from animal products relatively long periods of the year. Families with low incomes among the unemployed and pensioners constitute a special risk groups.

#### 4. Conclusions

The structure of caloric consumption of Romanian population in 2013 reflects no major signs of concerns, the proportion of protein (14.13%), carbohydrates (57.39%) and lipids (29.23%) being close to WHO recommendations. Deep examining of food consumption structure revealed that although total fat consumption is meet nutritional recommendations, the high share of dietary saturated fat (due to high consumption of pork and other animal fats) increase the risk of cardiovascular disease, actually confirmed by a high morbidity and mortality rates of cardiovascular disease in Romania, one of the highest in the European Union. Examining the incidence of mortality by specific categories of circulatory system diseases shows a very high incidence of cerebrovascular diseases, in particular women being more vulnerable, a different situation from the ischemic heart disease distribution.

Another cause of high incidence of cardiovascular disease is the relatively high consumption of eggs associated with high cholesterol intake. According to a study by prof. PhD. Mircea Cintează, 30% of Romanian population, both urban and rural, presented a high cholesterol level, while 42.6% among people aged over 70 years recorded a high level of serum cholesterol, which explains the high rate of sudden death caused by stroke. Over 30% of Romanian peoples have high levels of cholesterol and about 40% are hypertensive, the consequence being that 2 of 3 peoples die from cardiovascular disease compared to the situation of the traditional nucleus of Western European countries, where because there popularized the devastating effects of high cholesterol levels, for the same reason only 1 of 3 Europeans die. It can appreciate that this phenomenon is caused by poor education regarding foods and risks induced by a high cholesterol intake. Thus, in countries with traditional diet rich in dietary fiber and low in cholesterol, disease such as colon cancer, diabetes type 2 and cardiovascular disease are much rarer than in western countries.

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# Copper Tenure Versus Inflation. Austerity is not Over. What are the Commodities Trends Tell us About the Economy?

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## Abstract

*The European official reports are recording that the European Union had edged its way out of the 24 months recession. The prognosis for the Romanian economy is also cautiously optimistic, as indicated by local authorities as well as independent reports.*

*In the present paper, we illustrate that this optimism is not warranted and that other, more relevant, proxy indicators are suggesting that the economic strife is to possibly be continued although there are some positive evolutions on indicators.*

*Nevertheless, we are still in the era of frugality and still there's no alternative to the public austerity. We contend that the commodities prices are historically tracking the economy better, especially copper and that the official data should be only an adjunct to commodity watching for the purpose of economic forecasting. We also show that the useful signal is drowned in the noise of public monetary policies in many other countries all over the world.*

**Keywords:** correlation, commodities, GDP, marginal rate, austerity

**J.E.L. classification:** O1, O2, E3

## 1. Introduction

This metal is known since at least 8000 years ago. When people discovered that by alloying copper and tin they would acquire bronze, a new stage in the human development began. Since then, countless usages were found.

In addition and more important, copper was used as currency for most of our history. It is still used for coinage but ever since the intrinsic value went beyond the apparent

value, the copper denominations were replaced with copper plated steel.

## 2. The Copper approach. Usage and production

"Copper is an excellent conductor of heat and electricity which makes it irreplaceable for use in the construction and electrical goods industries. In the construction industry, it is used in the form of cables, wiring, plumbing, heating and ventilation and other building materials. It is also used extensively in the wiring and circuit boards of phones, computers and other electrical goods." (London Metal Exchange, 2011)

"Seven thousand years in the service of humanity-the history of copper, the red metal" makes for a fascinating journey through the ages, giving in-depth details and showing how the fourth mined metal shaped the technology and human mores by its properties and availability.

Copper production is scattered around the world ensuring relative immunity to disruption.

However, many authors showed interest in investigating whether a single producer or a cartel of producers could unite and fix or at least determine or influence significantly the unit price or quotation.

The paper "Is it Possible to Move the Copper Market?" [13] scrutinises the question whether a producer has enough influence to alter the copper price and its conclusion is that the influence would be very limited, quasi insignificant, even when quite important resources are disbursed.

Similarly, as stated before in regards to the production, for copper the utilization is very well disseminated. These characteristics provide for a very large market, very liquid, and which is essentially impervious to tampering or manipulation. In the world there were produced 19.8 million tonnes in 2011,

16.9 million in 2012 and 17.9 million in 2013, as showed in the table of current copper producers (Table 1).

Table 1. Worldwide Copper main producers 2012-2013)

Country	2012	2013	Reserves
	(tousands tonnes)	(tousands tonnes)	
United States	1170	1220	39000
Australia	958	990	87000
Canada	579	630	10000
Chile	5430	5700	190000
China	1630	1650	30000
Congo (Kinshasa)	600	900	20000
Indonesia	360	380	28000
Kazakhstan	424	440	7000
Mexico	440	480	38000
Peru	1300	1300	70000
Poland	427	430	26000
Russia	883	930	30000
Zambia	690	830	20000
Other countries	2000	2000	90000
<b>World total</b>	<b>16891</b>	<b>17880</b>	<b>685000</b>

(Source:<http://www.mapsofworld.com/minerals/world-copper-producers.html>)

Maybe more precise numbers and formulas were expected. We consider them of only limited value because two main inputs are human behaviour and government intervention, none of which can reliably be modelled.

We will then content for now to show intuitive links between human actions and to settle for the right amounts within an order of magnitude. Any pretention for better precision is most probably not justified.

It is said that copper is the only commodity with a PhD in economics [14], as an old Wall Street adage states. That would be because Copper is used practically everywhere and fluctuation in production reverberates immediately in the demand for copper, thus accurately indicating the specificities of trends of the worldwide economic activity (Fig. 1).

Figure 1. Gold and Copper prices compared to S&P 500 (2007-2012)

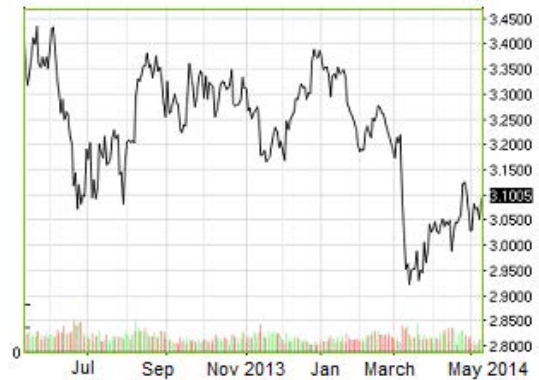


(Source: Capital IQ)

We consider that below diagram (Fig. 2) is only showing a stock correction, when those who stored the copper had to fulfil the futures and deliver the commodity.

This is why the price went down recently despite the continuous debt monetization and the consequent money supply expansion that all economies are experiencing.

Figure 2. Commodity Futures Price Quotes for High Grade Copper (2013-2014)



(Source:<http://www.nasdaq.com>)

As depicted, we realize by studying the trends over shorter or longer periods of time, that copper is closely followed by the stock market which is itself a quite rational market indicator.

On the other hand, gold can be correlated with the money supply evolution, both increasing in locked step.

Figure 3. Commodity Futures Price Quotes for High Grade Copper (2004-2014)



(Source : <http://www.nasdaq.com>)

### 3. Copper worldwide quotations pre and post 2008 crisis

Based on the two graphs above (Fig. 2 and 3), it seems that the increase of credit (same as debt) denominated in US dollars triggered a copper price increase roughly between 2005 and 2011, with a significant dip in 2008 when the real estate deleveraging caused the renowned crisis.

Generally, as for any merchandise or service presented on free market, the commodities price is defined by the offer and demand match. However, this (validated) hypothesis is valid when the money supply is stable, in other words when no inflation or deflation is present in the financial system, which is essentially never the case.

On the contrary, when new units of "easy" obtainable credit are entering the market, the general price level might rise but it should not rise equally for everything. Actually, as the world's economies were approaching 2008, the real estate market was the first to be affected.

Next, the market actors' behaviour was modified in the case of copper as well. The price fluctuation pre 2008 has higher amplitude than prior to 2005 apparently indicating increased speculative activity.

We suggest that the copper market suffered the effects of over leveraging as well due to rational decisions taken by the market actors (but flawed in the light of later information) and due to the changes in investment landscape. It is probable that the ZIRF- zero interest rate policy- forced the

capital to search for better yield that can be found in increasingly risky ventures.

We explore a simple, suggestive case: supposing that the investor learns of an opportunity with a guaranteed yield of 8%, with a maturity time of one year; the invested amount of \$100,000 for example will bring \$8,000, in constant currency. For the sake of the demonstration, we shall ignore the inflation for a moment, as factor.

The promised gain might not seem enough, so the investor is borrowing additional \$900,000 for a 3% interest per annum. As a result of the new invested money placed at such interesting returning rate, at the maturity, this bond will pay to the creditor \$27,000 in same constant currency.

On the other hand, the total \$1,000,000 invested in the opportunity will now bring \$80,000 out of which the interest is deducted leaving the investor with the flat amount of \$53,000 which is rather better than the meagre \$8,000.

Accepting that the business is solid enough and that there is not yet a crowding effect (many investors over-subscribing) plunging on the opportunity, the only risks to it, in real life situation, are of monetary type: inflation and interest rate variation.

As we know, the ratio of borrowed money to the own capital is called leverage (L). The higher the ratio, the more significant the risk to the firm of losing its entire capital should the interest rate move upwards. And of course, we must take into consideration that the move can be triggered by many things including rumour, falsehood, blatant manipulations, etc.

Consequently, it seems then that ZIRF is facilitating the leveraging by making its cost insignificant and by enabling speculators to seek increasingly risky ventures. This is what happened to Lehman Brothers. At the time of the collapse, their leverage was 28:1 meaning that the borrowed capital was 28 times higher than their own. An interest rate move of only 100 basis points meant that the shareholders got wiped out.

We will emphasize on an excerpt [10] that sustains the idea exposed afore, illustration the correlation between the speculator's activities on a specific market and their real influence on the average price: "Our results support the view that speculators do not have permanent effects on the level of prices,

although they may play a significant role in transitory movements of prices. Once we explore the role in the amplitude of price fluctuations, we find a positive but no significant effect of speculators' positions in the volatility".

Our present paper sustains and reinforces the supposition that speculation is not having a lasting effect on the copper price and that the London Metal Exchange (LME) fixes is the correct level even from before of 1978 US abandonment of the dual price system.

A natural question arises: the discussion above has everything to do with international markets but nothing with Romania so how come copper quotations are relevant to and capable of predicting Romanian economic movements as well?

Romanian copper production is insignificant at the world level and its price is still decided at the London Metal Exchange. Also, quite apart of the national monetary policy, those of other entities (US and Euro zone) are definitely changing the Romanian monetary equilibrium thus becoming relevant to our calculations.

#### 4. Official Data Discussion

The widely reported official data related to the economy performance is positive. The EU ended the 18 months long recession with 0.2% GDP growth for the last trimester (Eurostat). Romania in particular is now forecasting similar growth for our GDP (IMF, INSSE). The figures are auspicious, stimulating a positive public perception and they seem to be strengthening the anti-austerity camp in the public discourse.

We consider that there are some issues with this approach, namely:

- the official data is amalgamated from national reports with different self-reliance levels.
- the quoted GDP ecart figure is small enough so that the reporting errors could easily drown the signal under a cloud of statistic noise.
- there are unknown or poorly scrutinized adjustments to the data and they only add up to the above noise (INSSE).

It is why we shall discuss the optimistic approach present in all official reports regarding EU economies being over the crisis, as a hypothesis more than a reality.

Due to the issues identified afore, we consider that a positive trend of performance indicators cannot yet be traced, despite positive evolution of the indicators (GDP, productivity, employment rate).

#### 5. Conclusion

The speculation relative immunity is then giving to copper better credentials in its capacity to predict the general economy movement.

Unfortunately, the money supply manipulations are introducing unpredictable noise in the system, making substantially harder the detection of a useful signal.

In other words, even when copper is perfectly tracking the economy, prediction is becoming unfeasible due to external, political factors. As such, we believe that it is only the well-connected investors that can beat the market and even then we cannot discuss of a real winning situation, but of a short term victory.

We consider unlikely that copper, and by extension commodities in general (except for gold, which is a special case), will experience a bubble similar with the real estate one because of the huge size of the market and because there are less public policy constraints and non-economic incentives.

Lastly, the secular changes triggered by technological improvement like the transition from copper to optical fiber for communications, along with manufacturing slow-down, will reduce even more the predictive power of copper market movements.

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## Consideration regarding the Improvement of the Financial Crisis Forecasting Models for Enterprises in Emerging Countries

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### Abstract

*The paper includes an analysis of methods of diagnosis and prediction of the enterprise crisis in order to anticipate and successfully overcoming them. Have been reported a number of shortcomings and deficiencies of several methods of crisis management at the enterprise, respectively, was argued the need to develop new diagnostic and forecasting models not only for the bankruptcy but for overall crisis. In this respect, we proposed a model of diagnosis / prediction of the financial crisis (bankruptcy) for enterprises from emerging countries, based on the statistical analysis method, namely the multifactorial discriminant*

**Key words:** models, forecasting, business cycle, financial crisis.

**J.E.L. Classification:** M21, E37, E32

### 1. Introduction

Predicting firm financial crisis appeared as a separate issue in countries with developed economies (especially the U.S.), soon after the Second World War. To this situation, largely contributed the significantly increasing bankruptcy related to the major decrease of military orders.

In the '70s, this problem was accentuated with the bankruptcy of several large companies, gigantic, as Penn Central, WTGrant so Chrysler Corporation and International Harvester, which were situated on the brink of bankruptcy. Until then, the bankruptcy was considered a phenomenon

characteristic only small and medium enterprises and the Great Depression in the years 1929-1933, had been considered the last event of bankruptcy of large firms.

Should be noted that attempts to forecast the collapse of the company were made since 1920-1930, William H. Lough, Raymond F. Smith, Arthur H. Winakor Poul J.Fitzpatrick [5], have carried out research directed toward determining effective tools for forecasting bankruptcy / financial crisis. These have gained momentum, especially in the 60s, with the development of computer technology. Namely, in this period were developed the first enterprise bankruptcy forecasting models based on statistical analysis of multifactorial. One of the most effective methods among them is the method of discriminant analysis, drafted and proposed by U.S. economist E. Altman in 1968. [3].

Discriminant analysis is one method of investigating the state of solvency of a company in order to predict the state of crisis or its bankruptcy. The discriminant method is a method of diagnosis, which aims to measure the risk they expose the investor, lender or trader in its future. The method involves the analysis of a sample of companies consists of two distinct groups: a group of companies in financial difficulties and a group of businesses with financial problems.

To obtain a full assessment of the viability of the company, is performed multiple discriminant analysis using the method (multiple discriminant analysis). The principle of this analysis is quite simple. Knowing the financial characteristics described using financial ratios for a group of

businesses that includes healthy businesses and enterprises vulnerable discriminant analysis determines the best linear combination of rates, to distinguish good companies from the weak (bankrupt).

The results obtained allow, on the one hand, the description, in a synthetic way of the weak firms characteristics and secondly, to provide for state of crisis or bankruptcy of the company. After application of discriminatory analysis for enterprise obtain a Z score based on overall rates, indicating the health of businesses that allow us to distinguish healthy from the bankrupt companies. Z score of each undertaking is determined by a linear function of the type:

$$Z = a_1X_1 + a_2X_2 + \dots + a_n X_n$$

where:

"X<sub>1</sub>" express independent variables entered in the model corresponding to different rates;

"a<sub>1</sub>" - discrimination coefficients.

Discrimination coefficients are composed by discriminant analysis, while "X<sub>1</sub>" is the actual values of the financial rate for each enterprise.

Internationally, the best known bankruptcy prediction models based on multifactorial statistical analysis are: the Altman's model (1968 and 1983) Taffler's model (1977), Conan and Holder' model. In Table 1 are listed the characteristics of most common of these models.

Table 1. Models Z-score for evaluation of cri bankruptcy developed by various research

Indicator/ model	Altaman's Model	Conan-Holder's Model
Z Function	$Z = 1,2 x_1 + 1,4 x_2 + 3,3x_3 + 0,6 x_4 + 1 x_5$	$Z = 0,24x_1 + 0,22x_2 + 0,16x_3 - 0,87x_4 - 0,1x_5$
Financial rates (X <sub>1</sub> .. X <sub>n</sub> )	X <sub>1</sub> = NFR/TA; X <sub>2</sub> =Pr.Rv./TA; X <sub>3</sub> = PPI/TA; X <sub>4</sub> = CP/TDL; X <sub>5</sub> = CA/TA;	X <sub>1</sub> = EBE/DT; X <sub>2</sub> = CPerm./TA; X <sub>3</sub> = AC-Stoc/DTS; X <sub>4</sub> = Dob /CA; X <sub>5</sub> =Ch.p./ VAB
Safety threshold	Z<1,8 high risk Z =(1,8-2,7), intermediate situation Z>3, minimal risk	Z<-0,05 bankrupt Z =(0,04-0,1) alert situation Z>0,16 low risk
Indicator/ model	Taffler's Model	Creditmen's Model
Z Function	$Z = 0,53x_1 + 0,13x_2 + 0,18x_3 + 0,16x_4$	$Z = 25 X_1 + 25 X_2 + 10 X_3 + 20 X_4 + 20X_5$

Financial rates (X <sub>1</sub> .. X <sub>n</sub> )	X <sub>1</sub> = PB / DTS X <sub>2</sub> =AC / DT X <sub>3</sub> = DTS / TA X <sub>4</sub> = CA / TA	X <sub>1</sub> =AC/DTS X <sub>2</sub> = CP/ DT X <sub>3</sub> = AC/ TA X <sub>4</sub> =CA/Debt X <sub>5</sub> =Debt/ DT
Safety threshold	Z>0,3 low risk of bankruptcy Z<0,2 high probability of bankruptcy	Z = 100, low risk Z >100 satisfactory financial situation Z < 100 alarming situation

Source: Developed by the authors

## 2. Considerations regarding the applicability of the Altman model in emerging economies

Particular attention deserves to be awarded the American economist E. Altman. Namely, this model has enjoyed the greatest popularity, both in teaching literature and the literature devoted to economic issues in business development. In addition, most consultancy companies around the world propose their customers exactly this model to assess the risk of bankruptcy.

To develop this model, Altman has analyzed a sample of 66 U.S. firms over the years 1946 to 1965, half of which went bankrupt, and the rest were successfully activated [2].

Following this analysis, solvency index (Z score) proposed by Altman took the following form:

$$Z = 1,2X_1 + 1,4X_2 + 3,3X_3 + 0,6X_4 + 1X_5$$

According to the researcher, the 5-indicators (Table 1) are the most relevant for detecting bankruptcy firm. With their help, Professor Altman [1] managed to avert the financial crisis or bankruptcy of enterprises in their sample with the following accuracy:

Table 2. Altman's model prediction accuracy

Number of years to bankruptcy	Number of companies correctly assessed	Number of companies wrongly assessed	%- correct
1-year	31	2	95
2 years	23	9	72
3-years	14	15	48
4-years	8	20	29
5-years	9	16	36

Source: Developed by the authors

Between the local specialists permanently are discussing regarding the applicability of

this model to predict the crisis / bankruptcy for enterprises from emerging countries.

It should be noted that all coefficients of Altman's model are calculated based on statistical results of American businesses. Accordingly, we can certainly say that the analogical statistics of local enterprises' output will be different from the one selected by Altman. So the results obtained from processing these statistics will be different. First, the discriminant equation coefficients will be different, or even the whole of the regression equation is different, with other variables. This happens because of the essential differences between the economies of emerging countries and highly developed countries where these methods have been developed for predicting bankruptcy.

Among the main features that make these differences are different accounting policy, meaning and technique of determining several key financial indicators differ; major differences in the investment climate and tax.

In addition, must be taken into account substantial differences on the structure of production costs, the total cost weights of raw materials, energy resources and the cost of labor and labor productivity vary greatly.

The listed differences, and many others, make it difficult to apply both the Altman's and other foreign models for domestic enterprises. There were no attempts to adapt these models to the economic conditions of developing countries. Differences between developed and emerging economies are so great that bankruptcy models for diagnostic domestic enterprises should be built on another system of indicators that will take into account the specific development of Romanian economy at the moment. Otherwise, we get incorrect results; therefore, instead of benefits this will bring larger damage to business.

In addition, we observe that the model developed by Altman in 1968, differs from the one developed in 1983, even if he used the same statistical results of U.S. industry enterprises, both in the first and in the second version [4].

Comparing both models Altman and noting, of course, the difference in size of the coefficients obtained; we can say that for 15 years there have been significant changes in the U.S. economy, namely the activity of enterprises in the industry. Certainly if

Altman had made a new model still over 15, then it would be different from the one developed in 1983, maybe this time not only the size of the coefficients, but even after indicators selected in the model.

In this sense, we can conclude that Z score can vary not only from country to country and from one period to another, even within a country. Therefore, we mention once again that the differences between specific economic and business organization of emerging economies and developed countries are quite difficult and undue use of foreign methods to predict the crisis or bankruptcy to domestic enterprises.

### **3. Proposing a model for diagnosis of the financial crisis in enterprises from emerging countries**

We propose to develop a new model that takes into account all the conditions of national economy, specific for period of its development, and building on a recent statistics regarding the results of enterprises activity.

In this context we have to be mentioned the problems that create serious obstacles to achieving this goal in terms of emerging countries, of which the main would be the absence of official statistics that have bankrupted businesses. Another important issue would be difficult to obtain information on economic and financial situation of enterprises; their veracity, because we know very well about double difficulty that persists to domestic enterprises.

Therefore, the process of developing a bankruptcy prediction model for enterprises by multifactorial discriminant analysis method includes the following steps:

1. Selecting analog companies that will participate in the development by diagnostic model / forecast of the crisis. Selected companies must include businesses that have gone bankrupt or are in the process of insolvency and healthy businesses operating successfully;
2. Determination system of financial indicators which best characterizes the company's financial situation;
3. Systematization of baseline data that will be used to develop the model;
4. Calculation and assessment of indicators included for all selected



enterprises;

5. Constructing the discriminant function and identify its values;

6. Statistical findings of discriminatory function parameters.

To assess the health of the enterprise have been proposed 20 indicators (financial ratios), which will serve as a model for developing discriminant variables (Table 2).

*Table 3. Indicators used for the development of the discriminant model*

<i>Indicators</i>	<i>The formula for calculating</i>
- Solvency and financial risk (Group 1) 1. Patrimonial solvency ; 2. General solvency; 3. Self-financing rate on capital	1. Equity / total assets ; 2. Total assets / total liabilities; 3. Equity / Capital permanent
- Financial Balance (group 2) 1. The weighting of the current sources coating; 2. Coefficient of handling current sources 3. Net working capital to 1 (one) leu active.	1. Net working capital / current assets; 2. Net working capital / Total assets; 3. Net working capital / Equity
- Liquidity (Group 3) 1. General Liquidity; 2. Intermediate Liquidity; 3. Absolut Liquidity; 4. Current assets al 1 (one) leu total Debt	1. Current assets / Current liabilities; 2. Current assets-stock / liabilities; 3. Cash / Current liabilities 4. Current assets / total Debt;
-Rotation assets (Group 4) 1. Numărul rotations of total assets; 2. Number of rotations of current assets.	1. Revenue from sales / Total assets 2. Revenue from sales / current assets
- Profitability (Group 5) 1. Economic profitability; 2. Financia profitability; 3. Gross margin rate; 4. Net margin rate.	1. Profit before tax / Total assets; 2. Net Profit / Equity; 3. Gross profit / sales revenue; 4. Net profit / sales revenue;
- Cash-flow (Group 6) 1. Total net flow at 1 (one) leu sales revenue; 2. Total net flow 1 (one) leu total Debt; 3. Operational flow 1 (one) leu total assets; 4. Operational flow 1 (one) leu sales revenue	1. Total net flow / income from sales; 2. Total net flow / total debt; 3. Operational flow / Total assets; 4. Operational flow / sales revenue

Source: Developed by the authors

As we see, the selected rates are classified into six categories: profitability, liquidity, solvency, rotation, balance and cash flow.

Variables were selected based on their popularity in the literature and by the degree of relevance in assessing the economic and financial condition of the company

The first step in developing the proposed model is to calculate financial ratios according to Table 3, for both groups of enterprises and systematization of variables selected for their subsequent evaluation. For each indicator will be determined the average and standard deviation separately for the group of firms in difficulty and for the group of sound enterprises.

After calculating the financial indicators for both groups of enterprises and systematization of selected variables, we moved to actual development of discriminant model.

To this end, the following procedures were performed:

1. Tracking the statistical significance of various discriminant functions, including determining the relative contribution of each variable used in the analysis;

2. Evaluation of correlation and of covariance of selected variables;

3. Appreciation of discriminant accuracy of prediction models formats;

4. Optimal model selection based on their assessment.

Finally, from the initial list of variables (20 financial ratios) were selected four variables which showed that made the best discrimination between the two groups of companies to bankruptcy prediction. As a result, they made final discriminant model which is as follows:

$$Z = 2,94 - 1,077X1 - 1,813X2 - 0,318X3 - 0,733X4$$

where:

X1 - Sales revenue / Total assets (asset rotation);

X2 - Net profit / Equity (financial rentability);

X3 - Total liabilities / Total Debt (overall solvency);

X4 - Current assets / Total assets (current assets at 1 leu debt).

The format makes a pretty good discrimination between healthy businesses and distressed thing proving indicator -  $\lambda$  "Wilks. This indicator is used to show the statistical significance of the discrimination power of a scoring model.

Lambda-Wilks statistics is calculated as the ratio of the determinant of the dispersion

matrix / covariance within groups and general covariance matrix determinant.

This indicator sizes vary in the range (0 to 1). The size of  $\lambda$  is situated close to zero, the model shows discrimination stronger format, and vice versa if the size indicator is located close to unity, this means a poor discrimination of the model.

Size  $\lambda$  of the model developed is "0.11" ( $F(4,35) = 68.92756, p < .0000$ ) signifies a strong discrimination of the model. Lambda-Wilks significance was checked by the  $\chi^2$  test. Accordingly, the null hypothesis = 0 indicating that the BSS (BSS sum of the squares of the group), and  $\eta = 0$ , is refused, which means that the average of the discriminant scores of the two groups is less than undertaking selection error.

Finally, once the size of discriminating coefficients (model) are estimated, we can determine the score - Z for each firm in the sample, respectively, depending on its size, to classify firms into one of two groups - group of bankrupt enterprises or the sound one.

The discriminant equation obtained show that all coefficients are minus sign (-). This means that the higher the Z score of the enterprise will be higher, the situation of the company will be considered worse, respectively, the threat of bankruptcy will be higher, and conversely, the size - Z is lower (negative), the company is healthy and that the threat of bankruptcy is low. Classification of enterprises of the two groups will show the degree of accuracy of discriminant model consists in predicting bankruptcy.

If model results coincide with a priori information about the two groups of firms, and that is, that we know from the start that the sample firm is healthy and bankrupt, then discriminant model correctly classified firms-one of the two groups working which shows high accuracy in predicting bankruptcy.

The model has a maximum level of accuracy in the classification of enterprises, with 100% accuracy, which means that all businesses were correctly classified into their groups. Thus, as the error of the first degree and the second degree constitutes 0%. So we can conclude that the model is accurate in predicting bankruptcy with a probability of 100% a year before its implementation.

By taking our another year of bankruptcy prediction model consisting accuracy

decreased only 5% and accounted for 85%. This is because the model consists of three businesses misfiled that over three years, went bankrupt, were classified as healthy.

Accordingly, we conclude that the discriminant model has made a 100% accurate in predicting bankruptcy one year prior to bankruptcy, 90% - two years before bankruptcy and 85% three years before the bankruptcy of the company.

#### 4. Conclusions

Economic practice shows that one of the most important factors for success business of enterprise is its ability to react in time to all changes or variations that occur in its internal and external environment.

In most cases, the enterprise crisis could be avoided or at least weakened, to such a degree that businesses can successfully overcome it. This can be achieved only through timely diagnosis of the crisis phenomena.

The diagnosis is considered one of the most important, if not the most important instruments of crisis management. Avoiding crisis or meet her, ready for it, is possible only through the diagnostic of the possibilities of its appearance. This will enable the company to obtain the time required to prevent the crisis, or at least to reduce the negative influence in the case that it is impossible to avoid them.

Not all existing methods for forecasting the crisis deserves trust and not all provide adequate results. Based on this, we proposed a new model that takes into account all the conditions of national economy, because of the specific period of its development, building while on a recent business activity results. The format is a statistical and mathematical model of diagnosis / prognosis of bankruptcy of enterprises from emerging countries based on multifactorial discriminant analysis. This model includes four variables considered to be most representative for determining the state of difficulty of the company.

The coefficients of selected variables were determined from analysis of the economic and financial situation of fourty enterprises, half of which went into financial difficulty.

The results of discriminant model can be

very useful not only for managers or owners, and financial institutions, potential investors or state. Accordingly, the scope of lending or investment selection, given the model can be used with great success.

The development of discriminant model is an important step in forecasting the crisis, giving us more information on the health of the company. However, it should be recognized that this model has some limitations, which does not allow to use it as a universal tool in forecasting and anticipating the enterprise crisis since the model is designed to forecast only a part of the crisis, namely the last phase of it, ie bankruptcy or financial crisis.

In order to forecast and predict crisis in early stage, it requires a complex approach to diagnosis much wider crisis, based not only on financial indicators of the company, but also a number of other indicators that characterize the environment factors both internal the company and the external.

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## Inflation - a Phenomenon with Multiple Causes?

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### Abstract

*This paper aims to analyze the causal relations between money supply change and inflation rate, and between the GDP change and inflation rate.*

*The data used is provided by the National Bank of Romania and National Institute of Statistics.*

*We calculated correlations between these parameters, resulting in a positive correlation between inflation rate and monetary supply change (as many economists argue), but also between the inflation rate and GDP change, which would lead to the conclusion that inflation is fueled by the monetary supply growth.*

**Key words:** money supply, inflation rate, GDP growth

**J.E.L. classification:** B22,E31,E51,F43

### 1. Introduction

Many economists argue that inflation is a macroeconomic imbalance caused by the increase in money supply. To determine this fact, it has to be made an analysis of this imbalance called inflation, an imbalance which has been analyzed from ancient times.

This paper aims to analyze two of the inflation causes, an economic phenomenon affecting both producers and consumers.

### 2. Inflation studies

Starting with the mercantilists and ending with neoliberals, each representative of these trends has contributed to the analysis of inflation. According to the mercantilist theory, inflation is closely related to the amount of money in the economy. „Responding to the paradoxes of M. de Malestroit about rising prices of all goods, Jean Bodin says that "raising prices is

explained by the abundance of money" in the economy and the "purchasing power of gold and silver coins is inversely proportional to their amount into circulation" [4]. Also for the physiocrats the inflation is caused by the issue of money. M. Blaug argues that the emergence of inflation is due to the issue of paper money [1]. For classics, the essential cause of problems specific to inflationary phenomenon is "credit expansion, the bank note issuance, its widespread use since 1694 and exaggerations with the issue of banknotes" [5]. Karl Marx, which focuses on inputs, analyzes the relative prices, which on long-term tend to increase as a result of the quantity of money in the economy and the need for labor payment. He emphasizes by this the direct relationship between prices and wages, while also claiming that high wages can lead to structural unemployment. [5] J.M. Keynes also analyzed the inflationary phenomenon, concluding that „the state should play an important role in this field”. „He believes that a state-controlled inflation is a good thing for an economy” [3]. Neoliberals believe that money supply is the cause of emergence and amplification of this phenomenon. Milton Friedman argues that "inflation is always and everywhere a monetary phenomenon ... and can be produced only by a faster increase in the quantity of money than production" [2]. Regardless of the period that was analyzed, regardless of those who analyzed it, inflation is determined by certain causes. If we start from the relation of I.Fischer, where  $M * V = P * T$  (where M is money supply, V is the velocity of money circulation, P is the price level and T the volume of transactions), equation which represents the money market equilibrium, then inflation may be related either to money supply causes, or to the quantity of goods produced and traded. In Romania, in 1991 - 2013 period, the inflation rate has seen a number of changes, either increase or decrease. These fluctuations have

been caused by several factors. We consider that most important of these are money supply, domestic credit and GDP.

### 3. Methodology

Since 1990 the inflation rate in Romania reached different levels, some quite alarming (see hiperinflatia of the 90s). This phenomenon has many causes of inflation in Romania during 1991-2013.

The data used are those provided by the National Bank of Romania and National Institute of Statistics.

Will be calculated the change of indicators considered to be causes of rising inflation (money supply, GDP and domestic credit) and compared with the rate of inflation.

Also, will be drawn graphics to reflect the evolution of these indicators, and the correlation between them.

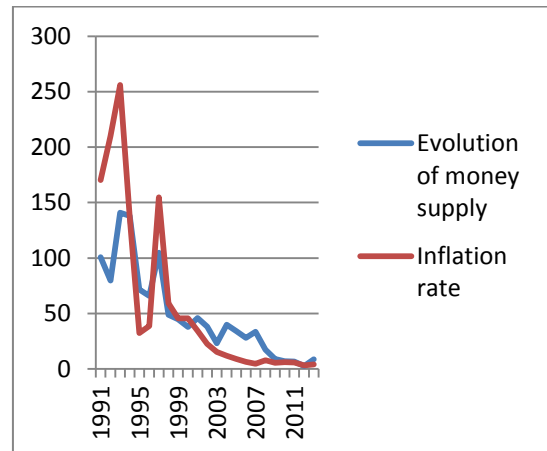
Table 1. Evolution of money supply and inflation rate between 1991 to 2013

Period	Money supply (M2/M3) (million Lei)	Money supply changing (%)	Inflation Rate (%)
1991	103,3266	100,8	170,2
1992	185,6091	79,6	210,14
1993	447,2381	140,9	256,1
1994	1064,8692	138	136,7
1995	1 827,81	71,6	32,3
1996	3 033,46	65,9	38,8
1997	6 215,04	104,8	154,8
1998	9 252,99	48,8	59,1
1999	13 412,25	44,9	45,8
2000	18 506,0	37,9	45,7
2001	27 051,2	46,1	34,5
2002	37 371,2	38,1	22,5
2003	46 074,1	23,2	15,3
2004	64 461,7	39,9	11,9
2005	86 525,5	34,2	9,0
2006	110 821,0	28	6,56
2007	148 115,5	33,6	4,84
2008	174 027,8	17,4	7,85
2009	189 630,3	8,9	5,59
2010	202 772,6	6,9	6,09
2011	216 207,9	6,6	5,79
2012	222 017,2	2,6	3,33
2013	241 550,1	8,7	3,98

Source: National Bank of Romania and

National Institute of Statistics

Figure 1. Evolution of money supply and the inflation rate between 1991 to 2013



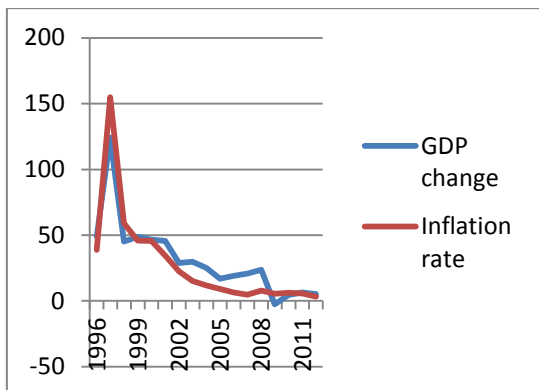
Source: National Bank of Romania and National Institute of Statistics

Table 2. GDP growth (production method) and the inflation rate in the period 1996-2013

Period	Gross domestic product (million Lei; current prices)	GDP change (%)	Inflation rate (%)
1995	7648,9	-	32,3
1996	11384,2	48,8	38,8
1997	25529,8	124,2	154,8
1998	37055,1	45,1	59,1
1999	55191,4	48,9	45,8
2000	80984,6	46,7	45,7
2001	117945,8	45,6	34,5
2002	152017	28,8	22,5
2003	197427,6	29,8	15,3
2004	247368	25,2	11,9
2005	288954,6	16,8	9,0
2006	344650,6	19,2	6,56
2007	416006,8	20,7	4,84
2008	514700	23,7	7,85
2009	501139,4	-2,6	5,59
2010	523693,3	4,5	6,09
2011	557348,2	6,4	5,79
2012	586749,9	5,2	3,33
2013	174451,4(T3)	-	3,98

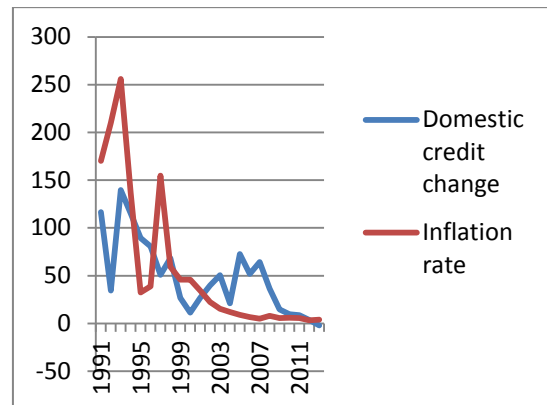
Source: National Institute of Statistics

Figure 2. Evolution of GDP growth (production method) and the inflation rate in the period 1996-2013



Source : National Bank of Romania and National Institute of Statistics

Figure 3. Evolution of domestic credit and the inflation rate in the period 1996-2013



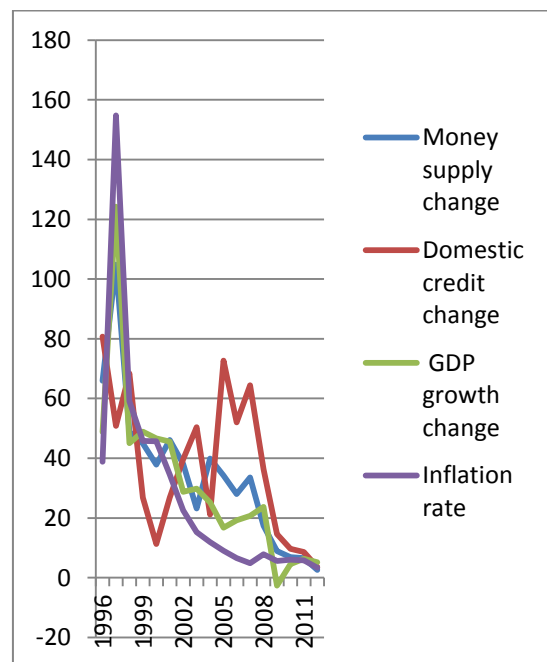
Source : National Bank of Romania and National Institute of Statistics

Table 3. Domestic credit and the inflation rate in the period 1991-2013

Period	Domestic credit (million Lei)	Domestic credit change (%)	Inflation rate (%)
1991	132,1	116,5	170,2
1992	177,8	34,5	210,14
1993	426,3	139,7	256,1
1994	918,3	115,3	136,7
1995	1739,9	89,4	32,3
1996	3145,0	80,7	38,8
1997	4743,1	50,8	154,8
1998	7991,9	68,4	59,1
1999	10134,0	26,8	45,8
2000	11288,5	11,3	45,7
2001	14324,4	26,8	34,5
2002	20022,1	39,7	22,5
2003	30122,5	50,4	15,3
2004	36518,6	21,2	11,9
2005	63 102,9	72,7	9,0
2006	95 924,3	52,0	6,56
2007	157751,3	64,4	4,84
2008	215260,9	36,4	7,85
2009	246697,9	14,6	5,59
2010	270668,0	9,7	6,09
2011	293952,9	8,6	5,79
2012	304689,0	3,6	3,33
2013	2988,6	-1,9	3,98

Source : National Bank of Romania and National Institute of Statistics

Figure 4. Evolution of money supply, the domestic credit, GDP growth (production method) and the inflation rate in the period 1996-2012



Source : National Bank of Romania and National Institute of Statistics

After calculating the relative changes in money supply, gross domestic product and the domestic credit it is necessary to calculate the correlations between them and the inflation rate.

Table 4. Correlations between inflation, money supply ,GDP and domestic credit \*

Period	Correlation between inflation and money supply change	Correlation between inflation and GDP change	Correlation between inflation and domestic credit
1991 - 2013	0,87444	0,961044	0,618048

\* calculations based on data provided by the INS and NBR

#### 4. Conclusions

Analyzing data on inflation, money supply change, GDP change and domestic credit, we can find that there is a direct relationship between these indicators.

The results indicate the existence of significant correlations between these parameters (values near 1).

Assuming that money supply is one of the causes for inflation, the study shows that in Romania, in the period under review, money growth lead to increased inflation.

Interestingly though is that even if GDP rises, the inflation rate does not decrease as we expected, which would lead to the conclusion that this indicator does not affect inflation.

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## Issues and Objectives of a Green Tax Reform

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### Abstract

*In this paper we try to argue why the environmental tax reform should be welcome, especially in our times of economic and financial instability.*

*Therefore, we first state some principles of welfare economics concerning the environment and also remind the debate and outcomes on the double dividend paradigm.*

*Then we briefly review and analyse the main instruments of environmental fiscal policy and their potential impact on public finances. We are now able to figure and analyse the main objectives, outlooks and issues of implementing a green tax reform in the European Union.*

*In the end are some conclusions and recommendations for an effective environmental taxation in Romania.*

**Key words:** tax reform, public finance, marginal social damage, environmental, double dividend

**J.E.L. classification:** H30, H230, Q580

### Introduction

In our theoretical and methodological approach, the state through its public finances primarily fulfils the role of correcting market imperfections, or macroeconomic deficiencies in the market economy. The main cases reflecting market imperfections and requiring state intervention are: public goods, externalities, monopoly power, imperfect information and the business cycle.

Environmental quality is typically considered a public good in the literature of

public finance. With regard to the natural environment, it is important to note that non-rivalry of consumption usually associated with public goods refers more to the quantity; indeed a public good does not lose in amount when consumed by increasingly more people. Yet it may lose quality, so individual utility derived from the respective public good can decrease when others use the public shared property (for example, if atmosphere is a public good, the amount of air available is virtually unlimited and unaffected by the number of "consumers", still the air and environment quality can be affected significantly with pollution).

Prevention of irreversible environmental altering phenomenon is realized and expressed through the concept of sustainable development and the main agent able and obliged to promptly transpose this concept into practice is the state, as defender of the public interest, of our present and future generations.

### Theoretical and methodological background of environmental taxation

Analysis of state intervention and public finance activity must be achieved in terms of both the quantity and quality, as the theses that see only in expanding public sector or, conversely, its disappearance, a miraculous cure of the difficulties, often neglect the real and complex situation of the economy.

An element in the economy of public finances, which is important for this analysis, is the notion of "optimal taxation", to increase the revenues needed to finance public spending, in the most efficient way.

Two main components of fiscal theory, respectively the fiscal policies to collect



revenue and the fiscal policies to correct externalities, were until recently addressed independently. This integration of taxation for income collection with the taxation to correct behaviour, underpins the inauguration of a new set of problems that take into account, at some level, a "double dividend" assumption.

The double dividend paradigm calls for the further debate of ideas: if corrective taxes increase revenues and increased tax revenues, discourage pollution; are not these two complementary policy objectives? A fee or tax that reduces pollution and brings income serves both environmental protection and public spending targets; intuitively seems to cause a double benefit, or "double dividend" while generated income contributes to financing the provision of public goods.

Thus, if the primary benefit or dividend of environmental taxes is given by the protection and improvement of the environment, the second benefit is a reduction of induced economic distortions in the tax system classic collection of state revenues. In addition, would it be best an integrated tax that serves both public expenditure and environmental objectives, to get more on both sides, at a lower cost than when each objective is considered separately?

This idea has received insufficient attention until the necessary policies to combat climate change have attracted the attention of economists on this subject. The term "double dividend" began to be widely used after its appointment by David Pearce [1]. However, the implications, and even double dividend hypothesis validity are more complicated, and there is no consensus on a specific single test or experiment that could validate or deny.

As analysed in another paper [2], at the core of the theoretical analysis is a comparison between the optimal environmental tax and the Marginal Social Damage of pollution MSD — also identified as "the Pigouvian rate" — the tax that will achieve optimality in the absence of revenue-raising taxes. Since it is well-established since Pigou that, at the optimum, the environmental tax will equal MSD in the absence of revenue motivated taxes, the question is whether this optimal green tax

rises or falls relative to MSD when revenue-raising taxes are also present?

This question may be understood to be an indirect test of whether there is an extra benefit (a double dividend) when revenues from the pollution tax are used to meet government's revenue requirements. According to the paradigm, a double dividend is expected from green taxes: not only the effect of better environmental protection and quality, but also to reduce distortions of existing taxes on revenue from labour and capital.

The hypothesis was first mentioned by Tullock [3] and subsequently supported by studies of Nichols [4] and Lee and Misiolek [5]. However, later, that vision has been questioned in studies by Bovenberg and van der Ploeg [6, 7] and Goulder [8], by a somewhat different approach of the double dividend hypothesis.

According to their interpretation, there is really a positive effect if the excessive burden of the entire tax system - including the excess burden of environmental taxation - is reduced with the green tax reform.

In a bargaining model where the firm can invest in emissions reduction technologies, Strand [9] shows that because of environmental taxes, the hiring for investments made by firms to reduce pollution, will cut pollution and increase employment, thus witnessing the creation of a double dividend.

In conclusion, this section shows that there is a second dividend of environmental taxes, at least in the form of increased employment and social welfare, by using green tax revenues to reduce labour taxes.

### **Applied fiscal instruments and experience**

In practice, the main ways to achieve a beneficial effect of the environmental policy on the budget of public finances are by: increasing revenues and broadening the taxation base, through environmental taxes; reducing or eliminating environmentally harmful subsidies; cutting net costs of environmental damage (e.g. healthcare costs) supported by public finances, by improving environmental quality.

a) Environmental taxes and fees are used to achieve environmental protection through increased costs of resource use and of

environmental damage, therefore providing an incentive to use resources efficiently and reduce the negative environmental impact. The new taxing on environmentally harmful activities can also expand the total tax base.

The revenue collected will depend on the tax rate and elasticity of response. The higher the tax elasticity of response, the stronger will be the reduction of environmental impacts, but the higher will also be the decline over time of tax revenues collected through this standards of green taxation.

It can be stated hence that there is a tension potential between the objective of increased revenues, on the one hand, and the environmental policy objective, on the other hand. There may be risks and uncertainty to revenue stream from environmental taxes in the medium and long term, when, as the effect of the environmental policy, the aspect of negative environmental externality that was corrected by the tax may be corrected or diminished significantly.

However, some tax base will last in time (for example, on energy consumption), and consequently corresponding environmental charges, so they keep the potential to collect long-term public income and control the environmental degradation.

Environmental taxes will transfer funds from the private sector to the public sector by reducing private income and increasing public funds. Any adverse economic effects of environmental taxes can be mitigated by the recycling of revenues to reduce other taxes, which may in turn reduce or eliminate the benefit impact of the environmental policy on public finances.

b) Subsidies have harmful effects in the activities that induce negative environmental impacts. For example, historically, agricultural production subsidies have led to significant growth in agricultural production, but also in their negative environmental impacts such as eutrophication of water courses. Studies [10, 11] concluded that there is significant scope to reduce environmentally harmful subsidies in most sectors analysed (agriculture, fisheries, transport, energy and water).

All studies and research agree on the view that there may be justification for the adoption of innovative environmentally friendly technology subsidies, although even

in this case, it is for the best if subsidies act only for a limited time.

Eliminating fossil fuel subsidies could stimulate trade and economic growth while reducing emissions of CO<sub>2</sub> and the unwanted impact of emissions, although it will have short-term negative impact on employment and the household expenditure for energy consumption.

A subsidy reform also has the potential to provide economic benefits through greater efficiency, increased competition and increased commercial activity.

c) Environmental damages may involve direct costs for public finances, such as those related with illnesses caused by pollution. Costs for treatment of respiratory diseases are caused by air pollution; besides, also the costs of providing flood protection, are currently increasing due to climate change. Decreasing environmental damages thus can reduce costs from the public purse.

As a first conclusion, the main environmental policy instruments that improve public finances are hence the environmental taxes and, as a second best, the cuts of harmful subsidies.

### **Objectives and issues of a green tax reform**

Environmental taxes are used extensively throughout the European Union, and taxes on certain types of activity (such as energy consumption) are particularly widespread. Specific taxes on waste, various forms of pollution, and on certain products or resources (e.g., pesticides, fertilizers, and plastic bags) were also introduced by some Member States.

Due to the current global financial crisis, which has revealed background of sovereign debt crisis, concern and dedication to reforming taxation seems more relevant and timely than ever before.

Therefore, in September 2011 experts and economists attended a special forum at the Copenhagen conference "Taxation, Innovation and Communication: Enhancing the prospects for green fiscal reform". It was demonstrated that in a period of economic and financial crisis, European governments can use the momentum to reform tax systems and make them "greener" in the sense of better integration of environmental policies,

able to provide both financial and economic benefits and environmental benefits.

First, a green tax reform can help promote green industries and save the society from some of the most significant environmental damage. As we tried to show by theoretical analysis above, the efficiency of green tax reform is the so-called double dividend, a key and fundamental ingredient represented by a combination of income tax cuts and a greater emphasis on taxation of natural resources, as inputs and outputs - for example, water, energy and CO<sub>2</sub>.

Nevertheless, a tax system that rewards the working members of the society with lower taxes on income and chooses to address environmental challenges by discouraging polluting activities may stimulate and encourage changes in the rules of society. Also, the green tax reform is seen as stimulating innovation activity, because in terms of competitiveness, it bodes well to reduce punitive measures on income. A recent report by the European Environment Agency [12] has concluded that environmental taxes, while reducing labour taxes, could provide both environmental improvements and employment benefits, for the labour tax system, for innovation and competitiveness.

However, the effectiveness of environmental taxes lies more in the way of their design, which is critical, especially in terms of fiscal stability and of the confidence in the arrangements for compensation. Communication and transparency, is also an important part of the design of these duties, in order to be effective. A green tax reform project that incorporates a clear framework in which to recycle tax revenues would also easier obtain the public and political support.

Given the need for flexibility and speed of change in our economic structures, green taxation has the opportunity to support the development of a sustainable infrastructure for tomorrow. This clear objective for environmental taxation would be a boost and ease of implementation, especially if combined with a public sector reform that changes the focus, becoming, from a bureaucratic container vehicle, a vehicle to facilitate the economic mobilization and development for business and citizens.

Equity aspects can be integrated into the structure of the environmental tax system,

which can provide a greater reduction in taxes of the working poor people than of the rich. Moreover, the variable taxation on consumption (instead of the income tax for most people), reflecting the social and environmental costs of goods, with a structure to ensure the ability to pay for people with lower incomes, would serve well green tax reform.

The proposal to amend the Energy Taxation Directive (ETD) 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity tax would require two thresholds for each source of energy outside the EU emissions trading system (ETS): one based on the energy content of the fuel, another based on the CO<sub>2</sub> emissions.

To achieve the main objectives of the ETD, the Commission considered the following approaches:

- a review of the fiscal treatment of different energy sources, on a single criterion;
- a review of the structure of the Directive in view of the different objectives of energy taxation (income generation, energy saving, environmental considerations);
- a further introduction of a uniform tax related CO<sub>2</sub> emissions, which is added to taxes already levied and completes the ETS.

Impact analysis of implementing the modified ETD showed that it is possible to achieve the objectives without additional economic costs; the review of the Directive can even bring an economic advantage, especially when using the additional revenue from general taxes on energy consumption and related CO<sub>2</sub> emissions tax, to reduce employers' social contributions [13].

With the ETD reform, there will be a more coherent approach to energy taxation across the EU, avoiding the diversity of national policies and helping to create a level playing field for industry across the EU. It is even considered an opportunity for Member States to redefine their tax policies, promoting the creation of new jobs.

As regarding the prospects of green tax reform in Romania, in our opinion, it is still in an early and somewhat latent stage.

At present, the lowest environmental tax revenue relative to GDP is found in Spain,

France, Lithuania, Romania and Slovakia, all fewer than 2% in 2010.

In Romania, the revenues collected from environmental taxes, down from 2.0% of GDP in 2010 to 1.9% of GDP in 2011, have a share well below the EU-27 average (2.4%). In fact, this value was the fifth lowest in the EU. Most of these environmental tax revenues are made of energy tax revenues (1.7%), very few of taxes on pollution and only 0.2% of the transport fees (excluding fuel).

In addition, Romania has the most energy inefficient economy in Europe, and gets among the lowest revenues from environmental taxes as a percentage of GDP, both overall and in the three main tax groups: energy taxes, transportation taxes and pollution and resource use taxes [14].

So far, no one can say that in Romania, the environmental tax policy has been effective in promoting environmental protection and sustainable development, although this is its original purpose (the main dividend).

However, it should be specified, that despite the fact that environmental taxes have been and are at the lowest levels in the EU, and the ability to collect these taxes is quite low, Romania is in a very good situation in terms of the overall level of the CO<sub>2</sub> emissions because the emissions of greenhouse gases have decreased significantly in post-socialist era, mainly due to the de-industrialization.

Recently, despite social opposition, to align with the provisions of reforming the ETD, Romania has taken too, a number of fiscal measures to increase environmental taxes. Following a public consultation launched by the new government rapidly, in March 2013 was introduced the new "environmental stamp" that would differentiate car taxation based on CO<sub>2</sub> emissions. This fee will be paid only once for the lifetime of the vehicle [15].

## Conclusions

Overall, and in a time when European governments are pressed by the economic crisis to increase income taxes, there is the option of an alternative tax on environmental resources, which would allow, progressively over time, to reduce income taxes.

In general, the increase of environmental fees and taxes and the reducing of subsidies are likely to occur within a reasonably long period of time, to allow affected groups to develop their capacity to adapt (and overcome obstacles with political forces and interests opposed to reform).

This is an opportunity for Europe, because the shifts from taxing income to taxing resources makes sense economically and enable awareness and inclusion of environmental and social costs in taking business and consumption decisions, a direction corresponding to the sustainable development objective of the Cohesion policy.

Therefore, we believe that, according to the objectives and outlooks for green tax reform in the European Union, recommending a change in emphasis from labour taxation (where Romania has a high tax) towards the taxing of consumption and pollution, it would be appropriate and indicated a gradual increase in environmental taxes in Romania, leading to the collection of higher tax revenue to budget.

This source of revenue can balance the deficit and, ideally, also contribute to a sustainable financing or co-financing of the urgent and huge environmental investments required in our country to comply with the EU environmental acquis [16].

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## National Approaches to Consumer Problems – The Protection Model

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### Abstract

*The present paper presents one of the national approaches used to address consumer problems, i.e. protection model. Developed in countries like the United States of America or France, this model aims to protect consumer rights against the negative consequences of production activity.*

**Key words:** consumer interests, consumer protection, consumer rights

**J.E.L. Classification:** D18

### 1. Introduction

The answers formulated nationally to the problems incurred by the consumer within the market evolved differently from one country to another, under the influence of internal political, social and economic pressures.

A detailed analysis on the modalities for approaching these problems discloses the possibility of identifying certain patterns, general models in which the national systems developed in the field of consumer protection can be framed, in terms of specific key-elements, as: the identity assigned to the consumer, the main problem with which he confronts within the market, the solutions found in order to hurdle it off and the coordinating principles of the actions intended in the end for the increase of the safety level guaranteed to the consumer by that national system.

### 2. Protection model for defending consumer interests

The protection model for defending consumers interests regards them as a disfavored group situated in an economy dominated by the producers, reason for which their protection against the negative

consequences of production activity becomes necessary. In this context, consumers are regarded, firstly, in the capacity of political actors, the protection of their own interests being appreciated as a fundamental right that must be guaranteed to them within the market. Accordingly, the solution to the consumer problems focus on the strict regulations of their rights, their isolation from market risks and their mobilization on purpose to defend the rights sanctioned by law and equivalent to certain political rights. As a matter of fact, the intervention of public power in favor of the consumer comes to support the transfer of the liability in relation to the safety of the commercialized products chargeable to the producers, who are legally under the obligation of complying with consumers' rights, the fundamental principle which governs this model being "*Caveat venditor*" or "*Let the seller be aware!*".

The protection model for defending consumer interests has its origin in the consumerist movement developed on the American continent and later taken over by the old European continent, especially in France.

The militancy activity of the consumers from *the United States of America* knew its first manifestations since the end of the 18<sup>th</sup> century, under the form of the movements to promote trade with the so-called "free products", however obtained without appealing to slave labor, and which led to the establishment of the first shops intended for the commercialization of such products, first in Philadelphia, so that later they extended, during the 19<sup>th</sup> century, in most of the regions of North-American continent.

The end of the 19<sup>th</sup> century was marked by the boycotts organized by American consumers against the exaggeratedly high prices practiced for meat products, the high levels of rent charges, consumerist movements encouraged, as a matter of fact, by the establishment, in 1899, of the *National*

*Consumers League*, whose objectives were directed especially toward the improvement of salary and work conditions for the workers in all fields of economic activity, promoting at the same time the idea that they are not only workers, but also consumers.

Although it did not aim especially to protect the interests of the consumers, the National League supported the insurance of decent living conditions for American citizens, fact which also involved the observance of the right to healthy food, sense in which it contributed to the adoption in 1906 of the first tangible action undertaken by the federal government towards the consumer protection, respectively *Federal Food and Drug Act*. It prohibited the interstate trade of counterfeit food products and drugs or those obtained by using, for example, synthetic colors, food additives or other substances which were harmful for consumers' health, under the penalty of their confiscation.

During this period, the concerns of the American consumerist movement were represented by the improvement of labor conditions, concomitantly with the extension of the women's degree of involvement in political activity and the increase of the number of organizations which used their experience as consumers on purpose to reform the consumption society. Thus, the role played by American women, for example, in the administration of Department of Agriculture's Bureau of Home Economics is remarked, which militated for the improvement of the quality of products commercialized within the market and looked for educating housewives in order to rationalize their consumption decisions.

During the inter-war period the modern movement of comparative testing of the products was born, being initiated by the independent organization *Consumer Research*, which, by publishing the monthly magazine with the same name, purposed to itself to surpass the American consumer's ignorance and involve him in the evaluation of the quality of the products commercialized on the market. However, considering it not aggressive enough in respect of the actions undertaken in order to support the consumers, a part of the members of the organization broke away from under its umbrella on purpose to lay the basis of

*Consumers Union*, in 1936, and so the old organization gradually ceased its activity.

Consumers Union remarked through the decades, by its opinion formation role and especially by its contribution brought to the promotion of the main measures intended for consumer protection adopted by the federal government. Also, it took the initiative of publishing the monthly magazine renamed *Consumer Reports*, which became the first publication in the world which organized periodic quality comparative tests concerning a large series of products, from motor cars to household goods, food and cleaning products, an initiative which served later as an example for Western European countries.

During the same period aspects regarding the consumption were introduced in the purview of political policymakers, by the agency of some institutions as the *Consultative Consumers College* or the *Office for Consumer Counseling*, organized within the Adjustment Administration in the field of Agriculture. On this occasion the title of "consumers-citizens" was also institutionalized, using at the same time the power they have within the market on purpose to revive the American economy.[1,2]

During the following years, the outbreak of serious scandals related to the deadly side effects of certain medicines administrated at a large scale for treating various diseases to humans (for example, sulfamide, a medicine based on sulphur used to deflate certain infections) comes out with the adoption in 1938 of the *Federal Food, Drugs and Cosmetics Act*, which extended the governmental control on the advertising and labeling these categories of products, stipulating the possibility of trading new medicines only under the restriction of their approval by the newly-established Food and Drug Administration. A series of amendments were brought later to this law, which regarded the quality of pharmaceutical products, by adding the producers' obligation to guarantee the efficiency of the use of those products, together with that of guaranteeing their safety.

The period of 1950s-1970s is considered as the climax of mass consumption in the United States of America, but also the "golden era" of the measures intended for consumer protection, the interests of the

federal government to safeguard individual rights within the free market individuals being expressed at open stage and developed within a genuine model of consumer protection, "exported" later in the European countries, by the agency of Marshall Plan.

President J. F. Kennedy's assertion, from March 1962, in front of United Nations Congress, according to which "We all are consumers !" and the enumeration of the four fundamental rights of the consumers, respectively: the right to safety, the right to be informed, the right to choice and the right to be heard - represent the key-moment to which consumerist movements all over the world relate, these rights lying to the basis of all national policies adopted in the field during the following decades.

Starting with 1973, a *Consumer Protection Commission* started to work in the U.S.A., mandated to protect the consumers against the risk of being prejudiced by the products commercialized on the American market and to support them in the evaluation of their safety, by developing specific standards at the federal, state or local level on purpose to prevent the possible prejudices that might be brought to human health.

In the last decades of the 20<sup>th</sup> century, the American consumerist movement evolved a lot in purpose and diversity. Thousands of companies were practically attacked by numerous boycotts on the consumers' part or were the target of demonstrations or other forms of protestation activities, whose purpose extended continuously, from the corporate practices related to environment and consumers to the treatment inflicted on workers and the observance of human rights.

A similar evolution of consumerist behavior which took place in the U.S.A. produced on the old continent, in *France*, where the end of the 18<sup>th</sup> century surprised the French consumers dissatisfied about the high prices practiced by traders for staple products (bread, milk, eggs, butter or sugar), reason for which they repeatedly took attitude under the form of street demonstrations.

In spite of that, neither the French civil code promulgated in 1804 nor the penal one from 1811 contained dispositions intended to repress the frauds of the producers and traders, so that, in the end, the consumer was left in their hands, without being protected

under any form. As a matter of fact, in the liberal thinking which was dominant in France in those times, the law of the market – which, in principle, maintained the consumer away from any fraud – was considered as a sufficient penalty. In exchange, Penal code was draconian in relation to the repression of any revolt or deviation on the consumer's part.

The advertising activity knew a substantial upsurge in this period, which overwhelmed the newspapers, becoming a professional activity, being created also the first agency of this type in France, in 1845. Likewise, the networks of stores developed and the commercial practices framed nowadays within the marketing went from strength to strength, the consumers being more and more exposed to the disappointment on the part of traders.

Because this situation could no longer continue, the *Law regarding frauds and counterfeit in the field of products and services* was adopted in 1905, which was only abrogated in 1993. It made provisions for sanctions for those who defrauded or were trying to defraud the consumers, either by the nature, type, origin and/or the content of the products, or on the quantity of the delivered products. Also, the law made provisions for punishments for the forgers of commodities intended for human or animal food, medicines, spirits and agricultural products, and also for those who displayed or sold counterfeited or toxic commodities.[3]

Also during this period, more exactly starting with 1909, the commencement of the first movements exclusively consumerist takes place, whose purpose was the training and organization of the consumers in a powerful labor union which represents them together with the labor unions of the producers, employers and workers against any type of frauds and abuses. The first attempt on these lines was represented by the *General Confederation for Consumer Protection*, created in 1928, whose program of action made provisions, on one hand, for the negotiation together with the representatives of producers and traders of some correct sales prices for the consumers, and on the other hand, consumers' education with regard to the choices they had to make within the market and the way of using the purchased products. However, this initiative



failed, as a consequence of the outbreak of the crisis in 1930, the political issues coming to the fore in the area of concerns of the French.

The burst known by the advertising activity during the following period, to which bigger and bigger budgets were allotted, draw more and more the attention on the abuses directed against the consumers, imposing their defense as a must. Moreover, World War II brought back to the fore the fight for the eradication of starvation and fraud.

Under the influence of the consumerist ideology "imported" from the U.S.A. by means of Marshall Plan for the reconstruction of Europe [4], in 1951, *Union Federal des Consommateurs* was established, which began to publish, starting with December 1961, the test review *Que Choisir*, having a purpose similar to that of the American magazine *Consumer Research*.

The initiative on the part of the state came to support the consumers by establishing in 1960 a *National Consumer Council* which served as an interaction forum between the consumers and the governmental authorities. The establishment of a *National Consumption Institute* followed, in 1968, and the creation of a *Secretariat of State for Consumption*, later converted into a full ministry in 1981.

Of all the European countries, France especially distinguished itself by the amplitude of the independent manifestations for the support of consumers interests under the form of five categories of profile associations, respectively: associations of political or union inspiration; feminist or family associations; associations of cooperative origin; associations specialized on fields; independent associations dedicated exclusively to the defense of the rights of the consumers.[5,6]

Like the United States of America, also in France the consumers are treated as political actors, genuine citizens, the problems incurred by them being approached in terms of the failure in observing some political rights, so that the offered solutions come to establish a better political representation of the interests of the consumers, including the mobilization and promotion of governmental measures for the protection of their specific rights.

A similar model for defending the interests of the consumers was developed in **Belgium** and **Holland**, under the influence of a consumerist movement quite conspicuous in the economic life, by the agency of the first associations in the field established in 1953 in Holland, respectively in 1957 in Belgium. On the same lines countries as: Italy, Greece, Spain or Portugal inscribed later.

### 3. Conclusions

T national policies designed to consumer protection, which nevertheless evolved in a different way over time, from state to state, under the influence of the internal pressures of political, social and economic nature - are more than ever subdued to the influence of external pressures, as a consequence of the process of economic globalization, becoming more concessive or even more restrictive.

Consequently, daily reality discloses to us the co-existence of several national systems, guaranteeing the consumer different levels of protection, so that, in order to increase his trust in the purchase of products which originate also from other countries than the residential one, the importance of the realization, at regional and global level, of some joint actions on the part of world states can no longer be ignored, on purpose to avoid the differences that may appear in the international commercial relations and to surmount the problems encountered by the consumer.

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# Mobilising Public and Private Investment by Developing Public Private Partnership Projects

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## Abstract

*The economic crisis has a negative impact on public finances and projects that require long-term investment so the main consequence is that the access to finance for the implementation of PPPs and not only to this kind of investment projects has been limited due to the following factors: increasing the cost of credit, reducing maturities and lack of funding at the beginning of the procurement process. For this reason, it is essential to exist cooperative ventures between public authorities and private investors that could have a positive impact on the economy by contributing to economic growth and job creation through delivering infrastructure projects, providing public services and financing innovation. Exploiting the efficiency and innovative potential of a competitive private sector will definitely ensure better value for money for the infrastructure projects implemented, that often involve important financial resources, expertise and skills in the public sector, complex financial arrangements and a long-term commitment from the authorities.*

**Key words:** Public Private Partnership, investment, development, infrastructure, risk

**J.E.L.Classification:** H41, J18, L33

## 1. Introduction

The public-sector decision-makers that manage limited budgets have a problem of choice when they must provide public services of good quality to the people they are responsible for and a proper solution is to

implement PPPs that can provide a better financial solution to an inconvenience for which their budgets are insufficient.

The concept of Public Private Partnership was established in the early 1990s and has evolved during economic changes so as partnership business models are in many ways different in various countries, but in essence they still remain creative financial instruments that take into consideration the risks, innovation and successful outcomes.

As stated above, Public Private Partnerships (PPP) are innovative financing solutions promoted by the European Union (EU) that are used in particular to:

- Facilitate public projects, especially in infrastructure and public service;
- Reduce costs and financial risk sharing for infrastructure (both large and small-scale), normally supported by the public sector;
- Promote sustainable development, innovation, research and development, due to competition commitments and private enterprises;
- Increase market shares of European companies in public procurement in third countries.

Infrastructure projects include energy (supply and power generation), transport, water, telecommunications and social infrastructure.

EU funding can be used for co-financing PPPs and the parties involved can benefit from:

- Structural funds associated with PPPs in the same way as for initiatives JASPERS, JEREMIE and JESSICA;
- European Investment Bank funds (EIB) and European Investment Fund (EIF). The EIB has also established a European

Centre of Expertise (EPEC) to assist in the construction and implementation of PPPs;

- Financial instruments trans-European transport network, which favors contribution of private financing, venture capital and lending to banks;
- Seventh Framework Programme for Research and Development and the Joint Technology Initiative (JTI).

Currently, Romania uses a dedicated unit for PPP within the Department of Infrastructure Projects, Foreign Investment, Public - Private Partnership and Export Promotion.

## 2. PPPs Characteristics

In many jurisdictions, regulatory processes are insufficient, complex and fail to provide security and incentives for investors, so countries need a safe, predictable, stable, consistent laws and regulations so that the PPP to be successfully implemented.

PPPs are complex transactions that makes difficult to assess the best procurement approach, conventional or not. The main characteristic of a Public Private Partnership is the cooperation between public authorities and private investors, that has a relatively long history in many european countries, especially in the field of public utilities and in the sector of urban development. PPP projects don't have a specified and general structure because this depends on the project itself differing from one case to another. The basics of these type of partenerial projects are the following elements: the public authority entering into the contract is represented by the local government and the private investors are financially powerful actors. These two parties join together to create large-scale projects and have specified expectations:

- The public sector needs the efficiency, capacities, financial support and the know-how of the private party (economic logic and marketing strategies);
- The private-sector party wants opportunities to make profit and to gain access to local authorities.

PPPs are an important tool that may be

used in many and different circumstances, but they are not always appropriate and that's why before entering into a PPP contract certain analysis are compared deterring the best procurement approach, taking into consideration the present and future risks, assessing Value for Money and the long-term risks. Types of PPP projects vary depending on the degree of involvement and risk sharing of the private sector.

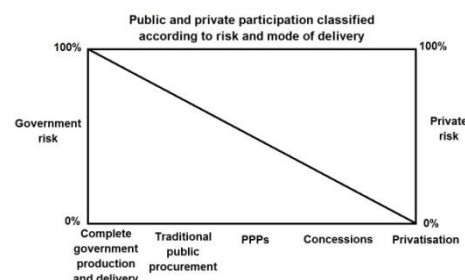
## 3. Risk management in PPP projects

Project finance theory reveals that the risk should be supported by the party that has the skills to manage them, but many PPP projects fail because the parties can not agree on the allocation of project risks, and this happens because each side is trying to transfer risk to the other party.

Likewise, it is difficult to calculate the risks, especially in the economies in transition, where growth rate is sometimes less predictable, which makes forecasting demand become a difficult exercise to fulfill. The main benefit of PPP projects comes from the transfer of risk to the private sector. But such a transfer and the extent to which the private sector is ready to take sometimes affect project feasibility.

Lenders tend to have a strong aversion to risk and will refuse even those projects that are socially desirable if they perceive more risk, which disappoints and frustrates the public sector. In this case, the governments must identify risks at the beginning of starting this type of investment projects. A good starting point would be to use a checklist of risks that are usually applied in projects of infrastructure services.

Figure no.1. Graphic representation of the participations in a PPP



Source: OECD

Establishing a risk matrix can be a useful tool for both government and the private

sector, which should be used for each phase of the project, setting the preferred position of the government allocation. During the phases of pre-tender and tender, it can help state authorities to identify all relevant project risks and their allocation. During negotiations it can act as a checklist to ensure that all risks are addressed and after signing the contract can be a useful tool to compile a summary of the allocation of risk conducted by contract.

Governments can use various tools such as a type of insurance to reduce the risk of force and major events that could destroy the network components essential for the private party of the project. Such systems can be ensured by conducting research before issuing tenders and specifying the desired project results (taking into account the government policy).

Given the fact that the project is in the public interest, it is also essential to ensure the existence of a transparent regulatory framework. Once the project starts, the government will have to establish a risk monitoring system to ensure that services are delivered by contracted performance specifications. Consequently, this will allow payment for services provided to be checked properly while continuing surveillance will monitor whether the project is progressing according to the plan. Governments must tackle the political risk also, including concerns that future governments will come and will unilaterally change the rules (transition from a positive approach to a negative PPP and cancellation of PPP projects after the elections is a commonplace in some countries).

Another challenge to the private sector is facing problems and difficulties in obtaining the necessary planning and other approvals to start the projects, as unnecessary bureaucracy and other interference, may delay the project. Regarding the "bureaucracy", governments can interfere to solve such problems in order to facilitate that the project starts on time. Governments may change the terms of the contract because of the long duration of the project.

However, it is important that before changing these terms, their private partners should be fully consulted. Similarly, a government may intervene or terminate the contract if the project is not perceived to be

developed and implemented in optimal conditions. Private sector concerns can be addressed through contractual clauses that make cessation interventions during the development of contractual agreements to be measures of last resort. Attention should be also paid to the potential effects of the long periods, while it will also take into account the government's ability to provide basic services and to procure ancillary services that the private sector is not able to provide.

In some cases, however, PPPs can survive. For example, A1 road project in Poland survived eight changes of governments during the negotiation process. If it occurs in the contract during its development, it refers only to access emergency and in the event of termination, to ensure that "periods are correct and that, if possible, under a termination, clearly specified and limited to defaults, so as to avoid triggering events terminating of the contractual relationship."

Many projects, particularly in transport require massive investments in the private sector and that's why the private sector can not accept one of several commercial risks for these projects.

The public sector should provide support for a project to reduce the risks enough to stimulate private sector to the desired level of investment. There are various forms of support that the government can give to a project, in order to reduce the risk to the private sector, and one such example is the collateral which may be an appropriate form of government intervention, especially to protect private sector risks can not predict or control. Indeed, many PPP contracts provide minimum income guarantees to limit the exposure of the private sector to the demand risk. The most common risks arising in the start-up and performance of PPP projects can be summarized in the following: risk management and operational risk, demand / income, political risk, currency risk, bankruptcy risk of a failure to land project risk related etc.

#### **4. Financing PPP investment projects**

PPP projects are financed by the private sector by using a scheme called Project Finance which refers to "a funding structure of a limited resource in which the debt,

capital and credit are essential premises for the construction and operation of private facilities in an intensive capital industry" (Fight, 2005). Generally, PPPs (especially for infrastructure and highways) require a large capital investment and low operating and maintenance costs. Revenues deserve to coverage of the amortization and the debt service, and in a smaller proportion, the rate of profit to shareholders. Major capital investment phase (during the construction phase normally is in the first 4-5 years of the contract) is financed by debt. (Esty, 2004) shows that the project will have as a result debt levels of 70-90 % and the capital covers the remaining partaround. UK debt level is around 80-90% (Spackman, 2002), which is the same for the Portuguese sector for the construction of highways (Sarmiento, 2010). Debt is often regarded as a non-resource debt", which means that borrowers are relying only on the future receipts for the payment of debt service (principal and interest repayment amount).

PPP debt consists of senior and mezzanine debt (also called junior or subordinate). During the stage of construction of 4-5 years payments will be made to the company that builds the project (Yescombe, 2002). This means that the same level of funding is required at any point in time. Initially it is used the mezzanine debt as a resource, followed by the capital and finally by the senior debt. In the operational phase, repayment and capital follow a different trajectory when senior debt is repaid (which has priority receipts), mezzanine debt and finally equity shareholders. Usually debt maturity is less than the duration of the projects. Through comparing, project financing (project finance) with the usual corporate finance (corporate financing) it is shown that the main difference lies in the nature of the company. In project finance, the company is an SPV, which means that the company operates a project and we might say that the firm is the project itself. In this case, the debt represents at least 70% of the investment, which is three times more than traditional financing to companies (Esty, 2004). In a company, the shareholders have the final possession of assets and debt is usually secured by these assets, at least for the most parts. In project finance, debt is guaranteed by the future earnings of the

project and the SPV does not own the asset, but a concession contract for a long period, but with limited time.

A major disadvantage of project financing covers transaction costs that are higher than traditional financing companies as concession contracts are complex and incomplete (Esty, 2004).

## 5. Conclusions

Public Private Partnerships are an increasingly modern procurement option that provides an alternate option of designing, building, financing, operating infrastructure projects that will play a key role in the future also and will definitely be more important than it is nowadays, but the directions and the functions are unknown because this trend cannot be foreseen, depending on many development factors. The leaders in public service should explore every option that could increase productivity and deliver sustainable public services. Public and private sectors have much to learn from each other in order to deliver better outcomes, better financing and better finalization of a project. PPPs have become more popular with many low and middle income countries. This partenerial type of model can flourish in the countries that have low infrastructure and in Romania also, by building trust between the parties involved into the project.

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## The Level of Understanding Corporate Social Responsibility in Romania Today

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### Abstract

*Corporate Social Responsibility (CSR) is a concept that clarifies the meaning of social responsibilities of companies and shows how they can be met. Organizations are strongly connected to the business environment where they operate. In a wider sense, CSR incorporates not only the direct stakeholders, such as the employees and the customers, but at the same time, the local community and the ecological factors. In this way, CSR develops almost in a natural way and it can be perceived as a moral responsibility that organizations assume in their relationships with their internal constituents and with their surroundings. CSR goes beyond merely obeying the law: it starts where the law ends.*

*In Romania, the concept of social responsibility is still in its early stages of development. The paper tries to present an analysis of the CSR development in Romania. The methodological approach is literature review.*

**Keywords:** corporate social responsibility (CSR), Romania, business ethics

**JEL Classification:** A13, Q01

### 1. Introduction

Organizations around the world are becoming increasingly concerned about the need for, and benefits of a responsible

approach to society. Corporate Social Responsibility (CSR) is a global concern and has been adopted by many large multinational corporations. We have been aware of the concept of social responsibility since the early '70, although various related concepts were integrated into the scope of organizations and governments since the nineteenth century. In the past, social responsibility was mainly focused on the business sector. Therefore, the term *corporate social responsibility* (CSR) is better known than the term *social responsibility* (SR). Many CSR definitions have emerged and have created controversy over time. There are also many synonymous terms with CSR in business ethics such as *corporate sustainability* (CS), *corporate citizenship* (CC), *triple bottom line* (TBL), *socially responsible behavior* (SRB) [1], [2].

The paper is structured into four chapters. The second chapter focuses on the literature review, with an emphasis on the importance of corporate social responsibility. The third chapter presents an analysis of the level of understanding CSR in Romania today. The fourth chapter presents the conclusions of the paper. The methodological approach is literature review.

### 2. Literature review

CSR is a notion which includes a lot of activities that take place inside and outside the organization. Beyond the speeches



delivered by different organization representatives, what really counts is practice. CSR is not achieved only through the efforts of only one person or a small group of people, regardless of how high in the organizational chart they are positioned or how well they are trained. We need a whole community to act in this direction, starting with the CEO and going down to the shop worker.[3].

Social responsibility is defined by the European Commission as a concept through which companies integrate social and environmental concerns in their business operations and in their interaction with stakeholders on a voluntary basis.

Starting from this definition, we can say that CSR is a whole business culture, including business ethics, consumer rights, economic and social equity, technology which does not affect the environment, fair treatment of workers, transparent relations with public authorities, moral integrity and community investment.

Economic activities increasingly require a more ethical foundation, that positions man, environment and social considerations, which are in a constant development, at the center of business activities. Ethical corporate social responsibility governs the relationships among organizations and stakeholders. Stakeholders at the same level know how the consciousness of people directs their behaviour in the relationship with their peers [4].

Social responsibility requires business to determine what is right and what is wrong and, thus, to seek fundamental ethical truths. In recent years, there have been a number of cases which showed the importance of CSR /SR, and, at the same time, the negative impacts on individuals, society and the environment, generated when organizations do not conduct their business in a socially responsible manner. The famous examples of Enron, WorldCom, Adelphia or Savings and Loan demonstrate that CSR was for these companies more an exercise of public relations, a marketing strategy and not an ethical CSR, based on morality. Thousands of billions of dollars belonging to investors and pension funds have disappeared, as well as many jobs, due to unscrupulous executives, managers, accountants, bankers, politicians, lawyers and auditors [5].

Above all, people constantly look for a sense and a purpose in life. And they want to find them in the very place where they spend the greatest part of their time, at work. They want to work for a good organization, one that treats both them and anybody else with respect. [6].

The role of leadership is crucial as ethical CSR should not be perceived only from a rational perspective, as a transactional process. It has to reach the emotions of the people. Employees have to regard this kind of action as their natural way of life. Therefore, the organization has to be able to ensure a strong congruence between its image and its personality. CSR proves to be an important vehicle [3]. Leaders and managers must look above their own interests, and should regard their role as the one to determine the company to have goals and spiritual values, not just profit. They should also take responsibility for the world in which they operate and where they create wealth. Leaders should be allowed to give up almost anything, except responsibility – towards their employees and towards the organization. John Rockefeller Jr. used to say: "I believe any right brings a responsibility; any opportunity, an obligation; any property, a duty." [7].

There is a pretty prevalent prejudice, according to which ethics and corporate social responsibility translate only into costs for the business community, for which reason only those companies with a significant cashflow can afford to develop an ethical and responsible behaviour. This prejudice reflects a misunderstanding of the notion of ethics in business. Regarded from this perspective, ethics is nothing else but a kind of charity dependent on the existence of enough sums of money to be divided among those fighting for a good cause.

In fact, ethics represents more than acts of charity. Ethics in business concerns the way in which companies are run and the way in which the reports between the companies and stakeholders are being managed.

The secret behind all the extraordinary accomplishments-in sports, art, politics or business-lays in passion. True, companies have abilities; they also seek opportunities in their area of competence. But more important is that they develop feelings about things that are important for their people. The modern

companies compete not only in practical skills. [8].

In a 2009 interview, Danah Zohar posits that 'corporate social responsibility is the term that people use when they mean compassion. Every corporation is for CSR but they don't usually practice it. But if you really are compassionate (which doesn't mean pitying people but feeling [empathy] for them) you are going to be much better at relating to your employees and the wider community.' [9]

The true measure of a firm's performance is a multidimensional one and it has something to say, besides profit growth and market share, about the moral values and the ethics of the firm as well. The business domain has to acquire a moral dimension, becoming more oriented towards services and towards getting value.

### 3. Study case: Romania

In Romania, the concept of social responsibility is still in its early stages of development. The concept naturally emerged after 1990. In this area action was taken especially in the humanitarian directions, to the benefit of helpless categories. In those years, we notice a rather complete lack of social responsibility in most corporations and in the legal authorities as well.

We are talking about a catastrophic era of the transfer of the public propriety to the "private sector", in unimaginably corrupt and chaotic ways, transfer made possible by irresponsible and unprofessional public institutions, which generated social instability and the deprivation of Romania of its rich natural resources: oil, gas, wood, land etc; also the rapid and uncontrolled transfer of several manufacturing industries to inappropriate so-called "investors" who predictably brought them to bankruptcy, selling the production units as real estate properties and selling their machinery – most of it still in good condition – for scrap iron, a terrible loss for Romania. That inflicted a major social impact: unemployment and massive emigration to the industrialized countries, a drastic drop in the birth rate, a depreciation of the educational standards, the depletion of many areas, the cancer of bureaucracy smothering the free enterprise

and, in general, any attempt to develop productivity and efficiency.

While multinational companies and large Romanian companies have started to gradually develop their own culture of social responsibility, CSR is a still little known concept in the field of Small and Medium-Sized Enterprises (SMEs).

Currently, in Romania, there is no clear framework on corporate social responsibility, there is a legal binding CSR only in areas related to health, safety and working environment. Public authorities' efforts in CSR/SR campaigns are still not strong. Despite this, in the context of globalization, Romanian organizations are still recommended and need to adopt a responsible conduct to be able to compete in the market. A "National Strategy for the Promotion of CSR" was launched in 2011, highlighting priorities, objectives and main directions for implementation.

The introduction in Romania of standard ISO 26000:2010 creates the premises for the application of social responsibility by all the companies, from multinational corporations and public companies to small and medium-sized enterprises, on the one hand, as well as by NGOs, trade unions, employers and government agencies on the other hand.

A recent report conducted by the „CSR for All” project shows the following: there are several initiatives of networks, forums, blogs and websites regarding CSR/SR and sustainable development in Romania, many of which have developed in recent years. At this moment, the Internet is the most important source of information in the field. A selection of initiatives can be found at: ResponsabilitateSociala.ro, CSR Romania, StiriONG. Another aspect which reveals the level of growth of the field of CSR/SR in Romania refers to the development of educational initiatives. The desk research revealed that, though increasing importance is paid in recent years to education, research and training on CSR/SR, educational and research institutions have not fully exploited their role in the advancement and promotion of CSR/SR in Romania. The topics of CSR/SR or sustainable development do not form the objective of standalone study programs. Two types of research have been identified to date: complex research programs which span a few years (for

example, the study concerning the transformation of corporate social responsibility policies as levers for achieving sustainable development in Romania, conducted by the Faculty for Public Relations and Communication, National School for Political and Administrative Studies, during 2007 – 2010); specific individual researches conducted over a short period of time, usually a few months.[10]

There are also several authors that contribute to the Romanian literature in the fields of CSR: Crisan(2013), Oprea(2011; 2005), Diaconu(2009), Iamandi (2008).[11], [12], [13], [14], [15].

So far, only a minor part of the big companies in Romania report CSR topics. One of the still few Romanian socially responsible companies, a company that spent – between 2007-2012 – over 30 million Euros developing several social programs of major importance, is PETROM S.A., the biggest player in the Romanian oil market, with interests in all the segments of this field. This company's contribution represents approximately 10-11% of the state revenue, having representation in more than 300 local communities in the whole country, with a turnover in 2012 of 26,258 million lei and with approximately 21,000 employees. Last year, PETROM made an important contribution to the covering of major needs in education, health and environment. In education, for instance, the company has contributed to the improvement of learning conditions for the children living in the countryside through the rehabilitation of approximately 80 schools with 15,500 learners. Through the programs "Andrew's School" and "Andrew's Country", they gave pupils and teachers the chance of building a better world on their own. Still in education, they supported the performance of 2600 young Olympic students and they granted over 300 scholarships through the program "The Petrom Olympics". In collaboration with the Health Ministry they have tackled the pressing issue that communities are currently facing in Romania – the access to emergency medical special services, succeeding in extending the network of emergency telemedicine to 56 hospitals.

Among the most successful campaigns in recent years are:

- "You and the community", implemented by Orange in Romania. In 2012, Orange created a national online platform through which over 500 volunteers were reached, a five times higher figure than the average of the previous years. In order to promote volunteer opportunities available in the community, Orange created inside the company's intranet an online platform that gives the employees access to a list of community actions in which they can get involved.
- "A life may depend on you!" Implemented by Vodafone in Romania. Vodafone Romania has conducted a public education campaign about emergency situations in which more than 9,000 people attended first aid courses.
- CSR campaign "Summer job in BCR" implemented by BCR in 2012. Summer Job in BCR was a financial education competition for students over 16 and also the first paid internship project addressed to high school students in Romania. The aim of the competition was to give students first-hand experience working in a large company and to teach them financial and banking concepts through practice, with the support of mentors from BCR.
- UNILEVER education campaign (by Domestos) "Hygiene at home and at school" implemented in 2012. The purpose of the "Hygiene at home and at school" – raising awareness in children about the importance of hygiene and health, as well as teaching them skills in maintaining personal and collective hygiene

#### 4. Conclusions

Any company and any organization has to understand that they are part of complex economic and social networks, where all the partners have a wide range of needs and expectations. CSR develops almost in a natural way and it can be perceived as a moral responsibility that organizations assume in their relationships with their internal constituents and with their surroundings.

In Romania, the concept of social responsibility is still in its early stages of development. Currently, in Romania, there is

not a clear framework on CSR, there is a legal binding CSR in areas related to health, safety and working environment.

Public authorities’ efforts in CSR/SR campaigns are still not strong. Central, local and regional public authorities are often insufficiently involved in promoting the concept of CSR/SR for the benefit of communities and in creating a supportive framework and favorable conditions to encourage organizations to engage in responsible practices.

Initiatives in areas of concern and related to CSR/SR are still few in numbers and government institutions and authorities tend to be more of a secondary partner in projects and campaigns, rather than the main initiator.

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## Sectoral Dynamics of the Economic Crisis in Romania

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### Abstract

*The paper aims at investigating the economic and financial crisis impact which has occurred in the Romanian economy, upon the Romanian companies since 2008. Specifically, its effects are taken into account regarding the number of economic players, the labor force, and the results of business performance: enterprise turnover or gross outcomes. Additionally, this research paper aims at assessing the crisis consequences on corporate behavior in the insecure environment of the crisis regarding the investment process and the value rendered by enterprises. The investigation is made exclusively on the secondary and tertiary sectors of the Romanian economy: industry, construction, trade and services, both from an overall and a sectoral perspective. The analysis also envisages the correlation of progress per the aforementioned economic segments with the overall development of the Romanian economy in terms of economic and financial crisis.*

**Key words:** crisis impact, companies, results, business performance

**Clasificare J.E.L.:** E32

### 1. Introduction

The concept economic recession defines the state of the economy characterized by decreases in gross domestic product (GDP) decline in investment processes, reduction or stagnation of investments etc. It is also believed that the recession is a step towards reducing the economic activity of a country, inferior as amplitude to depression or crisis [1].

From the point of view of economic calculation recession occurs when gross domestic product (GDP) records negative values (negative growth) in two consecutive quarters. Conversely, economic recovery, or

recovery of economic growth is considered to be when GDP growth reoccurs [2].

National Bureau of Economic Research (NBER) in the U.S., believes that the recession is "a significant decline in activity at the national level that lasts longer than a few months and is visible by decreases in GDP, real income of the population, the number of employed in the economy, industrial production and retail sales and wholesale." [3].

Other conceptualizations of the term recession consider that this would be a business cycle contraction that occurs after a peak and could continue through a crisis [3]. Typically, the concept of recession is customary in case the crisis will have modest consequences, while the concept of depression is used for deep and long lasting crises [4].

### 2. Developments of the economic crisis in Romania

The economic crisis began to unfold in the Romanian economy since the second half of 2008 (Table no. 1.), when within the last two quarters were recorded negative growth rates. The crisis continued throughout 2009, in all four quarters having negative rates. The next year, 2010, marked a contradictory evolution, quarters with negative growth, alternating with those who have been reversals of GDP growth, the first and third marking decreases and the second and fourth positive values. Since the following year, 2011, the first quarter brought a new GDP growth, statistically we can consider that our country got back in the growth area, because there have been registered positive variations of GDP in two consecutive quarters. However, this recovery was not a lasting one, as in the following quarters of 2011, the alternation was maintained, after a quarter of growth following one of decline.

Unfortunately, at the end of 2011, Romania goes back into recession due to the fact that in the fourth quarter of 2011 and

first quarter of 2012 GDP variation is negative. But this second recession is of short term- only two quarters, the Romanian economy resuming growth in late 2012. But this time the recovery seems to be lasting, as six consecutive quarters of growth follow, but modest in size. The conclusion is that in Romania, as in many countries the recession started in 2007 had the shape of W.

Table no. 1. Dynamics of Romanian GDP (%)

Date	annual change (gross series)	quarterly change (seasonally adjusted series)
2008T1	8,2	3,5
2008T2	9,3	1,7
2008T3	9,2	-0,1
2008T4	2,9	-2,8
2009T1	-6,1	-3,3
2009T2	-8,7	-1,9
2009T3	-7,1	-0,5
2009T4	-6,5	-1,0
2010T1	-2,6	-0,7
2010T2	-1,1	0,4
2010T3	-2,2	-0,8
2010T4	-1,0	0,9
2011T1	1,5	0,7
2011T2	1,2	-0,3
2011T3	4,1	2,3
2011T4	1,6	-0,9
2012T1	0,4	-0,9
2012T2	1,9	1,5
2012T3	-0,5	-0,8
2012T4	1,1	1,1
2013T1	2,2	0,5
2013T2	1,5	0,8
2013T3	4,1	1,6
2013T4	5,2	1,7

Source. INS – press releases and NBR - Monthly Bulletins [5]

### 3. Sectoral evolutions of economic crisis

The analysis of the economic crisis at the level of some economic sectors shows a number of peculiarities in relation to the general evolution of the economy. Note that agriculture was excluded from analysis due to the strong dependence on climatic factors.

Industry seems to be the sector that has made the strongest impression on the evolution of Romanian economy. Thus, both entries into recession, both the 2008 and the 2011, as timing, they overlap the general

evolution of Romania's GDP, though the sector accounts for less than a third of it. Economic recovery occurs more quickly after the first recession after only four quarters, while nationwide resumption was made after 9 quarters. The next fall, the one in 2011 lasted five quarters, and the nationwide four quarters. It should also be noted that the rates of decline were much smaller, both compared to the average at the level of economy as well as in relation to those of other sectors. Constructions sector enters crisis later, in the second quarter of 2009, and the crisis lasted 12 quarters. In this sector statistics do not capture and second recession, but a return to growth is elusive because increasing values are close to 0 and accompanied by contractions every two quarters, it is true also of small amplitude, close to 0.

Table no. 2. Dynamic of supply components in the GDP of Romania (%)

Date	Industry	Constructions	Services	GDP, quarterly change (seasonally adjusted)
2008T1	1,6	1,7	4,1	3,5
2008T2	1,8	2,6	4,0	1,7
2008T3	0,8	2,5	2,0	-0,1
2008T4	-1,4	2,4	1,5	-2,8
2009T1	-1,8	0,3	-2,4	-3,3
2009T2	-1,1	-1,1	-4,8	-1,9
2009T3	-0,2	-1,3	-3,1	-0,5
2009T4	1,0	-1,7	-3,8	-1
2010T1	0,7	-0,8	-0,9	-0,7
2010T2	1,3	-0,3	-0,4	0,4
2010T3	0,9	-0,8	-2,8	-0,8
2010T4	0,9	-0,2	-2,4	0,9
2011T1	0,2	-0,1	0,7	0,7
2011T2	-0,7	-0,3	1,2	-0,3
2011T3	0,8	-0,6	1,4	2,3
2011T4	-0,2	-1,0	1,8	-0,9
2012T1	-0,5	-0,6	0,9	-0,9
2012T2	0,0	0,3	0,9	1,5
2012T3	-0,4	0,2	3,1	-0,8
2012T4	-0,2	-0,2	2,9	1,1
2013T1	0,7	0,1	1,5	0,5
2013T2	1,5	-0,4	0,4	0,8
2013T3	1,9	0,3	-0,4	1,6

Source. INS - press releases and NBR - Monthly Bulletins [5]

Also one single contraction can be observed at the level of services sector. The entry into recession is one quarter later than the overall economy, in the first quarter of 2009, being carried over 9 quarters. Output of recession is a quarter later than the overall economy (first quarter 2011), followed by 10 quarters of growth, the growth rates being the highest compared to other sectors. Note the slight contraction in the third quarter of 2013, which does not occur in any other sector or at the level of economy, all of those increasing.

#### 4. Effects of the economic crisis in Romania

The magnitude of the crisis can be judged not only by the size of the GDP dynamics, but also through the evolution of absolute indicators that capture the evolution of the real economy. We chose the number of enterprises, number of employees, turnover, profit, investment and added value. The analysis that we made took into account not only the dimension of any eventual contractions, but also overlapping of evolution of these indicators over Romania's GDP growth.

Table no. 3. The evolution of the Romanian economy enterprises during the crisis (thousand companies)

Anul	Comerț	Construcții	Industrie	Servicii	Total
2007	211,5	46,9	61,5	179,9	499,9
2008	214,1	59,4	61,3	199,7	534,5
2009	197,6	60,1	58,9	202,8	519,4
2010	181,9	49,3	53,4	185,4	470,1
2011	165,1	43,5	49,7	172,3	430,6
2012	169,1	44,4	50,9	183,5	447,9

Source. NIS - Press Release [6]

The number of enterprises (table no. 3) contracted during the crisis by more than a hundred thousand: Most businesses that were closed during the crisis were in the industry (approximately a quarter of those working in this sector), following the provision of services (almost 20%), construction (third) and industry (about 20%). So at the level of this indicator, number of enterprises, the industry and services sector is the strongest and the most affected is the constructions sector. About the evolution of the crisis

regarding the number of enterprises, statistics capture only the first recession in late 2008 and early 2009 (reflected in previous comparison). The second recession, at the end of 2011 and early 2012 is not present in the statistics. The crisis is manifested by a delay in construction and services (from 2010, in 2009 the number of firms in these sectors still registers growths). The relaunching in 2011, also is not evidenced by statistical observations, this moment is present in the number of businesses by continuing the closure of companies (it is true, the number of firms that closed in 2011 was reduced to about half of 2010). The year 2012 brings an increase in the number of businesses in all sectors, most of which are in the service sector, which proves to be a sector which relaunches Romanian economy. Unfortunately, industry and the construction, sectors creating high added value, although records increases in the number of business, they are modest in size.

Table no. 4. The average number of employees (thousand) in the Romanian economy during the crisis

Anul	Comerț	Construcții	Industrie	Servicii	Total
2007	984,3	505,8	1715,6	1130,6	4336,4
2008	1019,8	554,4	1643,7	1200,8	4418,7
2009	901,4	469,2	1423,1	1170,5	3964,2
2010	843,8	393,3	1346,3	1142,3	3725,6
2011	857,4	418,2	1387,1	1195,8	3858,6
2012	854,4	399,4	1380,0	1218,8	3852,6

Source. NIS - Press Release [6]

The analysis of the number of employees (table no. 4) shows the whole pattern of the economic crisis. Thus, the recession of 2008-2009 is well noticed (to be mentioned that in terms of industrial workers, their number is reduced since 2008), the continued recession in 2010, the resumption of growth in 2011 and the relapse into recession since 2012 (of much smaller scale and absent in the service sector). During the first part of the crisis 700 000 jobs were lost, from which were recovered during the recovery in 2011 approx. 130 000. Sectors that lost most employees are, in order, industry (losing 300 000 employees, or 17 %), trade

(176 000, or 18 %), construction (160 000 jobs, or 32 %) and fewer services (60 000, or only 5% of total employment) . A special mention for the service sector, which during the 2011 relaunch recovered almost integrally the jobs lost in the previous two years and the second recession in late 2011 - early 2012, is not present, in 2012 this branch being the only one to set up jobs , being thus a redeem for the Romanian economy.

The evolution of the turnover of Romanian business enterprises during the crisis indicates a slight delay in its reflection, otherwise normal under the condition that it is an indicator that measures post factum developments (contracts signed at the onset of the crisis, taking place - completing during the crisis).

*Table no. 5. Annual Turnover (billion lei) in the Romanian economy during the crisis*

Anul	Comerț	Construcții	Industrie	Servicii	Total
2007	321,1	66,2	262,5	122,6	772,3
2008	387,6	93,2	320,7	156,4	958,0
2009	343,6	79,7	284,3	148,1	855,8
2010	356,8	72,9	322,3	152,1	904,1
2011	399,1	77,9	366,3	162,9	1006,2
2012	423,3	77,5	384,9	175,6	1061,3

Source. NIS - Press Release [6]

Thus, although the year 2009 records the crisis, the turnover of companies in all sectors registering reductions, they are smaller compared to the other indicators examined above contractions (trade 11 %, construction 14 % , industry 11 %, services : 7 %). In 2010, when the recession continues, this trend is present only in construction, in all other sectors being recorded growth in sales over the previous year, and in some areas even fully recovering the decrease in 2009 (bringing the industry in 2010 much higher sales than their decrease from 2009). The reviving in 2011 is present in the turnover of the four sectors analyzed, including constructions, so decline since the crisis had fully recovered, except for constructions. To be mentioned that this recovery was done primarily through higher prices. The second recession, from 2011-2012 is statistically only in the turnover of constructions, the other

three sectors recorded increases in sales , but it is true, with about half of the values reported in 2011 for commerce and industry and significantly higher for services. Again the services are better and seem to support the sector and the crisis overcome that toned down contraction in other sectors.

Profitability of Romanian companies during the crisis seems to have suffered the most. Thus, the reduction in profits starts in industry and commerce since 2008, overall Romanian companies lose a quarter of profits since 2007. The year 2009 continues to reduce profits, but this time in all sectors, overall 60 % of the profits of 2008 (or 50 % of the profits of 2007). In total in 2008, 2009 and 2010, Romanian companies lose 70 % of profits in 2007. At the sectors level we have the following figures: 75 % of profits lost in trade, construction 80 %, industry 20 % (but this branch the critical year was 2009, when profits fell by 25 % , in 2010 having a strong enough recovery) services losing all profits and recorded losses of 1.5 billion. The year 2011 brings a revival of return, except for constructions and comes with a new recession in 2012, but only manifested in industry and constructions, the latter sector recorded losses.

*Table no. 6. The gross output evolution (billion lei) in the Romanian economy during the crisis*

Anul	Comerț	Construcții	Industrie	Servicii	Total
2007	12,11	5,07	18,74	7,63	43,54
2008	9,40	5,16	9,17	8,81	32,53
2009	3,50	3,02	2,48	4,09	13,09
2010	0,25	1,01	6,04	-1,56	5,73
2011	4,86	0,76	9,26	0,77	15,65
2012	5,86	-0,62	8,64	5,87	19,75

Source. NIS - Press Release [6]

The investment process in the Romanian economy has experienced, like other indicators, significant decreases. The decrease of investment occurs since 2008, except for industry, because in 2009 all sectors would record investment cuts. The year 2010 records new reductions, an exception being the industry, but the plus in this sector is not significant. Investment at



the end of 2011 had reduced by more than a third, but the numbers indicate reductions of half or nearly half to the trade sector, constructions and services. It should be noted that it is about gross investment, meaning that both the source of funding depreciation (replacement of existent technical capital) as well as reinvested earnings.

The overall imprint of the crisis development occurs in terms of investments, meaning that there is a revival in 2011, but in 2012 is recorded a relapse into recession, industry, trade, services, but curiously, not for constructions.

*Table no. 7. Evolution of gross investment (billion lei) in the Romanian economy during the crisis*

Anul	Comert	Construcții	Industria	Servicii	Total
2007	24,3	24,4	47,0	51,0	146,7
2008	23,3	24,2	53,2	43,4	144,0
2009	14,3	16,9	40,6	27,9	99,8
2010	12,9	12,9	41,4	25,1	92,2
2011	13,6	17,3	83,8	28,7	143,4
2012	13,0	25,8	54,4	27,8	120,9

Source. NIS - Press Release [6]

As Romanian corporate profits were strongly contracted during the crisis, it is clear that the investment process will likely take place only in areas that had the technical potential to generate disparagement (depreciation) to maintain acceptable investment dynamics, namely industry and maybe constructions. Moreover, these two branches are the only ones that, at the end of 2012, record investment values slightly higher than those observed at the beginning of the crisis.

*Table no. 8. Evolution of the gross added value (billion lei) in the Romanian economy during the crisis*

Anul	Comert	Construcții	Industria	Servicii	Total
2007	32,2	17,5	64,8	46,6	161,2
2008	44,9	26,7	85,7	65,6	222,9
2009	37,8	21,9	75,1	60,3	195,0
2010	36,8	19,8	83,9	61,8	202,3

2011	37,8	19,5	89,7	66,3	213,3
2012	39,8	18,5	95,4	69,5	223,2

Source. NIS - Press Release [6]

Regarding gross added value (which cumulated with the level of national economy make out the gross domestic product) its contraction begins in 2009 and continues in 2010 only in services and constructions. In 2011, the resumption of growth occurs also in trade, only constructions continued to record decreases in added value. A second recession, the one from the end of 2011 - beginning of 2012 is observable only in construction, the other three sectors recorded increases in added value. Interestingly, at the end of 2012 the four sectors added value was equal to that of 2008, although industry and services in the four years had brought extra 13.5 billion lei in added value, but was canceled almost entirely (98 %) by negative values recorded in this period of trade and constructions.

## 5. Conclusions

The crisis faced by the Romanian economy after 2008 was actually composed of two recessions. The first one debuted in late 2008 – the beginning, and continued throughout 2009 and 2010, followed in late 2010 - early 2011 a brief comeback modest growth. A second recession begin in late 2011 early 2012, continued throughout 2012, revival taking place in late 2012 - early 2013.

The crisis is manifested in all economic sectors, industry, constructions, trade, services, but during the crisis Romanian industry seems more resistant and the services sector seems to be the sector that absorbed the impact of the crisis, also being the branch which created the most new companies offering jobs to those made redundant by other sectors or partially offsetting losses in constructions and trade.

The pattern on which the Romanian crisis evolved is largely observable both in terms of number of companies, employees, changes in turnover, profit, investments, but also added value.

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## Knowledge and the Concept of Knowledge Society

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### Abstract

*The transition from industrial society to post-industrial society, a process in which "the knowledge and information society" is an early stage, has as platform the profound changes that have occurred over time. Development and use of intelligent systems within an organization allow managers to use stored knowledge to solve complex problems within the organization and to make strategic decisions. On the other hand, the use of intelligent systems that are permanent, do not go into strike, do not apply for leave, can store, view and process large volumes of data and knowledge and can work 24 hours in 24, can provide an independent management employees and put available accumulated knowledge to all managers assisting them in solving complex problems and making decisions.*

**Keywords:** *knowledge society, premise, intelligent systems, informational resources, Horn Clause*

**JEL Classification:** M10, M15

### 1. Introduction

The concept of "knowledge society" delineates the issues and strategies for valuing information and the generic term denotes a comprehensive social change [1]. In essence, the information and knowledge society is based on the Internet, and the

economy based on these technologies is a sure way to a prosperous economy. Moreover, "globalization is a primary consequence of the Internet" [4]. In this context, we believe that the information and knowledge society is a specific phenomenon of globalization, and can be considered as a catalyst environment and support of globalization, or even more, a natural consequence of it, as modern society proves to be a process that can not be stopped, as globalization which is an inevitable process. Knowledge is not only a component of the modern economy, but it becomes a basic organizational principle of our existence [1].

We live in a knowledge society because we organize our social reality based on the knowledge we have. As states the academician Mihai Drăgănescu, "knowledge is information with meaning and operating information" [4]. Therefore, we can say that the knowledge society or information society with meaning, which acts, is only possible grafted on Information Computer Technology (ICT) and can not be separated from it.

Manuel Castells, American professor of sociology and communication, is known for his monograph, "Information Era - Economy, Society and Culture". Being based on a study conducted in the U.S., Asia, Latin America and Europe, Castells tends to formulate a systematic theory of the information society, where global technology is characterized by instantaneous flow and exchange of information, capital and cultural

communication [3]. Despite the rapid dissemination of new information technologies around the world since the 1970s, one of the main aspects of this paper is that there are still areas where the population is excluded from the rapid development of these technologies.

The American researcher Andy Hargreaves believes the knowledge society as a society in process of learning, a society dependent on the infrastructure of information technology and on advanced communications [6]. In this changing information society which is independently creative, knowledge is a flexible resource, constantly spending and perpetual variable. Knowledge, creativity and inventions enter anything and become the work form and primary production. In this sense, we can say that information and knowledge are two important factors in the development process, since they contribute to poverty reduction in that they empower individuals and communities, they provide opportunities to improve living conditions by creating their own informed decisions and so, knowledge is the key.

A very important concept belongs to Michael Porter [8]. He demonstrated that during the progression of nations, there can be highlighted four periods, in terms of the characteristics of the competitive advantage and of competitive models: factor-driven economy; investment-based economy; innovation-based economy; welfare-based economy. Analyzing the main characteristics of these periods, the author believes that an economy based on innovation reveals, in particular, means that the knowledge and information society will be based on. This phrase and its progress at first glance, give the impression of a unilateral, technical name.

## 2. Knowledge and artificial intelligence

Since the '70s, in the paper "Future Shock", Alvin Toffler warned about accelerating change in all fields of knowledge, change mainly determined by the information revolution [9]. The period 1950-1990 is defined as the "third wave" of progress and is the period in which the computer revolution took place by using

"intelligent" machines and in which the focus is on the resource "individual" and inter-organizational relationships have as basis the motto "we cooperate". After 1990 it takes place the birth and spread of the fourth wave determined by the knowledge revolution with focus on unconscious knowledge, namely knowledge based on intuition, imagination and creative ability of the individual. It is the period that will be characterized by the development and use of machines which "think" for the fields (medicine, economy, biology, chemistry, etc.), in which the management is viewed as central institution circulated without borders in a global information society and in which knowledge is exploited as an economic resource under the motto "creating together". Intelligent systems appear and develop in the economy, as the basic structure in artificial intelligence and an increasing importance should be given to the new strategic resource which is *information, knowledge*.

The distribution of artificial intelligence is justified [5] for the following reasons:

- Naturally, the activities and knowledge are distributed spatially;
- The extension of the human-machine cooperation in distributed problem solving;
- The decomposition of complex systems and of knowledge bases related to cooperative subsystems thus providing modularity and flexibility to the system, as well as optimum response time;
- The necessity to integrate artificial intelligence applications already existing, both between them, as well as in classical processing components and management systems of distributed databases;

When modeling human behavior in applications of artificial intelligence it should be considered that the human behavior is a social behavior.

## 3. Representation of knowledge and skills

One of the most common models for representing logical knowledge is the production rules. A production rule is [7] the atom representation of knowledge and has the following general form

$\langle rule \rangle ::= [(\langle ident \rangle)] \text{ if } \langle condition \rangle \text{ then } \langle action \rangle$

where *<ident>* is a character string identifying the rule (optional).

It appears that a mandatory rule contains two parts:

- The *<condition>* part is a Boolean expression that determines whether the rule is applicable;

- The *<action>* part which contains assignments that are performed if the rule is applied.

The two sides are also called "*hypothesis*" and "*conclusion*" or "*premise*" and "*conclusion*".

A rule is called actuated if its *condition* part is satisfied.

In the composition of the two parts of the rule there can be used numerical or symbolic acts and a series of arithmetic and relational operators, application of propositional calculus of order 0 + by taking into account logical expressions built with these operands and operators.

After their presence in *condition* and *action* parts of the rules, facts are classified as follows:

- *basic facts* - facts that do not appear in any part of the *action*, basic facts values may be required of the user;

- *intermediate facts* - facts that can be found both in the *condition* parts of certain rules as well as in the *action* parts of other regulations ;

- *conclusive facts* - facts present only in *action* parts.

Using the operator *or* in the *condition* part creates difficulties in the automatic evaluation of the rule, precisely in the stage of explaining the reasoning and therefore, in the condition part there will only be used conjunctive normal expressions. For example, the following rule shall be considered:

(Re) *if Current\_liquidity\_grows or (Large\_cash\_flows and Large\_turnover) then Impact="positive"*

which can be replaced by the following two rules:

(Re1) *if Current\_liquidity\_grows then Impact="positive"*

(Re2) *if Large\_cash\_flows and Large\_turnover then Impact="positive"*

This conversion is possible because in the propositional logic the formulas:

(F1)  $(P1 \text{ or } P2 \text{ or } \dots \text{ or } Pn) \rightarrow Q$

(F2)  $(P1 \rightarrow Q) \text{ or } (P2 \rightarrow Q) \text{ or } \dots \text{ or } (Pn \rightarrow Q)$

Are equivalent, and to a formula  $P \rightarrow Q$ , corresponds the rule, *if P then Q*.

Generalizing, it can be used the following method of conversion of rules that contain the logical operator *or* in the *condition* part, in rules with *condition* part expressed in conjunctive normal form:

Consider a rule with the *condition* part written in disjunctive normal form

(R) *if C<sub>11</sub> and C<sub>12</sub> and ... and C<sub>1n1</sub> or C<sub>21</sub> and C<sub>22</sub> and ... and C<sub>2n2</sub> or ... C<sub>m1</sub> and C<sub>m2</sub> and ... and C<sub>mm</sub> then A*

The above rule (R) can be converted in *m* rules with *condition parts* written in conjunctive normal form:

(R<sub>1</sub>) *if C<sub>11</sub> and C<sub>12</sub> and ... and C<sub>1n1</sub> then A*

...

(R<sub>m</sub>) *if C<sub>m1</sub> and C<sub>m2</sub> and ... and C<sub>mm</sub>*

*then A*

Difficult problems are generated by the use of *or* in the *action* part as it introduces an ambiguity that can not be removed automatically. For example consider the following rule which tries to establish a diagnosis indicating the cause that determined the current liquidity:

(Ra) *If Small\_current\_liquidity then Small\_cash\_flows or Small\_turnover*

In this case,

*if* the fact *Large\_current\_liquidity* is *true* it must be decided to which fact or facts, it will be assigned the value *true*:

to the fact *Small\_cash\_flows* or to the fact *Small\_turnover* or to both facts.

To solve this problem there can be considered the following solutions:

- Multiply working memory for each variant of action separated by *or*

- Is considered one of the first assignments, in our case

*Small\_cash\_flows=true*, then returns and it is executed the assigning

*Small\_turnover=true*.

Each of the two solutions complicates the automatic processing of the rule and therefore the logical *or* operator will not be

allowed in the *action* part of the rules. The presence of the operator *or* in the *action* part may be replaced by the knowledge engineer, generally with an additional fact. Thus, in the above example instead of the rule

(Ra) there may be used 6 new rules written with the help of the additional fact *Reduced\_ec\_activity* as follows:

(Ra1) *if Reduced\_ec\_activity and non Turnover then Small\_cash\_flows*

(Ra2) *if Reduced\_ec\_activ and non Small\_cash\_flows then Small\_turnover*

(Ra3) *if Small\_cash\_flows then Reduced\_ec\_activity*

(Ra4) *if Small\_turnover then Reduced\_ec\_activity*

(Ra5) *if non Cash\_flows and non Small\_turnover then non Reduced\_ec\_activity*

(Ra6) *if Small\_current\_liquidity then Reduced\_ec\_activity*

Relating to restrictions on the use of the operator *or* in the *action* part there can be made the following clarifications:

- Any formula in propositional calculus, in the form

$A1 \text{ or } A2 \text{ or } \dots \text{ or } An \text{ or non } C1 \text{ or non } C2 \text{ or } \dots \text{ or non } Cn$

Called clause is equivalent to the rule

(Rc) *if C1 and C2 and ... and Cn then A1 or A2 or ... or An;*

- Any formula is equivalent to a lot of clauses and thus, equivalent to a lot of rules (Rc) containing the operator *or* in the *action* part;

- There is a particular clause, which is composed of a non-negative atom and many negative atoms called Horn clause, namely

$A \text{ or non } C1 \text{ or non } C2 \text{ or } \dots \text{ or non } Cn$   
equivalent to the rule

(Rh) *if C1 and C2 and... and Cn then A;*

- Because not every formula of propositional calculus can be expressed by Horn clauses, the expressive power of knowledge representation method by rules reduces (there will not be represented formulas that are not equivalent to Horn clauses), limitation accepted in commercial systems (eg Prolog);

- The expressive power of knowledge representation method by rules, can be increased using negation as any general clause form

$A1 \text{ or } A2 \text{ or } \dots \text{ or } An \text{ or non } C1 \text{ or non } C2 \text{ or } \dots \text{ or non } Cn$

Equivalent to the (Rc) rule can be written as

(Rn) *if C1 and C2 and ... and Cn and non A1 and non A2 and non ... and non An-1 then An*

which does not have *or* in the *action* part, this not being the only possible writing, because in the *action* part it can be used any  $A_i$  atom, the other  $A_i$  atoms being written in the *condition* part, preceded by the logical operator *non*.

Among dozens of factors that influence the activity of economic entities and whose influence can not be found at all or at most to 1% in accounting, there can be highlighted the following factors [2]: number and relationships with customers, number and relationship with suppliers, competition in the sector, the attitude of management towards cash flow, quality and training of managers, etc..

#### 4. Integrating knowledge in database and intelligent systems

While database technology envisages storing, maintaining and accessing large volumes of data, intelligent systems technology is focused on solving complex problems in various areas that require human expertise, being restricted to areas delineated and inefficient for numerical processing and management of large volumes of data. The two currently separate technologies tend to evolve convergent in the concept of intelligent information system that involves developing a unified data - knowledge model. For this purpose, database systems have to express semantics in their conceptual schemes and the inference ability (deductive databases) and knowledge-based systems tend to solve problems requiring knowledge base (facts and rules) increasingly higher. Given the two informational resources, namely the knowledge bases and the databases, in order to maximize their exploitation it is not enough only to combine management systems of databases with expert systems through interfaces across

applications, but it is necessary to make the projection of each of the two components as a natural extension of the other, so that together they could lead to the realization of an integrated system.

## 5. Conclusions

Based on the research role of information technology in developing countries of the world, we can *conclude* that they have a *persuasive impact* on the economy. Because of the importance of economic effects related to the application of the latest technology, informational technology they introduce a new paradigm of configuration of economic activities, changing, radically, the concept of technology for development: using and applying information technology in different sectors of the economy, there can be obtained a more important economic impact in terms of externalities and side effects than its direct contribution to GDP as production sector; information technology's are knowledge demanding and the importance of education system in building the knowledge economy in which information technology is an indispensable tool continues to grow; information technology has catalyzed the creation of new models for sharing knowledge and collective production of ideas and innovations, which often bypass the incentive system provided by intellectual

property rights. These models of "open access", such as open associations to knowledge, can be an effective channel for the rapid distribution of knowledge to less advanced countries and they deserve more attention.

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## Federalism and Autonomy

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### Abstract

*Today's reality recalls the notion of federation as a form of intra-state organization. When this form is attached doctrinal and political autonomy disputes are becoming more obvious. International response to the crisis in Ukraine and Russia's attitude on the Crimean demonstrates once again the need to deepen the relationship between autonomy and federalism. In middle of March the Russia foreign ministry is calling on Ukraine to become a federal state and call fresh elections. In a statement posted on 17 March this year the ministry urged Ukraine's Parliament to call a constitutional assembly which could draft a new constitution to make the country federal, handing more power to its regions. In this context Russia's position is that Ukrainian regions should get broader autonomy. The present paper analyzes the link between federalism and autonomy trying to emphasize advantages and disadvantages of this type of organization.*

**Keywords** Autonomy, Federalism, Minority protection, Ethnic federalism

**J.E.L. Classification:** K23

### 1. Introduction

Federal State may be a practical solution for linguistic and ethnic combination of certain groups, when by definition cease to be minorities and become part of the population and the state. Different groups from a country form a "nation by will" (Willensnation). Groups are not merging into a central state, but a voluntary association.

Federalism is thus an improved form of territorial protection of a group, because the components are states in the sense that they have their own legislature, government and justice. Thus, autonomy can be seen as a

federal agreement.[1] Despite the common elements, the difference between federal state and an autonomy is represented by the separation of powers of the federal government (as being the most representative organ of state), while "autonomy does not contain the element for cooperation in central business ". Dinstein points out that self-government in a state covers the whole territory.[2]

However the main difference between federalism and autonomy remains that autonomy is always a fragmented order, while a constituent State is always a part of a whole. The lack of central power to make independent decisions, to control and enforce, assures the separation of powers „vertically”. The links from a federal state are always stronger than those of autonomy. This is delicate balance requiring in particularly way a good cooperation. The federal State as a free association of a group can be decomposed.[3] Therefore, a federation will have to adapt to specific circumstances. Any federal system is a "sui generis" structure and cannot be seen separately from geographical, economic, historical and even "ideological" factors.

### 2. Ethnic federalism

Ethnic federalism merges the ethnic structure with the political one of the territory of a state, as in the former Soviet Union. Groups were living in a certain area and were given the right to create their own state based on self-determination right. The failure of this model was not due to a leak in the structure of ethnic federation. In fact it was about federalism overlaid on the Principle of "democratic centralism". Federal structures serve as a mechanism favoring groups. [4] It is easy to agree with Schreuer regarding the failure of the Soviet Union.[5] This applies to the former Yugoslavia and Czechoslovakia, which were ethnic federations.



In the modern history of ethnic federation model it is still used as a solution to conflicts between groups. 1994 Belgian federal regulation aims at the highest degree of territoriality and relies on a structure of the country according to language groups. An ethnic federation is also embodied in Cyprus. The model structure of a federal state can be attractive even for former enemies in war. Thus the Croatian and Muslim entities have agreed on a federation in Bosnia - Herzegovina on May 14, 1994. It was created as an attempt to resolve conflicts in the region. [6]

These practical tasks could serve as a guide lines on establishing an ethnic federation in order to resolve ethnic conflicts.

It is clear that federalism can be an important basis for self-regulation and protection of minorities. But, even in a federal state there is no assurance that ethnic and linguistic groups will live together without problems and that this structure will resist. Federalism "it is not a tool for all times and all places"[7] particularly when centralization is often used to model a nation.

### **3. Poly-ethnic federalism**

In a poly-ethnic federation nor the federal state or the constituent state is ethnically homogeneous. Different ethnic groups have voluntarily consented to form a nation characterized by will. Sweden is an example of legal federalist order, managing to mediate between different communities. The dominant group is distributed over several constituent states and boundaries are not drawn according to ethnic preferences. Political integration is obtained because small units work together in order to accomplish the tasks of the federal body. Consequently decentralization protects the characteristics of ethnic groups. Under this structure, different ethnic groups constitute the majority in a district and minority in another.

Poly-ethnic federation requires a high degree of willingness in order to belong to a state. This is demonstrated in Canada, who has been facing a secessionist movement in Quebec since 1967. The Canadian law confirms the principle that a federation is a voluntary union of constituent states [8] being an example of poly-ethnic state.[9]

Quebec denied the existence of a Canadian identity. Non-French speakers in Quebec could therefore demand their rights, this fact worrying the Indian population there. Although Canada defines itself as a bilingual and multicultural nation, English and French are official languages. In early 1970, Canada even begins to take cultural diversity and multiculturalism concepts, concepts that many Canadians now consider some of the main features of the country.

### **4. Protection of human rights focus of autonomy**

One of the preconditions for the success of any autonomy is respect for human rights. This is particularly important in terms of territorial autonomy as it should be noted that the groups that have been obtained it can use it in order to discriminate against other groups which were responsible for territorial autonomy before: "decentralization in favor of small political units with a substantial autonomy enables greater protection against abuse by national authorities, but also permit the abuse of other groups within the area of minority domination. " [10] Therefore, autonomy provisions in treaties regarding human rights have been found since the last century. Many of the individual and collective rights recognized in national protection of minorities can become part of international law. [11] Thus, human rights protection should be the first target of any autonomy.

#### **A. Autonomy - a way of avoiding secession**

Autonomy can serve to achieve the right to self-determination or minority rights. The decision to create such status must be derived from the free will of the people or group. Their decision may be to stay within the state's structure, provided that people should be given sufficient space to preserve their identity. Achieving self-determination can take many forms and does not require a state of their own. In the peaceful resolution of conflict states have sometimes recommended as a solution the autonomy's status. In September 1991 Hague Peace Conference on Former Yugoslavia has recommended taking similar measures to protect minorities, including a special status for certain regions.

[12] The weight of such statement has become noticeable when the Badinter Commission Recommendation nr. 5/1992 stated the recognition of Croatia only if such autonomous regions would be included in the Croatian Constitution. [13]

In principle, autonomy does not interfere with a state's territorial integrity. For Bruhl-Moser, a condition of autonomy is that the extension should not to destroy the political unity and territorial integrity of a state. [14] Thus, the goal of autonomy is to transfer rights to that population. Later it will refrain from claiming the right to self-determination.

This objective is not always fulfilled. Particularly when the expectations of a State or a group are not met, autonomy can be questioned again. If the trend towards secession grows, states may wish to eliminate the autonomy. This happened in Kosovo. The region now known under the name Kosovo, became an administrative region in 1946 as the Autonomous Province of Kosovo and Metohija. In 1974, Kosovo and Metohija composition was changed into Socialist Autonomous Province of Kosovo, but in 1990, was renamed after the former name as the Autonomous Province of Kosovo and Metohija. Kosovo Assembly approved the declaration of independence on February 17, 2008. In the following days, a number of countries (USA, Turkey, Albania, Austria, Germany, Italy, France, United Kingdom, Taiwan, Australia, Japan, South Korea and others) have announced the recognition of independence, despite protests from Russia and other countries of the United Nations. Romania has not recognized the independence.

When local Albanian majority demanded that their autonomous status to be changed into a republic, the central government of Yugoslavia unconstitutionally suspended their autonomy in 1990. [15] Although autonomy was granted to prevent secession, her dismissal was a crucial starting point in the decentralization of Yugoslavia. In the case of Eritrea, unilateral abolition of autonomy by Ethiopia on November 14, 1962 was interpreted as a violation of the right to self-determination of the Eritrean population and led to an armed conflict and finally ended with the creation of Eritrea state. However, for historical reasons, the law is clear in this respect. Apparently Tibetans

do not request a referendum on independence but a real autonomy.

In some cases autonomy was recognized as a response to international pressures. Tibet, for example, was granted autonomy because China was condemned for its annexation. However, this autonomy was not used properly in terms of population assimilation. [16] The purpose of autonomy is not in accordance with the international law on protection of minorities. At a minimum, both rules include a group's right to exist. On the other hand, it should be noted that despite the Chinese government's target, Tibetan autonomy has several practical advantages for the population. Due to these advantages of autonomy and their contribution to international stability, there are several democratic states that are recognizing that Tibet belongs to China, asking for an extension of the autonomous rights, although they are condemning human rights violations. [17] The UK has a similar position in terms of Hong Kong, which under the agreement with China should have a "high degree of autonomy" in 1997.

The odds that autonomy can be used as a tool to prevent secession will always depend on the circumstances of the case. Protection of human rights, accepting the truth, not "false", autonomy and willingness to enforce the rules on autonomy are preconditions for an eventual success.

## **B. Autonomy - First step towards statehood**

People's right to self-determination is a permanent right that cannot be canceled by granting autonomy. Those countries who get a status should not demonstrate that the right to self-determination remains. Under certain conditions the population of the autonomous region may request the right to self-determination and to form its own state. In this case, autonomy can be a first step towards a proper state. It can be considered as "training" before the group, step by step, obtains the statehood. In particular if the political unity never existed or has been destroyed, autonomy can play a "transitional" role to statehood. [18]

Since autonomy does not necessarily prevent a subsequent statehood, but can build its way, states have a reservation towards territorial autonomy as a potential first step

towards secession. Broms thinks that autonomous regions are generally interested in independence. [19] For him, autonomy is characteristic of small nations or for cases where the regions cannot become sovereign states otherwise. Moreover, Broms mentions that the autonomous regions are trying to expand their independence and to participate in foreign policy. It seems too critical in terms of autonomy, because its potential in solving the ethnic conflict has not been exploited to its maximum so far.

The trend in creating a new state in Central and Eastern Europe showed that statehood has not automatically solve the problems between ethnic groups. Internal conflicts were often transferred to an international level, which has not facilitated the settlement. It can be argued that autonomy could provide better training to statehood. The concept of autonomy is certainly flexible enough to pave the way for the creation of states even in difficult political circumstances.

Suksi Markku [20] states that autonomy raises a number of issues regarding the form and status of normative acts regulating all arrangements regarding autonomy. [21] The types of autonomy are different which means that the degree of consolidation may vary considerably from one type of autonomy to another.

Consolidation is an important step, as well as achieving autonomy. The delegation of jurisdiction often involves delegation of legislative powers or, as appropriate, only administrative powers in order to create an exclusive jurisdiction for the autonomous entity.

## 5. Conclusions

We argued that examined autonomies can be distributed in a personal, cultural, operational, administrative, legislative range. There are three key variables of the spectrum: the purpose of the control (or the number of control issues); depth of control (how big is the local control) and distinguishing the territory. When taken together, aim, depth and territory gives us the total volume of autonomy. Legislative autonomy has a greater volume than administrative autonomy, which has a greater volume than the functional autonomy, which

has a greater volume than cultural autonomy, which in its turn has a greater volume than personal autonomy. It is noteworthy that this fact tells us nothing about the normative value of a particular autonomy. We have thus tried to visualize how much autonomy was given. This approach differs from that of critics such as Hannum and Lapidoth. Since Hannum and Lapidoth were the first to study this area, they have provided initial definitions that govern the understanding of autonomy. But once with the pass of time and the emergence of new forms of autonomy it is necessary to redefine the understanding autonomy.

In modern international law, autonomy takes different forms; its potential for conflict resolution was not fully used until now. In order to increase permeability to state sovereignty, the debate on protection of minorities and the right to self-determination in the context of international law can vary from requesting the statehood to the implementation of the principle of subsidiarity. This means that the structure of institutionalized states should be used more often in order to allow to those groups to identify with the region and their government.

The international law provides a framework only for compatibility with standards on minority protection and the "internal" right to self-determination.

Ethnic consciousness has increased considerably over the last 30 years. Recognition of rights of certain ethnic groups, then the right to self-determination, and finally the right of indigenous peoples was probably hastened by the increasing sense of ethnicity, but this recognition has reinforced ethnic consciousness. Another important development was the recognition of independence by a number of colonies.

Rapid secularization, democratization and urbanization have also had an impact on ethnic sentiments: the nation or ethnic group has become a substitute of religion and democracy stressed the importance of the nation. Finally, the end of the Cold War has caused ethnic and religious friction. The rivalry between East and West and the presence of a constant hazard were considerations that held together different groups. Once with the disappearance of this threat, identities that were suppressed have

reaffirmed. Heterogeneity - based on ethnic phenomenon - may have economic origins (as in the situation that may arise on market orientation in Hong Kong or Macao).

At the same time it has to be added people's dissatisfaction on the inefficiency of the bureaucratic state.

A human right to self-determination is problematic. As Robert Lansing [22] wrote: "will it lead to breed discontent, disorder and rebellion? ... The sentence, I am afraid it will cost thousands of lives ... what calamity that the phrase was uttered! How much suffering it will determine!" this danger is demonstrated daily by a myriad of applications for self-determination - often followed by acts of violence supported by ethnic, religious groups and other types.

Because of its ambiguity, some authors prefer not to consider self-determination as a legal right; [23] others have limited their opinion to the external appearance, to cases of colonialism, until foreign domination in order to highlight domestic issues of democracy.

It is therefore preferable to solve ethnic problems by taking similar solutions within the state. Indeed, many authors have pointed out that self-determination aspirations and ethnic frictions could have as solutions: power sharing, on the one hand, and systems of diffusion of power from center to periphery, on the other hand. The power-sharing model is associated by Arend Lijphart. His system consists of four elements: participation of all significant groups in the government of a country; high autonomy of these groups; proportionality, and veto minority. The first element represents joint exercise of governmental authority, for example, through a coalition of a cabinet. If groups have a clear territorial concentration, group autonomy can be institutionalized in the form of federalism. If groups are mixed, autonomy must have non-territorial forms or a combination of territorial or non-territorial forms. Proportionality, the third element, is intended to serve as a standard basic of political representation and public funding. A fourth characteristic, veto minority, would be the minority's weapon to protect vital interests; but should be used this power rarely and then only on certain issues of fundamental importance. Although not mentioned by

Lijphart, it seems that Sweden is a good example of power sharing.

Lijphart mentioned nine other factors that are favorable for the success of power-sharing, but none is indispensable:

- Absence of majority ethnic groups;
- Absence of large socioeconomic differences among groups;
- Equivalence in terms of group's size
- A limited number of groups;
- Limited total population;
- The presence of an external danger which promotes the need for internal security,
- Major loyalty which reduces private power of ethnic loyalty;
- Geographical concentration of ethnic groups
- prior traditions.

Thus, autonomy is an important element in Lijphart's thesis.

The second mean in terms of ethnic conflict resolution without secession, involves the diffusion of power. This solution may take different forms, including federalism, decentralization, self-government, associated statehood, self-determination and autonomy. Some authors use autonomy as a generic term for all these institutions. However there have been some authors who have tried to differentiate autonomy.

The term autonomy has been used by various politicians and authors of scientific literature, having different interpretations. For some, it is the right to act freely; for others it is synonymous with decentralization. After investigation of cases and different opinions, we can summarize some aspects of autonomy, as follows:

Political territorial autonomy is an arrangement designed to provide a certain degree of self-identification in terms of a group that differs from the majority population in a state, and which still constitute the majority in a given area. Autonomy implies a division of powers between central and autonomous entities. The power of entities usually refers to aspects of culture, economy and foreign affairs. Expanding the powers transferred varies. Autonomous authorities usually have the power of legislation, administration and judging. In some cases, however, autonomy did not include the right to judge.

Not all powers are divided between center and region; undivided powers can be divided or exercised in parallel. The acts of the autonomous authority are not subject to full control held by the central government. Autonomy by its nature requires cooperation and coordination between central and local authorities. In many cases, the introduction of changes in a system of autonomy requires a permit from local and central authorities. As shown, different types of autonomy vary very much.

Finally we consider that there are different forms of autonomy consolidation, in particular at a constitutional level. The scope of consolidation is normally represented by the jurisdiction of an entity, guaranteeing the power of the taken decisions by local residents, regarding those matters that can be considered central in the existence of beneficiaries of the agreement.

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## The Importance and the Implications of the Study of Multipliers On MTL-Algebra

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### Abstract

The concept of maximal lattice of quotients for a distributive lattice was defined by J. Schmidt taking as a guide – line the construction of complete ring of quotients by partial morphisms introduced by G. Findlay and J. Lambeck. The central role in this construction is played by the concept of multiplier. The scope of this paper is to define the notion of multipliers on MTL-algebra. There are also defined the notions of MTL-algebra of fractions and maximal MTL-algebra of quotients for a MTL-algebra. The results obtained in this paper for MTL-algebras are very analogous to ones obtained for BL-algebras. The main difference is that the equation  $x \circ (x \rightarrow y) = x \wedge y$  is not valid for MTL-algebras. For this reason I have introduced a new axiom to define the notion of multiplier.

**Keywords:** MTL-algebra, BL-algebra, multiplier, MTL-algebra of fractions, maximal MTL-algebra of quotients

**Jel Classification:** C02

### 1. Introduction

The concept of maximal lattice of quotients for a distributive lattice was defined by J. Schmidt taking as a guide – line the construction of complete ring of quotients by partial morphisms introduced by G. Findlay and J. Lambeck. The central role in this constructions is played by the concept of multiplier. Basic Fuzzy logic (BL from now on) is the many- valued residuated logic introduced by Hajek to cope with the logic of continuous t-norms and their residua. Monoidal logic (ML from now on), is a logic whose algebraic counterpart is the class of

residuated ; MTL –algebras are algebraic structures for the Esteva-Godo monoidal t-norm based logic (MTL), a many-valued propositional calculus that formalizes the structure of the real unit interval  $[0,1]$ , induced by a left-continuous t-norm.

### 2. Multipliers on a MTL-algebra

In this section we denote by  $A$  the universe of a MTL-algebra.

We denote by  $Id(A)$  the set of all ideals of the lattice  $L(A) = (A, \wedge, \vee, 0, 1)$

and by  $I(A)$  the set

$$I(A) = \left\{ I \subseteq A : \begin{array}{l} \text{if } x, y \in A, \\ x \leq y \text{ and } y \in I, \text{ then } x \in I \end{array} \right\}$$

Clearly,  $I(A) \subseteq Id(A)$  and if  $I_1, I_2 \in I(A)$ , then  $I_1 \cap I_2 \in I(A)$ . Also, if  $I \in I(A)$ , then  $0 \in I$ .

**Definition 1** By a partial multiplier on  $A$  we mean a map  $f : I \rightarrow A$ ,

where  $I \in I(A)$ , which verifies the next axioms:

$$(M_1) \quad f(e \circ x) = e \circ f(x), \text{ for every } e \in B(A) \text{ and } x \in I;$$

$$(M_2) \quad f(x) \leq x, \text{ for every } x \in I;$$

$$(M_3)$$

$$x \circ (x \rightarrow f(x)) = f(x), \text{ for every } x \in I;$$

$$(M_4) \quad \text{If } e \in I \cap B(A), \text{ then } f(e) \in B(A);$$

$$(M_5) \quad x \wedge f(e) = e \wedge f(x),$$

$$\text{for every } e \in I \cap B(A) \text{ and } x \in I.$$

### Definition 2

For  $I_1, I_2 \in I(A)$  and

$$f_i \in M(I_i, A), i = 1, 2, \text{ we}$$

$$\text{define } f_1 \wedge f_2, f_1 \vee f_2,$$

$$f_1 \otimes f_2, f_1 \Rightarrow f_2 : I_1 \cap I_2 \rightarrow A \text{ by}$$

$$\begin{aligned} (f_1 \wedge f_2)(x) &= f_1(x) \wedge f_2(x), \\ (f_1 \vee f_2)(x) &= f_1(x) \vee f_2(x), \\ (f_1 \otimes f_2)(x) &= f_1(x) \circ [x \rightarrow f_2(x)] \\ &= f_2(x) \circ [x \rightarrow f_1(x)], \\ (f_1 \Rightarrow f_2)(x) &= x \circ [f_1(x) \rightarrow f_2(x)], \end{aligned}$$

for every  $x \in I_1 \cap I_2$ .

We have these results:

**Lemma 1**  $f_1 \wedge f_2 \in M(I_1 \cap I_2, A)$ .

**Proof.** It is suffice to verify only  $M_3$

(for  $M_1, M_2, M_4$  and  $M_5$  see [3]).

For every  $x \in I_1 \cap I_2$  we have

$$\begin{aligned} x \circ [x \rightarrow (f_1 \wedge f_2)(x)] &= \\ x \circ [x \rightarrow (f_1(x) \wedge f_2(x))] &= \\ = x \circ [(x \rightarrow f_1(x)) \wedge (x \rightarrow f_2(x))] &= \\ [x \circ (x \rightarrow f_1(x))] \wedge [x \circ (x \rightarrow f_2(x))] &= \\ = f_1(x) \wedge f_2(x) = (f_1 \wedge f_2)(x) \end{aligned}$$

**Lemma 2**  $f_1 \vee f_2 \in M(I_1 \cap I_2, A)$ .

**Proof.** It is suffice to verify only  $M_3$  (for

$M_1, M_2, M_4$  and  $M_5$  see [3]).

To verify  $M_3$ ,

let  $x \in I_1 \cap I_2$  then

$$\begin{aligned} x \circ [x \rightarrow (f_1 \vee f_2)(x)] &= \\ x \circ [x \rightarrow (f_1(x) \vee f_2(x))] &= \\ = x \circ [(x \rightarrow f_1(x)) \vee (x \rightarrow f_2(x))] &= \\ [x \circ (x \rightarrow f_1(x))] \vee [x \circ (x \rightarrow f_2(x))] &= \\ = f_1(x) \vee f_2(x) = (f_1 \vee f_2)(x) \end{aligned}$$

**Lemma 3**  $f_1 \otimes f_2 \in M(I_1 \cap I_2, A)$ .

**Proof.**  $M_1, M_2, M_4$  and  $M_5$  are verified as

in the case of BL-algebras (see [3]). For  $M_3$ ,

let  $x \in I_1 \cap I_2$  and denote  $f = f_1 \otimes f_2$

To prove the equality

$x \circ (x \rightarrow f(x)) = f(x)$  it is suffice to prove

that  $f(x) \leq x \circ (x \rightarrow f(x))$ . We have

$$\begin{aligned} f(x) &= f_1(x) \circ (x \rightarrow f_2(x)) = \\ x \circ (x \rightarrow f_1(x)) \circ (x \rightarrow f_2(x)) &\text{ and} \end{aligned}$$

$$x \circ (x \rightarrow f(x)) = x \circ (x \rightarrow$$

$$(f_1(x) \circ (x \rightarrow f_2(x))))]$$

$$= x \circ [x \rightarrow (x \circ (x \rightarrow f_1(x)) \circ (x \rightarrow f_2(x)))]$$

So, to prove that  $f(x) \leq x \circ (x \rightarrow f(x))$  it is

suffice to prove that

$$x \circ (x \rightarrow f_1(x)) \circ (x \rightarrow f_2(x)) \leq$$

$$x \circ [x \rightarrow (x \circ (x \rightarrow f_1(x)) \circ (x \rightarrow f_2(x)))]$$

that is  $\alpha \leq x \rightarrow (x \circ \alpha)$  with

$\alpha = (x \rightarrow f_1(x)) \circ (x \rightarrow f_2(x))$ , which is clearly, since

$$\alpha \rightarrow [x \rightarrow (x \circ \alpha)] = (\alpha \circ x) \rightarrow (x \circ \alpha) = 1$$

**Lemma 4**  $f_1 \Rightarrow f_2 \in M(I_1 \cap I_2, A)$ .

**Proof.**  $M_1, M_2, M_4$  and  $M_5$  are verified as

in the case of BL-algebras (see [3]). For  $M_3$ ,

let  $x \in I_1 \cap I_2$  and denote

$$f = f_1 \Rightarrow f_2 : I_1 \cap I_2 \rightarrow A; \text{ then}$$

$$f(x) = x \circ [f_1(x) \rightarrow f_2(x)].$$

We have

$$f_1(x) \rightarrow f_2(x) \leq x \rightarrow [x \circ (f_1(x) \rightarrow f_2(x))]$$

$$x \circ [f_1(x) \rightarrow f_2(x)] \leq$$

$$x \circ [x \rightarrow (x \circ (f_1(x) \rightarrow f_2(x)))] \Leftrightarrow$$

hence

$$f(x) \leq x \circ [x \rightarrow f(x)] \Leftrightarrow f(x) =$$

$$x \circ [x \rightarrow f(x)]$$

**Proposition 1**  $(M(A), \wedge, \vee, \otimes, \Rightarrow, 0, 1)$  is a MTL-algebra.

**Lemma 5** Let the map  $\nu_A : B(A) \rightarrow M(A)$  defined by

$\nu_A(a) = \overline{f_a}$  for every  $a \in B(A)$ . Then  $\nu_A$  is a monomorphism of MTL-algebras.

**Definition 3** A nonempty set  $I \subseteq A$  is called regular if for every  $x, y \in A$  such that  $x \wedge e = y \wedge e$  for every  $e \in I \cap B(A)$ , then  $x = y$ .

We denote  $R(A) = \{I \subseteq A : I \text{ is a regular subset of } A\}$

**Lemma 6** If  $I_1, I_2 \in I(A) \cap R(A)$ , then

$$I_1 \cap I_2 \in I(A) \cap R(A)$$

**Remark 1** By Lemmas 1- 4, 6 and Proposition 1 we deduce

that  $M_r(A) = \{f \in M(A) : \text{dom}(f) \in I(A) \cap R(A)\}$  is a MTL-

subalgebra of  $M(A)$ . (see [6])

**Definition 4** Given two multipliers  $f_1, f_2$  on  $A$ , we say that  $f_2$  extends  $f_1$  if

$\text{dom}(f_1) \subseteq \text{dom}(f_2)$  and  $f_{2|(\text{dom}f_1)} = f_1$ ; we

write  $f_1 \leq f_2$  if  $f_2$  extends  $f_1$ . A multiplier  $f$

is called maximal if  $f$  can not be extended to a strictly larger domain.

**Lemma 7** (i) If  $f_1, f_2 \in M(A), f \in M_r(A)$  and  $f \leq f_1, f \leq f_2$ , then  $f_1$  and  $f_2$  coincide on the  $dom(f_1) \cap dom(f_2)$ ,

(ii) Every multiplier  $f \in M_r(A)$  can be extended to a maximal multiplier. More precisely, each principal multiplier  $f_a$  with  $a \in B(A)$  and  $dom(f_a) \in I(A) \cap R(A)$  can be uniquely extended to a total multiplier  $\overline{f_a}$  and each non-principal multiplier can be extended to a maximal non-principal one.

On the MTL-algebra  $M_r(A)$  we consider the relation  $\rho_A$  defined by  $(f_1, f_2) \in \rho_A$  iff  $f_1$  and  $f_2$  coincide on the intersection of their domains (see [2]).

**Lemma 8**  $\rho_A$  is a congruence on  $M_r(A)$ .

For  $f \in M_r(A)$  with  $I = dom(f) \in I(A) \cap R(A)$ , we denote by  $[f, I]$  the congruence class of  $f$  modulo  $\rho_A$  and  $A'' = M_r(A) / \rho_A$ . Clearly,  $A''$  is a MTL-algebra.

**Remark 2** If we denote by  $E = I(A) \cap R(A)$  and consider the partially ordered systems  $\{\delta_{I,J}\}_{I,J \in E, I \subseteq J}$  (where for  $I, J \in E, I \subseteq J, \delta_{I,J} : M(J, A) \rightarrow M(I, A)$  is defined by  $\delta_{I,J}(f) = f|_I$ ), then by above construction of  $A''$  we deduce that  $A''$  is the inductive limit  $A'' = \varinjlim_{I \in E} M(I, A)$

**Lemma 9** Let the map  $\nu_A : B(A) \rightarrow A''$  defined by  $\overline{\nu_A}(a) = [\overline{f_a}, A]$  for every  $a \in B(A)$ . Then:

- (i)  $\overline{\nu_A}$  is a monomorphism of MTL-algebras
- (ii) For every  $a \in B(A), [\overline{f_a}, A] \in B(A'')$ ;
- (iii)  $\overline{\nu_A}(B(A)) \in R(A'')$ .

**Remark 3** Since for every  $a \in B(A), \overline{f_a}$  is the unique maximal multiplier on  $[\overline{f_a}, A]$  with  $\overline{f_a}$ . So, since  $\overline{\nu_A}$  is injective map, the elements of  $B(A)$  can be identified with the elements of the set  $\{\overline{f_a} : a \in B(A)\}$ .

**Lemma 10** In view of the identifications made above, if  $[f, dom(f)] \in A''$  (with  $f \in M_r(A)$  and

$I = dom(f) \in I(A) \cap R(A)$ , then

$$I \cap B(A) \subseteq \{a \in B(A) : \overline{f_a} \wedge [f, dom(f)] \in B(A)\}.$$

**Definition 5** A MTL-algebra  $F$  is called MTL-algebra of fractions of  $A$  if:

- (Fr<sub>1</sub>)  $B(A)$  is a MTL – subalgebra of  $F$ ;
- (Fr<sub>2</sub>) For every  $a', b', c' \in F, a' \neq b'$ , there exists  $e \in B(A)$  such that  $e \wedge a' \neq e \wedge b'$  and  $e \wedge c' \in B(A)$ . (see [4])

As a notational convenience, we write  $A \preceq F$  to indicate that  $F$  is a MTL-algebra of fractions of  $A$ . By  $B(A)$  we denote the set of all complemented elements in the lattice  $L(A) = (A, \wedge, \vee, 0, 1)$ .  $B(A)$  is a Boolean subalgebra of  $A$ , called the *Boolean center of A*. (see [5])

**Definition 6**  $Q(A)$  is the maximal MTL-algebra of quotients of  $A$  if  $A \preceq Q(A)$  and for every MTL-algebra  $F$  with  $A \preceq F$  there exists a monomorphism of MTL-algebras  $i : F \rightarrow Q(A)$ . (see [1])

### 3. Conclusions

The notion of multiplier is very useful in making up mathematical models to solve economic problems.

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# Statistical Aspects of the Dependence between Pollution and Economic Results

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## Abstract

*In this paper we have studied the dependence between pollution and economic results, taking Romania as study case. Among the pollution level indicators we have chosen greenhouse gas emissions, and as economic results indicator we have chosen the GDP per capita.*

*We started by explaining the relation established between economy and environment in terms of growth and sustainable development, we then resorted to descriptive statistics tools to illustrate the evolution of the indicators analyzed during the reference period and we continued by verifying whether there is a statistical relation between these indicators and how strong it is, that is whether the economic growth rate is accompanied by a similar increase in greenhouse gas emissions.*

**Keywords:** statistics, pollution, evolution, variable, sustainable development.

**J.E.L. Classification:** C10, O44, Q01

## 1. Introduction

Starting from the economic, social and environmental problems that mankind faces nowadays, the shaping and rethinking of the concept of development has become a topical issue. Researchers are thus seeking a new type of development that should be centred on man seen as "a multidimensional being, with both physical and social – cultural needs, as a biological entity living in a strong interdependence with the natural environment, which he should care for" [5]. We are talking about sustainable development, intended as "an alternative to the post-war type of growth that [...] has reached its limits"[1].

From the various approaches to sustainable development, we have chosen to discuss the economy-environment relation in terms of the pressure that exacerbated production and consumption exert on the environment.

To that effect, we have tried to determine whether there is a dependence between pollution, measured by the quantity of greenhouse gas emissions and economic results, measured in terms of gross domestic product.

## 2. Pollution and its relation to economic development

At the risk of being considered as too radical, we can state that the history of mankind shows us that has permanently abused what Nature gave him. The intense industrial activity of the past decades has increased pollution intensity by increasing power consumption, by massive emissions of carbon dioxide, sulphur oxides and other chemical substances that affect the ozone layer etc.; they are mainly due to a lack of long-term projections and uncontrolled loss of matter in various states of aggregation. "To blame the manmade materials create de is to put him in the dilemma of accepting or rejecting the technical progress, according to the demands of the environment, as if the environment protection problems were incompatible with the technical progress" [4]. But the true cause is their management and the fact that after being used they are discharged into the environment unaware of the long-term effects.

Even if the level of pollution does not depend primarily on the type of social order, the latter may lead to a judicious management of resources and, through proper laws, to a decrease in the level of pollution. Simon Kuznets has analyzed graphically and analytically the dependence

between the level of economic development, measured in terms of GDP per capita and the level of pollution and he has reached the conclusion that the relation between the two indicators depends on the primary – secondary – tertiary trends of economy, following an inverted U shape [3]. At the beginning, economy is dominated by the primary sectors, especially by agriculture, and the environment has the capacity to absorb the pollutants let out; in the secondary sector, dominated by the processing industries, the pressure of the environment is at its maximum, generating maximum levels of pollution. For income levels above 10000\$ per capita, changes start to appear, the focus is on quality and the legal framework for fighting pollution and polluters is set up, industries become „cleaner”, services, the IT industry and eco-industries develop, and the level of pollution starts to decrease too along with the development of the tertiary sector.

These are features common to all states that have followed the known classic path of development, but, “what is important is for those nations on the road to such a process to “leapfrog stages” without “burning”, eliminating from the curve the loop of maximum pollution, by promoting and developing eco-industries and clean technologies, to flatten the curve as much as possible”[5].

Pollution is a concrete phenomenon, long-lasting and measurable, to a large extent, extensively discussed in the literature. Thus, problems related to air, soil and water pollution or special pollution, such as noise or radiations, are tackled separately, showing that the boom of civilization has not been without consequences.

In our research we have considered only air pollution, namely the component due to human activity. Its direct and indirect consequences, especially the long-term ones, manifest themselves as the greenhouse effect, acid rain, degradation of the ozone layer. Add to these the global climate change, where it's not the average but the extremes that kill, generating unexpected draughts, heat waves, devastating hurricanes, etc.

Among the economic growth and development indicators we have decided to use the GDP per capita, as this is widely assumed to be a good indicator of a country in terms of level of development, even if the

GDP takes into account only money transactions and thus leaves out many goods that people provide for each other for free.

### 3. Methodology and Data Description

Among the numerous tools made available by statistics, we have chosen regression analysis to study the relation between pollution and economic growth.

Regression is a statistical method which allows for the study and measurement of the relation between two or more variables, as well as the discovery of the law relative to the form of the relations between variables [2].

The regression model chosen is the linear, simple factorial one, of the type:

$Y = \alpha + \beta X + e$ , where Y is the dependent variable, X is the independent variable, and e is the error or residual variable, which is the sum of the influences of the other variables not included in the model on the variable Y.

$\alpha$  and  $\beta$  are the parameters of the regression equation, and  $\beta$  indicates the degree of dependence between the variables, that is by how much Y increases or decreases when variable X increases or decreases by a unit.

We have considered greenhouse gas emissions (GHG) as dependent variable, measured in terms of total annual emissions against the 1990 emissions. This indicator shows trends in the total man-made emissions of the “Kyoto basket” of greenhouse gases. The data source for this indicator is the European Environment Agency.

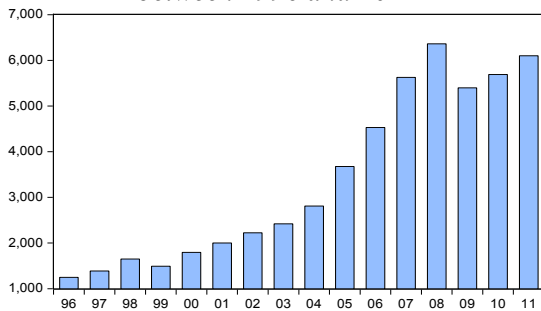
The independent variable is the GDP per capita in Euro at current exchanges rate and the data sources for this indicator are the Database Central Europe and Eurostat.

### 4. The Analysis of the Two Indicators Considered

In order to make a pertinent analysis of the correlation between the two macroeconomic indicators, it is necessary, as the first step, to identify a series of particular features related to the evolution of each value, during the period considered. Thus, we have studied, with the help of EViews 7.1., the individual evolution of each of the two

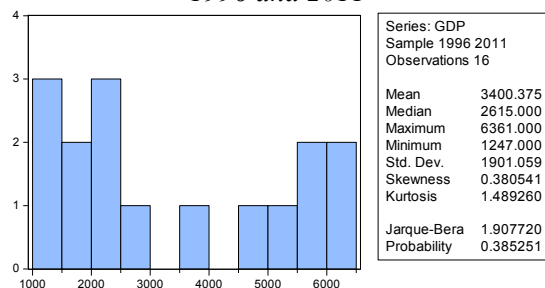
indicators.

*Figure 1 Evolution of Romania's GDP per capita, in Euro, at current exchange rate, between 1996 and 2011*



From the analysis of the research data and from figure 1, the GDP per capita showed a constant year-to-year increase, with a decrease in 2009, against the background of the economic and financial crisis that affected the entire world starting with the second half of 2008. In statistical terms, that means a decrease by approximately 15% against the previous year.

*Figure 2 The main statistical tests on the values of Romania's GDP per capita between 1996 and 2011*



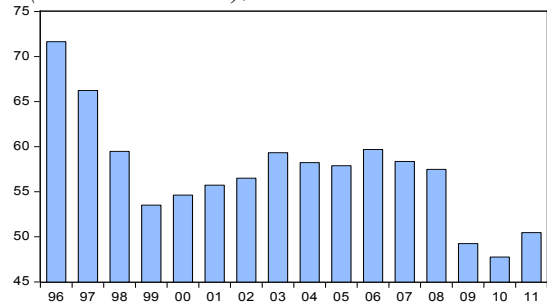
We can notice that the average value of the GDP per capita is 3400.375 Euro, with a variation between the minimum value of 1247 Euro (for the first year of the series, 1996) and the maximum value of 6361 (for the year 2008). The values of the statistical tests show that the distribution is not perfectly symmetrical (the value of skewness is not zero) the distribution being rather flat (kurtosis <3). Additionally, we notice that in the data series, the values ranging between the minimum and the average value of the series are far more numerous than those in the second half of the variation interval.

A similar analysis can be made for the evolution of greenhouse gas emissions (GHG) in the time interval 1996 - 2011.

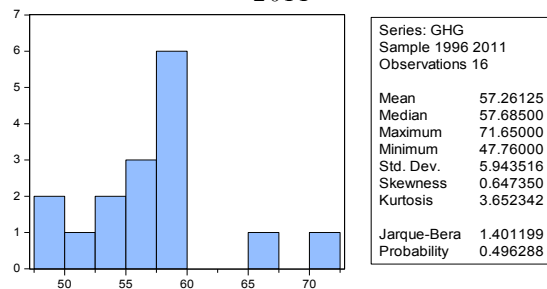
In the research time interval, GHG had a

nonlinear evolution. For the first part of the interval, between 1996 and 1999, the indicator decreases rapidly, after this period the values were stable around 55%, followed by a decrease below 50% for 2009 and 2010

*Figure 3 Evolution of Romania's GHG in %, (Index 1990=100), between 1996 and 2011*



*Figure 4 The main statistical tests on the value of Romania's GHG between 1996 and 2011*



In EViews, we have established that the value of GHG ranges between 47.76% in 2010 and 71.65% in 1996. Also, we noticed that the average value of this indicator is 57.26% and the distribution is not symmetrical, the values ranging between the minimum and the average value of the data series being predominant.

From previous analyses we can notice that the period 1996-2011 is divided into several distinct stages in terms of the evolution of the research indicators. Thus, for the interval 1996-2000, the GDP per capita increases, by an average 9.53%, while GHG decrease by an average 6.6%, which explains the inverse correlation between the indicators for the entire research period.

For the interval 2001-2008, the GDP per capita increases continuously, from 2002 Euro to 6361 Euro, while GHG remain relatively constant. This can be accounted for by the fact that, before 1990, the economy relied on a highly energy-consuming and polluting industry, and towards the end of the '90s many plants were shut down or the old

technology was replaced by less a polluting one.

The world economic crisis in 2008 made an impact on Romanian economy, thus the GDP per capita fell abruptly in 2009 and made a comeback in following years. The economic downturn in post-crisis period had an effect on the values of GHG, which, for two consecutive years, reached levels below 50% of the indicator value recorded in 1990.

### 5. The results of the study

As previously indicated, starting from data analysis and the correlogram between GHG and GDP per capita (Figure 5), we have used simple factorial regression to study the relation between the two indicators. Also, we have decided to test in the current study the significance level for the parameters of the following function:  $GHG = f(GDP)$

Figure 5 Correlation GHG – GDP per capita

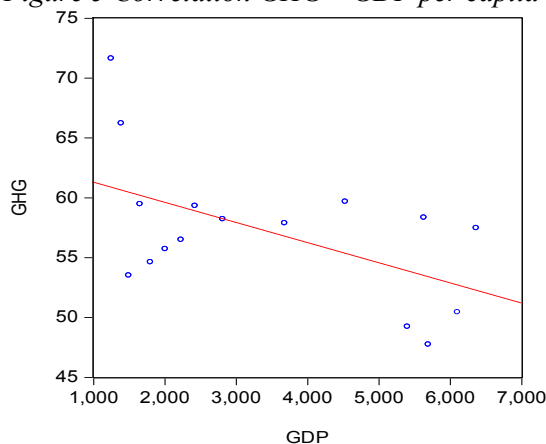


Table 1 Pairwise correlations for Variables

	GHG	GDP per capita
GHG	1.000	-0.538
GDP per capita	-0.538	1.000

The results in the table above show us that there is an inverse relation between the analysed variables, but that the intensity of this relation is average.

To estimate the parameters of the regression model, we have used EViews 7.1., defining the equation that has as resultant variable GHG and as factorial variable the value of the GDP per capita. Also, we have considered that this model will include a free term, *c*. The estimation method set in the program is the least squares.

The EViews 7.1. processing provided the

following results:

$$GHG = 62.9838 - 0.0016 * GDP$$

The estimators of the regression equation parameters are significantly different from zero, and the results are guaranteed for a probability of 95%, on the *t* test. The slope coefficient is  $< 0$ , meaning that there exists an inverse relation between the two variables.

The Fisher-Snedecor test indicated the value of 5.7116 for a significance level of 5%. The value of adjusted  $R^2$  is 0.23, therefore the intensity of the relation between the variables is low.

### 6. Conclusions

In general, greenhouse gas emissions rise when economies expand but don't fall as quickly when recession strikes, perhaps because people stick with the higher-emitting lifestyle from the boom times.

In the case of Romania, the dependence between the GDP per capita and GHG is accounted for differently from one period to another. Thus, for the second half of the '90s, the economy went through a transition period, from energy-consuming and polluting industries to renewing technology or shutting down the old plants, which explains the abrupt fall of pollutant emissions compared to 1990.

In the 2000s, the economy returns to growth, the GDP per capita has increasingly higher values up to 2008, while pollutant emissions experience minimum changes, which can be accounted for by the progress of the tertiary sector.

During recent years, the GDP per capita has returned to growth, and the values of GHG have remained below 50% against the values of 1990.

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# The Determinants of the Economy-Environment Relationship

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## Abstract

*In this paper we have tried to make a synthesis of the economy-environment relationship in terms of its determinants. The environmental crisis, whose effects we feel more and more often, is a world crisis, and its causes are not strictly related to one type of economy or another, centralized or free, to a particular type of economic growth, the wealth or poverty level of those who abuse nature's gifts.*

*In this context, the identification of the underlying factors of the existing imbalances represents a first step towards rethinking development policies with a view to reconciliation with the environment, adopting a new conduct towards it and towards resources, a conduct which would control man's tendency to dominate nature.*

**Keywords:** environment, economy, sustainable development.

**J.E.L. Classification:** Q01, Q54

## 1. Introduction

For a long time economists have not been concerned with "free" goods, under the pretext that their exchange value is zero, as long as they are provided for free by Nature, despite being indispensable for productive activities and even for life itself. They were subjected to the same treatment as any commodity, ignoring their special nature and the dependence of the economic mechanism on Nature.

The development of the industrial world has focused on economic output and, historically, the post-war model has been dominated by economic growth. If in the '60s we speak of a reasonable growth integrating the social objectives, in the 80's this model is accompanied by environment concerns, but, as seen in the case of developed countries

only after major economic objectives have been achieved. In this sense we can say that the inclusion of the environmental issues in economic policies is the privilege of developed countries, the economic problems in developing countries being posed in terms of survival. Add to this the fact that, worldwide, the efforts to integrate theories into the practice of economic relations between states come up against the interests of developed countries that pass through their own filters every initiative and constructive proposal.

We are certainly right to say that economic processes are dependent on the environment, they use what is provided by the environment and have positive and negative effects on it. But, unfortunately, the integration of environmental issues into the economic theory "stumbles" over the neutrality with which most economists treat the environment, considering the market as the main regulator of economic life, "starting from the damaging premise that, if something is beneficial to economy, it can't harm nature and the environment"[6].

## 2. Some Considerations on the Economy-Environment Relationship in the Economic Theory

*The neoclassical theory* tackles everything in monetary terms, it considers everything measurable, adjustable and adaptable to human needs and treats economy from a *unidimensional* perspective, setting aside the natural environment. The only condition was to let the market play the role of main regulator of economic life. Natural resources were regarded as payable stocks, in spite of their exhaustible nature, access thereto to be regulated by price, its role of balancing the supply and the demand being considered sufficient for their management. That is why it has come up against harsh criticism, notably that levelled

by Roegen[7], the economist who calls into question the entire market philosophy and who, under the umbrella of etatism, suggests solutions "unpalatable" to the free market, going as far as considering that the national state is not enough.

A special view is that of *A.C Pigou* [5] who talks of *externalities* and considers particularly the negative ones, such as pollution, which causes loss of utility of goods, people and nature and suggests that the loss caused be borne by the responsible party. Hence the *polluter pays principle (PPP)*, which introduces environment resources in the free market mechanism and allows for the internalization of pollution costs.

Subsequently, Coase [2] and Baumol and Oates [1] contributed to the theory of negative externalities underlying the environmental economy. Coase (1920) argues that, when the transaction cost is zero, it is irrelevant, from an economic perspective, to whom property rights were initially allocated. When transaction costs are high enough, the initial property rights will have a significant effect. Thus, from the perspective of economic efficiency, property rights should be allocated in such a manner as to produce an efficient economic action, since transaction costs also involve a problem concerning the effects that companies have on the environment in which they operate. Baumol and Oates (1975, 1980) suggest various solutions to address externalities, such as: voluntary internalization of the externality consisting in an exchange between the parties or an action in court, considered mainly as a private solution; ban or restraint; regulation; taxation or introduction of a charge or royalty; auctioning pollution permits or subsidizing.

*The neo-neoclassical approach* attempts to provide a *multidimensional* analysis of economy, which includes harmonious relationships with the socio-cultural and natural environment. Furthermore, it regards the environment not only as a source of raw materials, oxygen or as a passive receiver of pollution, but as an individual system, governed by its own laws and balances.

Therefore, it is necessary to reconsider the relationship between the economic system and the environment by treating the former as an integral part of the latter, to become aware

of the fact that development is not possible outside the laws that govern ecosystems, namely those related to the movement of matter and the unidirectional flow of energy. To that effect we will recall Roegen's theory, which shows that what goes into the economic process is valuable natural resources and what comes out is worthless waste and matter and energy reach high entropy. Complete recycling is impossible because otherwise it would mean that a closed system can produce mechanical work endlessly, hence "transactions between the economic process and the environment must necessarily consist in an accessible matter, also to compensate for the continuously and irrevocably dissipated matter"[1].

As concerns energy, Roegen notices that man has managed to continuously lower the necessary amount of personal energy, at first by domesticating animals, and later by using exosomatic organs, increasingly turning to extracting energy from the environment, transforming available energy into unavailable energy, resulting in more and more pollution. Furthermore, he suggests that two registers are necessary for transactions with the environment, one for matter and one for energy, "because, at the macro level, in fact no existing method can turn energy into matter"[7].

### **3. The determinants of the economy-environment relationship**

The consequences of economic and social development on the environment materialize in new concepts and ideas on the man-nature relationship, confronting the theory with economic practice gives rise to a new paradigm, that of sustainable development. Facts force us to rethink development policies from a perspective of reconciliation with the environment, to adopt a new conduct towards it and towards natural resources that would control man's tendency to dominate nature.

A first step towards it is the identification of the underlying *factors* of the existing imbalances, which have entered relations of interconnection and interdependence. We will briefly consider the natural, technical, social, ecological, military and political factors [8].

As regards *natural factors*, they are unevenly distributed on Earth, there are geographical areas benefitting from abundant oil or coal resources in contrast with energy-poor areas, such as Japan. Furthermore, some resources are richer in useful substance, while others are poorer, more difficult to exploit or less accessible. The economic growth up to the 70's was based on the first category, being encouraged by low prices, causing imbalances reflected in the degradation of natural elements, reduction of volume and quality thereof. In order to meet the sustainability demands, economic activity will consider using highly efficient resources and drawing alternative energies to the economic circuit, for the negative effects on the environment to be minimal.

The use of the immediate advantages generated by the *technical and technological factors* has determined not only better use of natural resources but also their abuse. The employment of nuclear technology, spectral analysis, electronics and laser has allowed for the exploitation of new deposits, with high efficiency, true, but it has brought us closer to the time of their exhaustion. However, we must not blame technology, this can turn out to be the "safe boat", even if there are obvious technological gaps among the states.

*Economic factors* also have an impact on ecological imbalances, as "the rapid pace of economic growth, the extent of industrial development, the accelerated growth of the directory of means of production and consumer goods, lead, on the one hand, to dwindling natural resources, and, on the other hand, to the deterioration of the conditions of the environment "[3]. Low prices for raw materials, their exploitation in a colonial system, maintaining monoproduction structures for some economies have led, on the one hand, to distorted orientations in economic development in many industrialized countries, and, on the other hand, to the economic vulnerability of others, by deepening their dependence on the former. The evolution of economic development in many countries of the world was based on high consumption of resources, especially energy. Excessive use caused a strained relationship between available reserves of substances and their irrational use, with capacities that do not meet the current demands. Thus, considering the

influence of the negative effects of economic activity on environmental factors, it is necessary to reconsider the problem of reproduction of environmental conditions and natural resources, a resizing of the needs-availabilities ratio.

An interesting study on the consequences of the type of economic growth on the environment is provided by the academician Emilian Dobrescu[4]. He proposes to calculate two indicators: the first, denoted by  $e$ , is the ratio between energy consumption and gross domestic product, and the second, denoted by  $p$ , is the share of population employed in non-agricultural sectors in the total active population. By analyzing their evolution, on time series, the economist demonstrates that, with the advancement of industrial development, the indicator  $e$  has an upward trend, which indicates an increase in consumption of energy resources in the context of mainly extensive economic growth. After a while, the value of the indicators shows a downward trend, due to increased economic efficiency and raising the degree of capitalization of resources under the direct influence of technical progress. As regards the  $p$  indicator, this reaches a maximum value of energy intensiveness and resource consumption around the 70% share of non-agricultural population in the total active population.

*Military factors* have a negative impact on the environment by taking away large quantities of raw materials and energy resources from the civil economic circuit, but also by testing new weapons, resulting in the distortion of social production

Addressing the issue of disarmament, Roegen suggests that this should be part of the minimal bio-economic program. "Nations that are developed enough as to produce weapons should be able to reach a consensus regarding this ban without any difficulty, if, according to their claims, they have the necessary wisdom to lead the whole world" [7].

Unequal relations between states, the perpetuation of the old working state, the policy of interference in internal affairs, the intention of the colonial powers to retain control over the old areas of influence, even if indirectly through the use of economic levers, thus promoting neo-colonialism are a series of *socio-political factors* that affect the

economy-environment relationship. The political propaganda characteristic of "the decades of development", the "North-South" dialogue, "meetings of the rich" or international conferences of "the poor", has no visible social effects, "contemporary capitalism, in an attempt to adapt to a series of crisis, leads to an obvious obstruction policy"[8], while "when it comes to the crisis of raw materials, energy and the environmental crisis, the cause must be sought in the physical limits, as some cried out, but the blame must be attributed to the energy and raw materials policy, the neo-colonialist policy, the policy of force and imposition, the policy of recruitment of "brains" from developing countries"[8].

#### 4. Conclusions

Economic activity removes from the environment large quantities of useful substances and discharges into the natural environment waste and residue from production and final consumption, it degrades the landscape, changing the destination of many lands, it thermally and chemically pollutes air and water, thus worsening conditions of biological life of man, wildlife and flora, it cuts down the basic means of subsistence, it restricts the regeneration of some natural resources, and, strictly ecologically speaking, the productive capacity of the planet Earth is not unlimited. Under these conditions, it is necessary to integrate environment protection in decision-making processes and to tackle all problems mentioned above with the utmost responsibility.

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## Communication, Public Relations' Pillar

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### Abstract

*This would affect the proper functioning of institutions, both parties feeling the need to succeed, to have recognition, inclusion, control, harmony. Communication maintains mutual cooperation and properly manages the various problems that may rise and create a proper climate conduct of the business.*

**Key words:** communication, inclusion, public relations, advertising, globalization, information

**Clasificare J.E.L.:** A14, J48, P35, Z18

### 1. Introduction

Fundamental Laws of Communication:

- ❖ The truth is what people think.
- ❖ People are susceptible to flattery.
- ❖ What do I gain from this?
- ❖ Anticipate and prevent.
- ❖ Rehearsal, penetration, impact.[1]

Communication is the most important feature of the humans distinguishing them radically from the animal. No act of communication would create chaos throughout the community. It is mandatory that any message you send to be understood by the receiver, often a short and clear message will have a better effect than a letter drafted and complicated. One must have the capacity to choose carefully the message he wants to convey, in order to get results from the public. Of course, the communication elements that are vital to effective communicative act should not be omitted: sender, receiver, message, channel, code, and context.

### 2. Communication in Public Relations

*This paper seeks to highlight the vital role of communication in public relations, without which a barrier between employers and employees would be created*

Public Relations use various means to ensure the confidence and sympathy between the employees of institutions or businesses. It is very important not to make confusion between public relations and advertising. It should be noted that, advertising aimed expressly, training, maintaining and developing a clientele is aimed solely for advertising, while public relations seek to create a climate of trust among the public and its own staff, support their own work and encourage enterprise. "[2]

Also, public relations must use persuasive communication, there must be a mutual understanding between members of the public institutions and these institutions should help them integrate the environment in which they activate. To this, the appropriate advice is added to those who lead the institution to promote various programs of action that would help improve its image.

So, „public relations is a distinctive management function which helps to establish and to maintain mutual communication, understanding, acceptance and cooperation between an organization (institution) and its public, involves managing problems or issues; management helps to inform and to be receptive to public opinion; defines and emphasizes the responsibility of management in order to serve the public interest; helps management anticipate trends; used as the main communication tool, research and ethics.”[3]

It is clear that communication with the customer is the pivot of public relations and this is the base for achieving goals and success. Use different communication channels both external and internal to enable understanding and

to stimulate action (writing and editing of messages, media use, public questioning of management activities, exhibitions, shows, press conferences, advertising, campaigns, etc.).

It is necessary to communicate with their employees in different ways (letters, presentations, exhibitions, shows, etc.): presenting the type of institution, its activities and products, concerns, goals, in other words, everything that is that institution. Folding type of school employees is very important in achieving success, so that the work environment that is created within the firm will be favorable for sales and for achieving success. Once satisfied the owner of the firm, the employees will be happy to benefit from various advantages (bonuses, salary increases, promotions, holidays etc.). You can also use different intra-institutional communication tools such as blackboard, regular discussions, statistics, and newspaper institution. Manager-employee connections and leader-leader, employer-employee, are important and will help overcome communication status differences, tensions and help mutual understanding.

In addition to that, it is important „to exist a direct contact between the management of each system and its members and also contact between members of different sectors of the system. These contacts are particularly beneficial, because people who lead have to understand the employees, they are feeling comfortable when are listened to, understood, and especially and it also helps you feel that are leaders in their ranks. Always when there is a rift between the management system and its members, the efficiency of the unit will decrease, the trust will dissolve and slowly, the system will lose substance, possibly leading to internal conflicts, the leader is changed or the system will disappear in a year's time or of the above, such a reality brings losses to the system.”[4]

In whatever angle we look at communication is obvious that this helps to inform, report, present, from a point of view a situation. This is the reason why there should be a permanent favorable contact between the manager of an institution and its employees, as the communicative act is vital in shaping the identity and personality of a company. Therefore, the opinion of Ion Gr.

Ionescu should be considered, opinion which states the following:

„Face to face communication with a person (interpersonal) has the great advantage that it is straightforward and allows the use of all means of verbal and nonverbal communication. It can also be interactive, allowing the adjustment of messages along the way, based on verbal and nonverbal feedback. Interpersonal communication is important for performance evaluation and motivation, giving instructions for resolving conflicts, negotiating, etc.. Business Communication group has characteristic functions such as: helping define the group, contributing to the revision, updating and supplementing what they already know as members of the group, supporting the implementation of decisions, a tool for the development of group members and emergence of leaders and implementing change.”[5]

Freedom of expression is the key to individual and social relations, along with freedom of the press and freedom of gathering, serving the interests of both clients and beneficiaries. Cooperation will always be beneficial among individuals, groups and institutions of society.

Tasks of public relations are: „anticipating public reactions and analysis of feed-back; advising management; establishing and implementing public relations programs; evaluation of these programs; media monitoring and media relations; coordination of internal and external communication; organizing events; organization identifying problems and providing communication links between management and internal and external audiences; management, in terms of communication, of crisis.”[6]

Not have overlooked the phenomenon of globalization, nor forgotten the spread of radio, the Internet, digital technologies that have made communication easier and controlled. Always communicating with the public will put him first, will be open, it will provide to public and media all types of information, as it will avoid any hiding places. In any case, difficult or not, communication should be used to persuade the public, even against his own wills, using persuasion and manipulation. These two methods are designed to change your mind,

the attitude of an individual message using any kind of channel, directly or indirectly. Handling will always involve the use of means which seek to adopt a certain attitude of the individual that it would not have been taken it from the first moment.

The success of communication are the seven axioms of communication developed by psychologists and linguists from the American Institute of Mental Research in Palo Alto and replayed by Duțu Olga in „Public Relations and Communications”:

1. Communication is inevitable. The lack of communication is impossible.
2. Communication takes place on two levels: content and relationship. The first level gives information and the second gives information about the information provided by the first.
3. Communication is a continuous process that cannot be addressed in terms of cause-effect or stimulus-response.
4. Communication is based on both digital information (i.e. processed by the central nervous system) and the analog information (which neurovegetative system processes).
5. Communication is irreversible.
6. Communication involves power relations between partners; exchanges taking place between them can be symmetrical or complementary.
7. Communication involves processes of accommodation and adjustment behaviors.

The European model evaluates and directs the European market, giving the public and media a vital role in promoting democratic values. The report posted online the EU Monitoring and Advocacy Program (EUMAP) in collaboration with the Network Media Program on Television in Europe - regulations, policies and independence television in Romania is criticized for poor independence and lack of credibility on the part of broadcasters.

Mass Communication is institutionalized production and generalized diffusion of symbolic goods via the fixation and transmission of information or symbolic content. The first characteristic of mass communication refers to the institutional production of symbolic goods namely the existence of specific technical and institutional means of production and

distribution.

So, communicative act involves both verbal and nonverbal levels, the adaptation of the transmitter to the receiver and vice versa, and avoiding tension which is a necessary factor.

### 3. Jams communication

At one point may appear various types of public communication bottlenecks caused by dissatisfaction, frustration, due to the formation of an image of an institution or due to bad corruption. Another factor that could lead to potential deadlock would be hiding information that would trigger various rumors that would hurt the image of the institution (strikes, street movements, changes in management, natural disasters, revolutions, wars or accidents).

Therefore, it is necessary to distinguish between information and communication. The last one involves the transfer of content and the active role that the receiver will always have when communication involves the exchange of cognitive structures aimed at changing the behavior of others and is based on an interactive relationship. If you take into account these details automatically communication bottlenecks will be avoided and there will be harmony both inside and outside the institution.

Communication must be credible and to exist respect and trust between the communicating parties . Also, there must be steady and rapid strategic information to help the welfare of the institution. The competition will occur and employees will be motivated to surpass themselves, to become better. To achieve such performance, it is necessary that messages sent are clear, coherent, concise, consistent, automatically avoiding chaos.

Every employee needs to know clearly what he is and what responsibilities are expected from him, automatically must know how to listen, but to listen and to learn from others experience. In addition, technology and communication resources, and various communication channels should be used to improve the communicative act for transmitting and receiving the most efficient and accurate message.

Continuous improvement of both the employees and those in leadership will help the institution to grow, to progress, and to

change.

To avoid bottlenecks should be kept in mind that involvement fosters communication, teamwork and participatory management, help to improve the functioning of the organization. There always has to be a permanent opening to innovation, to use formal communication, and informal and should be seen as an ongoing interactive process. Any crisis that might arise would be due to precipitation in decision making or organizational change and inadequacy in some circumstances of the officer or employee or the use of imitation, the uptake of elements from other cultures and different backgrounds not fitting the specific work undertaken by the institution.

#### 4. Conclusion

In other news, whether it comes from an institution's internal public relations aimed at educating social and economic understanding of the purpose thereof, which is possible only by his motivation and manifestation of creativity, inventiveness and individual personality of each employee; or external public relations aimed at the clientele to be classified according to age, sex, profession, its background and so on, it should be noted that there will always pursue impact-type reactions from others. It also will consider promoting a positive image of the institution, and managing communication with employees and the public, and preserving a link with the local community, consumers, the media, foundations, associations, governmental and non-governmental organizations, etc.

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## Analysis of Budget deficit in Romania during 2000-2013

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### Abstract

*Worldwide, over time, the years of economic crisis were defined by significant increases in the levels of budget deficits. Discussions on sizing budget deficits, financing, especially the volume of public debt became more intense, both politically and academically. The impact of budget deficit on economic growth is a common theme found in the economic policies adopted. The present paper aims to analyze the evolution of budget deficit and the structural budget deficit in Romania during 2000-2012. Study and identify levers and budget deficit reduction policies are of great importance, especially in our country where the values achieved by this indicator in recent years are alarming..*

**Key words:** potential GDP, fiscal policy, output gap, structural budget deficit, cyclic budget deficit

**J.E.L. Classification:** E32, E62, H62

### 1. Introduction

The severity of the current economic crisis provides an important lesson, that economic policies must be prudent in times of economic boom and prevent the buildup of imbalances and to ensure safety margins so they allow a proper response to the possible adverse shocks of large size.

It is more than known the significant role that fiscal policy has within macroeconomic policies. It should be emphasized from the very beginning that fiscal policy's room for maneuver available to operate in stabilizing effect is limited by budget deficit threshold.

According to **Romer**, there are a number of controversies regarding the acceptance of the notion that the budget deficit has a "damaging effect" on economic life. Over time, economists' opinion made reference in two directions. On the one hand, deficits resulting from reduction in tax rates have a stimulative impact on labour productivity. On the other hand, budget deficits have always been seen as a cause of stagnation and economic instability. [7]

Fiscal policy objectives can be defined in terms of cyclical budget balance by ensuring long-term sustainability of public finances and allowing automatic stabilizers to reduce economic fluctuations. They mirror that budget revenues and expenditures (to a lesser extent) are influenced by the position in the economic cycle and are making their contribution to soften cyclical fluctuations.

### 2. Literature review

Generally, there are controversial opinions on the relationship between budget deficit and economic growth. While Keynesian economies have argued that there is a positive relationship between these two series, the new classical economics have argued otherwise. Meanwhile, proponents of Ricardian vision, were advocating for a neutral relationship between the budget deficit and economic growth. These controversies are caused by a number of factors such as the time period analyzed, the type of country and their government method, the method of analysis and the level of the budget deficit.

**Bose, Haque, and Osborn** have investigated the relationship between the budget deficit and economic growth for 30 developing countries during 1970-1990. Using panel data analysis, they found that the budget deficit would help the economy given that deficits were caused by productive expenditures such as education, health and capital expenditures.[2] The same conclusion derives from research carried out by **Fischer**. [4]

Few researchers agreed with the thinking of the new classical economics, which supports the negative relationship between budget deficit and economic growth. In general, the government needs to borrow money either externally or internally, in order to finance the budget deficit. An increase in loans contribute to the imbalance level of private investment, due to rising interest rates. Decline in private investment will definitely reduce the level of economic growth. Based on research conducted by **Ball and Mankiw**, the previous statement is proved to be true in the case of the United States during 1960-1994.[1] The same conclusion was also highlighted in a study analyzing government expenditure for 30 developing countries.

Consolidated budget deficit is made of two components: a cyclical component (influenced by the evolution of the economic cycle - expansion or recession) and a structural component. Budget deficit reflects the influence of permanent factors (stable elements of public revenue and expenditure) and transient factors (factors affected the business cycle, such as evolution of budget revenues in different periods: they grow rapidly in periods of expansion and decreases in times of recession, regarding expenditures, they are on the opposite: social transfers, especially spending on unemployment benefits increases during recessions and decrease during periods of expansion).[9]

According to **Hegemann (1999)** structural budget balance is the residual

balance remaining after removing the effects of the economic cycle on public finances. [6]

At first the structural budget balance was used to indicate the fiscal position under conditions of full employment of labor, but over time this indicator valences diversified. The indicator is used as a tool of discretionary changes in fiscal policy level, meaning evolutions due to fiscal policy adopted and due to economic influences.

According to **Giorno and others**, cyclically adjusted deficit is considered an important indicator with respect to the sustainability of fiscal policy implemented. If there is an unsustainable growth of public debt, due to an increase in the structural deficit, are required the application of fiscal and budgetary measures, aimed at improving the situation. Fluctuations in the size of the structural deficit provides information on the extent to which public finance policies succeed to stimulate aggregate demand, and information on the degree of fiscal consolidation. [5]

It is important to quantify the structural budget balance, as it allows us to obtain a clear image on the fiscal situation of the economy, undistorted by the influence of the economic cycle.

### 3. Analysis of budget deficit in Romania

Due to the intensification of public expenditure, the budget deficit has become, in many countries, a common phenomenon. In our country, the budget deficit has been one of the biggest issues that economic policy had to face.

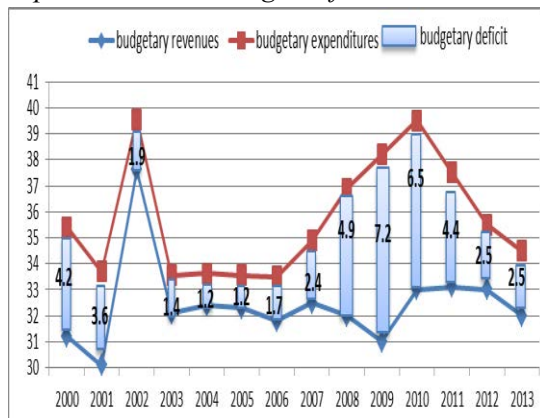
The chart below provides the evolution of budget deficit in 2000-2013.

According to the table it can be seen that the budget deficit of Romania has experienced a significant increase in 2004-2009 from 1.2% of GDP in 2004, 7.2% of GDP in 2009. Among the causes that led to the increase in budget deficit we remember: lower economic output, spending too much in the development of social programs,

increasing the share of underground economy, reduce budget revenues amid the economic crisis, political instability and institutional factors.

During the analyzed period budget revenues dropped significantly, as costs have increased, deepening budget deficit which reached 6.5% of GDP in 2010. This phenomenon is explained by the fact that economic fluctuations affect budget revenues (diminishes on account of economic downturn) and expenditure (for example, more funding for social security, for unemployment as a result of the increased number of socially assisted persons due to lower income households).

*Graph 1 - Evolution of revenues, expenditures and budget deficit in 2000-2013*



Source: own processing based on annual

In 2009, the budget deficit reached a peak of 7.2% in PB, but the austerity measures implemented by the government, contributed to the reduction of this indicator from year to year, to the value of 2.5% of GDP at end of 2013.

The budget deficit in 2011 was 4.4% of GDP, down from the 6.5% of GDP reached in 2010. In 2012, the actual budget recorded a deficit of 2.52% of GDP, slightly beyond the limit set by the International Monetary Fund, and 2.4% of GDP. At the end of period, in 2013, this indicator has remained at the same level in 2012, or 2.5% of GDP, given that they were paid arrears in health and local government and staff salaries in the public sector have was reunified.

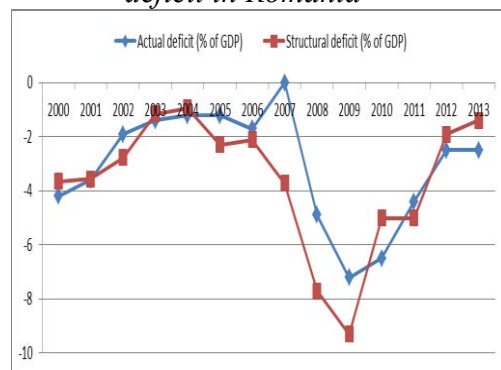
#### 4. Analysis of the structural budget deficit

In the evaluation of fiscal policies, the current budget deficit is an indicator of a very limited utility. We have to take into consideration that these policies can not be analyzed using short-term indicators, and on the other hand, an indicator such as the current budget deficit can not detect the fiscal burden of future generations.[3]

The indicator that provides a clear picture on the economy of a country, without the influence of the economic cycle, is the structural budget deficit. Structural budget deficit is determined as the difference between the current budget deficit and cycle budget deficit. The cyclical component is determined using the sensitivity of the budget deficit and economic fluctuations. In fact, the sensitivity of the deficit is cyclical economic fluctuations relative to the percentage change in the budget when the output gap changes by one percent.

In the table below is shown the evolution of the structural budget deficit for Romania, during 2000-2013.

*Graph 2. Evolution of structural budget deficit in Romania*



Source: Socol, A.G., Mantescu, D., "Remodeling Romanian fiscal policy during the crisis", *Theoretical and Applied Economics, Volume XVIII (2011), No. 1(554), p.117*

As can be seen in the graph, Romania had a budget deficit decreasing until to 2005. Starting 2006, the budget deficit began to grow substantially due to increased spending. At the same time, because of large and positive gap, structural budget deficit was

substantially higher than the actual deficit in 2006-2008.

After analyzing the table we can see some interesting things. First of all, the evolution of the current budget deficit mislead us, especially during the expansion. In 2007 current budget deficit was 2.4% of GDP, and the following year its value had risen to 4.9% of GDP. If we eliminate the influence of the economic cycle can easily see that in reality the deficit was 3.73% of GDP and 7.71% of GDP in 2008.

Secondly, evolution of structural deficit reveals that our leaders act opposite to macroeconomic theory postulates. When the economy is producing below its potential, there are tax adjustments and when produce above potential, the economy is overheated. [8]

In order to ensure the sustainability of fiscal policy was necessary to implement restrictive measures, which led to reducing the structural budget deficit from 9.3% of GDP in 2009 to 1.4% of GDP in 2013. Fiscal adjustment reached especially the expenditure side, measures being adopted in budget staff salary and public pension system.

## 5. Conclusions

During the economic growth the fiscal policy implemented was a cyclical one, resulting in restricting the fiscal space necessary to stimulate the economy during the recession that followed. During the crisis, reducing the structural budget deficit resulted in maintaining the pro-cyclicity character of fiscal policy. In this way, automatic and stabilizing action of cyclical budget deficit through automatic stabilizers was canceled by procyclical discretionary policy.

The paper highlights the importance of determining the structural budget deficit for the Romanian economy. This indicator is the most significant in the evaluation of fiscal management performance and how fiscal

policy action to stabilize the national economy.

The evolution of structural budget deficit reveals very clear the lack of effective fiscal policy in order to establish a favorable fiscal positions. It can be seen that were implemented measures to achieve fiscal consolidation, but the changes in the Romanian structural budget deficit during the period under review reveals inconsistencies regarding the implementation of these tax policies.

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## Stages of Evolution of the Market Economy in Romania

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### Abstract

*Historically, Romanian modern economic life in all its aspects was under the influence of Western models and experiences. Thus, in the second half of the eighteenth century, Romanian countries have been substantial changes in all areas of materials caused by the collapse of the old feudal relations of production and the emergence of capitalism that were to develop in the first half of the century next .*

**Key words:** market, capitalism, law, monopoly

**Clasification J.E.L.:** A10

### Introduction

Historically, Romanian modern economic life in all its aspects was under the influence of Western models and experiences[1].

Thus, in the second half of the eighteenth century, Romanian countries have been substantial changes in all areas of materials caused by the collapse of the old feudal relations of production and the emergence of capitalism that were to develop in the first half of the century next . This transition period (the " crossroads of time", as he called it, in a very current Conachi C. 1822, John Sandu Sturdza investing in Constantinople) was characterized by increasing social division of labour as a result of the weight starts to end manufacturing production, the deepening contradiction between the natural economy based on exchange closed and because considerable enlargement of the internal market and economic and cultural ties between the Romanian provinces.

Union principalities mark a decisive period in the design and construction of structures of the modern economy. Series of laws and decrees adopted in the period 1859-

1877 (including the development of Romanian Civil Code and Commercial Code Romanian) are just facets of a comprehensive restructuring work builds foundation capitalist world: individual freedom, freedom of contract and private property. On institutional renewal regarded as legislative action , the law of consecration phenomena, processes of modern economic relations , has had a long controversy philosophical ideas , sociological, economic, political, social and economic consequences of undisguised political and the " forms without substance " .

In the decades that have elapsed until the late nineteenth century are key institutions of capitalism created Romanian, among which stands out the NBR. In terms of protectionist state legislature requires accelerated development path, as economist Stephen Zeletin appreciate. Between the two world wars, economic policy is focused on legislative measures and institutions designed to accentuate and accelerate economic development, confirmed at the end of the interwar period. Romanian capital and capitalism were obvious reality, with notable performances at European level in some areas.

In the years 1945-1950 practically laws of market economy have been suspended from the suspension itself actually applicability of the Commercial Code , the supply-demand relations were regulated exclusively by a single political decision without a realistic foundation of productivity , which led to accelerated deterioration of the economic situation of Romania. In less than half a decade, in terms of international economic isolation, destroyed the principles and fundamentals of a competitive market economy for whose implementation efforts were needed more than a century.

### The transition to a market economy in

## Romania

Historically, Romania has denied for decades among the standard market economy, choosing a different way of organizing economic relations by establishing so-called socialist production relations, characterized by the dominance of socialist property on production means by generalized action economic laws of socialism, resulting abolition of private property and competition. Viewed as generating economic and social exploitation of labour in private ownership and competition time literature was explained as harmful elements of development, although essentially their role was in some way recognize private property, stated, competition, competition expressing "battle between private goods manufacturers for production and sales conditions more favourable".

From this point of view, if the meaning of the term "battle" would not be understood solely in a destructive way, would have understood that the socialist economy itself has applied the principles of market economy, competitiveness is a concept highly circulated in trade policies weather as drivers of progress, especially in developing economic relations between Romania and other countries of the world. For example, Law no. 12/1980, art. 1 , provides that " enterprises , plants , ministries, other central and local bodies in charge of foreign trade are required to ensure continuous growth and diversification of production for export , development of competitive products ( ... ) " .

However, the method of centralizing the economy, based on the existence of single national plan, the state monopoly in all areas of economic life, including in international economic relations derived from (state monopoly of foreign trade, foreign monopoly) obviously could not lead to development Romania smooth , that is, slowly but surely, excluded from international markets, other markets circle isolated socialist. Completed leadership transformed from a centrally managed in a dictatorial leadership of the Romanian economy, interior characterized as growing economy, has proved to be, in fact, extremely labile, ready to collapse at any moment.

The monopoly of state ownership led to a number of negative effects that have been perpetuated and the emerging market economies. Among these, we mention [2]:

- ✓ monopoly of state ownership led to an excessive concentration of ownership in large and very large business units - hence serious supply difficulties and providing resources
- ✓ monopoly of state ownership was the basis of the super management - the role of local government has been dramatically reduced to extinction, which led to increased bureaucracy and formalism monopoly of state ownership has reduced investment risk initiative and responsibility, disruptive, ultimately, the effectiveness

Given the consequences in terms of concrete reality after the fall of the communist bloc Eastern European option was directed mainly toward creating / assimilation models of market economy, the key strategic objective for the transition to a market economy. However, in the literature, it was considered by this objective opposed in an artificial way, two types of economy, defined from a single point of view, the main component of the economic mechanism of each, by taking on the without adaptation evolution itself imposed Western states, the group made in the post-war period, Member, UN: market economy countries and countries with economy (that included only the socialist countries). However, the economic mechanism of socialist countries do not exclude market as any traditional market economies do not exclude planning so that the use of this unique distinguishing criterion failed to explain any shift start time, but especially not when concluding this stage because the transition cannot assume just changing economic mechanism, but changing the whole society, in all its plans.

Thus, in the absence of any experience, when in 1989 he helped Romania to choose what was offered as personal experience, history, entering a new historical stage by taking the literal concept of free market

economy, with all its avatars - free competition, free formation of prices according to supply and demand, primitive accumulation of capital, social polarization - somewhat anachronistic model of the market economy. Some experts explain differences in the progress of one country or another by the success of reforms and to a lesser extent by the diversity of initial conditions existing at the beginning of transition.

Starting from concrete realities other former socialist states, it is now evident that the zero point of the transition should take into account the achievement of another economic and social system that ensure economic efficiency in all activities (through economic restructuring in all plans, accessing scientific and technical innovation, regardless of price).

This new social system should be fair for everyone, possibly keeping some elements of fairness generally applicable, related to ensuring the right to work, access to education, culture and health, promoting, even at this time zero, normative acts to reorganize these micro-systems, so that they do not remain at the stage of constitutional principle, often contradicted by reality.

In addition, the new social system would have to approach becoming more sustainable development, making use of available resources rationally by changing, fast, meaning economic growth from extensive growth to intensive growth accomplished by exploiting the qualitative side of the production factors. In this way, economic development would have to assimilate new concepts, multidimensional, where the growth factor is mainly creative development - from Stanford School now known formula stating "freedom - creativity - technological progress - development".

Trying a conclusion, it was natural that the former socialist countries to induce a market economy model currently exists in developed countries not to impose, willingly or not, back in time to the mechanism used by them in the nineteenth century. Romanian economy, on its way to a market economy has come nearly two centuries of transition, interrupted, that's right, the communist decades. Early 90s of last century marks the start of the current transition of the Romanian society.

Romania began the transition from position unfavourable initial conditions significantly lower compared to other countries in transition in Central and Eastern Europe. The transition to a market economy in Romania was perceived from the outset as a long process and very difficult, beyond optimism already become classic Romanians. Much time after the 1989 Revolution, Romania fell into the trap of political strategies characterized by improvisation, without a reference point, without a specific timeframe without a target, without indication of the resources required.

In 1989, he had amassed a strong tension, tension that could be easily converted into a huge energy company building a normal, functional. Slowly Romanian economic system has „consumed „the voltage reaching the obvious fatigue. Was so incoherent transition management (or perhaps that there was not) that practically for almost a decade transformation was done according to the „seeing and doing „without a formal strategy, coherent and consistent, widely embraced actors changes. Romania had a clear perception that the transition leads to the desired company. Do you know if it's right to recover something of the form of organization past or if you have an innovated system of social organization? Was considered ideal to build the most advanced capitalism will be enough to change efficiency? Tried to build a specific kind of capitalism, Romanian, born of failure to observe practice models validated as effective in the West.

Seems like a potential super-saturation reached too early. Romanian transition is perceived not only as something unfinished, but as something untried. The need was felt acutely strategy since the beginning of transition. Acuity was seen only after it was observed during the best of the other countries in transition: people have to do planning, existing institutions should be part of it, self-education of citizens is more important than specific projects or physical changes.

## Conclusion

Until the advent of the National Strategy for Economic Development in the medium term in 1999, one of Romania's development

programs has been the lack of a program. Therefore, we consider that a priority in our economy is the view that an essential requirement of leadership. It is better to work as Anghel said Rust, taking an old idea of Leon Walras - with two models: a base model, the reference and the real one, which strive to optimize it, to bring us closer to the proposed model.

The first and most important feature of our transition to the crisis is to achieve - imbalances brutal rupture generates losses. This is a crisis of the system, structure, generated by the superposition of two layers - the crisis inherited from the past regime crisis and transition added [3]. The transition accepting crisis but also expresses its conclusions - the need to substantiate a transition strategy to be targeted on the one hand the goal of creating solutions crisis , short-term policies , and on the other hand , to economic growth through policies medium and long term.

All this is achieved through reform strategies. Question, rhetorical at this point, there was such a strategy in Romania? In Romania, the transition from overly centralized economic system based on state monopoly and rigid planning has been marked since the beginning of 1990 to amend the legislative framework, the first attempt to regulate what later was to be based market economy. Trying an overall summary , in the first stage ( which lasted approximately until 1993 ) , the old economic system influences were particularly large , mainly due to the existence of a legal vacuum was reflected most strongly in the economy, it wanted to develop, but the law did not allow it.

The old rules no longer cope with the intentions of traders ( in the broad sense ) , economics quickly overtake the legislature , which created a framework for the emergence of a market economic in coordination , as a bivalent competitive ratio generated , on the one hand the atomistic private economic agents (which act independently, without affecting in any way the price level) and on the other hand, the quasi - monopoly of state-owned entities (which acted as the old regulations and mentalities, setting arbitrary prices that thus did not reflect anything supply-demand ratio).

It was the first they started restructuring measures, the creation of the first levers of market economy, along with initiating a legislative framework that its fundamental Institutions (price reform, the financial and banking system, achieving currency convertibility, redefining property, stimulate fair competition).

An objective evaluation shows that the Romanian economy is presented as a poorly structured institutionally. It is inefficient, unproductive, weak functional, uncompetitive and unstructured. Market economy mechanisms are incompletely institutionalized, and their function is reduced because of insufficient coherence of the regulatory framework, the persistence of statist practices and reduced capacity of the market economy system to enforce the law. On the other hand, economic activity was conducted and menus still a large extent, on the level informal society (economy).

Although resources have qualitatively comparable to those in developed countries, their use in all these years has been unsatisfactory due to the poor economic activity. The labour market was affected by the imbalance in the ratio between the active and inactive population and the employment rate. The emergence of unemployment as mass phenomenon was due to the closure, liquidation or sale of loss-making enterprises, the employment of human resources assets decreased continuously to a chronic long-term unemployment, youth unemployment risk is extremely high.

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## World Trade Organization (WTO) Agreements on Competition Policy

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### Abstract

*In 1993, the WTO negotiations to create a working group of experts from the Max Planck Institute (Germany), proposed the establishment of an International Antitrust Code. This code was intended to pursue the creation of a competition laws based on a "minimum standard", the substantive obligations and the establishment of support structures and dispute settlement. Provides international antitrust authority who have the power to take action against authorities national competition when they refused to take the necessary measures and other actions to support efforts against anti-competitive practices. This code proved too ambitious, which was the major cause of its failure. However, it will remain a useful document for future discussions on international rules of competition.*

**Key words:** cartels, complains, dumping, competition

**Clasification J.E.L.:** A10 – General

### Introduction

Organization for Economic Cooperation and Development (OECD) began in the 60s an incentive for member countries to share their first experiences and information and, later, to cooperate in specific cases involving more than one jurisdiction.

In 1979, the OECD recommendations on cooperation between countries on restrictive practices affecting international trade.

Global Forum on Trade and Competition, organized by the OECD in Paris (May 15 to 16, 2003) starting point 1 has been the case for a multilateral framework for improving the contribution of competition policy to international trade and development,

arguments recognized clearly within the WTO.

### Multilateral agreements

It is necessary to highlight some issues on which have been insisted in the debate:

- concept of discrimination applied competition law is expressed as: law protects competition, not competitors;
- national treatment discrimination may be contradicted by "de jure" or "de facto";
- regarding non-discrimination, the issue is not whether exemptions are beneficial or harmful in terms of competition policy, but whether the existing provisions discriminate against foreign firms train;
- observers are recommending that the most favored nation principle does not apply to international cooperation in a multilateral framework on competition;
- is important that the public, in a broad sense, understand that competitive markets are essential to the functioning of a genuine market economy;
- to define a general rule, adapted to the protection of confidential information in a multilateral framework on competition;
- hard nucleus cartels with a source of considerable economic damage, they generate losses and inefficient and can have devastating effect on small businesses and farmers, leniency programs are not successful unless there is a strong certainty about the nature of leniency will be granted if there is a credible

- threat of heavy penalties for failure to cooperate;
- punctual international cooperation is gaining momentum, without neglecting, of course, the importance of institutional cooperation;
  - examination by pairs is a useful tool promoting better policy, programs have some basic features (secretariat members, exam criteria) and involves several stages (inquiry report, exam, final report, final report revised);
  - drafting an effective competition policy in developing countries requires three elements: creating a culture of competition, correcting structural and institutional distortions, commissioning an effective mechanism to fight against anti-competitive behavior in the private sector;
  - economy main actors (politicians, civil servants, business environment, trade unions, lawyers, and other sectoral regulators, academic environment and the media) should consider the benefits of competition and provide the necessary support;
  - opening markets to create a number of jobs exceeds the number of seats removed; are needed temporary assistance training programs to facilitate the mobility of human resources. United Nations Trade and Development (UNCTAD) has also played an important role in the spread of competition policy in developing countries, developing an "equitable multilateral set of rules for controlling restrictive business practices" adopted in 1980 and providing technical assistance to these countries.

Both the OECD and UNCTAD arrangements are not legal basis, they are indicative. For UNCTAD, implement the set is encouraged by annual meetings of the

Group of Experts and the Secretariat of UNCTAD activities. OECD recommendations, on the other hand, encourages countries to establish arrangements for cooperation between competition authorities in different countries. Means which must be adopted by the member countries to generate cooperation include: notification time period applicable to decision-making programs where anti-competitive information sharing and real analytic, coordinate discussions and negotiations on remedies in which the interests of several countries may be affected.

EU prefers a multilateral approach based on cooperation, considering the World Trade Organization (WTO) as the key vehicle for establishing this cooperation, due to the broad objectives of WTO Members and due to complementary relations between trade and competition policy. The European Union claims that in this way could prevent

anti-competitive behavior of firms, in order not to alter the substantial progress in liberalizing trade with the WTO and its predecessor GATT.

WTO established the Working Group on the interaction between trade and competition policy in 1996, to study issues raised by WTO members on this interaction, including anti-competitive practices to identify areas that may be considered in future negotiations WTO. Working Group discussions were modestly but in negotiation of common rules for national competition laws (in order to harmonize them), not to mention the creation of a global competition authority with supranational powers. Proponents of the WTO antitrust propose the creation of mechanisms to facilitate the convergence of national policies since the adoption of competition policy that respects certain basic principles - the most favored nation clause, national treatment, transparency and measures against cartels.

The Doha Ministerial Declaration (Qatar, 9 to 13 November 2001), the Working Group has acted to clarify fundamental principles (including transparency, non-discrimination and procedural fairness) and the provisions relating to anti-competitive agreements, voluntary cooperation modalities of support for progressive strengthening of competition institutions in developing countries.

WTO Members are free to adopt a policy of national competition - the only potential constraint that requires the WTO non-discrimination (national treatment) by GATT Article III. This policy is covered by the national treatment clause, applying it being a requirement affecting trade. WTO members are required to ensure equal opportunities of foreign products to those available to domestic products in terms of access to distribution channels. In practice, competition policy must treat equally to domestic and foreign products. National treatment disciplines do not require the treatment of entities (individuals or companies), only products resulting from government policies. For example, if the EU market one European and one U.S. company producing different goods, they abuse of dominance, the European Competition Authority may intervene against only U.S. company that does represent a violation of national treatment provided for by GATT. The GATT concern relates to the possibility that a government measure to treat foreign products less favorably. In addition, the WTO commits only the responsibility of government, not on private companies.

*Cartels.* Countries can take action against foreign practices that adversely affect domestic markets; cartels are an example [1]. On national treatment, WTO panels have attempted to link export cartels and government behavior, but the exact determination of the involvement of states is difficult. The scope of article XI GATT can be extended to passive behavior of states (tolerance cartels). Another important issue is the form of cartel actions. If competition is limited by quantitative restrictions and there is a government measure that supports the cartel, the practice can be challenged in the WTO. Price increases due to collusive behavior covered by Article XI as reduced sales volume. All this suggests that existing WTO rules and their further interpretations allow WTO to address the issue of cartels, if there are national authorities to implement.

*Complaints.* Complaints [2] provide redress against restrictive trade practices in the WTO. The claimant must prove that the concession value was reduced by a further measure, which is illegal according GATT, but that could not be reasonably foreseen when the concession was granted. The

reference to "measures" require positive action by governments. Since the contested measures are not illegal, the remedy can not be withdrawing practice. Instead, the WTO recommended that members carry out a satisfactory adjustment parties ( article 26.1 b on how dispute Settlement). States may require compensation to rebalance the terms of the exchange. Disputes can be important tools for transparency and determine the extent to which they were affected agreements on market access by introducing new national policy that could not be anticipated when negotiating concessions.

*Anti-dumping.* The stated purpose of anti-dumping measures [3] is to combat the use of very low prices to eliminate competition, in practice, however, this is the exception, not the rule. Often, anti-dumping measures are a form of protectionism. The introduction of competitive criteria to meet quotas was suggested as a way to reduce the negative impact on domestic competition. In this sense, the actions of competition authorities should focus on damage to competition, appealing to similar tests to those used to determine whether price discrimination or selling below cost are anticompetitive . Competition Office should have the mandate to determine whether anti-dumping duties - and trade policies in general - can drive (or driven) to an excessive reduction of competition in the national market. Anti-dumping may be the subject of appeal on the ground damage competition.

*Intellectual property.* TRIPS allows governments to take measures to control anti-competitive licensing practices that adversely affect trade and may impede the transfer and dissemination of technology. Services. GATT recognizes that business practices may have restrictive effects on competition and trade in services, but does not impose obligations on WTO members in the adoption and application of competition law. However, agreement on telecommunications in 1997, introduce disciplines (voluntary) in areas such as networking, being recognized that dominant firms may impose barriers to market access to other service providers (by refusing interconnection network or insurance access on commercial terms). Services are activities that often require regulation to prevent market collapse, or to achieve certain social objectives.

Technology development and privatization processes taking place in the service sector have important implications in the design of appropriate regulatory instruments in order to ensure efficiency and equity. Many essential services development - transport, energy, telecommunications, finance - are important externalities networks. Regulations should ensure that a dominant position in these markets can be obtained or maintained by firms only through effective work without obtaining supernormal profits. In this respect, it is necessary to strengthen the national institutional framework in parallel with the adoption and implementation of international standards for WTO members. Most jurisdictions have imposed regulations in the field, even in liberalized markets services, social considerations and equity. Cartels ("de jure" or "de facto") in services may have negative effects on developing countries emphasized – e.g. aviation and shipping cartels, generally supported by governments where can not be neglected risk of abuse of dominant position.

*Product standards.* Agreement on Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade are also competitive dimensions, requiring WTO members to adopt less restrictive. Given that standards can be used to eliminate competitors from the market, it is necessary to strengthen the mechanisms that allow companies to challenge the proposed standards (in such cases the applicant must provide evidence, which in practice proves difficult done). This exceeds the scope of the WTO, as standards are adopted in the WTO.

*Government procurement.* Set of WTO rules on acquisitions of states refers to the competition. It is known that offers "arranged" occur frequently, especially in environments where not respected competitive and transparent procedures for organizing auctions. Actual competition is key to reducing costs. Yet even if such mechanisms are applied, in the case of products not marketed, bidders may use agreements (e.g. construction contracts). Antitrust national mechanism may play an important role in limiting these practices, but more important is the design of systems that encourage competition between providers

acquisition potential and create incentives for states.

*Agriculture.* Exports of agricultural products and production subsidies have known effects on competition and is a priority in negotiations for developing countries. Agreements between states exercise monopsony power by multinational buyers, restrictive conditions imposed on access to seeds and use, safety standards and food labeling set by retailers are examples of practices and policies with implications for competition agricultural market.

In the existing WTO agreements, there are many problems of competition. Some of them require mechanisms for ensuring competition among suppliers, but not necessarily the application of national antitrust regulations (e.g. government procurement). Others require international cooperation and action outside the WTO (e.g. the adoption of international standards of product). In many areas, traditional commitments required (similar to GATT) on market access (e.g. services), supplemented by restrictions limiting market entry and market distorting practices that are supported or are the result of government policies (e.g. subsidies in agriculture). To some extent, existing rules can be clarified to facilitate WTO action, to preclude discriminatory conditions for foreign products.

Since the case will determine whether liberalization and hands-off policy deserves priority over the adoption of a discipline in the antitrust laws. For many less developed countries, such discipline would have worse results than alternative options.

## **Conclusion**

Supporters of a multilateral agreement on competition policy argue as follows:

- would help developing countries because it would lead to anticompetitive behavior and cartels restricting corporations from developed countries;

- would help bring agreement on intellectual property rights under multilateral discipline competition. K. Maskus and M. Lahouel suggest possible abuse of intellectual property rights, as well as parallel imports can be covered by a policy of global competition;



- J. Stiglitz suggests that the existence of a multilateral agreement on competition would help to potentiate the anti-dumping measures by bringing them under competition policy;

- a global competition policy would lead to intensification of national and international competition, from which developing countries will benefit greatly. C. Perroni and J. Whalley, quantifying the potential gains to developing countries as a result of the introduction of multilateral rules on competition, say "potential gains for developing countries can be large, around 5-6% of national income. This would make the negotiation competition policy become more important for developing countries than all subjects achieved in the Uruguay Round trade". These gains will result from replacement of the anti-dumping policy competition, reduced margins foreign suppliers and reduce the concentration in national markets.

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## Employee Motivation-Source of Organizational Performance

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### Abstract

*In terms of global competition, motivation has become an important pillar, in achieving organizational performance.*

*Regardless of how well an organization is structured, in terms of, organizational strategies adopted, information systems and technologies used, skills and knowledge of employees, all this will not give the expected results, if employees are not motivated.*

*Through this paper, we aim to highlight the link between employee motivation and organizational performance.*

**Key word:** employee motivation, organizational performance, descending spiral of performance

**J.E.L. Classification: M10**

### 1. Introduction

Employee motivation, refers to, determining an oriented and dedicated behavior to employees, in order to achieve organizational goals.

The literature offers a wide and varied definitions of motivation, but they all ultimately have the same content.

The encyclopedic dictionary defines motivation as all reasons or ways (made aware or not) that determines a person to perform a particular action, or to strive for certain purposes.

From the research done, we extracted some keywords that are found in most definitions, such as: needs, interior dynamism, efforts, actions, targets, in order to shape an own definitions.

Thus we can define motivation as the ensemble of forces within a person, born of many of its needs, which determines her, to

make efforts and take action, in order to achieve certain goals.

Employee motivation is the employer problem, because the latter is obliged to know what to do, in order to determine the employee to engage in the process of obtaining organizational performance.

Availability and human desire to fulfill the tasks, are key factors for the effective functioning of the company.

### 2. Descending spiral of performance

Motivation is an important pillar in achieving organizational performance. The main problem raised by performance, is the method of achieving organizational performance levels.

Real sources of organizational performance can be identified if we identify problems which prevents achieving performance.

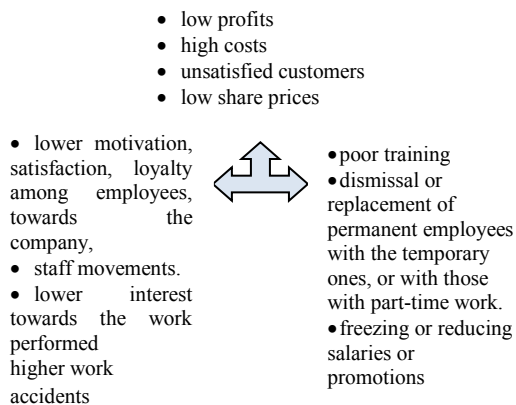
Jeffrey Pfeffer, in his book, highlights with the help of a descending spiral of performance, a series of issues that a company may face, and that inevitably lead to low performance [1].

The answer of a company that has profit and shares cost issues, will concentrate primarily in methods to reduce expenditure.

The first action taken, will concern expenditure reduction, regarding the human resources:

- reducing training expenses,
- freezing or reducing salaries and promotion,
- dismissal or replacement of permanent employees with the temporary ones, or with those with part-time work.

Fig. no. 1 - Descending spiral of performance



Source: Jeffrey Pfeffer, *Resursele umane in ecuatia profitului*, ALL Publishing House, 2010, pp.45

All these measures inevitably lead to other negative consequences for the company: lower motivation, satisfaction, loyalty among employees, towards the company, staff movements.

Threatening employees with layoffs or pay cuts, just make employees less motivated and thus distract them from the work performed, favoring the occurrence of accidents at work.

As we have seen above, staff reductions is one of the fastest ways to reduce costs. But the reality is different, as the number of personnel decreases, the company's activity diminishes itself, and this situation can't solve the problems that exist within the organization, and even longer to recover the company's revenue.

The source of the economic success is based on a perspective that sees the development of motivation strategies of the employees as crucial, for long-term economic performance.

People throughout the organization need to be shown and informed about confidential information on company performance, in order to increase their confidence and interest in the organization.

Sharing realistic information, both good and bad, people will begin to establish their goals resulting from this information.

Gradually, as they gain confidence in the authenticity of the information, they will be motivated to use their experience and knowledge they have acquired, in order to

improve the overall situation of the organization.

On the other side, the success comes also from delivering value to customers. Those who provide this value to customers, are in the end the motivated employees, who like their organization and therefore care about customers.

A strategy focused on motivating employees, facilitates higher levels of services to customers, and allows firms to enter in completion, based on the knowledge and skills of the employees.

### 3. Methods of motivation, means of obtaining organizational performance.

Salary is one of the main extrinsic rewards in the organization. It can be both source of motivation, if is managed properly, and also source of dissatisfaction among employees, that can generate negative consequences such as strikes, protests, absenteeism, large staff movements, with negative effects on organizational performance.

More and more organizations understand that not everything can be measured in money, and that they may not have sufficient financial capabilities to maintain a high level of motivation of their employees based only on monetary incentives. Thus, the use of non-material incentives can increase employee motivation. Among the most effective nonfinancial ways to motivate, stand [2]:

- Creating a honest relationships between the organization and its employees and offering rewards established according to staff results. Any violation of this equilibrium, both in favor of the organization or in favor of the employee, will generate tensions.
- The managers, having the same behavior with people from different hierarchical levels.
- Praise to the subordinates according to the real facts. Because people appreciate praise for well done jobs, these can become a powerful method of increasing the level of employee motivation.
- Attracting and stimulating subordinates to an active participation in setting organization's goals and solving organization's problems.

- Assigning interesting tasks to employees, because otherwise they will lose interest in the work performed.
- Fostering collaboration and teamwork among employees in order to achieve with success, the organizational objectives.
- Creating opportunities for professional development, so that employees will become more motivated and satisfied.
- Establishing within the organization interesting goals, but tangible.
- Offering support to employees and practicing a more open and transparent communication between managers and subordinates, in order to strengthen the relationships between management and its staff.

All these, represent true motivation nonfinancial ways to achieve the objectives of the organization and reach the targeted performance.

#### **4. Sources of demotivation-obstacles in obtaining organizational performance**

But what happens when the organization's leaders face a lack of staff motivation. Professors P. Vagu and I. Stegaroiu give an answer to this question in their work, based on the idea that, in order to reduce demotivation, firstly you must identify its source. Thus they identify the following sources of demotivation [2]:

- Uninteresting work. Work becomes uninteresting when it does not meet the expectations of the one who performs it. In this sense, it is necessary that the allocation of tasks to be done, according to the qualification of the person and according to its motivational profile.
- The lack of clear and precise goals or objectives. To avoid such situations, it is necessary the participation of the employees in setting targets, according to the business strategy and skills of those who run them.
- Lack of supervision in work can lead to lower employee interest in performing their tasks, so it is recommended that managers, practice the positive feedback even in regular duties.
- The feeling of boondoggle. This situation occurs when an employee performs work that loves and makes considerable

efforts in fulfilling its tasks, and notes that another employee who does not submit the same effort is rewarded as he is. To avoid such situations it is necessary that, each employee to be rewarded according to their efforts.

- Insufficient necessary means to accomplish the tasks assigned, can change an active employee and concerned of fulfilling the objectives of the organization, in a passive one.

- Constraints in the labor process refers to those procedures and rules that makes the work more hard and thus demotivates the employees.

- The general climate of the organization in which trust, respect, cooperation is missing, makes the work process harder.

All these situations affect the availability and the human desire to accomplish tasks, that are effective key factors for the functioning of a company.

#### **5. Conclusions**

Real sources of organizational performance can be identified if we identify problems which prevent achieving performance. One of this problems could be the lack of employee motivation. Availability and human desire to fulfill the tasks, are key factors for the effective functioning of the company.

The source of the economic success is based on a perspective that sees the development of motivation strategies of the employees as crucial, for long-term economic performance.

A strategy focused on motivating employees, facilitates higher levels of services to customers, and allows firms to enter in competition, based on the knowledge and skills of the employees.

More and more organizations understand that, not everything can be measured in money, and that they may not have sufficient financial capabilities to maintain a high level of motivation of their employees, based only on monetary incentives. Thus, the use of non-material incentives can increase employee motivation.

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## Information Sharing and its Role in Achieving Organizational Performance

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### Abstract

*Fierce competition in international markets, determine companies to want to be one step ahead of their competitors, in other words to be more efficient.*

*Survival in a competitive environment, greatly depends on encouraging communication within the organization, at all hierarchical levels, both vertically and horizontally, which brings benefits, for both the employees and the employer, but also for the organization.*

*By allowing the flow of information within the organizations, it is created a partnership approach, between managers and subordinates in order to obtain organizational performance.*

**Key words:** communication, teamwork, organizational performance, information sharing.

**J.E.L. Classification:** D83

### 1. Introduction

Performance is the competitiveness of an entity, achieved through a level of efficiency and productivity that ensures a sustainable presence on the market, of the organization.

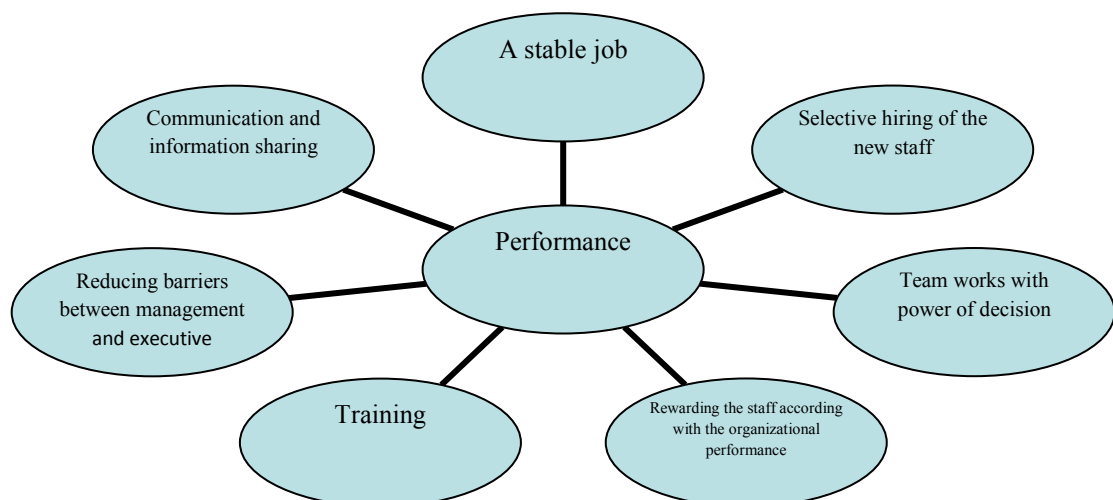
To reach performance, it should be established from the start:

- the targets of an company and the circumstances in order to achieve them,
- a clear definition of the route to be followed and the necessary resources, and,
- a strong motivation to achieve performance.

It is clear that, a key role in achieving performance plays the management of the entity.

In his book, Jeffrey Pfeffer [3], highlights a set of seven dimensions that can lead to organizational performance.

**Fig. no. 1 – The seven dimensions that can lead to organizational performance**



Source: Jeffrey Pfeffer, *Resursele umane in ecuatia profitului*, ALL Publishing House, 2010, pp.79

As we can see, from the chart above, communication and information sharing is one of the seven dimensions that can lead to organizational performance.

To study the performance of organizations means to analyze its behavior, and performance improvement can come only from an improvement in the behavior of the manager and its team.

A management focused on the development of communication within the organization, leads to the development of the relations between employees, strengthening interpersonal relationships among work teams, and removing barriers between management and executive.

Barriers being removed, amid open communication, management structures with executive will form a team, whose goal will be achieving organizational performance.

## **2. Communication and its role within the organization**

Information sharing within the organization, is the first step in the journey to achieve performance and competitiveness.

Communication plays a crucial role within the organization, can prevent occurrence of various problems like dissatisfaction among employees. *People who don't have information, can't make good decisions in business, and aren't motivated to take risks, to make decisions in the context of lack of information. On the other hand, people who have information are almost forced to assume the risk of making decisions in business, as good as possible, considering their capabilities [1].*

When the leaders of an organization communicate with employees, begin to earn the trust of employees, who feel included in the organization and realize that their leaders have confidence in them, and the barriers between management and the executive are removed.

Information sharing within the organization provides several benefits:

- the sense of responsibility of people increases;
- employee trust in management intensifies;
- the hierarchical structure is switched with one horizontal.

These advantages will determine a sense of partnership and a desire for involvement of the employees, who will use this information to enhance organizational performance.

## **3. Communication within teamwork**

For an effective development process of a team, the people need to acquire some team communication skills, other than those used in the one-to-one communications.

The ability to listen, to different ideas and then harmonize them into a whole, is a complex competence in the context of a team, especially if people have different ways to present ideas.

Communication skills should be a constant concern in the transformation of a group of people, in a autonomous, and responsible team, because teamwork can bring various benefits to the company such as:

- improving product quality,
- increasing production volume,
- reducing absenteeism,
- reducing staff fluctuation,
- improving attitudes towards work.

The result is that, responsible teams may have higher achievements than responsible individuals.

Amid poor communication, difficulties in performing tasks and the low trust and cohesion between teamwork members, ultimately lead to low productivity.

Various disagreements that arise between employees, who are assigned to accomplish a task, are caused by the fact that they do not form a working team, but a group with communication problems.

A group means, a number of people who have not developed a common goal and probably does not know how to work together as a consolidated team. A team on the other hand, has a plan and status, it is composed of people who have developed a common goal and who know how to work together as a cohesive team.

Teams are vital for the functioning of an organization. They provide a wide range of ideas, and a lot of experience, useful in solving complex problems faced by the organizations, in the changing and competitive business environment in that they act.

Teamwork members are people able to self-management, as they become business partners accountable for their results and with strong property feeling.

#### **4. Communication and information sharing-efficient way to achieve performance**

To highlight the role of communication in achieving organizational performance, authors Ken Blanchard, John P. Carlos and Alan Randolph, agree that organizational performance can be achieved by sharing information, therefore they present in their paper [1], ways of communication and information sharing within the organization : *"[...] We believe it is very important to pass every month information about sales, profits and sustainability. Every person in the company (who works at office or at home) can access through Internet-weekly sales figures by departments, areas and salespeople. "*

Through this method of performance evaluation, people around the company will act responsibly and help the company to achieve its goals.

There are several ways to share information regarding organizational performance of a company or a department, within the organization. For example:

- enterprise performance presentation via a poster in public places of the company,
- handing out newsletters,
- organizing meetings in order to share information on relevant statistics,
- companies that are more concerned with technology, disseminate performance via electronic mail or forum discussion.

Whatever method is used, it is important that the information provided about the performance of the organization to be updated.

Communication is one of the main tools to foster continued progress within the company. Communication is in other words the fuel of a company in the journey for achieving performance.

Information circulating among employees through the communication process is the mechanism by which people can be held responsible for fulfilling their goals, and for achieving them with high standards of performance.

Informed people can change plans, know when to work more or more intelligent, realize the impending problems and know when to celebrate progress.

Valuing and practicing all the time communication among members at all hierarchical levels, people will continue to progress, to achieve amazing results ahead of competitors.

#### **5. Conclusions**

Information sharing within the organization is the first step in the journey to achieve performance and competitiveness.

As Jeffrey Pfeffer in his book [3] highlights, communication and information sharing is one of the seven dimensions that can lead to organizational performance, because with the share of information among employees, they have the feeling that the organization trusts them, and thus they are encouraged to work in teams, in order to obtain performance.

Communication and information sharing has an important role, because even though the employees are good trained, without real information they can't improve the organizational performance.

Teams are vital for the functioning of an organization; this is why communication skills should be a constant concern of teamwork, because it can bring various benefits to the company such as high quality and high volume products. Responsible and communicative teams may have higher achievements than responsible individuals.

There are several ways to share information regarding organizational performance of a company or a department, within the organization. Whatever method is used, it is important that the information provided about the performance of the organization to be updated.

When companies keep secrets from their staff, the organization can't expect from their employees to increase organizational performance.

Information sharing and ensuring training for understanding and appropriate use of information can bring only positive results for the company.



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## Analysis and Forecast of the Gross Domestic Product in Romania Using Econometric Methods

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### Abstract

*In this article I made an analysis of the evolution and forecast of one of the most important indicators of the System of National Accounts, i.e. the Gross Internal Product, and of the correlation between it and the elements underlying its formation. For the analysis of the correlation between the GDP and its influencing factors I used econometric monofactorial and linear and reverse regression models. In the analysis of the factors determining the Gross Domestic Product, I started from the expenditure method and the production method.*

*I also used dynamics methods in order to determine the trend based on which I set the forecast both for the GDP for the items composing it.*

**Keywords:** Gross Domestic Product, regression model, forecast, OLS, trend

**JEL classification:** C01, C5, E24

### 1. Introduction

The main macroeconomic result indicators, calculated in the S. N. A., are: the Gross World Product (G.W.P.), the Gross Domestic Product (G.D.P.) the Net Domestic Product (N.D.P.), the Gross National Product (G.N.P.), the Net National Product (N.N.P.) and the National Income (N.I.).

The Gross Domestic Product (GDP) is the gross value of the final goods and services produced by all the business entities performing their activity inside the country, in a certain period of time. This indicator of the SNA measures the macroeconomic results of a country. The higher is the present

value of the GDP, the better is the economic situation of the respective country.

Since the GDP combines the sum of all activities that can be evaluated in money and not that of their use/destruction, we can say that the GDP is a means dependent on the measurement of the welfare and quality of life.

Due to the fact that by mere observation of the indicator we cannot draw the conclusions required on the competitiveness of the national economy, in order to understand the dynamics and perspectives of the development, we must analyze the components and to make comparisons with the data in the previous periods.

In the analysis performed on the factors determining the Gross Domestic Product, I started from the expenditure method and the production method.

Although its economic performance has been limited, Romania has inter-regional disparities, expressed synthetically by GDP values. The generally low level of the GDP, even in more developed regions of the country, indicates a lack of an area of great prosperity and economic strength, able to significantly influence these values. [2]

By the analysis of the regression we can study and measure the relationship between two or more variables.

The identification of the econometric monofactorial or multifactorial regression models between the GDP and its influencing factors consists in choosing a mathematical function. With the help of these mathematical functions the values of the dependent variable  $y$  are described according to the variation of the independent variable  $x$  [3]. In these mathematical functions the parameter  $b$  is the regression coefficient and shows the

slope of the regression line, i.e. the value with which the dependent variable  $y$  changes when the independent variable  $x$  changes by one unit.

The analysis of the relationship between the GDP and the elements composing the expenditure method and the production method is made by using the econometric monofactorial or multifactorial regression models defined by the formula:

$$y = f(x_j) + \varepsilon \quad (1)$$

where  $y$  is the dependent variable;  $x_j$  are the independent variables,  $j = \overline{1, k}$ ,  $k$  is the number of independent variables and  $\varepsilon$  is the random variable of the model and shows the insignificant influence of certain factors on the dependent variable  $y$ ;

The forecasting capacity of the model concerning the evolution of the analysed indicators is analysed by means of statistical indicators proposed by H. Theil.

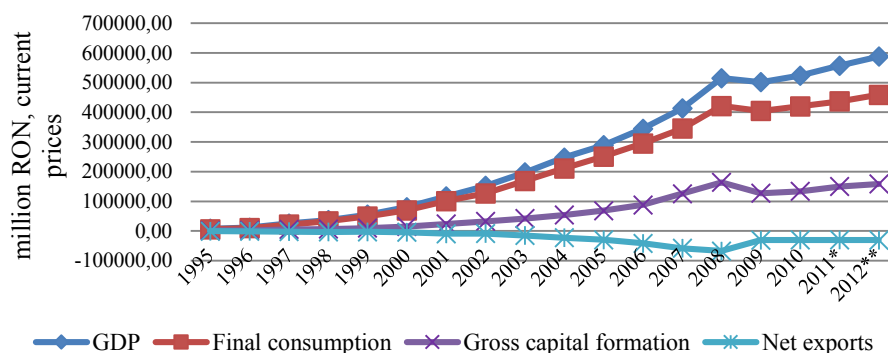
The estimators of the parameters of the regression model are determined by means of the ordinary least squares method (OLS).

In order to study the indicator of the System of National Accounts, as well as the components underlying the basis of the GDP formation, we made an annual analysis of the data collected from the annual statistical yearbooks for a period of 18 years (1995 - 2012).

## 2. Analysis of the evolution and forecast of the gross domestic product

As can be noticed, from figure no. 1, starting with 1995 and until 2012, the Gross Domestic Product increases constantly from one year to the next, which leads to an economic increase (from 7648.9 mil. RON in 1995 up to 587499.4 mil. RON in 2012) except 2009 when the economic and financial crisis starts to be felt in our country as well, which was the year when the GDP decreased by 6.4% compared to the previous year. From the provisional data for 2012 we can see that the GDP increased by only 0.7% compared to 2011.

Figure 1. Evolution of the GDP PIB and of the elements specific to the expenditure method in the 1995 - 2012 period



Source: [http://www.insse.ro/cms/files/Anuar%20statistic/11/11%20Conturi%20nationale\\_ro.pdf](http://www.insse.ro/cms/files/Anuar%20statistic/11/11%20Conturi%20nationale_ro.pdf), and [http://www.insse.ro/cms/files/publicatii/Romania%20in%20cifre%202013\\_ro.pdf](http://www.insse.ro/cms/files/publicatii/Romania%20in%20cifre%202013_ro.pdf)

The final consumption has the largest contribution to the GDP formation, followed by the gross capital formation which has a rather low influence. In the studied period the final consumption increases annually by an average of 28.74% (6257.7 mil. RON in 1995 to 459012.1 mil. RON in 2012), and the gross capital formation increases annually by an average of 31% (from 1610.5 mil. RON in 1995 to 158780.5 mil. RON in 2012). We can notice that in 2009, both the final consumption as well as the gross capital formation had a negative evolution compared to 2008, thus the final consumption decreases

by 7.4% and the gross capital formation by 24.1%.

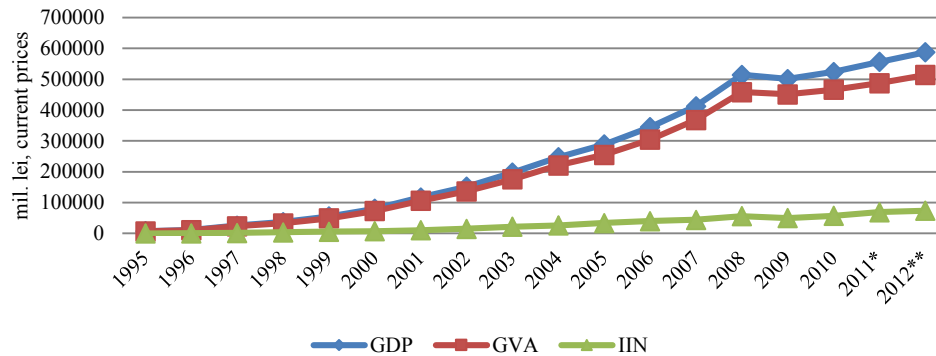
The net exports at national level have a negative influence on the GDP, because in the studied period, exports decreased significantly compared to imports. Between 1995 and 2012, the net exports increased by an annual average of 29.32% (from -382.9 RON in 1995 up to -30293.2 mil. RON in 2012).

In relation to the GDP structure on categories of resources, figure no. 2, shows that GVA has the largest contribution to the GDP formation, with shares of more than

85% in the GDP; on the other hand, net indirect taxes have a low contribution the GDP formation, of less than 15%. In the period 1995 – 2012, the share of the gross value added had a downtrend (from 94% in 1995 down to 87% in 2012) in favour of the net indirect tax (from 6% in 1995 up to 13% in 2012).

Net indirect taxes are annually increased by an average of 35.16% (from 439.60 mil. RON to 73696.6 mil. RON), while the gross value added is increased by 28.53% (from 7209.3 mil. RON to 513802.8 mil. RON).

Figure 2. Evolution of the GDP and of the elements specific to the production method in the period 1995 – 2012



Source: [http://www.insse.ro/cms/files/Anuar%20statistic/11/11%20Conturi%20nationale\\_ro.pdf](http://www.insse.ro/cms/files/Anuar%20statistic/11/11%20Conturi%20nationale_ro.pdf), and [http://www.insse.ro/cms/files/publicatii/Romania%20in%20cifre%202013\\_ro.pdf](http://www.insse.ro/cms/files/publicatii/Romania%20in%20cifre%202013_ro.pdf)

The analytical functions that describe the evolution of the gross domestic product, and

the elements underlying its formation, are presented in Table no. 1.

Table 1. The analytical functions and the forecast of the macroeconomic indicators of the NSA

	The analytical functions	Multiple R	R Square	Forecast (mil. RON, current prices)		
				2013	2014	2015
GDP	$PIB = -110483 + 38886.41 * t$ $t_c^a = 5.45; t_c^b = 20.77; p_a = 0; p_b = 0$ $F_c = 431.469; p = 0$ Theil Inequality Coefficient = 0.06	0.981959	0.964243	628359.2	667245.6	706132
FC	$CF = -81455.69 + 30967.34 * t$ $t_c^a = 5.22; t_c^b = 21.47; p_a = 0.000085; p_b = 0$ $F_c = 461.006; p = 0$ Theil Inequality Coefficient = 0.06	0.983086	0.966457	506923.7	537891	568858.4
GCF	$FBC = -35491.10 + 10815.82 * t$ $t_c^a = 3.83; t_c^b = 12.63; p_a = 0.001477; p_b = 0$ $F_c = 159.596; p = 0$ Theil Inequality Coefficient = 0.10	0.953353	0.908882	170009.4	180825.2	191641
NE	$EN = 6136.09 - 2886.61 * t$ $t_c^a = 3.83; t_c^b = 12.63; p_a = 0.001477; p_b = 0$ $F_c = 159.596; p = 0$ Theil Inequality Coefficient = 0.23	- 0.771449	0.595134	-48709.5	-51596.1	-54482.7
GVA	$VAB = -95975.99 + 34320.43 * t$ $t_c^a = 5.29; t_c^b = 20.46; p_a = 0.000074; p_b = 0$ $F_c = 418.740; p = 0$ Theil Inequality Coefficient = 0.06	0.981426	0.963196	556112.2	590432.6	624753.1
IIN	$IIN = -14506.6 + 4565.98 * t$ $t_c^a = 5.47; t_c^b = 18.65; p_a = 0.000051; p_b = 0$ $F_c = 347.820; p = 0$ Theil Inequality Coefficient = 0.06	0.977764	0.956022	72247	76812.98	81378.96

Source: Processing of data collected from the Statistical Yearbook of Romania and România în Cifre

For all the analytical functions presented in table no. 1, the assessed parameters are significantly different from zero because the probabilities are small compared to the significance threshold (0.05) and the calculated values of the F test are higher compared to the table value, which means that the time variation is an important influencing variable of GDP, FC, GVA, GCF, NE, and NIT.

By analysing the data in the table above we can see that in most cases, there is an intense and direct relationship between the time variation and the analysed macroeconomic indicators (Multiple R has values higher than 0.95). The only exception is the relationship between the time variation and the net export, a relationship that has an average and reverse intensity (Multiple R is - 0.77).

The time increase by one unit leads to the GDP increase by 38886.41 mil. RON, by 30967.34 mil. RON of FC, by 10815.82 mil. RON of the GCF, by 34320.43 mil. RON of

the GVA, by 4565.98 mil. RON a NIT as well as the reduction of the net export by 2886.61 mil. RON.

The short-term forecast of the analysed indicators, for 2013 – 2015, is based on the previous evolution and on the assumptions made. This prognosis is presented in table 1 and highlights, for the period 2013-2015, the positive evolution of the analysed indicators.

### 3. Analysis of the correlation between the gross domestic product and its influencing factors

#### 3.1 Analysis of the impact of the elements specific to the expenditure method on the gross domestic product

The analysis of the relationship between the studied variables is made for the 1995-2012 period. Following the data processing with the Eviews econometric analysis software we obtain a number of monofactorial regression functions that are presented in table 2.

Table 2. Econometric monofactorial regression models

	Monofactorial regression functions	Multiple R	R Square
GDP –dependent variable FC – independent variable	$GDP = -8187.18 + 1.26*FC + \varepsilon$ $t_c^a = 2.998; t_c^b = 82.20; p_a = 0.0063; p_b = 0$ $F_c = 6756.232; p = 0; \text{Durbin-Watson stat} = 0.247$	0.998818	0.997637
GDP –dependent variable GCF – independent variable	$GDP = 26641.25 + 3.45*GCF + \varepsilon$ $t_c^a = 2.358; t_c^b = 27.312; p_a = 0.0314; p_b = 0$ $F_c = 746.244; p = 0; \text{Durbin-Watson stat} = 1.196$	0.989449	0.979009
GDP –dependent variable NE – independent variable	$GDP = 75179.25 - 8.63*NE + \varepsilon$ $t_c^a = 3.705; t_c^b = 5.639; p_a = 0.0011; p_b = 0$ $F_c = 31.807; p = 0; \text{Durbin-Watson stat} = 0.417716$	- 0.815674	0.665324

All the parameters of the regression functions are significantly different from zero because the calculated values of the statistical t-test are higher compared to the theoretical value of the test. The validity of the regression models presented in Table no. 1 is given by the calculated values if the statistical F-test, which are higher than the theoretical value ( $F_{0.05;1;16} = 4.49$ ). In conclusion, we can say that CF, FBC and EN are important factors influencing GDP.

The relationship obtained between the final consumption and the Gross Domestic Product has a high intensity and highlights a direct relationship between the two variables ( $R = 0.9988$ ). The increase of the final consumption by one million RON leads to the increase in the gross domestic product by 1.26 million RON. The random factors that

were not used in the monofactorial econometric model have a negative effect on the gross domestic product. The GDP variation is explained in a percentage of 99.76% by the variation of the FC.

Between the gross capital formation and the Gross Domestic Product there is a highly intense and direct relationship, so we can say that the GCF increase by one million RON leads to the DGP increase by 3.45 million RON. Approximately 98% of the GDP variation is explained by the GCF variation.

The last econometric model, presented in table 2, describes the relationship between the net expert and the Gross Domestic Product. Compared to the two relationships presented above, the relationship between the two variables has a lower intensity and is reversed ( $R = - 0.816$ ). The increase in the

net exports (imports increase more compared to the exports) by one million RON leads to the decrease of the gross domestic product by 8.63 million RON. The NE variation explains 66.53% of the GDP variation.

Based on the monofactorial regression models we can determine the multifactorial regression model between the Gross Domestic Product, viewed as the dependent variable of the model, and the final consumption, the gross capital formation and the net export, independent variables of the model.

Using the results obtained with the help of the Eviews software and presented in table 3, and taking into account that the calculated value of the F test is higher compared to the table value, we can write the multifactorial econometric regression model as follows:

$$GDP = -580,57 + 1,04 *FC + 0,87 *GCF + 0,98*NE + \varepsilon \quad (2)$$

By analysing formula (2) we conclude as follows:

- The increase by one million RON of the final consumption determines the increase in the gross domestic product by 1.04 million RON;
- The increase in the gross capital formation by one million RON leads to the increase in the gross domestic product by 0.87 million RON;
- The increase in the net export by one million RON determines the increase in the gross domestic product by 0.98 million RON;

- The random factors that were not used in the econometric model have a negative effect on the gross domestic product and their influence on the gross domestic product is insignificant.

The relationship between the Gross Domestic Product and its influencing factors (final consumption, gross capital formation and net export) has a high intensity ( $R = 0.999963$ ), its level being higher than those recorded in the case of the monofactorial regression models.

### 3.2 The analysis of the impact of the elements specific to the production method on the gross domestic product

According to the production method, the Gross Domestic Product is influenced by the gross value added and the direct net taxes. In order to analyse the impact of the two variables (GVA and NIT) on the GDP we will build two monofactorial regression functions. One regression function describes the correlation between the gross value added, viewed as independent variable, and the Gross Domestic Product, the dependent variable in the regression function. The second regression function describes the correlation between the indirect net taxes, the independent variable and the gross domestic product, the dependent variable of the regression function.

Table 3. Monofactorial econometric regression models

	Monofactorial regression functions	Multiple R	R Square
GDP –dependent variable GVA – independent variable	$GDP = -1562.37 + 1.13 * GVA$ $t_c^a = 4.165; t_c^b = 247.321; p_a = 0.02612; p_b = 0$ $F_c = 61167.52; p = 0; \text{Durbin-Watson stat} = 0.884433$	0.99986	0.999738
GDP –dependent variable IIN – independent variable	$GDP = 15915.93 + 8.42 * IIN$ $t_c^a = 5.644879; t_c^b = 32.78792; p_a = 0.0119495; p_b = 0$ $F_c = 1075.048; p = 0; \text{Durbin-Watson stat} = 0.884433$	0.992641	0.985335

By analysing the results obtained with the help of the Eviews software and presented in Table we see that, for both monofactorial econometric regression models, the estimators are significantly different from zero because the calculated value of the t test is higher compared to the table value ( $t_{0,05;16} = 2.12$ ) and also the likelihoods that the parameters may not be correctly assessed are low compared to the significance threshold ( $\alpha = 0.05$ ). Both the gross value added and the indirect net taxes are important variables that influence the gross domestic product ( $F_c$

$= 61167.52; p = 0$  and respectively  $F_c = 1075.048; p = 0$ ).

The relationship obtained between the gross value added and the Gross Domestic Product has a high intensity and highlights a direct relationship between the two variables ( $R = 0.999869$ ). The increase in the gross value added by one million RON determines the increase in the gross domestic product by 1.13 million RON. The random factors that were not used in the monofactorial econometric model have a negative effect on the gross domestic product. The high value of

the estimator  $a$  highlights a significant influence of the random factors on the GDP. The GDP variation is explained in a proportion of 99.97% by the GVA variation.

The relationship between the indirect net taxes and the Gross Domestic Product is direct and highly intense ( $R = 0.992641$ ) so it can be said that an increase by one million RON of the indirect net taxes will lead to the increase in the gross domestic product by 8.42 million RON. The random factors have a significant and positive influence on the gross domestic product. Appreciatively 98.53% of the gross domestic product variation is explained by the variation of the indirect net tax.

Starting from the two monofactorial regression models we can build the multifactorial regression model between the Gross Domestic Product, the dependent variable and the independent variables: gross value added and indirect net taxes.

The multifactorial regression model that describes the correlation between the Gross Domestic Product, the gross added value and the indirect net taxes is as follows

$$PIB = -2146.925 + 1,13 * (VAB) + 820361.0 * 1/(IIN) + \varepsilon \quad (3)$$

The relationship obtained between the dependent variable (GDP) and the independent variables (GVA and NIT) is highly intense ( $R = 0.920418$ ), its level being slightly lower than those recorded in the case of the monofactorial regression models.

The influence of the random factors that were not used in the econometric model is significant and they have a negative effect on the gross domestic product.

The cumulated influence of the gross value added and of the indirect net taxes on the gross domestic product as well is significant ( $F_c = 41.57 \geq F_{0,05;16} = 4.49$ ).

#### 4. Conclusions

Following the analysis of the evolution of the gross domestic product and of the factors influencing it we concluded that they had, in the studied period, a positive influence, except the year 2009, when the economic and financial crisis starts to be felt in our country as well. The evolution of the indicators over

time is described as the linear analytical function, used to forecast them.

According to the expenditure method the variables that influence the GDP are: FC, GCF and NE. In order to study the correlation between these indicators I built an econometric monofactorial and multifactorial regression models. By comparing the values of the correlation ratio as well as the values of the free item the conclusion is that the use of the multifactorial regression model provides better results than the monofactorial analyses. Based on what was presented hereinabove we can say that: the final consumption has a strongest influence on the gross domestic product followed by the gross capital formation and by the net export. The random factors lead to the decrease of the GDP and have an insignificant influence on it.

In the case of the production method, the GDP variation is influenced by GVA and NIT. According to the relationship (5), the Gross Domestic Product is mainly influenced by the positive evolution of the influencing factor gross value added. In this case, the random factors have a negative influence on the gross domestic product.

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# The Impact of Intangible Assets on the Output of SMEs' Growth and Labor Productivity

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## Abstract

*When the SMEs' competitive advantage is based on intangible assets, the SMEs' economic activity depends greatly on the innovation capabilities of the recipients of the knowledge because knowledge tends to be developed in the actual contexts. The purpose of this paper is to analyse the impact of intangible assets on the output of SMEs' growth and labour productivity. Also, it intends to answer the following question: is it important for Romanian SMEs to improve intangible assets' potential, labour productivity and operational innovation excellence? Thereby, we will highlight these two phenomena and draw on the available empirical evidence to explain them. In our analysis we will focus on the Romanian SMEs.*

**Key words:** labour productivity, SMEs'  
**J.E.L. classification:** D24; O47

## 1. Introduction

A new business concept is conceived from the current state of the impact of intangible assets on the output of SMEs' growth and labour productivity, the current markets and a perception of future market opportunities.

Researchers have been interested in innovation and SMEs' growth for a long time, but all of which highlight the increasing importance of knowledge as a source of growth. According with their opinions, the new knowledge is largely based on the old knowledge and the importance of managing such knowledge is one of the competences required in the knowledge economy. However, the cumulative effect of SMEs' growth and labour productivity based on the intangible assets is usually sufficient to

maintain a competitive position when changes in markets follow predictable patterns.

In the current crisis context, the productivity growth in new SMEs sectors is an important feature of the structural change. More and more, the basic representations of the accountancy evaluations including competitive advantages as intangible assets, except the historical cost, are real values. The first element is the character of the innovation - what challenges do to the innovation present. The second element is the capability of the SMEs to address these inherent challenges, that is, the capacity of the enterprise to muster resources and to act in a sufficiently dynamic way.

Since 1990, Romania, similar to other Central Eastern European transitional countries, has a relatively short history in SME development. Generally speaking, Romanian SMEs have strengths and weaknesses that manifest themselves in relation to the managers' involvement and the human dimension of the enterprise.

The global objective of the Romanian Small and Medium Enterprises' (SMEs') support is to enhance the competitiveness of the businesses, to maintain the attractiveness of its regions and towns for investors, to promote innovation, to stimulate demand for research and development results, to foster a spirit of entrepreneurship and encourage the growth of the knowledge-based economy by means of capacities for the implementation of new technologies and innovated products, including new information and communication technologies. All these factors lead to the very important social role and social responsibility of SMEs, mainly in the regions facing economic problems.

This paper wants to show that the intangible assets are fundamental for the creation of the growth and labour productivity since the concept of competitive



advantage started to occupy the central place in the SMEs' strategies. Also, it intends to answer the following question: is it important for Romanian SMEs to improve potential, quality and excellence in the operational intangible assets?

The major research variables are separated as follows: the first part presents the literature review regarding the importance of intangible assets as a key factor of economic growth and development; the second part measures the contribution of intangible assets based on the original work by Solow [1], Oliner [2] and Jorgenson [3]; and the third part discusses, how the use of intangible assets varies in the course of SMEs' innovation processes. The study results demonstrate that the intangible assets have an important impact on the output of SMEs' growth and labour productivity. Finally, the conclusion presents implications, limitations, and directions for future research regarding the biggest importance of intangible assets for the firm's performance.

## 2. Literature review

A review of the economics literature indicates the problem of the impact of intangible assets on the output of SMEs' growth and labour productivity as a controversially explored topic.

In the International Financial Reporting Standards for SMEs [4], the intangible asset of SMEs is defined as an "identifiable non-monetary asset that has no tangible substance and that is used in manufacturing or delivering goods and services, in renting to other subjects or in administration." The asset is being governed by an accounting unit which then expects an economic advantage in return. A paradox of intangible assets is that the more it incorporates the more volatile its valuation is.

According to Garcia [5] and McDermot [6], in the actual context of changes in the business environment, the SMEs exploited completely new opportunities, including incremental innovations based on intangible assets which would not provide sufficient added value for rapid and large transformations. They are also referred to with terms such as discontinuous or really-new innovate.

In the same way, Zwick [7] and Foreman-

Peck [8] observe that in the last times, the scientific community has come showing a growing interest for the administration of knowledge, interest that he went even to the study of such topics as the new economy, the vision of the companies like the organizations which are able to generate competitive advantages by means of knowledge, intellectual capital or intangible assets among others.

However, as mentioned by Gemünden, [9] in their study, the fundamental issue is the management of innovation processes, which differs from management in general due to the high level of uncertainty and application of novel competence.

The link between SMEs' growth, labour productivity and innovation based on intangible assets has been established strongly since Solow. Following Kaldor [10] growth theories that included technological change, Romer [11] was the first who incorporated innovation as an integral part of his growth model.

According to the conventional growth of the accounting procedure with the assumptions of producer equilibrium, constant returns to scale and Hicks' [12] neutral technological change, the growth rate of labour productivity can be decomposed into the growth rates of factor intensities and the growth rate of TFP (Solow, Morrison [13]). If any of these assumptions is not satisfied in reality, the conventional growth accounting procedure may cause bias in the results. In particular, for the first two assumptions, one cannot analyse the economic factors behind changes in the growth rates of factor intensities and TFP by the conventional method.

On the other hand, Oliner presented the analysis between the connection of innovation and growth. The authors also pointed that there is a stronger impact of intangible assets on the output of SMEs' growth and labour productivity.

In 2006, Damanpour [14] and Wischnovsky consider that the investigation of small business innovation based on intangible assets is a popular topic in the literature, but the SMEs knowledge is still limited about the nature, types, factors and aims of innovation in the smallest sized firms.

Sinismal [15] present mixed evidences

about the influence of innovation including used intangible assets on SMEs' growth. They showed that technological innovations influence economic growth positively and significantly, but the intangible assets are vital for the growth of employment as well as when growth is measured as a composite factor.

### 3. Methodology

This study discusses, based on the original work of Solow and a later one extended by Oliner and Jorgenson, the contribution of intangible assets to the SMEs' growth and productivity. Since new products based on intangible assets are outputs from the innovation industries, the intangible assets (IA) can impact economic SMEs' growth through four major channels:

1. Production of innovation goods which directly contributes to the aggregate SMEs' added value generated in an economy;
2. Increase in total factor productivity of production in the innovation sector, which contributes to aggregate SMEs' growth in an economy;
3. Use of intangible assets' capital as an input in the production of innovation goods.

To measure the overall impact of intangible assets on SMEs' growth, it is best to express the aggregate innovation production function in the following form:

$$Y_t = Y(Y_t^{ICT}, Y_t^0) = A_t F(C_t, K_t, L_t) \quad (1)$$

where, at any given time  $t$ , the aggregate value added  $Y$  is assumed to consist of innovation goods  $ICT - Y_t^{ICT}$ , as well as of other production  $Y_t^0$ . These outputs are produced from aggregate inputs consisting of intangible assets' capital  $C_t$ , other (i.e. non-intangible assets) assets' capital  $K_t$ , and labour  $L_t$ . The total factor productivity is there represented in the Hicks neutral or output augmenting form by parameter  $A$ .

Assuming that constant returns to scale prevail in production and that all production factors are paid by their marginal products, the equation (1) can be expressed in the following form:

$$\hat{Y} = w_{ICT} \hat{Y}^{ICT} + w_0 \hat{Y}^0 = v_{ICT} \hat{C}_t + v_0 \hat{K}_0 + v_L \hat{L} + \hat{A}$$

where the symbol  $\hat{\phantom{x}}$  indicates the rate of change and the time index  $t$  has been suppressed for the simplicity of exposition. The weights  $w_{ICT}$  and  $w_0$  denote the nominal output shares of intangible assets and non-innovation production, respectively. The weights sum to one similarly is as the weights  $v_{ICT}$ ,  $v_0$  and  $v_L$ , which represent the nominal shares of intangible assets capital, non-I capital, and labour respectively.

Denoting the total employment by  $H(t)$  and labour productivity by  $Y(t)/H(t)$ , the equation (2) can then be re-arranged to measure the contribution of intangible assets' investment to SMEs' growth in labour productivity

$$\hat{Y} - \hat{H} = v_{ICT} (\hat{C}_t - \hat{H}) + v_0 (\hat{K}_0 - \hat{H}) + \hat{A}$$

As shown in the above equation, there are three sources of SMEs' growth in the labour productivity: intangible assets' capital deepening, i.e. increase in intangible assets' capital services per employed person, non-intangible assets' capital deepening, and exogenous growth of total factor productivity (TFP), which is derived from the increase in productivity in the use of innovation-producing intangible assets and in the non-innovation sector.

The basis of my investigation is a representative sample containing 538 Romanian SMEs which were randomly selected in a list containing 9.575 SMEs from official statistical data. The survey was executed in 2013 between September and November. The time span of the investigation is the 2010 - June 2013 time period.

In order to analyse the data, many analytical software's like SPSS, Excel, and Minitab etc. were available. But in this study the data were fed into an Excel sheet and statistical descriptions and parameters estimation was done through SPSS.

The construction of scoring variables will play a central role in this survey. It will be the pivotal element in developing a typology classifying intangible assets of Romanian SMEs in strategies of development economic activity.

#### 4. Results and discussion

The data for generating measures of labour productivity should include as many outputs and inputs of the 538 Romanian SMEs as possible in order to reflect aggregate added value (economic growth). Aggregation is a problem because intangible assets' capital is clearly not homogeneous.

A statistical package containing 538 Romanian SMEs is obtained are depicted in the table number 1.

Table 1. Descriptive Statistics

	N	Min	Max	Mean	Standard Deviation
Y	538	0.13	1.21	0.40	0.31
$C_t$	538	2.63	2.81	1.58	2.74
$K_t$	538	-0.91	0.63	0.06	0.14
$L_t$	538	-0.61	0.95	0.38	0.68
TFP	538	16.88	9653	6809	150.73

The data given in Table 1 reveals some descriptive statistics of the variables. The minimum value for aggregate added value (Y) was 0.13 and the maximum value 1.21 which means 0.40 and standard deviation 0.31. The minimum value for Y indicated that the SMEs were using more intangible assets and less other productions while the maximum value indicated more other productions and less intangible assets. As the mean value of Y (0.40) was more inclined towards the minimum value, it indicated that the majority of firms were operating their businesses through more intangible assets and less other productions.

The data in Table 1 depicted that most of the SMEs were not doing the practice of intangible assets' capital ( $C_t$ ) i.e. 1.58 was more close to the minimum value of the  $C_t$  (2.63) and away from the maximum value of  $C_t$  (2.81).

The minimum and maximum value for the variable  $K_t$  was found -0.91 and 0.63 respectively, showing that small firms were getting loss as well as positive assets' capital. The mean value was 0.06 indicating that the majority of SMEs were earning positive assets' capital as the mean was more close to the maximum value of the variable.

The total factor productivity (TFP) was the variable showing the total productivity resources employed. It was the indicative of the productive capacity of the small firms.

Results revealed that most of the Romanian SMEs were of higher productive capacity and a few were small scale firms.

At the same time, the coefficient of determination refers to the proportion of total variation in a dependent variable being explained by independent variables. The value of  $R^2$  in Table 2 is 0.56 which indicates 56% of the total variation in the dependent variable, which is due to exogenous variables.

Table 2. Showing the coefficients of variables estimated through common effect Model.

Variables	Coefficients
Aggregate Value Added	0.205 *** (2.462)
Intangible Assets Capital	-0.076 (7.1625)*
Assets Capital	-0.175 (4.24)*
Total Factor Productivity	-0.216 (0.57)
$R^2$	0.56

Source: calculations made from empirical data.

\* = significant at 1% level

\*\*\*= significant at 10% level

The data from Table 2 indicated that the capital structure was positively related with the aggregate value added as the coefficient was positive. However, the statistical variable was found significant at 1% level.

Also, the intangible assets' capital was another important independent variable which was supposed to have an impact upon the aggregate added value of the small firms. Results indicated that the coefficient was negative, showing that the aggregate added value was negatively affected by the intangible assets' capital. Statistically, the variable was found significantly different from zero at 1%.

The impact of the total factor productivity upon the aggregate added value was also estimated. Data in Table 2 indicated that the coefficient of this variable was negative, showing the reducing effect upon aggregate added value (the impact of intangible assets on the output of SMEs' growth), but this variable was not found significantly different from zero

#### 5. Conclusions

Productive activities in the SME sector

are the very essence of economic development and progress. When engaging in production activities, the entrepreneur plays a dual role. The first relates to the discovery of still unexploited sources of profit, which allows pushing the production from an inefficient economic position to an efficient economic one. The second role relates to innovation, taking into account the fact that the results of innovation lead to a better use of resources, thus pushing the production possibilities' frontier. This move marks the essence of economic development, a real increase in production due to a real growth in productivity. In short, a productive entrepreneurial business includes those activities from which both the entrepreneur and society as a whole benefit obtain the benefits for themselves while letting others benefit too.

Through the analysis, it was concluded that the intangible assets' capital and labour productivity were the variables which were significantly affecting the aggregate value added of the output SMEs growth. The impact of intangible assets capital was positively indicating the increase in the value of SMEs growth and labour productivity. It means that increase in the value of either variable will reduce the aggregate value added of the Romanian small firms which will increase the creditability of these firms which in turn is considered a positive sign for sustainability of small companies.

In addition, the elasticity substitutions between labour and aggregate added value and between labour and intangible assets' capital are all positive, indicating that the variable factor inputs are mutually substitutes and their own substitution effect was dominant for the output of Romanian SMEs' growth.

This study also shows that using variable intangible assets' capital, the growth rate of labour productivity can be decomposed into: a) the total substitution effect based on innovation process; b) TFP effects composed of the effects due to the output of Romanian SMEs' growth and innovation process.

In conclusion, the Romanian SMEs bring a significant contribution to what concerns competitiveness, research, innovation, increases labour productivity, as well as solutions to particular problems. One should

strive to further develop a dynamic and competitive SME sector, which will contribute to the economic growth, increase labour productivity and reduce poverty.

The accurate measurement of the impact of intangible assets on the output of SMEs' growth and labour productivity plays an important role in providing the information economists need to put better policy makers to make the right decisions.

This study provides essential insights into excellence operational innovation. However, results and conclusions must be put in the context of the potential limitation and directions for future research. In brief, this study was conducted with the SME sector only in one of the emerging markets. Therefore, the clarification of the connection between innovation to other strategic variables and ultimately growth remains to further researches.

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# Community Sense of the Property in the Vision of the Church

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## Abstract

*Christian social perspective shows that goods are the property of God, who gives to all. Their sense of community is accomplished through mercy for the weak and the right eousness that comes from love, which unites social classes and put all the goods in the service o the community and the common good, without denying the property hierarchy in society. Love makes the communalism the social progress of the society, social life becoming the felt reality expression of spiritual difficulties.*

**Keyword:** property, goods, mercy, love, social communion.

**JEL Classification:** Z120

## 1. Introduction

In a world affected by the collapse of the existing criteria, the social problem is more than a technical issue, a matter of spirit. With in the Christian perspective destiny of man tends toward complete fulfill ment in Jesus Christ, who dwells among men not by force, but through freedom and love,so that the path of this freedom by love is the track to achieve the ideal human society. In this sense, the perfect fulfillment of freedom and the ultimate realization of the social community, Christianity is the only force that revolutionizes the history in the spirit of love, as a solution, inexplaining the existential meaning of humanity.

Although in theory, the principle of community property was the first in the company's primary conclusion concerns and the Holy Fathers, but which have not expressed a hostile attitude against private property. In other words, the problem of evangelical social and patristic doctrine, especially the attitude that the Holy Fathers had to earthly goods and private property.

What is the function of the property? What is the meaning of social wealth godly? Does the Holy Fathers condemn private possession of material wealth? Therefore, we think only the clarification of this issue can reveal true horizons of Christian social vision.

## 2. The size of property in the apostolic age

Our Savior Christ wasn't the preacher of a new system of land organization, because he didn't incarnate to improve our living conditions, but he came to bring us eternal life. Thus, Christianity can not be confused with an economic-social system because it seeks the change of humanity through its spiritual rebirth[1] and social issues that arise as repercussions of the spiritually advance in the world. Christian Law includes the real solution of social issues, given that sin is the source of all human injustice. Christ doesn't see the idea of property as an economist, but He is supporting private property as something born of God, natural. The love for God Almighty gives birth to a total detachment from wealth and love of your neighbor creates the community spirit by which the property becomes an instrument of divine blessings. He fights against those who have become slaves of the wealth, seeking their integration into the community of love by social solidarity and communitarianism of love.

Christianity was not an economic revolution, but a spiritual one, which changed the social aspect of human life. Since the first day of its seen existence, the Church also assimilates with divine communion new social state regulations that brings inside the new Christian communities. Durability of charitable activities of the Church is the final result of an unbroken strength effort of the new nation of God, determined to defend to the end the Christ belonging and freedom in the Spirit of Christ before all tests that have come on Christians.

After the baptism of the first Christians we observe living together both in the liturgical communion and socially, because *"no one among them was lacking... dividing to each as anyone had need"* (Acts 4, 34-35) the goods communion establishing itself so strongly as a manifestation of communion in the Holy Spirit, that circumventing from this meant circumventing from the life of the Church of God which is equivalent to death (Acts 5, 5-10).

Missionary work of the Christian Church began in the time of the Apostles, which ensured in the beginning the fulfillment of the gaps of poor in Jerusalem (Galatians 2, 10) looking with hope to the gifts brethren in the Diaspora [2].

In this context, the Apostle Paul is *"everyone all: bread for the hungry, water to the thirsty, resurrection for the dead, doctor for the sick, salvation for the sinners ."* [3]. Whole pauline missionary activities intertwined with Christian charity actions, *"Christian contemplated by him, the embodiment of its most successful, being a social man,"* [4] showing by charity organized collections as an act of high target Christian moral *"a physical action and spiritual renewal at the same time"* [5].

Deepening the nature of philanthropy, the Apostle of the Gentiles confessed that the collection of gifts for the poor is a spiritual communion, bringing the brotherly help to the level of a high religious duty of the Christian, setting through the apostolic mediation, the closest connection between the members of Christian society. These religious and moral consequences of philanthropic activity imply from the man who carries it a duty to work, through work man recreating the nature and offering it as a gift to the others because you can't make a gift to a neighbor, without a productive activity the nature [6] over Christianity turning the work into an inevitable experience different from the old social ordinations.

In this context, cooperation between wealth, under its private property's aspect, obtained with justice and goodness is not to be blamed, where as the Church's doctrine the riches come from God, and their owner is a trustee of God on earth to use of the brethren. In the spirit of communion, charity, mutual help and care for the poor, the

suffering and the helpless were the primary concerns of Christianity that fit private property in the spirit of love for a man not to tie his heart for partakes of neighbor through charity benefits received from God.

The primary purpose of the Christian community were all shared the love, moral and spiritual communion that makes from all material things to share all, emphasizing the private property's nature of social benefactions [7].

### **3. Meaning of property in the vision of the Holy Fathers**

The poor and helpless are not simple events of our day, but they have existed since the beginning of the world and ever since then, people have helped each other cultivating brotherly love. The existing caritative spirit at the ancient nations developed with law of love instituted by Christ, embracing different forms depending on the evolution of society.

In the patristic period, we find a strong contrast between the social levels highlighted between poverty and slavery, in which the majority was living, and the luxurious state that spent the wealthy, which had forgotten their social mission. Assuming that the property is not directly responsible for avarice that had possessed their owners, the Holy Fathers make a clear distinction between wealth and avarice, fighting only abuses committed by the miserable, framing such property within Christian love. They explicitly condemn greed and those who have become slaves of goods, thus closing to the sufferings of the poor souls.

Clement of Alexandria depicts property as a human- divine law, and depicts it as a gift from God to serve man's salvation and the necessity of social order and family subsistence [8].

Saint Basil the Great appreciated that if everyone would keep only as much as they need there would be neither rich nor poor. Wealth may be an occasion of virtue and only confirmed by the charity [9]. In this case, external wealth urges spiritual wealth as wagging willingly becomes the fruit of the soul. Mercy is followed by loving our neighbor and the blessing received from God, which reflects on the man who knows how to use those earthly gifts with righteousness.

Saint Ambrose warns us that God punishes those who do not know how to use wealth because it resembles those who hide their talent in the ground [10].

Summarizing, we see that the patristic vision states that God is the owner of all goods, and man is their temporary administrator so he is worth of acquiring ownership in the spirit of love and justice of God. The entire patristic theology summarizes that the meaning of land assets urging to "mercy,"[11] but Saint Gregory of Nyssa reminds us that God not forces the man to choose good as He granted freedom and the virtue of this good belongs to those who willingly and freely chooses to unite with God [12].

Under the auspices of Christian charity empire the Holy Fathers invest their wealth, founding homes to raise abandoned children or orphans, asylums for the poor and elderly, hospitals for caring and nursing the sick, homes to receive travelers and pilgrims, offering themselves to all as examples for the accomplishment of the word preached.

Throughout the history of Christianity is not known charitable institution that can compete with works of charity of Saint Basil the Great, who reached the outskirts of residence in Caesarea of Cappadocia, a true Christian charity fortress, a convent-hospital which included: homes for the elderly, hospitals, the first leper home in history, homes for receiving passengers, orphanage crafts school for anyone's kids and in the midst of them, "*the holy institution that creates and protects all others in the name of Jesus Christ, a church*" [13]. All that the Christian world has managed to accomplish subsequently in this area has Saint Basil the Great perfect pattern of philanthropic organization as foundation.

#### **4. The social character of good accomplishment in the contemporary society**

In our research, we admit the vision of Saint Basil and consider that goods are useful to man only in so far as it helps to support those in need and suffering, because only in this way the ownership acquires both a social genuine and moral role, elevating us from the disease of looking after wealth and concern deriving from the possession of

wealth.

One of the most common questions that arise in the minds of believers is closely related to the existence of an act of mercy, as many assume that goods are used today to celebrate the good pursued out of obligation or the desire to receive praise, neglecting love to God and man. But the source of this love is dynamic, since it reveals countless ways to serve God through our assets relative to each other, as this feeling is not restricted to a small group, but embraces the entire world, even the enemies, becoming through mercy the neighbour of man caught in the vortex of sorrows of this life.

The true good deed is committed in the name of Jesus Christ, so by doing them the Christian is near by the one who needs it. If committing good deeds, comes first the retaining of the soul nearer to God by serving fellow, many seeing it as their duty to help someone, momentarily putting personal concerns first. However, if the second step is to perform helping, not only the soul is overwhelmed with gratitude, but our whole being begins to feel great, being overwhelmed by a wellbeing state. This follows true committing good deeds, as we feel that God solves those problems we could not find resolution, but only after we have spent our time to help someone else. In the Church we all need to see a help to all, both those in need and for those who claim they do not need, because when someone denies the need to be helped, that moment that person really needs help.

In the Church people see the good and learn how to commit themselves good works, which may provide the opportunity for his help disregarding age. Since childhood, the child sees his mother or grandmother sharing some alms to poor people or as a person helps someone to walk up or down stairs or helping an old woman or man whom carries shopping bags. Given these examples, the child, and then the young and future parent, noted that good works are not difficult, but it is sufficient to open up because God always leads him to work continuously with the neighbor, thus reaching to accomplish good in a very easy way.

The XXI Century recapitulates permanently in our eyes the history of the miserable condemned by the Holy Fathers, while the poor are hungry and sick. We must



realize how hard it is to support the survival of the state of humility out of charity and we are obliged to give with much tenderness of our goods alms to the poor. To perform charity we need not only money, but good will, because when we benevolence does not matter that we are poor, because it tells us nothing that we are rich when we lack the good will.

When we do charity, our wealth is not shrinking, but increasing, because we do the best investment someone can make, offering infinitely greater interest than any bank in the world, because the things we offer to God are not in danger of being stolen or destroyed, but they bring unexpected fruit at the right time. (I Corinthians 2, 9) The one who gives alms to the God's poor lends himself as surety for the poor before the rich.

The poor and the needy ones have to be helped, because they had not the joy to reap the fruits of their efforts for reasons beyond them, aware of the fact that any of us can go through similar events that may bring us in the same condition. And certainly, any of us prefer to give a part of his labors to this category than to be part of it. It should open our hearts to all the poor and to those who suffer hard to offer our voluntary contribution stemmed from love. You can't give him money, give him food, give him greeting, pray for him, but don't turn your back, we can give, only to want, because the Lord pulls the poor in need, and we can raise our prayer to thank God that helped us to do a good deeds. Probably we all have in the house superfluous things that we might give them to someone else. A man sure needs some of ours right now, and the Lord is ready to reward us for every good deed. Outstretched hand of a beggar is the outstretched hand of Christ that seeks to lift us out of the morass of passion, greed and love for money.

The positive effects of helping the poor are much greater than the negative effects of encouraging laziness. Meaning that if we learn to have compassion for these people and we always help them with what we may, we will easily change and to see different, we will treat them as people. If we teach children today that we are all responsible for the poverty of these people, if we teach them to give, to pity, to love, then tomorrow when they become adults with responsibility and

power of decision they could help them more. Thus, we can say that doing good can be learned everywhere, because good is seen both by beneficiaries and those who are passing through.

## 5. Conclusions

Evangelical social precepts provide duty of all people to administer the goods land in the spirit of Christ's love. In the patristic vision, personal property have a clear social function, which derives from the fact that God is the owner of all goods and people are mere administrators ought to earn their salvation by sharing the wealth with the needy ones. Mercy is the purpose of the possessions, gaining a sense of community property for the benefit of all.

Understood in terms of patristic vision, the charity points the society to a community where there is neither poverty nor riches, but all have all they need, enjoying the fruits of nature and the gifts of God. Community land assets makes sense, being available for the benefit of all, no one being excluded to participate in their fruits.

Christ asks us by the hand of the poor and charity receives goods which He gave them and he thanks, because he seeks to remind us that we have received the goods to make them mercy, and not to waste them, and those who receive give us back our charity gift received through the prayer to God for us.

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## Study of the Normality of a Distribution

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### Abstract

*Distributions of many natural phenomena are at least approximately normally distributed. The normal distribution is very important in studying economical phenomena because many variables measured in economics research have distributions that quite closely approximate the normal curve. Because they occur so frequently, there is an unfortunate tendency to invoke normal distributions where they may not be applicable. The purpose of the article is to present the methodology necessary to decide whether a distribution is normal or not. This includes the graphical representation, the calculation of the mean, of the standard deviation, of the theoretical absolute frequencies and finally the application of the chi-squared test.*

**Key words:** the normal curve, the normal distribution, the chi- squared test

**J.E.L. classification:** C12, C50

### 1. Introduction

The normal distribution is the most important and most widely used distribution in statistics. It is also called the "Gaussian curve" after the mathematician Karl Friedrich Gauss.

One of the first applications of the normal distribution was to the analysis of errors of measurement made in astronomical observations, errors that occurred because of imperfect observers and instruments. In the 17<sup>th</sup> century, Galileo noted that small errors occurred more frequently than large errors and that these errors were symmetric. In the early 19<sup>th</sup> century (1809), Gauss discovered that these errors followed a normal distribution and developed the formula for the normal distribution. The same distribution was discovered by Laplace in

1778, when he derived the central limit theorem. Laplace showed that even if a distribution is not normally distributed, the means of repeated samples from the distribution would be very nearly normally distributed, and the larger the sample size, the closer the distribution of means would be to a normal distribution. Quetelet was the first to apply the normal distribution to human characteristics. He noted that characteristics such as height, weight and strength were normally distributed.

### 2. The normal distribution- definitions and properties

In probability theory [1], the central limit theorem states that, given certain conditions, the arithmetic mean of a sufficiently large number of iterates of independent random variables, each with a well-defined expected value and well-defined variance will be approximately normally distributed. That is, suppose that a sample is obtained containing a large number of observations, each observation being randomly generated in a way that does not depend on the values of the other observations, and that the arithmetic average of the observed values is computed. If this procedure is performed many times, the central limit theorem says that the computed values of the average will be distributed according to the normal distribution (commonly known as a "bell curve").

According to Pagano R. [2] the normal distribution is described by the following equation:

$$Y = \frac{N}{\sqrt{2\pi}\sigma} e^{-(X-\mu)^2 / 2\sigma^2}$$

Where,

Y=frequency of a given value of X

X=any score in the distribution

$\mu$ =mean of the distribution

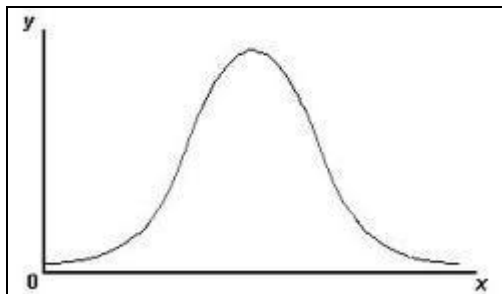
$\sigma$ =standard deviation of the distribution

$N$ =total frequency of the distribution.  
According to Lane D.M.[3], the normal distribution has seven important features:

- Normal distributions are symmetric around their mean;
- The mean, median and mode of a normal distribution are equal;
- The area under the normal curve is equal to 1;
- Normal distributions are denser in the center and less dense in the tails;
- Normal distributions are defined by two parameters, the mean and the standard deviation;
- 68% of the area of a normal distribution is within one standard deviation of the mean;
- Approximately 95% of the area of a normal distribution is within two standard deviations of the mean.

An example of the normal curve is shown in figure 1. The curve has two inflection points, one on the each side of the mean. Inflection points are located where the curvature changes direction.

Figure 1. The Normal Curve Representation



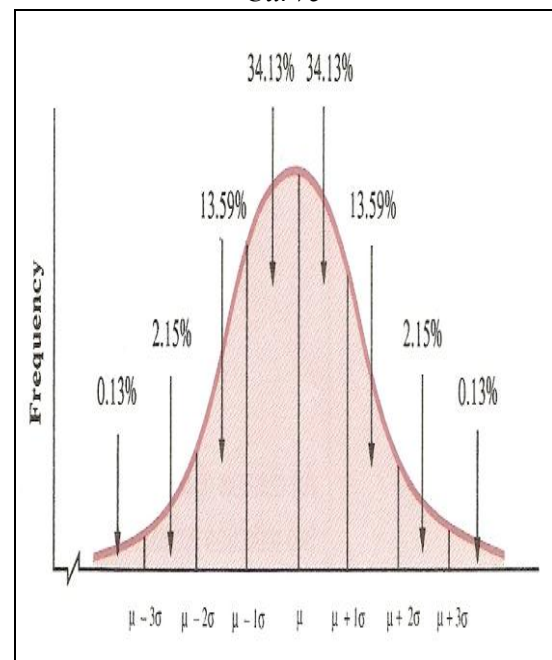
Source: made by the author

The inflection points are located where the curve changes from being convex downward to being convex upward. If the bell-shaped curve is a normal curve, the inflection points are at one standard deviation from the mean ( $\mu+\sigma$  and  $\mu-\sigma$ ). As the curve approaches the horizontal axis, it is slowly changing its Y value. Theoretically, the curve never quite reaches the axis. It approaches the horizontal axis, gets closer and closer to it. The curve is said to be asymptotic to the horizontal axis.

In distributions that are normally shaped, there is a special relationship between the mean and the standard deviation with regard to the area contained under the curve.

According to Pagano R. (1990), when a set of scores is normally distributed, 34.13% of the area under the curve is contained between the mean ( $\mu$ ) and a score that is equal to  $\mu+\sigma$ , 13.59% of the area is contained between a score equal to  $\mu+\sigma$  and a score of  $\mu+2\sigma$ , 2.15% of the area is contained between  $\mu+2\sigma$  and  $\mu+3\sigma$ , and 0.13% of the area exists beyond  $\mu+3\sigma$ . This accounts for 50% of the area. Since the curve is symmetrical, the same percentages hold for scores below the mean. These relationships are shown in figure 2.

Figure 2. Areas under the Normal Curve



Source: [2]

### 3. Verification of the normality of a distribution

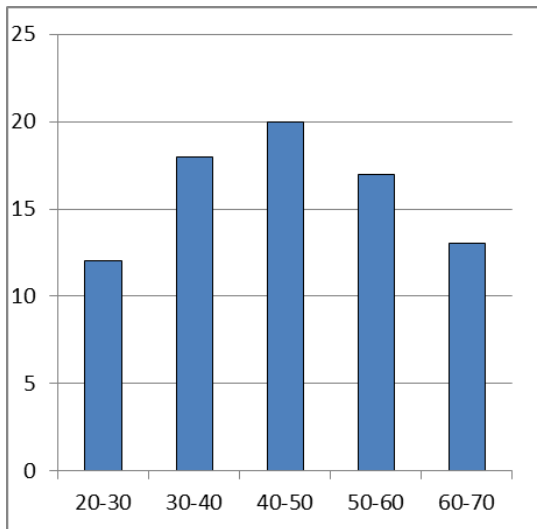
For presenting the necessary methodology to verify the normality of a distribution, the following example is used:

Table 1. Distribution of companies by turnover

Groups by turnover (monetary units)	Number of companies
20-30	12
30-40	18
40-50	20
50-60	17
60-70	13

Source: made by the author

Figure 3. The graphical representation of the companies' distribution by turnover



Source: made by the author

The graph indicates that the frequencies polygon can be approximated with Gaussian graphical representation, so the series studied shows the trend of normality.

Table 2. Processed data

No.	$x_i$	$n_i$	$x_i \cdot n_i$	$x_i^2 \cdot n_i$
1	25	12	300	7500
2	35	18	630	22050
3	45	20	900	40500
4	55	17	935	51425
5	65	13	845	54925
Sum	-	80	3610	176400

Source: made by the author

The next stage is the calculation of the average denoted  $M(X)$  and of the standard deviation denoted  $D(X)$ .

$$M(X) = \frac{\sum x_i \cdot n_i}{\sum n_i}$$

$$M(X) = \frac{3610}{80} \Rightarrow M(X) = 45.125$$

$$M_2(X) = \frac{\sum x_i^2 \cdot n_i}{\sum n_i}$$

$$M_2(X) = \frac{176400}{80} \Rightarrow M_2(X) = 2205$$

$$D^2(X) = M_2(X) - [M(X)]^2$$

$$D^2(X) = 2205 - (45.125)^2 \Rightarrow$$

$$D^2(X) = 168.734375$$

$$D(X) = \sqrt{D^2(X)} \Rightarrow D(X) = 12.99$$

$$z_i = \frac{x_{i \text{ sup}} - M(X)}{D(X)}$$

$$z_1 = \frac{30 - 45.125}{12.99} \Rightarrow z_1 = -1.16$$

$$z_2 = \frac{40 - 45.125}{12.99} \Rightarrow z_2 = -0.39$$

$$z_3 = \frac{50 - 45.125}{12.99} \Rightarrow z_3 = 0.38$$

$$z_4 = \frac{60 - 45.125}{12.99} \Rightarrow z_4 = 1.15$$

$$z_5 = +\infty.$$

The following values are obtained using the Laplace function table:

$$\Phi(z_1) = \Phi(-1.16) = 0.3770$$

$$\Phi(z_2) = \Phi(-0.39) = 0.1517$$

$$\Phi(z_3) = \Phi(0.38) = 0.1480$$

$$\Phi(z_4) = \Phi(1.15) = 0.3749$$

$$\Phi(z_5) = \Phi(+\infty) = 0.5.$$

The next stage is the calculation of the probabilities denoted  $p_i$ .

$$p_1 = F(z_1) - F(z_0) \Rightarrow p_1 = F(-1.16) - 0.5 = 0.5 - \Phi(z_1) = 0.5 - 0.3770 = 0.123$$

$$p_2 = F(z_2) - F(z_1) \Rightarrow p_2 = F(-0.39) - F(-1.16) = [0.5 - \Phi(-0.39)] - [0.5 - \Phi(-1.16)] = -0.1517 + 0.3770 = 0.2253$$

$$p_3 = F(z_3) - F(z_2) \Rightarrow p_3 = F(10.38) - F(-0.39) = [0.5 + \Phi(10.38)] - [0.5 - \Phi(-0.39)] = 0.1480 + 0.1517 = 0.2997$$

$$p_4 = F(z_4) - F(z_3) \Rightarrow p_4 = F(11.15) - F(10.38) = [0.5 + \Phi(11.15)] - [0.5 + \Phi(10.38)] = 0.3749 - 0.1480 = 0.2269$$

$$p_5 = F(z_5) - F(z_4) \Rightarrow p_5 = F(+\infty) - F(11.15) = 1 - [0.5 + \Phi(11.15)] = 0.5 - 0.3749 = 0.1251.$$

The probability control key is verified (their sum is 1).

The theoretical absolute frequencies are determined as follows:

$$N_i = p_i \cdot \sum n_i$$

$$N_1 = 0.123 \cdot 80 \Rightarrow N_1 = 9.84 \approx 10$$

$$N_2 = 0.2253 \cdot 80 \Rightarrow N_2 = 18.024 \approx 18$$

$$N_3 = 0.2997 \cdot 80 \Rightarrow N_3 = 23.976 \approx 24$$

$$N_4 = 0.2269 \cdot 80 \Rightarrow N_4 = 18.152 \approx 18$$

$$N_5 = 0.1251 \cdot 80 \Rightarrow N_5 = 10.008 \approx 10.$$

The following control key is verified:

$$\sum N_i = \sum n_i = 80.$$

There are formulated the following hypotheses:

H<sub>0</sub>: between the normal distribution and presented one there is no concordance

H<sub>1</sub>: between the normal distribution and presented one there is concordance.

Table 3. Processed data

No.	n <sub>i</sub>	N <sub>i</sub>	n <sub>i</sub> -N <sub>i</sub>	(n <sub>i</sub> -N <sub>i</sub> ) <sup>2</sup>	(n <sub>i</sub> -N <sub>i</sub> ) <sup>2</sup> /N <sub>i</sub>
1	12	10	2	4	0.4000
2	18	18	0	0	0.0000
3	20	24	-4	16	0.6667
4	17	18	-1	1	0.0556
5	13	10	3	9	0.9000
Sum	80	80			2.0222

Source: made by the author

$$\chi^2_{calculated} = \sum \frac{(n_i - N_i)^2}{N_i}$$

$$\chi^2_{calculated} = 2.0222$$

$$\chi^2_{theoretic} = \chi^2_{0.05;4} = 9.49.$$

Comparing the two values it is found that H<sub>0</sub> hypothesis is accepted, which means that between the normal distribution and the presented one there is no concordance.

Chi-squared distribution is used mainly in statistical hypothesis testing, allowing more detailed study, even in terms of quality of statistical collectivities. According to [4], it

represents a distribution of a random variable determined as a sum of squares of an independent random variable standard normally distributed.

$$\chi^2 = Z_1^2 + Z_2^2 + \dots + Z_r^2,$$

Where Z<sub>1</sub>, Z<sub>2</sub>, ..., Z<sub>r</sub> are independent random variables with distribution N(0,1).

#### 4. Conclusions

Regarding the concept of distribution, stands out especially the law of normal distribution, given the extremely high frequency in which it is encountered in the development of economic phenomena as other areas.

Normal distribution presents a great importance for both theoretical and practical concerns, representing a suitable model whenever a variable is dependent on many factors that exert influence on it.

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# The Financial Relationships and the Financial System in Romania

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## Abstract

*Financial relations are defined as a set of social relationships, having economic features, arising from the realization and distribution of monetary resources necessary for carrying out the tasks of the state. There is a close relationship between the development of financial relationships and the development and the evolution of the state. The study of the financial relationships is close related to other sciences. Among all these sciences are public finances - studying the conditions that ensure the operation of the public sector and reports between public spending and the system of taxes and other financial resources. The legal rules governing financial relationships are studied by financial law as a branch of legal science. There are other relationships that are not state financial relationships: payment of goods, services, wages, private loans etc.*

**Keywords:** Financial Law, Tax havens, Crisis, Tax evasion, Off shore companies;

**J.E.L Classification :** K 30

## 1. Introduction.

The word "finance" - comes from the Latin word "*finis*" and Latin expression "*financia pecuniaria*" meaning the conclusion of a commercial transaction using a certain sum of money. The public finances have the function of allocation and use of resources ie money distribution function, but also the control of the creation, distribution, circulation and use of public resources. In terms of their structure, financial relations have many components: public budget - state and local social insurances, government revenues, public spending, state and local finance loans and financial control carried out by the state. There is no part of the structure of the financial relations: the movement of the private cash or monetary

relations of economic agents in their state capital. To analyze the financial system must be borne in mind that, the concept of the public finances, could be characterized as collecting, administration, recruitment and use of the public funds of the State, territorial units and other public institutions involved in the budgetary process. In a formal sense, public finance system could be seen as a set of organs and public institutions that make financial and operating financial system. These bodies and institutions with financial expertise are part of the public administration system and the doctrine of administrative law are defined as institutions created under the umbrella of law, that have material and financial tasks, legal personality and competence to organize the execution and enforcement of the financial law [1].

The financial system therefore consists of a set of bodies achieving financial law at the level of the general and local administrative office units. On national level, the body with overall responsibility for public finance system is the Government, which "ensures the country's domestic and foreign policy and oversees public administration" according to legal provisions. The Government initiates draft laws in the financial field, or adopt administrative acts to carry out the provisions of the financial law. As well, the Government is drafting the state budget, the state social insurances, the special funds and the execution of the annual general account and submits them to Parliament for approval, and then answer in the front of the Parliament for eventually failure and financial deficit. The Government oversees activities of public finances, examining periodically the financial situation in the economy, the situation of the budget and government special funds and establishes steps to maintain and improve these indicators [2]. The Court of the Auditors is an independent authority that exercises control over the formation, management and use of financial resources of the state and public funds. The Court of the

Auditors is working according to its own legal provisions.

## 2. Ministry of Public Finances.

Ministry of the Public Finances (MFP) is a specialized central public administration body having a crucial role in the area of public finances and the execution of the financial law. It is headed by a Minister, member of the Government political appointed, under the authority of Prime Minister. MFP has a General Secretary, career civil servant under the subordination of the Minister, who ensures the stability of the Ministry and the continuity of the leadership on this level, in close cooperation with State Secretaries. The staff of the Minister has the quality of public civil servants.

According to the Romanian law, the *duties* of the MFP are:

- assurance of administration of the state property.
- contracting and public debt management.
- correlation of the fiscal and budgetary policy of the government.
- ensures the strategy of the implementation of the government program for public finances.
- proposes strategies for long-term development solutions in the field of public finances.
- drafting the state budget and the annual budget act.
- establish a balanced budget in the preparation phase of the project budget and its rectification.
- establishes methodologies for drafting the state budget, state social insurance budget, special funds and draft budgets.
- periodically review how to make budgetary provisions correlated with macroeconomic indicators and presents the Government's proposals to improve financial situation.
- execute consolidated central budget.
- establishes measures for the collection of revenue and expenditure limitation according to the approved budget deficit.
- develop and approve the classification of the public finance indicators.
- prepare the draft budget of the state social insurances.
- examines and approves the budget appropriations for boosting exports.

- monitor personnel expenses in the budget of the state social insurance budget year.
  - approved quarterly distribution of income and expenditure provided in the state budget , the state social insurance and special
  - endorsed draft legislation that increases spending generates income or changes that influence the budget balance
  - analyze and propose legislative framework based on the loans needed to cover the budget deficit and public debt refinancing actions and public works.
  - exercise uniform enforcement and legal regulations in the field of activity and functioning institutions subordinated.
  - management of resources through the State Treasury.
  - management of the state revenues.
  - regulation and synthesis, which provides the legal framework and institutional development to achieve strategic objectives in its field.
  - the development and implementation of fiscal policy and government fiscal strategies.
  - the development and supervision of the legal framework for accounting.
  - the exercise of public internal financial control.
  - the internal and external representation of state and government in its field.
- In the general function and operation of MFP is set on the following *principles*:
- consistency, stability and predictability of the macroeconomic framework.
  - harmonization of the national legal framework with EU regulations.
  - improving the management of the public funds.
  - satisfying social partners.
  - strengthening the authority of the institutions.
  - transparency of the activity.
  - ensure a competitive business environment and predictability of the financial law.
- Other specific duties for Ministry of Public Finance are:
- approves the budgets of the other autonomous health insurance.
  - develop and update the methodology for evaluation and selection criteria for public investment objectives.
  - analyze investment program in terms of employment in the spending limits established selection criteria, phased budget



appropriations execution time depending on the objectives.

- coordinating the monitoring of all public investment program.
- coordinates the general public procurements and transposing the EU legislation in the field unit and methodological guidance.
- develop methodology for implementing update my public procurement.
- establishes the organization of the award of procurement monitoring and reporting award these contracts.
- develop public investment strategy based on the proposals of investment programs of the principal loan.
- approves the annual public investment programs and multi developed by the principal loan.
- establishes the organization and functioning of the State Treasury.
- develop and manage the income and expenses of the Treasury.
- concludes state contracts and guarantees loans from domestic and foreign financial market.
- bring into circulation by the National Bank based convention of specific financial instruments.
- develop or endorse the draft legislation for approval of expenditure rules and regulations and granting of rights of staff in public institutions.

The main priority for MFP is to administrate de state budget according to the provisions of the Romanian law [3].

### 3. Budgetary system in Romania.

To achieve all these goals state uses a complex system of institutions with responsibilities in this area. Different theorists of the financial fiscal law concluded that the term "financial apparatus of the state" means all state institutions participating directly to the fiscal policy of the state. Should be noted that there are two categories of institutions with jurisdiction over the financial law:

- institutions of general jurisdiction.
  - institutions with special competence.
- a) institutions with general competence. In this category are included - Romanian Parliament (Senate and Chamber of Deputies), Presidency, Government

(primarily the Ministry of Finance and other ministries).

- Parliament - has a general competence in the public finances, the Romanian Parliament, as the only legislative power, adopts the draft budget by the Government each year. It is a permanent institution of exercising political control over fiscal and financial policy promoted by the Government. It is the state institution that promotes internal and external fiscal policy of the Romanian state. Parliament has a special importance due to the fact that adopts laws of great importance in the financial area:
- the laws of organization and functioning of the ministries, the Court of Accounts, General Fraud police, public prosecutor, etc.
- accounting law.
- banking and lending laws.
- law on local public finances.
- law on local taxes.
- law on public debt.
- law on public finance.
- laws on taxes.
- state social security law.
- tax procedure code.
- the tax code.

b) institutions with special competence. Are institutions created by the state with powers exclusively in the financial area. According to some theorists of financial law, these institutions with special competence are divided into two categories: institutions of the state with special competence of the central apparatus of the state and institutions of the state with special competence, located in the territory. Institutions in central apparatus of the state are: the Court of Justice, the Prime Minister's Control Department, Ministry of Finance and the General Fraud Office. Institutions located in the territory include: County Departments Fraud, financial districts and municipal utility services within municipalities and county councils, fraud investigation services within the county inspectorates police etc.

### 4. Conclusions.

All these institutions have more responsibilities on public financial management, achieving and maintaining financial balance, ensuring the efficiency of the national economy, conduct specialized

inspections bodies using public money etc. Basically, these institutions, during control activities conducted concurrently assessment activities, preventive, and rehabilitative documentation [4]. These state institutions with special competence in this field carried out other specialized tasks, including: conducting studies and analyzes on financial and fiscal area, monitoring of tax collection and spending of budget funds, monitoring the distribution of financial resources needed to develop the economy, forecasts of financial and fiscal activities, control and monitoring of public funds allocated for social and cultural, control how is spent the public money, organizing the exercise and exploitation of financial and fiscal control.

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## Economic Diplomacy – the Case of Slovenia

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### Abstract

*This paper discusses the importance of economic diplomacy for a small open economy in the case of Slovenia. Additionally, it also discusses the importance of foreign trade and foreign trade promotion for growth and development of a small open economy, in the same case. Nowadays, economic diplomacy plays a very important role in restoring economic stability, which is, in addition to political stability, essential for peace and prosperity, both in Slovenia and elsewhere in the world.*

**Keywords:** *economic crisis, economic diplomacy, foreign trade, foreign trade promotion, Slovenia.*

**JEL classification codes:** *F10, F20, F30.*

### Introduction

Economic relationships between two or more countries affect other relationships between them, and vice versa. Additionally, they also affect the economic and other relationships between them and other countries as a result of their economic and other interdependence. This is, inter alia, the result of an international division of labour, which affects the economic and other situations in these countries. Changes in the international division of labour, therefore, pose a threat to national security, which is one of the reasons that countries affect the international division of labour, for example, through economic diplomacy [1, p. 179].

### Economic diplomacy

Economic diplomacy is the management of economic relationships between two or more countries. It is as old as diplomacy itself and plays an increasingly important role both in Slovenia and certain other European

countries. One of the reasons for this is the growing need for economic cooperation between these countries, which is partly the result of the effects of the current economic crisis on their economy and the need for joint action against the crisis [2].

The current economic crisis is therefore an important factor of Slovenia's economic diplomacy. Another reasons for this is the need for more effective and efficient economic diplomacy as a result of changing economic and other conditions both at home and abroad. Increasing the effectiveness and efficiency of Slovenia's economic diplomacy is therefore essential to accelerate Slovenia's economic growth and development, which are crucial for improving Slovenia's economic situation. However, economic diplomacy is not a panacea for all economic problems [3].

### Foreign trade promotion

Foreign trade is the activity of trading goods and services with other countries. It is very important for Slovenia, contributing to its economic growth and development, which are the main goals of Slovenia's economic policies [4, p. 95]. Foreign trade promotion (which is a subtype of economic promotion) is therefore essential to achieve these goals, especially in times of economic crisis like the current one. This is one of the reasons that foreign trade promotion has become one of the main tasks of Slovenia's diplomatic and consular representatives, especially of those representing Slovenia in non-European countries such as Chile.

Foreign trade diversification (in terms of increasing the number of goods and services and the countries with which Slovenia trades) is essential to accelerate Slovenia's foreign trade. Additionally, it is also essential to accelerate Slovenia's economic growth and development, which are needed to restore economic stability (which is in addition to

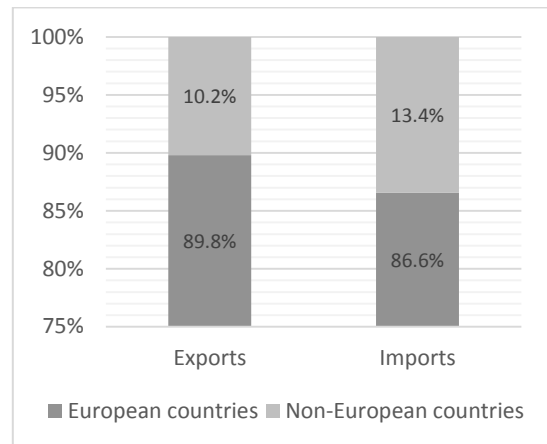
the political stability essential for peace and prosperity) in Slovenia. Removing foreign trade barriers is therefore essential to achieve some of the main goals of Slovenia's economic policies. These are more or less inconsistent with each other, making them less effective and efficient, which is one of the reasons that Slovenia is less competitive in comparison to some other countries. Chile, for example, ranks 34th out of 148 countries, according to the Global Competitiveness Index 2013–2014, which is 28 rankings higher than Slovenia [5, p. 15]. This requires immediate action at all levels of governance.

In order to become more competitive, Slovenia needs to implement some economic reforms which should be consistent with each other, making them more effective and efficient [6, p. 101]. This is essential to increase public confidence in these reforms (especially during the current economic crisis) and to create an environment conducive to economic reforms which are necessary to adapt to changing economic conditions both at home and abroad. Additionally, this is essential to accelerate Slovenia's foreign trade, which is crucial to improve labour market conditions in Slovenia and stop the 'brain drain' to more competitive countries. This is another reason for Slovenia to accelerate its foreign trade promotion. In doing so, it should follow the example of Chile (particularly ProChile [see <http://www.prochile.gob.cl/>]).

**Foreign trade as an important factor in Slovenia's economic relationships with other countries**

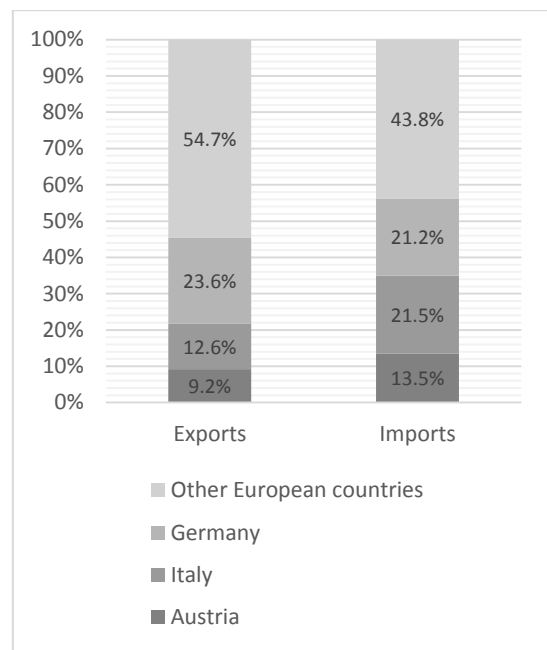
Foreign trade is crucial for a large number of Slovenian enterprises (regardless of their size) [7, pp. 113–114]. Removing foreign trade barriers is therefore essential for their continued survival, especially in the times to come. Economic diplomacy, which can help in entering foreign markets, is becoming increasingly important for Slovenia's economy, which is too dependent on trade with European countries (see figure 1), mainly Austria, Italy and Germany (see figure 2).

Figure 1. Slovenia's exports and imports of goods by groups of countries, 2012.



Source: [8, pp. 398–402].

Figure 2. Slovenia's exports and imports of goods by European countries, 2012.



Source: [9, pp. 398–402].

Foreign trade is therefore an important factor in Slovenia's economic relationships with other countries (mainly in Europe). Additionally, it is also an important factor of Slovenia's economic security, the provision of which is essential to accelerate Slovenia's economic growth and development. For a small country like Slovenia, economic diplomacy is particularly important because its economy is heavily dependent on other

economies, which are larger and stronger, and this makes it more difficult for Slovenia to enforce its economic interests abroad. Making alliances is therefore very important for it, although it can be a double-edged sword, especially when used as a device to ‘beggar thy neighbour’.

### **My recommendations to the Slovenian government**

My recommendations to the Slovenian government are:

- further coordination of Slovenia’s economic and other policies in order to increase their effectiveness and efficiency,
- further modernisation of Slovenia’s economic and other policies in order to adapt to changing economic and other conditions both at home and abroad,
- further implementation of economic and other reforms in order to improve Slovenia’s economic environment,
- further implementation of other measures in order to accelerate Slovenia’s economic growth and development,
- further development of Slovenia’s economic relationships with other countries in order to improve Slovenia’s economic situation,
- further development of Slovenia’s economic diplomacy in order to improve the enforcement of Slovenia’s economic interests abroad and
- further improvement of Slovenia’s economic promotion.

### **Conclusion**

Economic diplomacy is very important for Slovenia. One of the reasons for this is the importance of foreign trade for its growth and development. Economic diplomacy, which can help promote foreign trade, is therefore essential to improve the economic situation in Slovenia (in both the short and long-term).

### **Acknowledgment**

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## Motivating Employees -a Key Component of Human Resources in Organizations

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### Abstract

*Human behaviors are governed by two main systems: one system of reward and punishment. Our behaviors followed by positive results tend to develop. Conversely, behaviors followed by negative results tend to diminish. What is usually overlooked is that the rewards of working extremely intense emotions, such as pleasure (reward) and fear, aggression, conflict states (penalty) and determine motivation. Labor in there is a large increase in the unpleasant consequences of what we generally call it frustration. Frustrations are increasingly less compensated by rewards and which are permanent sources of organizational conflicts.*

**Keywords:** motivation, organizational behaviour, managerial role, management, feed-back

**J.E.L. Classification:** C 92, D23, J24, J28

### 1. Introduction

Motivation at work is one of the topical themes of managers, the people is an important factor for the company, as only performing employees make the difference between a strong and a weak one.

The purpose of this paper is to demonstrate what motivates people as professional motivation is an important and complex approach for obtaining performance both individually and within the organization.

Most of the problems we face every day in business management are motivational. The motivation is closely related performance. A better understanding of mechanisms to motivate people to develop strategies to organizational "reasons" for

employees to increase organizational performance.

Performance motivates us to go on to formulate clear objectives that follow them strictly, even if we sometimes those goals seem unattainable. The important thing is to be motivated to achieve goals.

The most difficult task that a manager has to fulfill is to learn how to motivate employees and especially how to keep them motivated. Unfortunately (or fortunately), we are all different and what motivates one employee may displease another. The method we use to motivate employees should be suitable for each employee. The same method for all employees does not fit when it comes to motivation.

### 2 . Roles of staff motivation

Managers can not effectively fulfill without knowing the reasons supporting staff attitudes and behavior . All actions must be based manager actual knowledge of how people behave and change over time , and not the way they would like them to behave [1]

The role of motivation is not just to get people to work, but to make them work better , get them to use their full intellectual and physical resources . Where there is motivation, productivity and performance there , and people are happy .

In other words , everyone wins . Motivation is crucial to success not only on the organization , but also in any department , project or plan and , undoubtedly , is one of the most important areas of responsibility of a manager. [2] Regardless of the content of motivation , the roles are numerous and intense . Roles and effect reasoning can be summarized as follows :

*Managerial role* is the most direct and consists essentially in determining the content and effectiveness facto drive

function, which in turn makes the decisive realization of other management functions - planning, organizing, coordinating and control-assessment. [3]

Motivation has a substantial impact on the features and functionality of the whole management system of the organization. The quality of decisions, operational methods, techniques and procedures and the general management, accuracy and flexibility and functionality subsistemului information that firm organizational arrangements, ie essentially the sisemului managerial elements are directly conditioned by motivating staff. [2].

*The role of organizational* concerns motivating impact that it has directly and through other elements of management on how the organization functions and performance. [3] Content and methods of reasoning used in an organization contributes greatly to printing characteristics of its organizational culture.

*Individual role* aimed at strong dependence of each employee satisfactions and frustrations of the organization, its evolution, the reasoning exercised in the organization. The reasoning is made more intense based on consideration of the needs, aspirations and expectations of employees taking into account its potential and effort, the more satisfied its staff, its ability to use greater and growing faster and more intense.

*Economic role* refers to conditional indirect but substantial economic performance of each organization to motivate prevailing therein. When firm-level reasoning is insufficient, their economic results are not up to a high level and therefore no influence on the overall performance of the country concerned.

*Social role* is in fact the synergistic effect of previous roles in psycho-sociological plan elements that characterize a country's population. Social climate of a country, social relations are determined by the effects of motivation prevalent in companies, autonomous, and other organizations where people do business.

### 3. Types of motivation

Possible reasons are many and varied potutiliza grouped according to certain criteria, representing types or formelede

motivation. By type or form of motivation motivations understand all defined according to specific criteria used repeatedly in a specific optical managers, based, consciously or unconsciously, on certain assumptions regarding conditional employee motivation and organizational performance. [4]

Bet on every time, in every country and sometimes differentiated categoriide organizations tend to predominance of one or another type of motivation. Their development has a strong national and organizational social determination.

*Positive motivation* is the increasing efforts and contribution to achieving the organization's staff, based on its satisfactions gain from participation in the labor process as a result of the tasks assigned, provided that the objectives and tasks to be performed is accessible to the majority of employees, and motivations used ensure revenue growth mainly employees morale and their appropriate status expectations.

This definition highlights two defining characteristics reasoning:

- Use predominant motivations generating greater rewards to employees ( salary increases, bonuses, share part of the profits, thanks, etc.).

- Expected performance are achievable by most employees;

Positive motivation by many satisfactions they generate contribute to the establishment of a high moral and personal development of employees, organizational climate conducive to shaping work and high performance. ( Stanciu, Stefan, 2003)

*Negative motivation* by generating frequent dissatisfaction to the employees of the organization contributes to their low morale, their inhibition and the establishment of an organizational climate tense unfavorable obtain good results by the organization.

Its economic use traditional means of economic, aimed at meeting the aspirations and expectations of economic employees.

Main reasons used are: salaries, bonuses, profits, gratuities, wage penalties, financial debits in case of errors and / or omissions in resource management firm, fines for committing offenses. [2]

*Economic motivation* is decisive because the aspirations and expectations regular employee of an organization aimed at

meeting the needs of most of its business on providing food, housing, shelter.

On the basis of the delimitation motivation intrinsic extrinsic motivational nature of the relationship is occurring and location source that generates a motivational effect.

*Intrinsic motivation*, sometimes referred to as internal or direct, is to determine the employee to get involved, to make the effort and achieving results in the organization of these processes as obtains satisfaction related to self, the personality. [4]

*Extrinsic motivation*, which is also used by external name or indirectly, is to determine the employee to engage, to effort and achieve the organization that they will generate some reaction from business formal and informal economic and moralspirituale that will produce rewarding.

Extrinsic motivation is an individual-organization relationship, with the content to satisfy employee expectations across the organization side of it, of course in relation to the effort, behavior and results.

Depending on the composition of human personality considered priority delimit these two types of motivation - cognitive and affective.

*Cognitive Motivation* envisages side, intellectual dimension of the employee, focusing on individual needs to be informed, know, learn, innovate, operate and "control" the environment in which they operate. To achieve cognitive motivation, managers turn to throughout the form of incentives, both formal and informal, economic and moral-spiritual.

*Affective motivation*, unlike the previous concerns affective dimension strictly human employee, focusing on meeting the needs of its sentimental within the company.

#### **4. Ways of organizational motivation**

Employees today are no longer interested to work overtime , be punctual , devoid of personality . The old belief was that if you pay people properly, they will be motivated. However , today it was realized that people do not work only for money , but to be satisfied with what they do.

Money can act as an incentive for more productive work . With the money earned

people can buy goods and services to meet their needs. The work is tedious and stirs a low intrinsic interest , the greater the importance of money as a motivator to exercise initiative . In motivating staff motivators besides money there are certain types of non - financial instruments that have the same effect .

People tend to be more motivated if you are interested in that job if they feel respected, if you feel comfortable working with people , have a certain status and the possibility of future promotions through training, things that a company can offer quite easily. If these conditions do not exist, people tend to feel alienated , ie company morale will be low.

Management solutions can reach management by objectives and participatory management by objectives.[5]

##### *a. Management by objectives.*

This management technique can be defined as "the driving technique which aims to achieve a higher effectiveness through better use of human and material resources." It is founded on the fundamental objective of the organization declination targets specific subset in part.

To achieve these objectives, management assigned means that you can control to a degree higher or lower with respect to certain constraints.

##### *b. Participative management by objectives*

Concept underpinning participatory management by objectives puts staff and sources of motivation at the heart of achieving the objectives assigned by management. In this process, meeting the needs and aspirations of staff satisfaction is achieved with the objectives of the organization and employees become part of the establishment and award of goals. [6]

However, the method can provide important issues. It is, first, goal setting stage, the reliable determination of these is the touchstone of effective implementation of the method.

The process of developing goals always gives rise to tensions arising from their negotiation. The overall objective of the organization is perceived by all participants as the ultimate goal. Therefore, they try to negotiate goals within the organization to comply to a large extent their individual goals. Although employee participation in



goal setting phase is exactly the philosophy of the method, the ultimate goal of the organization should take precedence over individual target, especially since at this level may be a very difficult problem, that of mediation between the objectives assigned to long-term and short-term goals. [7]

A large number of methods and techniques of modern management promoted favorable meet the needs of certain categories of staff, increase the involvement of behavior and conduct towards the overall objectives of the organization. Among the many motivational techniques and procedures we describe briefly the most simple, efficient and widely used.

*a. Listens and responds technique.* In essence, this technique requires, on the one hand, active listening by the manager of the messages sent by the interlocutor, maintained by a clear and precise feedback so that effective communication to occur, subject to the tasks set and projected goals.

*b. Motivational feedback verbally or recognition "merit" technique.* Its main content is to react explicitly by prompt feedback - positive or negative - to a subordinate after he performed a task, a goal or completed a period of activity. [8]

By this procedure the employee that the manager knows that were expectations in relation to the work and performance and how they are rated so that in the future be able to improve their work and enhance results.

The manager can show two types of feedback: positive, gratulare, thanksgiving, when the results are seen as good; negative criticism, punishment, when you consider that inappropriate work behavior and / or results.

Regarding the *positive feedback*, it is recommended that evaluation, thanksgiving, congratulations to concrete, referring to what the subordinate has done. The main difficulties to be overcome are fear of exaggeration, bias frequently autodevalorizezi when you praise others fear that the subordinate does not take seriously the positive assessment.

Making *negative feedback* is even more difficult because most people react to criticism - without reference to penalties based - as a personal attack; the criticism in a defensive posture of defense that prevents

him from perceiving the message and draw the necessary lessons. [9]

*c. Extension or widening job.* Job growth is achieved by expanding the variety of job tasks circumscribed by performing combinations of tasks belonging to positions performing related work processes and / or complementary in the same department or field.

*d. Job Enrichment.* The author of this method is well-known American expert Frederick Herzberg. The express aim of it is to increase employees' motivation for work and special performances. Job enrichment is to incorporate the contents of a job to execute a wider range and more important tasks, powers and responsibilities of implementation and management, enhancing the autonomy and the role that post. [10]

## 5. Conclusions

Of course, the range of methods and techniques of management with major motivational effect is more comprehensive. It is important that these methods be used given the specific motivational cycle, taking into account the many variables involved that demand - to achieve substantial motivational effects - a considerable effort to review and change management mechanisms of organizations.

Current motivational appears as a synthesis of theories proposed in the literature, the results of the practice of competitive organizations synthesis influenced by current environmental characteristics.

In an environment where global competition is ruthless organization can give its employees more than it receives. Managers must understand that increasing staff wages (and other pecuniary benefits) with a higher rate of profit is to condemn the organization to extinction.

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## The Evolution of Small and Medium-Sized Enterprises Within Maramureş County during 2009- 2013

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### Abstract

*Within the present article we present the evolution of Small and Medium-Sized Enterprises (SMEs) in Maramureş County. The economic crisis has affected this field too, fact proved by the evolution of the number of the active existing SMEs.*

*We have also presented the evolution of the number of the active SMEs between 2009 and 2013, the evolution of the number of new registered enterprises, as well as the number of struck off, suspended or dissolved SMEs.*

*The development of SMEs is a priority for European Union. The SMEs represent a solution for the development of Maramureş County, thus acting as the backbone of the European Union's economy.*

**Keywords:** Small and Medium-Sized Enterprises, Maramureş, certified natural person, legal person.

**JEL Classification:** J10, O11, R11.

### 1. Introduction

The SMEs have been affected by the downfall of the national economy subsequent to the year 2008. That downfall was generated by the economic crisis that had affected all European Union's countries.

The macroeconomic indicators had recorded negative evolutions and this thing also reflected on the SMEs, which represent the backbone of each and every economy. Maramureş County has also been affected by the referred to downfall.

Besides the effects of the financial-

economic crisis, which led to a demand decrease, the SMEs have been also affected by the increasing competition caused by the adherence to European Union, by legislative instability, by limited access to getting loans, by workforce migration, by poor technologic level.

Moreover, the potential entrepreneurs also ran against the problem of their own low financial resources as well as of poor management training.

### 2. The analysis of the evolution of SMEs in Maramureş

The SMEs have been defined by Law 346/2004. Their classification is made depending on the annual average number of employees and depending on the annual net turnover, as well as on the assets- total that they hold, regarding the following categories [1]:

- micro- enterprises- operate with up to 9 employees and score an annual net turnover or hold assets- up to € 2 million, equivalent in lei;
- small enterprises- have between 10 and 49 employees and score an annual net turnover or hold assets- up to € 10 million, equivalent in lei;
- medium - sized- enterprises- have between 50 and 249 employees and score an annual net turnover up to € 50 million, equivalent in lei, or hold assets- total which does not exceed the equivalent in lei of € 43 million.

SMEs carry a very important role in every country's economy. They represent over 99 % of the total number of the enterprises, in

most economies. In the first place, they create new jobs. Secondly, they create, develop and promote new technologies. They are very adjustable to the market's changes.

The positive effects produced by SMEs sector are numerous, out of which, the most known are: the improvement of the competitive environment, the creation of technologies- related development and adaptation opportunities, that are answerable to an actual need, occupying the market blockouts that are not lucrative for large companies, by valorizing them in an intense and efficient manner, as they were real opportunities, and by getting to the local economies through the exploitation of local resources (financial, material, work force resources, as well as informational ones) [2].

For these reasons, the evolution of SMEs offers a view of the economy in that territory. In order to get a view of the SMEs in Maramureş County, we shall analyze the status of the existing SMEs, which have been active lately.

*Table no. 1. The status of active SMEs in Maramureş County between 2009 and 2013*

-Units-

Types of active enterprises	Number of active professionals	Out of which	
		Certified natural persons/ Sole proprietorship/ Family owned and operated businesses	Legal persons
2013	24556	11045	13511
2012	22522	9587	12935
2011	21151	8944	12207
2010	19296	7382	11914
2009	28670	15 486	13184

Source:  
<http://www.onrc.ro/romana/situatieactivi.php>,  
accessed on the 23<sup>rd</sup> of April, 2014

The greatest number of active enterprises has been recorded in 2009, when 28 670 professionals were carrying on their activity in Maramureş County. Out of these, about 54 % were certified natural persons, sole proprietorship and family owned and operated businesses.

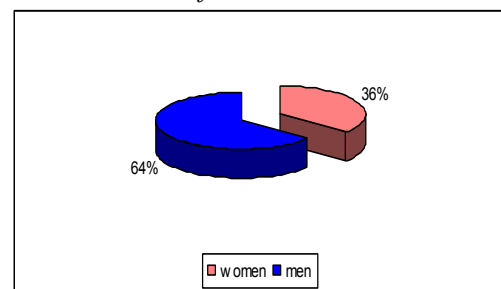
In 2010, the number of active enterprises decreased dramatically by approximately 33 % comparing to the year before. The greatest downturn has been recorded among certified natural persons, who scored down a decrease of about 33 % comparing to the previous year.

Beginning with the year 2011 and up to present, the number of the active professionals has slightly risen from one year to another, as one can notice looking at the above table. The rising rhythm of the legal persons is slower, comparing to that of certified natural persons. In the year 2013, out of the total number of companies, about 45 % were certified natural persons, who were carrying economic activities (certified natural persons, sole proprietorship and family owned and operated businesses) and the rest of them were legal persons.

The preference of the people from Maramureş County to certified natural persons to carry on economic activities has also been demonstrated by the number of the new registered companies.

The distribution by sex of the associates and shareholders, active legal persons, is being shown in Figure no. 1.

*Figure no. 1. Structure by sex of the shareholders/associates active legal persons on the 31<sup>st</sup> of December, 2013.*



Source:  
[http://www.onrc.ro/romana/situatie\\_pe\\_sexe\\_asociati.php](http://www.onrc.ro/romana/situatie_pe_sexe_asociati.php) accessed on the 25<sup>th</sup> of April, 2014

Within those 13 511 companies that have legal personality, the number of the associates or shareholders that are natural persons was of 22088 on the 31<sup>st</sup> of December, 2013. Most of them are men (about 64 %).

As far as the active professionals are concerned, those organized as certified natural persons, sole proprietorship and

family owned and operated businesses men also rule. Out of the total of 11045 such existing companies on the 31<sup>st</sup> of December, 2013, with a number of 13560 holders or members, approximately 58 % were men.

Depending on the members or holders' age, and on associates or shareholders' age respectively, the SMEs' status appears as it follows:

*Table no. 2. The distribution of certified natural persons/ sole proprietorship/ family owned and operated businesses and of active legal persons depending on the members or holders' age, and on associates or shareholders' age respectively, in Maramureş, on the 31<sup>st</sup> of December, 2013*

Type of enterprise	Certified natural persons/ Sole proprietorship/ Family owned and operated businesses		Legal persons	
	Number	%	Number	%
Active enterprises	11045	-	13511	-
Holder s/members or associates/sha reholders	13560	100%	22088	100%
Up to 29 years old	2573	19%	2404	11%
30–39 years old	3709	27%	5998	27%
40–49 years old	3514	26%	6435	29%
50–59 years old	2301	17%	4636	21%
Over 60 years old	1463	11%	2615	12%

Source:

[http://www.onrc.ro/romana/situatie\\_PFA\\_active.php](http://www.onrc.ro/romana/situatie_PFA_active.php) accessed on the 25<sup>th</sup> of April, 2014

[http://www.onrc.ro/romana/situatie\\_PJ\\_activ\\_e.php](http://www.onrc.ro/romana/situatie_PJ_activ_e.php) accessed on the 25<sup>th</sup> of April, 2014

The persons aged between 30 and 59 years old prefer the legal person status, as business structure type. Young people with age up to 29 years old prefer the natural person status, as business structure type, to the detriment of legal person status. They choose it especially because Government Ordinance no. 166/ 2003 stipulates the grant of some fiscal facilities to students who want to set up their own business.

On the 31<sup>st</sup> of December, 2013, there were 897 such companies set up by students, in Maramureş County, out of which 177 have been struck off. This way, there are currently 720 active companies set up by students. Their number is pretty high, comparing to the others counties in Romania, Maramureş being ranked as the 3<sup>rd</sup> following Cluj County (with 1176 such active companies) and the Municipality of Bucharest (with 1015 such active companies).

The situation of SMEs' registering within Maramureş County is being rendered in Table no. 3.

*Table no. 3. The situation of SMEs' registering within Maramureş County between 2009 and 2013*

- Units -

Types of enterprises	2009	2010	2011	2012	2013
Limited liability company	1079	792	1085	1055	1018
Joint stock company	1	5	6	4	3
Family owned and operated business	152	71	53	29	21
Sole proprietorship	803	1014	933	795	735
Certified natural person	960	870	1175	1482	1419
Other types	5	2	3	3	4
Total	3000	2754	3255	3368	3200

Source:

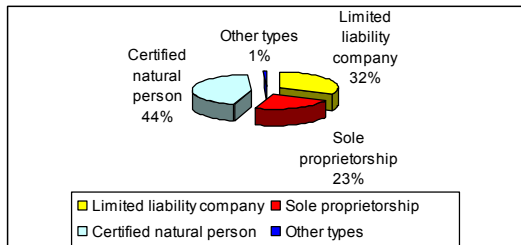
<http://www.onrc.ro/romana/situatieinmatriculari.php> accessed on the 23<sup>rd</sup> of April, 2014.

As one may notice, by looking in the above table, the situation of company registering within Maramureş County, over the past 5 years, has been vacillating, none of the studied markers having an one –way evolution. In conclusion, the least company registrations were recorded in 2010. Between 2011 and 2012, their number began to increase, registering values over the level of those in 2009. But, the year 2013 has scored again a downfall and this decreasing trend has been maintained in the first part of the year 2014.

Out of the company types range, from the juridical point of view, Maramureş County people have opted, over the analyzed period of time, for status as: certified natural person, limited liability company, sole proprietorship. Joint stock company type did not appeal to many people.

Therefore, Figure no. 2 shows the structure of the new companies that have been registered within Maramureş County, over the year 2013.

Figure no. 2. Structure of SMEs' that have been registered within Maramureş County, over the year 2013



Source:

<http://www.onrc.ro/romana/situatieinmatriculari.php> accessed on the 23<sup>rd</sup> of April, 2014.

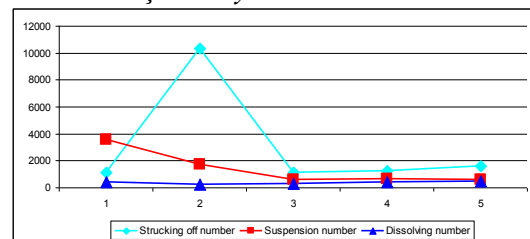
Over the year 2013, in Maramureş County, 44 % out of the new registered companies were certified natural persons. Start-up lower costs as well as the single-entry bookkeeping represented the best arguments when choosing the certified natural persons status. In 2009, Maramureş County people preferred limited liability company type while certified natural person type ranked 2<sup>nd</sup>. However, starting with the year 2010 and up to the present, certified

natural person type has represented the highest priority to the people in Maramureş County, as far as the business structure type is concerned.

In order to analyze the dynamics of SMEs in Maramureş, apart from analyzing the active companies and the newly set-up ones, it is essential to consider also the struck off, suspended and dissolved companies.

Figure 3 shows the evolution of struck off, suspended and dissolved companies in Maramureş County between 2009 and 2013.

Figure no. 3. Situation of struck off, suspended and dissolved companies in Maramureş County between 2009 and 2013



Source:

<http://www.onrc.ro/romana/situatieradieri.php> accessed on the 24<sup>th</sup> of April, 2014.

<http://www.onrc.ro/romana/situatiesuspendari.php> accessed on the 24<sup>th</sup> of April, 2014.

<http://www.onrc.ro/romana/situatiedizolvare.php> accessed on the 24<sup>th</sup> of April, 2014.

Looking in the above diagram, one may notice that a large number of companies were struck off in 2010, namely 10 343, a number which represented about one third of the number of the companies that had been active on that date. Over the year 2011 the lowest number of struck off companies has been registered. From that moment on, the number of struck off companies has gone on an ascending trend. Beginning with the year 2010, the number of dissolved companies has also gone on an ascending trend.

Over the past five years, the number of suspended companies has had a vacillating evolution, the highest number being registered in 2009.

Thus, it is confirmed the fact that the year 2010 was the most difficult of all, concerning the SMEs in Maramureş. That year, the number of active companies was the lowest, from the analyzed period, and a large number of companies were struck off and suspended.

### 3. Conclusions

SMEs represent a solution for the development of Maramureş County, they acting as the backbone of the economy of the European Union. The development of SMEs sector represents a top priority for the European Union. To that effect, there are multiple possibilities of financing the SMEs through European funds. This opportunity should be exploited in Maramureş County, too.

The capacity of the SMEs of creating new jobs is essential, especially because the unemployment rate in this county is considerable. And the lowering of the unemployment rate by creating new jobs means an important benefit.

SMEs are more adjustable to market's changes, comparing to large companies, and they also have a higher innovation capacity. These arguments defend the idea that helping the SMEs should be the main priority in Maramureş County.

To the purpose of creating the necessary framework for the development of SMEs in Maramureş, one should take action on the national level, regarding the simplification of the SMEs- related legislation, as well as easing the access to financing, the increasing of SMEs competition, by facilitating the access to new technologies, and by the improvement of the educational system regarding the management field.

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- [5] [http://www.onrc.ro/romana/situatie\\_PFA\\_active.php](http://www.onrc.ro/romana/situatie_PFA_active.php) accessed on the 25<sup>th</sup> of April, 2014.
- [6] [http://www.onrc.ro/romana/situatie\\_PJ\\_active.php](http://www.onrc.ro/romana/situatie_PJ_active.php) accessed on the 25<sup>th</sup> of April, 2014.
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- [8] <http://www.onrc.ro/romana/situatieradieri.php> accessed on the 24<sup>th</sup> of April, 2014.

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- [10] <http://www.onrc.ro/romana/situatiedizolvari.php> accessed on the 24<sup>th</sup> of April, 2014.

# The Obligation to Inform the Future Employee/ Employee upon the Conclusion/ Amendment of the Individual Employment Contract

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## Abstract

*The obligation to provide information upon the conclusion or amendment of the individual employment contract is mutual - both the employer and the person selected for employment or, where appropriate, the employee have the obligation to make certain information available to the other party under the terms established by the Labour Code.*

*In this article we intend to analyze only the employer's obligation to provide information. This obligation to provide information was taken over by the Romanian legislator from the Community labor law; this naturally entails the question related to the extent/ means of transposing the EU legislation into the national law.*

**Keywords:** individual employment contract; person selected for employment; employee; employer; obligation to provide information  
**JEL classification:** K12; K31

## 1. Introduction: the origin and evolution of the obligation to provide information regulated by the Labour Code

The obligation to provide information was taken over by the Romanian legislator from Community labor law, namely the Directive 91/533/EEC on the employer's obligation to inform employees of the conditions applicable to the contract or employment relationship [1].

The initial regulation (art. 17-19) included in the Labour Code (Law 53/2003) [2] has undergone many successive amendments until it reached the current form, this being explained in terms of the national legislator's efforts to harmonize the Labour Code with the standards of the European legislation.

Moreover, as we are going to reveal, in this field, the Labour Code contains regulations which are more favorable to employees than the provisions of Directive 91/533/EEC.

The evolution of the obligation to inform the future employee/ employee could be the subject of a separate study; thus, we are going to limit our study to several amendments adopted by successive legislative acts in this area: Government Emergency Ordinance 65/2005 [3], Law 371/2005 [4] Government Emergency Ordinance no. 55/2006 [5], and Law 40/2011 [6]. Although in this article we intend only to analyze the provisions in force, we will also make some references to the important moments in the evolution of this regulation.

## 2. The items of information

According to art. 17 (3), the person selected for employment or the employee, as appropriate, will be informed of at least the following details:

- identity of the parties;
- place of work or, in the absence of a fixed place of work, the employee's possibility to work in various places;
- the premises or, where appropriate, the address of the employer;
- position/ occupation according to the Classification of Occupations in Romania or to other regulations and the job description, specifying job duties;
- the criteria for the assessment of the professional activity applicable at the employer's level;
- job-specific risks;
- the date on which the contract is to produce its effects;
- in case of a fixed-term contract or a temporary employment contract, their duration;
- amount of annual leave to which the



- employee is entitled;
- conditions of notice by the contracting parties and their duration;
  - the basic salary, other components of remuneration and the salary payment frequency to which the employee is entitled;
  - the normal labor duration in hours/ day and hours/ week;
  - indication of the collective labor agreement governing the working conditions of the employee;
  - length of the trial period.

If the person selected for employment or the employee, as appropriate, is to work abroad, the employer is obliged to communicate additional information (art. 18, paragraph 1) on:

- duration of the work to be performed abroad;
- the currency in which the remuneration will be paid and the payment methods;
- the benefits in cash and/ or in kind attendant on the employment abroad;
- climate conditions;
- main labor law regulations in that country;
- local customs whose breach would endanger his/her life, liberty and personal security;
- where appropriate, the conditions governing the employee's repatriation.

The information on the duration of the work to be performed abroad; the currency in which the remuneration will be paid and the payment methods; the benefits in cash and/ or in kind attendant on the employment abroad must be included in the individual employment contract (art. 18, paragraph 2). Hence, the employer is required to provide the information on all these details prior to the conclusion of the contract, and those specifically mentioned above are mandatorily included in the employment contract.

*The importance of the details on which the employer has the obligation to provide information*

The details referred to in art. 17 (3) are subject to the obligation to provide information, obligation which is explained in terms of their significance granted by the legislator – they represent essential clauses of the individual employment contract. Other details (such as the specific clauses covered

in art. 20, paragraph 2) do not condition the valid conclusion of the employment contract. Therefore, there is applied the common law rule contained in art. 1182, paragraph 2 of the Civil Code – for the conclusion of the contract, it is sufficient for the parties to agree on the essential elements, even if it allows some secondary elements to be agreed upon later, or entrusts their determination to another person [7].

### **3. The time and methods for providing the information**

*The time by which the information should be provided*

Initially (in the first form of Law 53/2003), art. 17 showed that the employer was required to provide the information prior to the conclusion of the individual employment contract or to its amendment. In this formulation it was indisputable that the obligation to provide information must be fulfilled prior to the conclusion or modification of the contract.

Later, several significant additions were made by Government Emergency Ordinance 65/2005, approved by Law 371/2005 – “the obligation to inform the person selected for employment or employee shall be met by the employer at the time of signing the individual employment contract or the amendment thereto, as appropriate” (art. 17, paragraph 2). This new provision introduced in art. 17 led to different interpretations in the legal literature.

According to one opinion, this would mean that the information is not provided prior to the negotiation of the contract, it has no connection with the offer (the employer's unilateral act) but that it is (naturally) subsequent to the agreement of the parties and it is achieved at the time of signing the form (contract or addendum), form which confirms the parties' agreement [8].

In what concerns our perspective, we join the opinion [9] that the information should be still provided before the conclusion or modification of the contract. The legislator did not modify paragraph 1 of art. 17; if he/she had intended to modify the time by which the information should be provided, he/she would have also amended this paragraph. Thus, the obligation remains unchanged. “Before concluding or amending

an individual employment contract, the employer shall inform the person selected for employment or, where appropriate, the employee of the essential terms which they intend to include within the contract or to modify" (art. 17, paragraph 1).

The true meaning of article 17 (2) is to establish the *juris et de jure* presumption in the employer's favor - if the legal document that has been signed, it is considered that the employer has fulfilled the obligation to provide information [10].

The natural order in which the relations between the person selected for employment or employee (for the amendment of the individual employment contract) and the employer is as follows:

- the employer presents the information;
- the draft of the individual employment contract or of the addendum is presented;
- the opinion of the selected person or of the employee is presented;
- it is negotiated individually;
- the individual employment contract or the addendum are concluded or not [11].

Any amendment to one of the essential details during the execution of the individual employment contract requires the completion of an addendum to the contract, within 20 working days from the date of the amendment, except where it is specifically provided for by law.

#### *Assisting the parties by third parties*

Upon the negotiation, conclusion or amendment of the individual employment contract, either party may be assisted by third parties, according to their own choice (art. 17, paragraph 6). This provision, introduced later in art. 17 by GEO 65/2005, is useful both to the person selected or the employee and to the employer and it is likely to clarify the framework for the negotiation and conclusion of the individual employment contract. Prior to this provision introduced by GEO 65/2005 it was unclear whether the selected person or the employee may be accompanied or not by a third party, sometimes the employer himself/herself refused the presence of a third party upon negotiation (e.g. a lawyer).

#### *The possibility to conclude a confidentiality agreement*

In order to protect the employer's business, regarding the information provided to the employee, before the conclusion of the

individual employment contract, the parties may conclude a confidentiality agreement (art. 17, paragraph 7).

A first observation is required in connection with the term used by the legislator – "employee". The use of this word would mean that the scope of persons who can conclude the confidentiality agreement is reduced to the employer and the employee when amending an already concluded contract; hence it follows that the person selected for employment would be excluded from this sphere. In our opinion, a confidentiality agreement has an even greater significance in the context of negotiating a new individual employment contract between people who hitherto have not been in a relationship, than in the context of amending an individual employment contract concluded between the employer and the employee. Therefore, it would be necessary, *de lege ferenda*, to amend art. 17 (7) by replacing the term "employee" with the correct one used in paragraph 1 of the same article – "person selected for employment or, where appropriate, the employee".

#### **4. The consequences for the non-fulfillment of the obligation to provide information**

If the employer fails to fulfill his/her obligation to provide information, referred to in art. 17 and 18, within 30 days from the date of the non-fulfillment of this obligation, the person selected for employment or the employee, as applicable, has the right to refer to the court and seek adequate compensation for the loss he/she suffered as a result of the failure by the employer to fulfill his/her obligation to provide information.

This is the only sanction that may incur to the employer for failure to fulfill his/her obligation to provide information. It is an action of claims, due to a conflict of rights, and the jurisdiction belongs to the courts vested with the trial of labor disputes [12]. The prerequisite for the compensation in favor of the person selected for employment or the employee is the existence of damage caused by the failure to fulfill this legal obligation.

## 5. Directive 91/533/EEC and the corresponding regulations of the Labour Code

As indicated at the beginning of this study, the obligation to provide information was taken over by the Romanian legislator from the Community labor law - Directive 91/533/EEC on an employer's obligation to inform employees of the conditions applicable to the contract or to the employment relationship.

The Directives are binding on each Member State only in the result reached, leaving national authorities the opportunity (power) to choose the forms and methods for their application (art. 249, paragraph 3 of the EC Treaty and art. 161, paragraph 3, Euratom).

According to art. 1 (2) of the Directive, Member States may provide that this Directive shall not apply to employees having a contract or employment relationship: (a) - with a total duration not exceeding one month, and/or - with a working week not exceeding eight hours; or (b) of a casual and/or specific nature provided, in these cases, that its non-application is justified by objective considerations.

The information may be provided to the employee not later than two months from the commencement of employment, in the form: (a) a written contract of employment; and/or; (b) a letter of engagement; and/or; (c) one or more other written documents. Where none of the documents referred to is handed over to the employee within the prescribed period, the employer shall be obliged to give the employee, not later than two months after the commencement of employment, a written declaration signed by the employer.

Any change in the details which represent the information object (referred to in Articles 2 (2) and 4 (1)) must be the subject of a written document to be given by the employer to the employee at the earliest opportunity and not later than one month after the date of entry into effect of the change in question.

Compared with Directive 91/533/EEC, the regulations of the Labour Code are more favorable to employees:

- it requires that the information be provided no later than upon the

conclusion in writing of the individual employment contract;

- there are not allowed exceptions to the obligation to provide information, i.e. to the individual employment contracts lasting up to a month or of an occasional nature.

Since the directives set only the minimum standards leaving the national authorities with the possibility (power) to choose the forms and methods of their application, the Romanian legislator intended to provide the persons selected for employment or the employees a more favorable regime.

## 6. Conclusions

In contemporary law, there is a special preoccupation to protect the weaker party upon the conclusion of certain contracts – such as the consumer or the person selected for employment/ employee. One of the measures taken by the legislator to protect these people is vested in the obligation to inform the other party (the employer as far as the individual employment contract is concerned).

The obligation to provide information was taken over by the Romanian legislator from the Community labor law, namely the Directive 91/533/EEC on the employer's obligation to inform employees of the conditions applicable to the contract or the employment relationship.

The successive changes and additions betray the legislator's constant concern to improve the statutory provisions.

As shown, in comparison with Directive 91/533/EEC, the regulations of the Labour Code are more favorable to employees.

Since any settlement is perfectible, despite the Romanian legislator's concern to improve the provisions applicable in the field, *de lege ferenda*, we consider it necessary to amend art. 17 (7) by replacing the term "employee" with the correct one, used in paragraph 1 of the same article – "person selected for employment or, where appropriate, the employee".

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# The Impact of Aging on Social Protection Systems in the European and National Level

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## Abstract

In recent years we have witnessed a phenomenon called aging by significantly increasing the population over 75 years, a phenomenon that could be explained by the increased quality of life and health services. In reality there are not enough social services, neither quantitative nor qualitative. Globalization affects social services. Pan-European institutions such as the Council of Europe and the EU play a crucial role, through various transnational projects and other activities. Providing social services for older people is a priority for Europe today. Regarding the situation of European countries in terms of social services, there are similarities between countries such as the fight against social exclusion, but also marked differences in the cultural, historical, and economic. One important thing is whether countries can learn from each other on the social services system.

**Keywords:** aging population, spending, social security, social services, elderly.

**J.E.L. classification:** M14, M19

## 1. Introduction

Two recognized demographic trends have important consequences for social services in different countries: decreasing birth rate and aging population. The first is important in terms of impact on the number of adult children taking care of their elderly parents, and the second, the profound demographic changes and the evolution of attitudes on family solidarity. The effects are important in increasing demands for social services for people age. The general trend that is observed in the projections made in the

medium and long term indicates that the population over 65 years will have a bigger role in the overall population in both Eastern and Western Europe. So if now in the east side of the Old Continent about one in seven people has over 65 years over 27 years, by 2040, this ratio will be about one to four people.

Regarding the percentage of population over 65 years compared to the total population, it is an upward trend in the coming years in both Western Europe and Eastern Europe (figure 1).

Figure 1. Percentage of population over 65 years compared to the total population



Source: adapted from the report „An Aging World: 2008 - International Population Reports - Issued” June 2009, pag.11.

In Romania we can speak of a similar situation, and this time the percentage of people over 65 years compared to the total population is less than the percentage recorded in the Eastern Europe, but low compared to Western Europe (table 1).

Table 1. Percentage of people over 65 years compared to the total population in Romania

Year	No. of people over 65 years	No. of total population	% of population older than 65 from no. of total population
2010	3194874	21431298	14.91
2009	3204225	21459959	14.93
2008	3198218	21504442	14.87

Source: *Statistical Yearbook 2011 I.N.S., p 46.*

Since 1990, Romania's population had experienced a decrease rampant per-assembly, however, combined with a change in the age negatively. What is worrying is that the projections are bleaker for our country than in Europe (table 2).

Table 2. *Projection of the elderly population in Romania between 2020 and 2060*

Year	% of population older than 65 reported at total population	Index of aging
2020	17.40%	119
2030	20.30%	156
2040	25.50%	215
2050	30.90%	262
2060	35.00%	305

Source: *Eurostat 2008, table taken from the Elderly statement in Romania*

As evident from Eurostat in 2008, Romania in 2060 could be an excessive aging country in which less than one in three people would have more than 65 years. Also in the same year, for 100 young people would return no more than 305 elderly, while the total population would be only 16.9 million inhabitants. What does this increase in the number of people over 65 mean? In the Statement of Romania elderly is stressed that the budget will be affected through the decrease of labor, while there will be required substantial funds to support this population, perhaps at the expense of other age groups. Also accelerated aging evolution involves a rethinking of pension and social security, and a reform of social protection. So, as time passes there will be required a higher number of care homes for the elderly and adequacy of services to European standards. [4].

## 2. Protection systems against the loss of elderly autonomy

Establishing protection systems against loss of autonomy is relatively recent and intervenes in most countries since the early

'80s. Precursors were Denmark, Sweden and the Netherlands. In Denmark, the law sets universal principles in the field of elderly care dates from 1949. In Sweden, the law on home help for the elderly dates back to 1964 and in the Netherlands in 1968. These countries pay back the expenses that are not included in the current health insurance. In other countries, provisions for care of the elderly occurred after 1980 and even after 1990. For example in Italy, monetary targeting disability benefits were extended to the elderly since 1984.

In England, the National Health Service Act and Community Care, passed in 1990, requires the division of responsibilities between local authorities and health systems in order to assess the needs of the elderly. In Germany it was created a compulsory insurance for addiction, in France, the first authority in the field dates back to 1997 and it was be amended gaining name l'Allocation Personalisee d'Autonomy (APA).

Denmark is the only country where social services are provided by the public sector. In Sweden, according to a study made by the Swedish Institute in 2000, it is estimated that only 10% of social services are provided by the private sector and in Germany, the private sector has the priority to provide social services. Half of long-term care recipients are people of 80 years and more. Increasing the number of people older than 80 years leads to greater services in the future and has direct consequences for these countries financial systems. Currently, long-term care is financed through public spending. It rises on average to 1, 2% of GDP in most OECD countries. Most OECD countries have developed systems to support the addiction by providing social benefits and services.

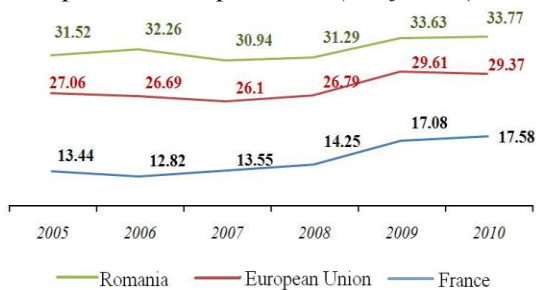
In some countries, e.g. Hungary, Japan, Sweden, Mexico there are developed only services systems and in others only monetary benefits only (Austria, Czech Republic, France).

In most OECD countries finance spending addiction are public and the private insurance has a minimal role. Exceptions are the United States and Germany, where private insurance market dependence is less than 2% of the total costs of addiction. But there are countries that support the expense of the dependent person and his family.

Despite heterogeneity dependence assurance systems in OECD in recent years there two trends: one toward a target universalism and second, funding is based on a broad base. These trends can help to find a balance between the two objectives: equitable coverage and financial sustainability [2].

To highlight the major difference that separates Romania from other countries, we report the data of our country to the European average and budget figures for France, the country with the highest share of the money provided for social protection. In figure 2, the data were generally surprised by the inclusion of all age groups.

Figure 2. The dynamics of social protection expenditure (% of GDP)



Source: Eurostat statistics

What is observed is that the French allocated in percentage terms twice the budget Romania allocated for social services. However, it can be seen that the evolution of our country is on an upward trend, at least in the time frame 2005 - 2010 budget increasing by 24% (in France increased in the same period was only 6.70%, while the European Union 7.90%).

### 3. Spending on care for the elderly

Older people need long-term care, which is a challenge both in terms of financing and adjustment to offer services, particularly regarding the institutionalization for long-term care. Long term care (soin of longue hard) involves all the activities related to the human body. For example in Germany are considered dependent those who because of a disability or physical or mental illness, need long-term care for a period of at least six months, requiring help in fulfilling current acts in life. According to a study made by the National Council for the Elderly in 2011, the governments of most Member States are involved in the provision and financing of

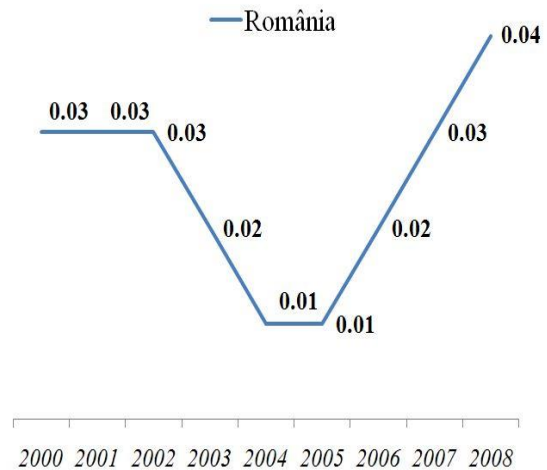
long term nurtured, or both, although the nature or degree of stretching of this involvement varies significantly between Member States.

In the future, the demand from the public for formal services is likely to increase substantially. An aging population will exert strong pressure to increase public expenditure on long term care. This is due to the fragility and risk of disability, advanced age specific, especially for the very elderly (80 years and over). It is expected to increase the number of elderly people who need care because increased longevity will lead to expansion of the number and proportion of elderly.

In the estimations made regarding long term care expenses, is important to note the degree to which each Member State counts on providing informal care for elderly, which is not reflected in public expenditures. Some Member States rely heavily on informal long-term care and therefore their spending with formal long-term care are appropriately small, while other Member States provide public services widescreen for elderly and significant proportions of GDP are allocated to support their policies. Pressures to increase public spending to finance many long-term care services can increase substantially in the coming decades, especially in countries where long-term care is currently provided informal. [6]

As in the previous case, our country is one upward trend from 2005 to 2008, but the percentages are very low - only 0.01% in 2005 and 0.04% in 2008 (figure 3).

Figure 3. Dynamics spending on elderly care in Romania between 2000 and 2008



Source: Eurostat statistics

The gap that separates Romania and EU average and Sweden (State granting the highest percentage of GDP spending for elderly care) is very high.

Table 3. Elderly care expenses (% of GDP).

Country/ Region	2003	2004	2005	2006	2007	2008
Romania	0.02%	0.01%	0.01%	0.02%	0.03%	0.04%
European Union	0.47%	0.49%	0.48%	0.46%	0.41%	0.41%
Sweden	2.55%	2.44%	2.37%	2.35%	2.25%	2.33%

Source: Eurostat statistics

#### 4. Conclusions

Family role remains very important in elderly care in Europe, representing 75-80% of total care. Northern European countries tend to establish national solidarity, the continental and southern Europe, work and family solidarity. Other countries such as France, Germany, Belgium, Luxembourg, and Austria have added a new source of funding for addiction "fifth risk". By contrast, Italy, Spain did not propose such a solution unless there isn't any family help for the elderly. Instead, the emphasis throughout Europe increased reliance on local community support [1].

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**Section II**  
**Business Economy and Administration**

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**Subsection 2**  
**Marketing – Management**

# Vegetable Distribution and Marketing, Productivity Indicators

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## Abstract

*In recent years, the productivity of agri-food sector rebounded in actuality due to global challenges caused by increasing food demand. Interest in this topic is marked mainly by higher prices of food products due to lower agricultural productivity, cited as one of the causes of the crisis in the long term, [1] and the need to increase productivity considered to be one of long-term solutions to the crisis [2]. Even in European Union countries, the productivity of agriculture and processing sector was again a topic of interest in light of several recent phenomena such as rising agricultural prices and their volatility, markets fragmentation and a significant decrease in consumer income impact on the current economic crisis. This paper presents several indicators of productivity in distribution and processing vegetable sector and the results suggest a very concentrated retail chain while the processing sector is doing progress amid a still weak organization of production.*

**Key words:** distribution, marketing, indicators, vegetable

**J.E.L. Classification:** Q13

## 1. Introduction

Recent studies [3], [4], present a complete picture regarding the impact of globalization on small producers in developing countries and countries in transition such as those of Central and Eastern Europe [5]. These studies highlight the importance of market imperfections both in the production and marketing supply chain and in the agricultural input markets level, hindering farmers' access to modern marketing networks and retail chains.

The main distribution channels and marketing of vegetables are the modern retail

chains and traditional specialized shops or traditional local markets. The current share between modern retail chains and traditional shops is 70/30, modern marketing chains dominating urban areas and almost entirely lacking in rural areas.

This trend is similar to the EU countries, where modern stores make up 80% of the market, this trend being constant in recent years. Modern retail chains are the main vegetables marketing targets for the large Romanian producers and the main focus of all distribution channels and marketing strategies in the fruit and vegetables sector. Very few modern retail chains import directly vegetables, most of them doing their vegetable procurement activities through large importers and distributors. Among the advantages of using a large importer or distributor are: lower administration costs, bilateral policies regarding pricing, the best moments when reductions are granted, flexibility in planning and implementing promotions.

## 2. Data collection and methodology

Increasing agricultural productivity and productivity gap recovery compared with the European Union food chains are important objectives of the Common Agricultural Policy. Increasing agricultural productivity is a complex issue, being dependent on the agricultural sector policies and the general macroeconomic framework, prices policies, revenue policies, social policies, fiscal, commercial policies. Specifically, agricultural productivity growth is driven by increasing land and labor productivity but requires a more complex analysis of the productivity of capital and other agricultural inputs, including the rate of adoption of new technologies.

The objective of the paper is the evaluation of vegetable supply chain (at the distribution and marketing level) from the

perspective of Romania's recovery productivity gaps from other European Union countries.

The objective is generously if we take into consideration the vegetable supply chain characteristics namely supply atomicity and demand, seasonality, and an unorganized marketing system; at the same time, demand for vegetable products is ongoing, while demand is seasonal. The main distribution and marketing indicators used are:

In the distribution sector:

- Share of vegetables sales on the main marketing channels
- The share of sales through modern retail chains and traditional stores
- The main marketing costs: logistics costs, operational costs (discounts, bonuses).

**In the processing sector, the main indicators used are:**

- Processing capacity
- Coverage degree of processing capacity
- The labor productivity in vegetables and fruits processing companies.

The data is obtained following interviews with industry's representatives, including case studies with producers groups from several counties in 2011 and 2012 but also data from the National Institute of Statistics and Food and Agriculture Organization.

### 3. Results and discussion

The results of this research are based on case studies and interviews with representatives of retail chains, processing companies and producers groups who provided mainly quality data.

According the modern retail chains representatives, distribution usually is made through modern retail chains who in turn supply themselves through importers or middleman.

Importers typically perform tasks such as importing, sorting, delivery and distribution to the point of contact of the modern retail chains. All these operations are carrying costs, and are typically borne by exporters and importers / distributors:

- Logistics costs: about 12% of the imported product;
- Operating costs: 3-6%;
- Profit margin: minimum 15%

The final cost is about 31% of the price of the import price.

Regarding costs of modern retail chains they are primarily:

- Financial costs (fees) ;
- operating costs (discounts, bonuses).

Main taxes collected by modern retailers are:

- fee for supplier placement;
- product placement fee;
- shelf fee: 10-15%;
- product promotion fee in the modern retail chains.

Sometimes modern retail chains may waive some of these fees and replace them with additional discounts calculated as a % of product price. The main types of cuts are:

- general price reductions which may vary between 5-10%
- a discount coupon of 2-10 %
- marketing reductions of 9-17 % from the monthly or quarterly invoice supplier
- logistics discounts of 1-4 %.

Bonuses are paid by suppliers as a percentage of sales in the contact points of modern retail chains, namely:

- Unconditional bonuses: paid even if the target sale is not reached between 1-2 %
- Conditional bonuses: paid only if the target sale is reached 1-3 %.

According to professional organizations in the sector, 70% of activity in the sector are subject to tax evasion (forgery of vegetable producers certificates or obtained illegally, no cash registers, no bills provided by intermediaries and importers).

Between 15-20% of local vegetable production is sold through modern retail chains, while the remaining production is sold through traditional marketing channels. According to the industry trade association, usually small sized intermediaries are operating within traditional markets often without documents, or documents stating quantities much lower than those sold in reality.

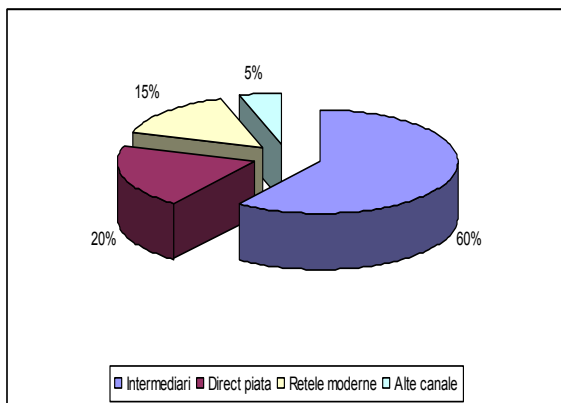
Tax evasion is present not only on domestic market but also on imports market caused by the failure of the market structure and especially the existence of a non-unitary legislation (unitary taxation). According to the same sources as long as the share of imports remains dominant, tax evasion in this segment comes either from fake traders or from invoices in which are declared prices and quantities much smaller than in reality often found on imports from Turkey but not only. In the case of imports from the EU, the

mechanism is simple: the immediate resale of production which prevents any uncomfortable control and ensures a quick sale to the final consumer. In this context, medium and large vegetable producers are lobbying for the introduction of several measures to support fair practices in the fruit and vegetables sector, including:

- the introduction of a uniform law for all chain segments including small producers
- facilitating direct access to major retail chains
- separation of the Romanian products from imported products at the endpoints sale
- close monitoring of wholesale markets for checking trucks at the entry and exit for an inspection covering the correlation between actual and reported amounts/quantities imported.

According to supply chain representatives, vegetables are mainly sold through intermediaries (60%), directly on the market (20%), modern retail chains (15%), and other channels (5%). The main marketing channels of vegetables are presented in the following figure:

*Figure 1: The main marketing channels vegetables*



Source: Own estimates based on interviews with chain representatives

Vegetables sector and mainly the marketing chain are extremely fragmented. In general, producer groups are made up of individual producers or more individual producers and one or more farms with legal status. From case studies and interviews held with producers groups representatives it can be appreciated that in the short term the number of individual producers will reduce and the share of large vegetable farms with legal status will increase. Regarding the

support they receive through Common Market Organization, producer groups in Romania do not appreciate sufficiently the support, i.e. not receiving adequate subsidies; however the main problem the producers and organization groups have to face remains the sale.

Marketing is a problem because the storage is difficult and insufficient to cover the needs. Post harvest storage is made currently in 379 storages with a total capacity of 233 000 tones, serving 32 counties. This capacity should be increased by about 130 000 tones. Last year 17 new warehouses for vegetables and fruit were build and 155 seed storages for input consumption.

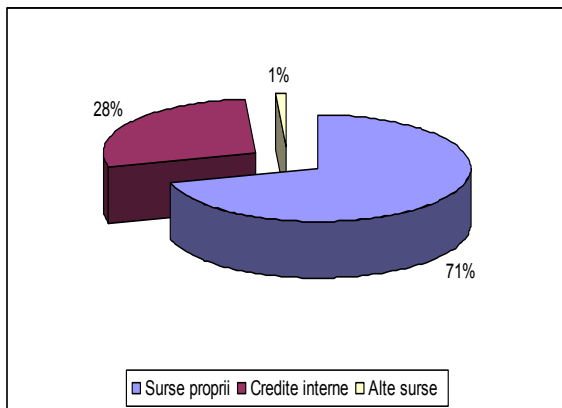
Therefore, it is necessary to build greenhouses and cold storage to afford a stable production and specialized investment that could be achieved by participating in various forms of collective organization. Small vegetable producers feel threatened by the large retail chains and the massive imports. On the one hand, the large retail chains refuse to buy products at a fair price, and on the other hand, imports compete unfairly domestic production. Basically they can not benefit from the opportunity to sell through retail chains because on the one hand, due to their poor organization and high transaction costs and on the other hand due to uncontrolled imports, while the number of modern retail chains has grown very rapidly.

#### **Analysis of productivity indicators in the vegetable processing sector**

An important part of the production is destined for processing in general if the farmer has a contract with the processing company. The total capacity for processing fruits and vegetables is about 237 107 tons / year. Most of the processing units have implemented the HACCP system which allows them access to the EU market and international markets. Thus, approximately 60 % of the canned fruit and vegetables are intended for retail chain in Romania and for other EU and non -EU member states such as Israel, Canada and the USA. Over 100 million RON were invested in infrastructure, equipment and technology in the processing sector in the past three years according to industry representatives. Investments were made mainly from own sources and domestic loans (Figure 6).

Despite the flow of domestic and foreign private capital, the quantity processed is very low. Some plants prefer to bring processing tomato pasta from China, which is not sufficiently checked in terms of quality.

Figure 2: Structure of investments types in processing vegetable fruit plants



Source: NIS, Results and performance of enterprises in commerce and industry, 2012

According to National Institute of Statistics in 2000, there were around 450 companies in the industry of fruit and vegetables. In 2008, there were 210 processing companies, but their number dropped to 202 in 2010; among processing companies, some have been recognized as first processing factories, respectively 26 units, 25 units in 2009, and in 2011, 23 units have been recognized as first processing companies. Their average number of employees decreased from 3316 people in 2008 to 2961 employees in 2010, 73% of these plants having between 0-9 employees. In 2012 their number continued to decline reaching 191 companies with an average number of employees of 3284. Approximately 80% of current productions capacities have been upgraded through both own equity and SAPARD and RDP funds. An important support for the development of this industry came from the state in 2007-2009, when raw materials for processing was subsidized, which stimulated the production of vegetables and fruits. Generally, the processing plants prefer the raw material from the country, the reasons being related to the need for freshness and quality of domestic production. Out of a vegetable production of 3.864 million tons, 100

thousand tons (or 2.6 %) is for processing. Usually, farmers deliver directly to these industries, without intermediaries and traders. Canned production is also very variable, as the much better prices offered for fresh fruits and vegetables, made producers to focus on harnessing fresh production considered more profitable, ignoring contracts with processing plants.

The main players in the market in 2011 after turnover were: SC Star Foods, SC Tymbark Maspex Romania SRL, Intersnack Romania SRL, SC Alka Prod Ltd Contec Foods. This hierarchy is totally different from the 2000s when major firms in the market were Parmalat, Radacini Com, Flipper, Horticons and Conserv Buftea. Also, the degree of concentration has decreased from 91 % cumulative in total turnover of the top 20 in 2000 from 80 % in 2007 to 76.69 % in 2011. Yet, for the first 5 companies the concentration degree remains high, i.e. 55 % in 2010 but with a downward trend in 2011, of 41%. Regarding the labor productivity, this represents 250 thousand lei/ employee in 2011.

Despite significant investments in processing plants, these are faced with several problems:

- lack of adequate raw material supplied timely and safely;
- Insufficient percentage assurance of raw materials; eg for vegetables is 60 % in summer and 15 % in winter, and supplies record high fluctuations due to the high volatility of production amid very sharp climate changes.

For tomatoes, the largest share of domestic consumption is represented by human consumption (63%). The tomatoes quantity meant for processing increased in 2009 by 20.5 % year to year, trend recorded also in 2010 and 2011. Yet in 2012 processing factories faced again with the lack of raw materials and supplies were 40 % lower. It is therefore necessary the participation of processing factories at producing their own raw material, in order to ensure that it is available on time, in a adequate quantity and quality. Field studies in 2010 and 2011 confirm this trend of processing companies to establish or takeover farms in order to supply their own raw material consumption by up to 80%. Analyzing decomposition of turnover of

processing firms, one can note that only 0.18% of total turnover comes from agriculture; however, lately there has been a significant trend in processing plants involved in the production of their raw materials or in the acquisition of vegetable farms or in farm integration. Regarding the evolution of processed tomato production, in the table below the tomato production is presented; Italy is by far the largest producer of processed tomato followed by Spain and Portugal. Romania records the highest variation of processed tomatoes but also it records the smallest quantities of produced tomatoes (table 2).

*Table 2: Tomato Processed at EU level (1000 tones)*

	Average 2007-2011	Variation 2012vs 07-2011	Variation 2012/201 1
Italy	5.111,80	-9%	-5%
Spain	2.114,50	-8%	-3%
Greece	611,7	-36%	20%
Portugal	1.127,80	6%	12%
France	164,50	17%	0%
Romania	6.5	-40%	-25%
Poland	165,7	0%	-21%

Source: Food and Agriculture Organization database

#### 4. Conclusions

Retail sector has become highly concentrated both in Europe and in Romania, and therefore the entrance into the modern acquisition system of retail chains or processing companies involves some very specific activities: a) compliance with the requirements of food safety and product quality; b) the need to provide products with higher added value such as (pre-packed vegetables or pre - cut); c) wide range and available all year round; d) the need to shorten the supply chain to improve the control of commercial transactions; e) developing capacity to use information technology to optimize management activities within coordinated supply chain or vertically integrated companies. All these requirements lead to the need for new investments in small farms which are very difficult to be made individually. In most

cases, farmers do not have the knowledge and financial capital necessary to make investments in equipment and logistics needed to fulfill these conditions. Therefore, low productivity per branch derives from the inability of farmers to organize themselves in order to market and insufficient investment in new equipment and technology including information technology.

This sector lacked a coherent strategy in the period 2000-2007, being characterized by the diminution of the capacity to face the market competition. At the same time, as a result of Romania's joining the EU, its competitors from the EU both in the production and processing sector have entered into the Romanian market; in case the Romanian vegetable sector is not able to get reorganized and benefit from the established intervention measures and the new Rural Development Program 2014-2020, it will not be able to face the strong competition coming from the Single Market and not only.

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## Management by Objectives

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### Abstract

*A good manager presupposes a practical spirit, having well-defined purposes, a good coordinator, with a good orientation towards novelty and the knowledge of company's objectives. A good manager must prove competences related to: communication, team work, to carry on strategic and intercultural actions. The manager is in fact a leader, a good mentor for the people around, a person who can be followed, a leader who watches from the edge, drawing people's attention on the processes and objectives that must be implemented within the organisation he/she leads.*

**Key words:** management, MBO<sup>1</sup>, objectives, strategies.

**J.E.L. Classification:** M190

### 1. Introduction

The effort that must be submitted by the people found in front of an adaptive challenge is simply called adaptive effort. The adaptive effort is that which brings the organizational or systematic learning imposed by the approach of some difficult problems. These problems often need the change of the value system, the formation of new practices, the review of priorities. For the adaptive effort, the manager claims the attraction of various components of the system for the resolution of conflicts from their value and priority system and the reconfiguration of these systems, so as to resist to the threats and to fructify the opportunities [1].

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<sup>1</sup>Management by Objectives

### 2. Management as science

The management represents a component of the management science, also known under the market economic conditions.

The company is the basic economic agent of each economy, the value generating principle, having usage value, within which the majority of the employed population of each country carries on its activity, regardless its development level, resulting in a multiple involvement from the economic, social, demographical point of view, from the perspective of company management's policy.

The first crystallizations of the management science had as object the company, the enterprise, any form of organisations, which further manifested as one of the most fertile soils of the innovation from the management's theory and practise point of view, with the direct and immediate contribution of a great number of persons.

The position held by the company management within the management science, the interdependences with its other components reflect in its double character. First of all, it is a synthesis economics discipline. Its economic character derives from its mission, namely from the increase of economic efficiency, from the economic optics within which it approaches the problems it faces, from the considerable weight that the economic concepts and methods have within it, from the economic nature of the companies over which it exercises.

Company management has a multidisciplinary characteristic, determined by the integration within it of a series of sociological, mathematical, psychological, statistical, judicial, etc. categories and methods, using them in a specific way, of the particularities of the management relationships [2].

According to the company's type and the managerial activity, its organisational structure can be divided in fields of the managerial specialisation: finance, operations (production), marketing, human resources and administration. This division characterises especially the large companies. According to its purpose and mission, an organisation may also include other fields, such as: research and development.

The financial managers – whose main responsibility is represented by the financial resources of the company.

The accounting and the investments are specialisation fields within the financial management.

The operational managers are those who create and lead the systems, who transform the resources in goods and services. Even if traditionally the operational management was associated to the production of goods, it is also used related to services and to a great variety of non-business activities.

The marketing managers are responsible of the facilitation of product exchange between the organisation and its buyers or customers. The specific fields within marketing are the marketing research, the advertising, the promotion, sales and supply, etc.

The human resources managers are persons charged with the formal leading and management of the human resources of the organisation. They are engaged in the planning of human resources, in the development and increase of employees' performances; they make sure that the organisation observes the governmental regulations related to the employment practices, etc.

The administrative managers, an administrative manager (also called general manager) is not associated to a specific functional field, dealing with the global administrative direction or with the leadership.

A hospital administrator is a good example of administrative manager, being not specialised in operations, finance, marketing or human resources management, but he/she coordinates the activities of specialised managers in all these fields. In many respects, the majority of superior

managers are in fact administrative managers [3].

### 3. Management by objectives

The MBO process includes three of the most important phases:

- Setting the objectives and the necessary actions for their fulfilment, representing, in its turn, a complex process with more phases. The sense of running through these phases is from top to bottom, starting from the strategic objectives of the entire organisation and going up to the individual objectives of the operational workers. But both the directly superior managers of the respective entities and the persons responsible of the activity carried on at the level of those entities participate to the determination of objectives of the various organisational entities of the company.
- The implementation of the actions provided and the automatic control of the fulfilment of the objectives. During the performance of the proposed actions, the employees have the possibility to permanently assess the progresses achieved, in order to reach the objectives established by common agreement with their superiors, initiating, if necessary, correlative actions within the limit of their decision-making competencies.
- The periodic examination of the individual performances and the evaluation of the subordinates by the superiors presuppose the measurement of the individual results, their comparison to the established objectives, the evaluation, on this basis, of the subordinates, their appropriate support and reward. The operation of evaluating the individual performance can be made jointly, by the manager and the subordinate. After this phase, when it is necessary, the process is resumed from the first stage, by the reformulation of the necessary



objectives and actions. The feedback performed offers the MBO process a continuity character. [4].

Each manager, starting from the general manager up to the master and the team worker, need precise objectives. These objectives should refer to what must be achieved by each unit under the subordination of a manager. They should refer to what a manager and its unit have to do in order to help other units to reach their objectives. Finally, they should refer to what the manager could ask from other units to reach their objectives. In other words, the focus should lay since the beginning on the team work and on the team's results.

These objectives should always derive from the objectives of the lucrative business. I have acknowledged that, within a company, it is more practical and more efficient to be offered even to a master a detailed presentation, not only of his/her objectives, but also of the company and of the production department. Even if the company is so large so that the distance between the production achieved by the master and the global production of the company is an astronomic one, this endeavour contributed to the significant increase of production. In fact, this is how it has to happen if we are convinced that the master is also a smaller manager, also having an executive function within a pyramid. The manager undertakes his/her full responsibility by all that he/she makes.

The objectives of each manager should refer to his/her contribution to reaching the objectives of the company, in all its fields of activity. Evidently, not all managers have the same contribution to the development and efficiency measures of a company. Managers must understand that the company's results depend on the ratio between the efforts and the results of a series of fields. This is necessary both to offer full possibilities for the improvement of the competency of each position and specialty, and to prevent the power seizure and the occurrence of envy from the various positions and specialties.

So as the efforts be balanced, the objectives of all managers from all levels and from all fields must also take into account the long and short term considerations. Of course, all the objectives must include both the tangible objectives of the business, as

well as the intangible objectives, such as the development of managers, the efficiency of the workers, their attitude and the social responsibility [5].

The purpose of each economic activity is the profit. The profit is an important tool in measuring the management activity. The more correct is the business mission and the better it is fulfilled, the bigger the profit. One of the most difficult tasks of the strategic management is to obtain a positive correlation between the mission of the organisation and the profit orientation.

The profit offers two key pieces of information, namely if the company makes what it must – this is the business effectiveness – and if the company makes well what it makes – this is business efficiency. A good strategy or a good management depend on the extent to which they create values, on the degree in which these values allow the obtainment of a competitive advantage and by the fact if the business is well managed at an operational level [6].

The organisations can have more objectives, but normally only one or two are dominant. The organisations oriented towards profit try to maximize the value held by the shareholders. This can be determined by the annual mean profit increase during the last operation period. Other important objectives are the business' or company's survival and the determination of its revenues.

An organisation is a successful one when it offers products having a higher value than the competition to the consumers. In order to fulfil this objective, the organisation must acquire information on the purchase intentions of the consumers, the price they are disposed to pay, the characteristics they are searching to the products requested, etc. The determination of these characteristics on the market helps the company to identify the opportunities and to fructify them.

Even if the identification of the products and opportunities on the market is important, the success requires that the organisation be able to develop these opportunities. An important step in the creation of a strategy for an organisation consists of the determination of its strong and weak points compared to the competitors.

The consumers take into account many factors when they are buying a product, namely the price, the quality, the usefulness, the availability and promptitude of the delivery. It is difficult for a company to be superior related to all the competitive dimensions targeted by the consumers, offering, for example, the lowest price, the best quality and the highest innovation degree. As a result, a successful company focuses on some competitive dimensions, and the others shall be achieved appropriately, compared to the competition's offer. The organisations which do not aim at creating and developing the competitive advantages waste their resources and cannot excel by something special compared to the competition and thus, they cannot be successful.

The management of an organisation must take into account the fact that the company's mission, namely where it wants to reach and the general strategy of the organisation, which indicates the way in which it can arrive there. The mission sets the reason of one's company existence. Once the mission of an organisation is defined, each position of the company must support it. [7].

#### 4. Conclusions

The manager is one of the key persons of the respective institution, but he/she cannot manage if he/she is not surrounded by a team of well-trained managers, good organisers and also endowed with a decision-making spirit. The manager is responsible of the team formation activity.

The abilities of a manager contribute the business development, to the design and development of some products, to the presentation mode of the product on the market, to the evaluation of the employees' performances and, last but not least, to the management of the financial resources.

In order that a business develop and have profit, the manager, or those dealing with it must institute control, assessment and financial forecast means.

During the last decades, spectacular progresses were marked at the level of the management process. Theoretically, the expression of these progresses is represented by the shaping of company's planning.

Operationally, the efficiency measures expression represents the forecast of the activity of an organisation.

In order to ensure an efficient coordination, it is essential to have an appropriate communication between all the levels of the management within the organisation, by the transmission of information and the full perception of the messages enclosed. The efficiency measures reflect on the quality of the management, by the realism of the objectives, the training level of the managers, the management style, as well as by the efficiency measures at the level of the workers, which can be found in their general training level and in the respective field, in the interest in the resolution of the problems involved, the receptivity to new things, flexibility, adaptability and creativity.

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# An Overview of Different Approaches on Human Resources Management Practices within Organizations

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## Abstract

*Human resources management practices have evolved in time. Such an evolution was analyzed and even predicted by different specialized studies.*

*Several approaches on human resources management practices within organizations have been identified. This article intends to examine resources based view approach, the strategic one and the approach that link specific practices with the organizational performance.*

*Such an analysis could provide a better understanding of human resources management practice within organization and establish new directions for research in this particular field.*

**Key words:** human resources management practices, resources based view approach, strategic approach, organizational performance

**J.E.L. Classification:** M12, M50

## 1. Introduction

Human resources have become the most valuable assets within organizations. Therefore, the specific practices have constantly developed, reflecting various approaches. Different studies analyzed these practices and their impact over the organizational performances.

An overview of such approaches proves to be useful in order to point out the main issues, particularities and further research directions.

This paper discusses the following aspects. The resources based view approach on human resources management practice that has as the central idea the fact that the competitive advantage of an organization should be developed based on such resources

and their specific combinations. The strategic approach places the human resources on the top of organizational assets. New practices regarding human resources management field should be developed in order to improve the organizational performances. Therefore, such a correlation has to be closely analyzed and could indicate further research directions.

## 2. The resources based approach

The main idea of this approach considers the competitive advantage of an organization is generated by its human resources and the specific methods used to develop, combine and efficiently use. Therefore, the competition has a difficult task of replicate them.

Specialized literature has argued over this approach. There are some specialists that appreciated that human resources management practices could not represent a source of competitive advantage, being easy to replicate by the competition [1]. A distinction was made between the human resources (human capital stock) and the specific practices (the specific ways to manage the human capital). This human capital could create a competitive advantage for an organization, when there is will to value a high level of competence.

Other specialists [2] appreciated that human resources practices can be seen as a complex system that generates the competitive advantage. Such a complex system is difficult or event impossible to be replicated by the competitors.

This idea has been developed by other researchers. Thus, the competitive advantage of an organization in term of human resources could be analyzed based on two elements [3]:

- organization's potential to attract, retain and develop skilled and committed personnel;

- the development of personnel and work teams in a manner that enables the adjustment to the evolution of organization's activities.

Human resources management practices are viewed as a system that evolved in time, keeping the specific connections between elements that could not be easily replicated by the competitors [4]. Such systems regroup the means that a company relies upon in order to continuously generate competitive advantage even if the personnel is changing, the overall strategy is reshaped or the its environment transforms.

The favourable opinions for resources based view are considered to be more accurate. Thus, the human capital of an organization expressed in skills and efficient behaviours cannot be transformed into a competitive advantage in absence of a specific system represented by a well defined set of practices.

Even if such a system could be replicated by the competition, the period of time needed for such a system to become active is too long in order to represent a real threat for an organization.

### 3. Strategic approach

The resources based view approach has led to a new one, the strategic approach on human resources management practices.

Such approach was presented in the specialized literature mainly by the roles played by the human resources management professionals. They developed different roles according to this approach. Such roles cover a wide range of orientations starting from the administrative expert one, that express the traditional approach on human resources field to the strategic partner one. Such a role points out the contribution of these professionals to establishment and implementation of organization's strategy.

This approach presented as a necessity by the majority of specialists seems to be often infirmed by the reality.

Thus, the results of a study undergone in Belgian companies in 2002 have pointed out some issues that minimise the importance of such an approach [5]:

- a reduced percentage (11%) of companies' objectives were established by the involvement of human resources

specialists;

- these objectives were considered to be of low importance for those companies.

Another study undertaken on Spanish companies highlighted the fact that the other roles such as administrative expert, employee's representative or change agent were more present than the strategic partner one [6].

Furthermore, a study regarding the time used by the human resources management specialists assigned for different activities associated with the above mentioned roles revealed that prevails those activities of administrative nature [7].

Even if there are numerous studies that indicate such a contradiction between theory and practice regarding the strategic approach, some specialists consider that such a situation is explicable [8]. This approach is relatively new and its evolution should be studied for a longer period of time, considering also the national context of this analysis and the evolution of human resources management practices.

Some studies have revealed that in different countries the strategic approach seems to gain a higher position. In this direction, it is relevant to present the results of a study undertaken in French companies. France is recognized for its bureaucratic management system.

This study has identified the following categories of companies [9]:

- administrative oriented companies – it is specific to small companies where the development of human resources management practice is reduced;
- strategic oriented companies – in this category are include the medium and large companies from commerce, service and finance sectors. The human resources management practices are more developed and sophisticated;
- companies with combined orientation – they use both strategic and administrative practices.

Beyond the establishment of these categories the study that covered the period 1995-2005, has revealed an increase of strategic oriented group of companies:

- administrative oriented companies – 25,68% (1995)/15,3% (2005);
- strategic oriented companies – 29,94%

(1995)/41,27% (2005);

- companies with combined orientation – 44,39% (1995)/43,35%(2005).

The results prove that the hypothesis that sustain a differentiation of context and sector of activity when the strategic approach is studied sustain itself, along with the one regarding the period of time used in analysis.

#### **4. The correlation between human resources management practices and organizational performance**

The strategic approach above mentioned reveals different practices in human resources management that can determine the improvement of organization's level of performance.

The development of innovative human resources management practices lead to the improvement of specific aspects such as employee's turnover, early identification and proper settlement of employees problems, reduction of recruitment and selection costs. Thus, the organizational performance could be improved.

A higher level of involvement of the employees in the decisional process positively influences the organization's performance.

The correlation between the human resources management practices and organizational performance is based on the idea that the recruitment, selection, training activities etc. lead to an improvement of work efficiency, a cost reduction and therefore an increased performance.

Specialised literature has established a set of specific practices (best practices) that could improve the level of performance. One single issue was not clarified yet, whether such practices determine an increasing of performance in every company, activity sector or national context..

The correlation between specific practices and organizational performance could be better understood by presenting the results of a study based the findings of ECS 2009 (European Company Survey) [10]

This study has considered the following innovative human resources management practices:

- systems of organizing the work time –part time, possibility to compensate the overtime etc;

- financial incentives – system of payment correlated with the performance, profit sharing, share options;
- autonomous teams – the teams where the employees decide what task are to be accomplished and assume the responsibilities for them;
- personnel training;
- employees consultation – the involvement of employees representatives in the improvement of performance level, in decision making process, organizational change processes etc.

As performance indicators were used:

- work climate;
- the lack of problems concerning human resources field;
- work productivity;
- company's financial situation.

The results revealed an important influence of employee's consultation upon the work climate and the absence of problems associated with human resources domain.

In the mean time a positive impact was registered in case of training practices upon company's productivity.

Performance based payment positively influence on work productivity and general financial situation of the organization.

Autonomous teams have determined an improvement of work climate and productivity.

Only the flexible working time systems have no significant influence over the performance indicators considered in the study.

Innovative human resources management practices have a positive impact on performance indicators. An increased productivity at company level and a higher performance level could no longer be considered the exclusive results of increased investments or the use of developed technologies. Such practices became vital for a company in order to face the challenges brought by a more competitive environment.

#### **5. Conclusions**

Reviewing these approaches on human resources management practices and their implication, mainly on organizational performance several conclusions can be

drawn.

The resources based view approached brought into discussion of specialist some complex issues, generating different positions regarding the importance of human resources management practices and their implications on the company's competitive advantage.

The most sustainable idea that arises from this debate is the one the system of human resources management practice can ensure a solid competitive advantage for an organization.

This approach previews the strategic one that discusses the importance of specific practices and the roles played by the human resources professional.

The strategic approach generated some controversy between theory and practice. The results of the specialised studies discussed in this paper lead to the conclusions that such an approach is a new one that need time to consolidate. It is also different according to each country and activity sector.

The strategic approach reveals different practices in human resources management that can determine the improvement of organization's level of performance.

Innovative human resources management practices have a positive impact on performance indicators. Such practices became important for an organization in order to face the challenges brought by a more competitive environment.

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# An Inquiry on How Intelligent Systems (I.S.) Solutions can Influence Consumer Behavior

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## Abstract

*The aim of this paper refers to the potential connection between Business Intelligence (B.I.) solutions considered as an Intelligent Solution (I.S.) used in the modern marketing activities and Customer Relationship Management (CRM) solutions, „working together” on influencing the consumer behaviour. We study the effect on how the consumer behaviour is influenced by the new marketing 3.0 strategies by using B.I. solutions and compare the results with other similar studies carried out by other researchers.*

*The authors will explain how a Business Intelligence solution becomes a method of innovation when used together with Customer Relationship Management solutions and explain how we can improve the economic environment based on the results we obtain.*

**Key words:** Customer Relationship Management (CRM), Business Intelligence (B.I.), marketing 3.0, consumer behaviour, Intelligent Solutions (I.S.)

**J.E.L. Classification:** A10, D03, D11, F60, I31, L91, M30, Q56

## 1. Introduction

Any type of business, company or organization that registers a business volume that can no longer be managed only by using the human work force is in a position to implement a computerized management

system of critical activities: financial or accounting activities - usually the first computerized resources management (ERP - Enterprise Resource Planning), customer relationship management (CRM - Customer Relationship Management) are some of the most common systems used by the various organizations at the present time and they are part of a set of Intelligent Systems (I.S.) that are meant to influence the consumer behaviour and its decisions.

Many organizations / companies have great hopes for the promised results that ERP, IS or CRM hope to bring them but the success of such systems does not prove sufficient. Implementation of IS, ERP or CRM systems are only one step to improve the results of a company, that's why we need other intelligent systems to complete all the tasks that other systems cannot perform.

IS, ERP or CRM systems were basically designed to systematically collect data generated from operations, and order / store them.

Although, these systems allow data access by generating various reports and statements, but they are limited and usually only available to those responsible for managing these systems.

The development of these features is as complex as the problems encountered by the development of operational systems such as Business Intelligence (BI) solutions. Most times ERP or CRM systems prefer partnerships with other solution providers to enrich the range of functionality offered.

B.I. solutions as an integrated part of I.S. experienced an unprecedented development

in the last decade and companies all over the world started to use them as well to provide I.S. and have experienced a spectacular growth despite the economic downturn that affected the local, regional, national and global economies.

The functionality provided to users by BI solutions have become increasingly diverse, covering a wide range of needs, from simple tabular or graphic reports to the opportunity to follow the organization's key performance indicators in a synthetic and concise manner.

If the European and global companies want to extent their business and "survive" the pressures of the actual economic downturn, BI solutions can provide the necessary means to do so, if they are applied and used correctly. The wide range of companies that provide Business Intelligence solutions led to the decrease of costs regarding implementing and using BI in all types of companies all over the world.

## 2. Literature review

Web-based information is accessible to all companies that want to develop their business and to implement new Intelligent Solutions (I.S.) that have the meaning to improve their economic performance and most importantly to attract new consumers [4].

Business Intelligence (B.I.) software enables companies to capture and process relevant information from several databases or data sources that the company is using and provide the feedback in an easy to understand and interpret way, to employees, managers and business partners [5].

B.I. applications are already used by thousands of companies, in the European Union (E.U.) and around the world, to find new opportunities on the emerging markets, to increase revenues, reduce costs, reallocate resources and most importantly improving operational efficiency [10].

By using Business Intelligence solutions, managers have a clear view of the company, and can take decisions according to the current facts that occur daily, thus prioritizing and managing more easily the company's resources. By monitoring continuously the company's results and improving the coordination of the business,

managers can continuously improve the economic results of the company [8].

Around this concept of intelligent solutions, were launched other terms related to the analysis of economic data and consumer behaviour such as: business performance management (B.P.M.), business process management (B.P.M.), corporate performance management (C.P.M.) and business activity monitoring (B.A.M.) [10]. All of these terms are included in Business Intelligence solutions as an integrated part of Intelligent Solution (I.S.) but they depend of B.I. tools.

B.I. (Business Intelligence) provides historical, current and predictive data regarding business operations. The most common and widespread functions of B.I. solutions are reporting, OLAP, business performance management and forecasting analyzes [7].

B.I. has the ultimate goal of making better business decisions and influences the consumer's behaviour by using the most adequate marketing strategies known also as Marketing 3.0.

## 3. How do B.I. solutions influence the Consumer Behaviour by using Marketing 3.0 strategies?

Whenever the macroeconomic environment "suffers" changes, the consumer behaviour will change too which leads to changes in the traditional Marketing techniques that were applied by companies all over the world [2]. Over the past 60 years (approximately), marketing techniques that were used to influence the consumer behaviour have evolved in many forms such as Marketing 1.0 that is based on the marketing centered on to the marketing focused on consumption (Marketing 2.0). Marketing 3.0 strategies represent the stage when companies shift from focusing on the profitability to the consumer.

In the industrial era, marketing 1.0 was meant to sell products to all willing consumers wanting to buy them. Marketing 2.0 represents the fact that the value of a product is established by the consumer and not by the companies.

Marketing 3.0 represents a new era where companies are using B.I. tools to predict and anticipate the need of the consumers.



The economic activity of a company generates a "sea of data" due to the numerous tasks that have to be completed. In order to manage all the data that is gathered, companies around the world are implementing and using new up-to-date B.I. solutions that are processing the information that can be better analyzed and used to increase the profitability.

In the current business environment within the E.U., the quality and accuracy of information represents a matter of choice between profit and loss, and also a matter of survival and bankruptcy. The benefits of using Business Intelligence (B.I.) solutions are obvious if we analyze the impact that they have on companies and consumers.

Analysts from the economic area are at the present time optimistic regarding the profitability of their companies, showing that in the coming years millions of people and companies will use everyday B.I. tools. The market is already saturated in the supply of various analytical applications that can perform all kinds of analysis to support decision making at all levels.

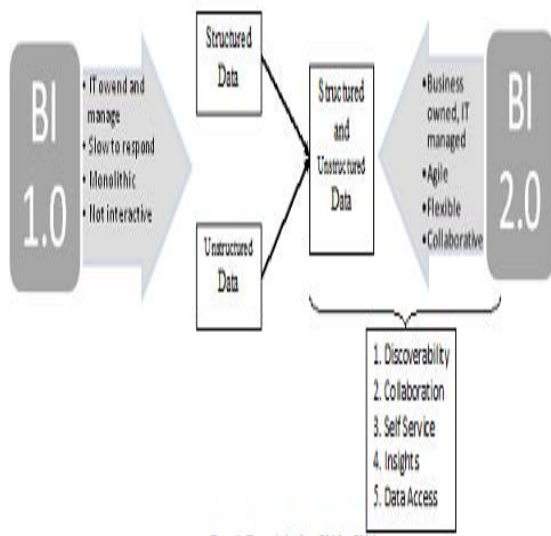


Figure 1: The evolution from B.I. 1.0 to B.I. 2.0  
Source: Proposed model by authors

As we can see in Figure 1 the transition from the old methods that were used to implement B.I. solutions are evolving into more complex tools that are used to analyzed structured and unstructured data. The importance of processing data in a more efficiently manner, represents a key factor in the relationship with consumers and most importantly, represents the key for

implementing new, intelligent and more complex methods to establish consumer behaviour.



Figure 2: Marketing 3.0 strategies  
Source: <http://www.nile7.com>

The main benefits of using B.I. 2.0 solutions and Marketing 3.0 strategies as shown in Fig. 2, that influence the consumer decision are:

- better services provided to consumers;
- increased flexibility in the decisions process
- a more flexible and collaborative way that companies and consumers interact.

The importance of using B.I. tools together with the Marketing 3.0 strategies for companies within the European Union and around the globe represents a key factor in the evolution of the actual economic environment.

Marketing 3.0 shows that the welfare of consumers and society is the next big challenge for companies. Consumers demand more from themselves and so should the companies do.

#### 4. Conclusions

The future development of Intelligent Systems (I.S.) represents the key factor for companies to survive in the actual economic environment. The use of Marketing 3.0 strategies and Business Intelligence 2.0 tools will continue to influence the consumer behaviour on what products to buy; and

companies in the way they interact with consumers and the decisions that they will take on a long term.

Undoubtedly, future research will require a close and interdisciplinary cooperation between engineers and specialists in computer science, electronics and telecommunications. The research themes remain interdisciplinary and their effectiveness in practice can be achieved only through comprehensive and systemic analysis of integrating components of their services.

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## Usage of Sales Promotion in the Tourism Activity

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### Abstract

*The article describes marketing techniques, analyzing in detail the promotion of sales and in particular group sales, price discounts and merchandising, which have not received detailed analyses in terms of applicability and effects in the field of tourism. Due to the immateriality of tourist products, the promotion hereof is rather difficult to achieve, irrespective of the manner one may choose. Each category of promotion techniques uses specific means and methods of action. Publicity helps building a favorable image of the offer and attracting prospective tourists, sales promotion stimulates the demand, and public relations sustain a continuous dialogue with the customers. Also, the seasonality of the tourist products determines an accrued attention of the marketing managers who are constantly concerned with the necessity of maintaining high demand irrespective of the daily, weekly or seasonal fluctuations.*

**Keywords:** tourism, sales promotion, group sales, price discounts, merchandising.

**Classification J.E.L:** M31.

### Introduction

The tourism activity is one of the phenomena that developed mainly after World War II, its implementation becoming possible due to several factors, such as the necessity of spending free time in a most possibly pleasant manner, and also the increase of the population's standard of living.

A complex phenomenon with multiple implications in all sectors of the national economy and also in culture, education and international relations, tourism is one of the characteristics of contemporary civilization, being at the same time the consequence of

political, economic, social-cultural and technological mutations, which have recorded the most sustained dynamics in the world's economy these last decades.[1]

### Promotional instruments

The usage of marketing techniques can help the tourist destination and /or the local tourist operator in attracting tourists and contributes to the increase of the regional and national competitiveness. All these activities must though have a solid foundation: a varied offer in terms of accommodation, food/restoration and leisure. Qualitative services, a simple signaling system, a unique image sustained by the realities of the area and an efficient management, adapted to the 21<sup>st</sup> century requirements.

*Publicity.* This is a communication technique which involves the deployment of a complex persuasive approach, for whose achievement specific instruments are used, instruments, able to cause a psychological pressure on the target public.[2] In the field of tourism, publicity aims at getting tourists familiar with tourist companies or destinations, the extension of tourist activities in the off-peak season, the penetration on a new tourist market, the introduction and launching of a new tourist product on the market, the promotion of a favorable image of the own offer, etc.

In the field of services, and especially in tourism, publicity is mostly symbolic, the stress falling on the emotional aspect and suggestive means, the imaginary playing an essential role therein. In other words, tourist publicity is aimed at making people convert into actions their dreams of exploring new places.

Within tourism, publicity communicates through message and images, being notorious that one cannot make the publicity of a tourist product without using images to synthesize the key elements of a destination.

For instance, at the Tourism Fair of Romania, of November 2013, a tourism agency would present its offer for New Year's Eve in northern Moldavia using such knowledge. Apart from exact data, they also used affective elements, considering the emotion caused to tourists upon the "meeting" with history. The tourist destination- or product-related affectiveness is hence created. Thus, the publicity message may use reasoning, using in this case the argument of low prices, high degree of comfort, qualified staff, etc., or the emotional side, the combination of the two representing the ideal.

*Public relations.* Public relations are the marketing function that assesses the attitudes of the public, identifies organizational domains which the public would be interested in and performs an activity for raising public awareness. Public relations help an organization communicate with the clients, suppliers, shareholders, governmental institutions, the employees and the company in which they carry out their activity.[3]

In tourism, their function is to raise the interest for the place of work, and also to inform, presenting all the necessary data. Public relations work in a double way, completing the publicity which sends messages thus performing a one way communication.

*The sales force.* The sales force of a company is formed of the group of persons that represent the company and whose explicit main task is to sell or to assure the selling of products or services hereof, through the direct contact with the prospective buyers, with the distributors or the prescriptors.[4]

It is essential that the sales agents be well trained. This can be easily noticed within the Tourism Exhibition. Here being present agencies of all sizes, the sales forces of the large agencies were well trained, knowing how to offer any piece of information clients needed to know, to the same category belonging also the family organizations, which are mainly motivated by the enthusiasm of working for the own business. At the opposite pole there were small unknown agencies whose sales agents were not equally well trained for answering the clients' needs.

*Direct marketing.* It represents a set of marketing concepts, techniques and instruments, forming a consumer-oriented direct, customized and interactive approach, which aims at generating a quantifiable reaction thereof (consisting in the purchase of a product or service, the request of additional information from the organization, the supply of information on the characteristics and purchase and consumption behavior thereof, the interaction with the traditional marketing and sales points of the organization) and the creation of a relational marketing platform in the long run.[5]

### **The relevance of sales promotion**

In order to manage transform a prospective client into a real buyer of the tourist product, it is not enough to use only publicity, first of all due to the fact that the time left between the message reception and the buying intention may be so large that it shall be forgotten. That is why it is necessary that publicity should be accompanied by other forms of promotion, among the most efficient being the sales promotion.

*Sales promotion.* On many occasions, in order to transform a prospective consumer into a real one, publicity is not enough and other forms of promotion are used, among these the sales promotion. Sales promotion contains a wide range of instruments (price discounts, coupons, contests, prizes, etc.) each having the own characteristics. Regarding the sales promotion in the field of tourism, it represents a set of techniques through which the tourist is stimulated in order to purchase the tourist product, and the service providers are mobilized in order to become more effective. [6]

*Sales promotion* includes a variety of instruments, coupons and contests, price discounts, prizes, etc., these having several qualities. They draw consumers' attention and facilitate information that can determine the consumer to buy the tourist product. While publicity says "buy our product", sales promotion says "buy it know". Companies use sales promotion instruments to create a faster and stronger answer. The effects of this technique are usually short-termed and are efficient only when the purpose is to build the preference of a brand in the long-run.[7]

The objective of the promotional activity is to create a demand for a product or a service and following this increase we shall consequently notice the increase of the sales volume for the off-peak products /services.

To sell a product it is necessary to: draw the attention, create the interest, create the intention and to act.[8]

When a product is sold through retailers, the marketing manager can adopt one of the two acting manners. The objective of the first method is to bring the promotion directly to the client in order to achieve brand awareness and lead to the creation of the demand which shall bring consumers into shops to buy the offered products and/or services – the pull strategy. Within the second method, sales promotion is oriented towards *merchandising* activities, which are created to encourage retailers to store products and then sell them – the push strategy.[9]

To fulfill the objectives in terms of sales promotion, we can use a variety of instruments, but they should be carefully chosen according to the type of market where we apply them, the objectives we have to fulfill, the competition we have to face, but we should also take into account the costs the usage of each instrument involves and the efficiency specific to each of them. The main instruments worth pointing out are promotional gifts, price discounts, promotional games, lottery, group sales, merchandising.

There are numerous reasons why companies chose to use sales promotion techniques. Among these mention should be made of:

- Increase of prices and confusion created by publicity – the argument according to which consumers become more and more insensitive to the publicity present in the mass-media;
- Promotional sales become worth considering – the increase of the professionalism with which they are used and their usage by the market leaders;
- Increase of impulse-based purchases – retailers use more and more the buying impulse;
- Decrease of the time horizon – due to the intensive rivalry and the acceleration of the life cycle of the product it seems short sales promotion campaigns are worth considering;

- Micro-marketing approaches – in response to the more and more fragmented markets;
- The "snow ball" effect on some markets – on the markets where the competition is prevalent, suppliers must follow the example;
- Flexibility – other elements of the mix can be difficult by comparison;
- Commensurability – since it is still difficult to measure success, in case of the sales promotion it is possible that the results shall be monitored with a rather high degree of precision.[10]

The intensification of the competition, the deepening of the economic crisis, the more and more important role the tourism agency has, the wish to stimulate the staff so that they look involved in the relation with the customers, are all factors on which the development of the sales promotion techniques was based.

Through *promotional gifts*, the buyer's or the intermediary's loyalty is stimulated, without having each time the form of financial advantages. The materialization hereof is very varied, starting from the promotional materials (ball pens, T-shirts, agendas, calendars, caps) and ending up with trips. The attractiveness of this instrument also results from the fact that anyone entering in possession of a promotional gifts realizes that it was thanks to him that he received it and not by chance, as it happens in the case of other sales promotion instruments.

Publicity instruments at the selling point are very varied and, to a certain extent, they are rather close in terms of content and usage to those of outer publicity, respectively printed publicity. Posters, banners, displays and also catalogues, brochures, folders and prospectuses as well as promotional materials in electronic form (presentation DVDs or CDs) are the most frequent examples of such instruments.[11]

*Promotional contests* bring results especially in the case of prospective customers, this way the tourism organization becoming known also by a public apparently uninterested by this segment and moreover, the organization gains notoriety through the fact those prospective clients must document themselves in order to answer the questions pertaining to the concerned tourism product. Reasons why these consumers are not

interested enough could be an unsatisfactory financial situation, the lack of time, the lack of other interested persons available for trips. In case a tourism organization provides a holiday as prize in a contest which has not a too visible connection to tourism, it shall be presented to prospective consumers, who otherwise would not have heard of that organization.

Price discounts can be used when the tourist organization has objective to give impulses to the selling of various tourist products or services or the maintaining hereof at a reasonable level in the context of the generated financial results.[12] Another important purpose is to attract new clients and apart from it we can also mention the increase of the purchase frequency or the increase of the number of days of the specific purchase. At present, it is materialized in offers such as: providing special prices for the group leader which organizes a conference or a business meeting or any other person who contributes to a substantial profit for the agency; discount for the first holiday purchased from the agency, this being mainly meant to stimulate customer retention; early booking; percentage discounts for groups; discounts in off-peak periods; offers of the type "you pay three nights and stay five"; for those choosing circuits, the offer of additional days, or free entrance to certain tourist objectives, the offering of evenings specific to the respective area; discounts in restaurant, spa, fitness etc. for the hotel clients; offers of the last minute type; additional services which may include free transport from airport to the hotel; the offering of ski vouchers for clients buying a mountain sojourn; discounts offered for packages exceeding a certain amount etc.

Regarding the utility of this instrument, it is maximal when it is used for certain well established time intervals, as in the opposite case, the company image shall suffer, being associated to the idea of "low-cost – proportional services". In case they are used for a longer period, they shall be perceived as being an integral part of the standard product. The period when they are applied should also be very well considered, in order to avoid situations in which price discounts are used at the maximal level.

A strong negative effect can be registered when they cause hostile reactions among

clients, without being possible to return to the prices before the application of the tariff discount. The organization must also research which shall be consequences of the application of these price discounts. There may be cases when, following the adoption of such promotion techniques the company shall not register any profit and thus the profitability threshold is not reached, even worse, losses might be registered. Therefore the necessity of choosing certain segments to whom these price discounts are addressed goes without saying.

Merchandising represents the totality of the necessary techniques and forecasts for selling the adequate goods in the right places, in the right quantities, at the right moment and for the right price.[13] This technique is more rarely used in the field of tourism due to the intangible character of the services and of the impossibility of separating their production from their consumption. Following the research of the specialized literature, I could notice there are no publications on the merchandising used in the field of tourism, and especially there are no researches of this topic, at least in the materials studied by me.

This sales promotion technique is very important also in the field of services, and in the present case in the field of tourism as the manner in which an offer is presented in the brochure or the catalogue, the positioning of the stand in a tourism exhibition are essential in the nowadays society. Merchandising is considered as a set of methods and techniques of active presentation of a product, in the best material and psychological conditions, at the selling place, in order to optimize sales and bring additional satisfaction to customers during the search for and the purchase of products, which involves: signaling, exhibiting, pointing out, etc.

Exhibiting at the selling place, through each additional cm, shall cause a wider visibility and this the organization shall sell more, given the consumers' drawn attention. An ad spread over an entire page shall also operate the same manner, unlike one which is placed in the upper half of page, especially, as it is known that irrespective of the publication one would read, the tendency is to be more attentive to the information presented in the lower part of the page.

Merchandising helps increasing the image of the brand, being essentially a technique used in the short-run due to the fact that very numerous materials are herewith consumed.

Through merchandising, those interested by a certain destination may come in contact with things specific to the respective area, for instance, those who want to visit Maramureş could be offered a traditional head kerchief, or those who want to spend their holiday in Canada could receive as presents stylized pictures made of maple leaves etc. This instrument also must be used with caution as it involves rather high costs which could not be necessarily justified.

Group sales refer to the concomitant or successive sale of two or several tourist products and /or services at a global price or tariff which shall be lower than the sum of the individual prices and /or tariffs of each particular product or service. Tourism markets represent one of the best fields of applicability for the promotion techniques in this category.[14]

In case of tourism wholesale merchants, group sales can be present in two forms:

- "assortment" of sales, consisting in the grouping in a single package, of several distinct services and their sale at a global price smaller than the amount of the individual services;
- "multipack" sales, when the offer is presented in the form of a package of services of the same type, the global tariff decreasing in relation to the volume of services, which assures the practicing of a regressive tariff per unit of service (per trip kilometer, per accommodation night, per attended match). (Gherasim & Gherasim, 1999, p. 173)

According to V.T.C. Middleton, the planning and implementation of sales promotion techniques can be successfully achieved, by following the 6 steps below:

1. Using the profitability of the management programs, there shall be calculated the objectives of volume which the sales promotion activity is expected to obtain throughout a beforehand clearly defined period and the sales pattern shall be established. For instance, for a hotel chain, this would mean the bookings per hotel for a certain number of nights. For the airlines, this would be the number of places sold for

the route, throughout a beforehand established period. The procedure is the same if the objective is to gain more than the previously targeted levels or to reduce the level of forecasted losses, resulting from unpredictable external events;

2. The calculation of the potential of income increase which would result if the volume objectives of the sales promotion would be fully achieved (volume objectives \* average price of the number of nights, respectively of the places). Thus the limits within which a budget should be contained are set.
3. The specification of a consumer's profile which is part of the targeted segment for the usage of the sales promotion techniques, sketching some details resulted from the market research. A clients database is obviously a reliable source of information.
4. The choice of the incentives calculated as best presenting an interest for the targeted segment and for the assessment hereof so to comply with the budget limits.
5. The establishing and implementation of a program synchronized also with other promotion elements, such as PR and the publicity, in other words, the usage of sales promotion techniques in an integrated marketing communication campaign.
6. The monitoring and assessment of the results. In this situation, results can be measured in sales or bookings made throughout the promotion period, but it shall be rather difficult to obtain precise results in case the effects of other concomitantly used marketing techniques are perceived as well.[15]

## Conclusions

The promotion, making the connection between the activities of a company and its clients, represents a component of major importance of the communication system of the company with the environment, and the content thereof is formed of the particularities of buying behavior on one side and on the characteristics of the services, of the demand and delivery system on the other side, but also on the product qualities.

There is though a problem many small tourism agencies face, the fact that the amounts necessary for the sales promotion cannot be possibly covered in any form, reason why they shall be forced to make their own researches or make decisions based on past experiences and use instruments they are already sure are adequate for the segment in which they are active.

The number and manner of using of these techniques is large and varied respectively, being always a competition in the idea of coming first on the market, as organization, with something completely new, thus obtaining an accrued attention from the target public, and managing to attract new clients.

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# Corporate Governance Challenges in a Transitional Economy. Case Study: Romania

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## Abstract

*The purpose of this research paper aims the study of actual corporate governance of the listed entities on the capital market. For the empirical study, we chose a segment of top banks in Romania, some of them being listed.*

*On the research demarche we have proceeded to an analysis on the manner*

*In this research approach, we undertook an analysis of the manner in which the principles of the OECD and other regulations relating to corporate governance are complied at the level of top banks in Romania.*

*This paper reveals some gaps recorded in the law and in particular, in the implementation of corporate governance in the Romanian financial institutions. For that purpose, we have highlighted those parts of the regulations that require improvement in order to increase the effectiveness of corporate governance in the banks that operate in Romania.*

**Key words:** corporate governance, regulation, organizational culture, compliance.

**Clasificare J.E.L.:** G30, G34, M40, M48

## 1. Introduction

Corporate governance represents the lever by which companies are directed and controlled. It is a set of rules and functional links established between management, board of directors, shareholders and other stakeholders (ac. OECD definition)[1].

Effective governance addresses the needs

of all stakeholders of an entity: shareholders, employees, customers as well as the community regarded as a whole. At this point, corporate governance could be seen as "the systems and processes an organization has in place to protect and enhance the interests of its stakeholder groups" [2].

Corporate governance is, especially for developing countries, a real necessity and not just an alternative to ensure their development and integration into the global economy.

The survey shows that corporate governance is crucial for economic development entities; it proved able to reduce disparities, attract direct investment and to contribute to strengthening the market economy.

For developing countries, as is the case of Romania, we notice that there is a long and challenging journey from purely declarative reports until the effective implementation of corporate governance.

The assembly of provisions regulating the corporate governance in banks from our country aims the following:

Companies Act;

Basel regulations supplemented by the provisions of the European Banking Authority in relation to corporate governance;

- EU regulations;
- Existing regulations of the National Bank of Romania.

## 2. Corporate Governance

Sir Adrian Cadbury presented corporate governance as the way organizations are directed and controlled [3]. Effective corporate governance is able to increase

companies' performance.

There is no standard model of corporate governance that can operate in any country and in any type of company. Therefore, the OECD has developed a set of corporate governance principles, highlighting the weaknesses identified over time and making recommendations regarding the most effective governance implementation.

In developing the national code of governance, countries have on their disposal two possibilities, namely: importing OECD principles and the definition of its principles.

There are research studies showing that trying to import the mentioned principles proved ineffective in some places. In this regard, we consider it very important to take into account a number of issues such as local vectors, legal and tax system, cultural issues, accounting practices, mentality, etc.

We think the real challenge for developing countries aims at creating a functional background to ensure proper implementation of corporate governance codes in most entities.

### **3. Comparative Analysis of UK Governance Code and Bucharest Stock Exchange Code**

UK Governance Code emphasizes the importance of general principles that should guide the behaviour of economic factors with the aim to increase the efficiency of their communication with shareholders [4].

This code applies to all listed companies, but it is not a rigid set of rules. It is just a good practice guide that requires periodic evaluation.

Basic principles of governance, as they are stated in the Code in the UK cover:

- responsibility;
- transparency;
- probity;
- focus on success.

UK governance code allows boards of directors to decide for themselves how they will act. Thus, companies have freehand to choose and use government policies in the light of the above principles.

"Comply or Explain" is the brand element for the UK Code. Based on this statement, companies are given the opportunity to confirm that it complies with the provisions

of the Code. In such case of the refutation of this, the entities are required to provide relevant explanations.

Our study results reveal several common features ascertained in two analyzed codes. We must point out that both at the UK Code and at the BSE, start from governance approach based on general principles.

However, in the research approach we found a series of disruptions at the level of Code of Romania, such as [5]:

- neglect of minority shareholders rights;
- unequal treatment of shareholders;
- formal role of the Board;
- dominant role of shareholders;
- failure to comply on the independence of the board members.

BSE has prepared a revised edition of the Governance Code, structured on items, principles and recommendations on various issues such as role, structure and size of the board, Steering Committees, independence of members, audit committees and auditors, remuneration, relationship with shareholders, financial reporting, rules regarding transparency.

Strating from this comparative analysis, we found that the Governance Code of the Stock Exchange is more permissive than the UK code. We believe that this happens for the fact that Romania is still in its infancy in terms of implementation of governance.

Both analyzed codes opt for a majority of independent members of the board.

However, the responsibilities and role of audit committees are better highlighted by the UK Code.

Therefore, I believe it is time to take measures at national level on improving code under which corporate governance is guided in order to increase its efficiency.

### **4. Weaknesses in the Governance in Romania**

Board has a limited position in the company. Members are likely to be influenced by the shareholders who have committed them;

There is no culture of corporate governance within the entities in Romania;

Law and other regulations do not establish sufficient rights to shareholders;

The right to vote of shareholders is not a fundamental mechanism to protect their position, especially for minority shareholders;

Romanian Code requires optimizing governance provisions regarding the need to update the skills and abilities of the members of the board of directors and the auditors;

There is very limited information regarding remuneration of the board members;

BSE Code does not provide any liability of board members about ensuring the effectiveness of financial reporting.

In this respect, we believe that the bodies responsible for regulating in Romania should counterbalance the weaknesses mentioned and also increase transparency and importance in order to prevent abuse, but also to cover the risks.

Meanwhile, Romania needs to continue efforts to align with international standards of accounting and auditing.

Corporate governance is becoming a primary concern in the financial institutions in our country.

- Top banks studied during the research are:
- Romanian Commercial Bank;
- Romanian Development Bank;
- Raiffeisen Bank;
- Transilvania Bank;
- CEC Bank.

On this research, we proceeded to study four analytical tools, namely:

- Structure and governance influence;
- Board structure and activity;
- Rights and shareholder relations;
- Transparency and relevance.

## 5. Discussion and results of research

For this research, we have studied the annual reports of the mentioned banks, management statements, audit reports and reports of banks regarding the compliance of transparency principle [6].

We also evaluated the „Comply or Explain" statement for those banks which comply with the recommendation of the Governance Code (an example would be BT).

From our conducted research, we have found that all the analyzed banks are following the recommendation on the General Meeting of Shareholders, which is the supreme authority. This can be ordinary and / or extraordinary and meets at least once a year. We have noticed that the central powers of the assembly are similar in the case of the 5 banks studied.

We point out that these banks say in their reports that the positions of Chairman of the Board and CEO are generally held by the same person. At this point, we emphasize that international recommendations argue just the opposite.

Regarding the rights of shareholders, we observed that if the surveyed banks, there are some commonalities. Thus, shares confer equal rights to the holders of securities, such as the right to vote in the GMS, right to participate in distribution of profit, other rights provided by law. Also ownership of shares may be transferred. Shareholders have the right to receive dividends and they all may participate in general meetings in person or by proxy.

AGA must be announced to all shareholders. In this respect, the ad should be published in a large circulation newspaper and on banks' website at least 30 calendar days before the meeting. In order to respect the principle of equal treatment of all shareholders, organizations are expected to give them all necessary information related to the AGM.

However, we have noticed that from the analyzed banks, only BRD provides poor information, while BCR, the leader of the entire Romanian banking system, is building its own charter of rights and shareholder relations.

From the analysis we performed, we found that BCR and BRD, Raiffeisen and BT are all submitting to the National Bank stipulations on ensuring transparency of information, and those who come from the OECD and BSE. In this regard, banks are completing and publishing the report on transparency and public transmission of information on their own sites. Management objectives and policies are seen as additional information and the surveyed banks use to make reference to these issues.

Financial reports of the inquired subjects comply with the standards imposed on credit

institutions and IFRS. [7]

Audit reports prepared by the independent auditors of the banks in question recognize that organizations comply with regulations.

In addition, banks transmit information to shareholders on time and efficiently, as stipulated by the various codes of governance.

## 6. Conclusions

The research results support the fact that there are some differences in how banks in Romania understand and implement corporate governance. Regarding BCR and Raiffeisen, the board control function is owned by a separate entity which has not executive functions too. Other banks, such as BRD and CEC Bank, use single structure.

From the study, we understand that currently in Romania, national laws, regulations, code of governance and the requirements for listing on the stock exchange, are not sufficiently robust in order to meet the needs of banks. We also argue that the existing principles of governance are not exactly precise, and therefore, they leave room for interpretation.

Also Romanian governance code shows another gap in the clear allocation of responsibilities of management, board of directors or supervisors.

In our opinion, the fact that there is no legal obligation to comply with the recommendations made by the authorities of governance, leads to weak and faulty implementation of corporate governance at financial institutions in Romania.

## 7. General conclusions

The analyzed banks have a poor corporate governance culture.

BCR, BRD, Raiffeisen and BT respects the basic rights of shareholders, but we consider that there is a number of areas for improvement. It is important for shareholders to be employed directly in the governance process and monitor the decision making process at the management level.

Banks studied does not seem to give particular importance on information about possible conflicts of interest, as provided in the OECD Principles or the UK Governance Code.

Another relevant issue for the surveyed banks is on the lack of measures against violations of shareholder rights.

Banks do not provide detailed information on the remuneration of board members, except BCR.

As a general conclusion of this paper, we argue that Romania needs an effective legal framework for good corporate governance. Therefore, we consider that the increase of efficiency over the Romanian legal system could lead to increased efficiency of governance.

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## Aplix ERP- Best Practices and Integration Patterns

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### Abstract

*Consequently, ERP brings data which are usually stored and processed by different independent applications having distinct functions within an economic agent. It can easily be assimilated to an "information" plurality of functions: to process unitary and coherently the data of two departments which have different functions (for example: accountancy and financial). An ERP solution will be capable of at least two practical achievements: it will be able to offer a relational (coherent) data structure and it will be able to serve in an optimum and efficient way the needs of storing/reference concerning the examination and the efficient exploitation of already stored data (documents) of an operative nature.*

**Keywords:** control, ERP, flexibility, multilevel approach, OLAP, safety

**JEL classification:** M15, M21, C88

### 1. Introduction

SCM (Supply Chain Management) is the administration process and control of supplies/sale for the purpose of fulfilling the client's demands, as efficiently as possible. SCM follows the movement of "the goods" from the departure point to delivery... The classical definition accepted by everybody. SCM deals with the supplies of a company in collaboration with an ERP which administers the information about the financial and administration documents issued and the resources which are involved in the process, with a CRM (Customer Relationship Management) from where it takes the achievements of the business opportunities and if need be with a DMS (Document Management System) which stores, in a coherent and organized way, the non-

commercial documents issued as part of the process, such as contracts and offers.

### 2. Aplix ERP: Management, administration and control of the company at an integrated level

OLAP (On Line Analytic Processing) represents supplementary structures of applications and data with a view to satisfy the need of easily obtaining synthetic statements as a result of primary document processing: as long as a document is processed on-line by an ERP, let's imagine that we need more. For instance, by locally processing a debt, the balance of a third party is loaded, the administration discharging is produced at the purchasing price of the goods sold and /or a following need to cash it is created. If we wish for availability with a minimum effort of processing certain analytic data such as value/goods/month sales, simultaneously with quantity/article/month sales, concomitantly with others, we must make sure that the application planner has provided the ERP with an OLAP structure/application: simultaneously with processing a document following the ERP model we provide supplementary data structures which are calculated beforehand in order to obtain some analytic syntheses similar to the ones given as examples, which surpass the common need of operative interrogation/verification.

Looking at the problem from a different perspective, because basically it concerns the same subject, SCM and DMS can be integrated in one single module having at least the same functions: to organize and control the route from the departure point to the delivery of a "good". Let us name, further on, "the good" as "deliverable". Everything that happens in a company can be quantified (and described) in processes, activities, resources and "deliverables". Let us have regard "deliverable" both as something

palpable (merchandise, raw materials, consumable goods, immobile means, documents) and as any achievement within the process, such as closing a stage or the need to get an approval. Let us not forget that we need certain resources as personnel, immobile means or inventory items in order for everything to be carried out. And let us name the application method Activities - a name which is not at all accidental, taking into account the fact that the production chain is actually the normal course of the development of activities.

## **2.1 Quality Standards**

For those who have not met the quality engineering (yet), I must specify that it is not about an application bringing with itself the quality standard: it is specified for the activity, the development stage of the company, of the personnel and its organization. In addition, it does not represent a "recipe" of activities, but the cultivation and application of a mentality which is continuously revised in order to improve the function of the organization seen through the eyes of the clients and collaborators. There is no recipe for this. On the other hand, the implementation of the quality procedures is sustained by the exact definition of activities and of control points.

## **2.2 SCM without Frontiers**

What very few ERP applications dare to approach, namely the carrying out of the administration and of the resource planning becomes possible. The SCM/CRM/DMS frontiers merge in an implementation which is personalized by ERP whose "deliverable items" and resources are administered and controlled by the activity method.

## **2.3 Achievements**

Once the processes defined, everything becomes a logical hierarchy which is very well defined irrespective of the nature of the activity of the company, and the method can be applied both to the simple processes, such as invoicing a third party, and to the complex production processes. The "third party" notion has other connotations, referring to a client/supplier or an employee. We define

very well the employee's duties and the nature of the implication of every single "resource", thus eliminating the confusions and errors. We carry out the control of the state and stage of the "deliverable items" and of the resources that have been used. We carry out the automation of processes, everything having a well-defined course.

On the whole, ERP is a solution that can be applied in general and it surpasses the dimension of the company, as well as its domain of activity, becoming the core of every information system. Even though it has been imposed as quasi obligatory horizontal technology, ERP with the usual structure of modules is far from being necessary for a good administration of a company. This necessity has determined the ERP vendors to develop a series of complementary modules which are meant to give the fundamental application extended horizontal and vertical functions.

Trying to transform ERP into commodity, the vendors and the active consultants on this market have realized that the 6-7 standard modules of the system do not cover the clients' set of requirements entirely. On one hand, some of them wanted some of the typical functions of other categories of applications (CRM, BI, Collaboration), but without a separate investment, while others had processes with a specific so high that the activity of being personalized became too large and too expensive. Hence, even if ERP was designed to be used and sold to anyone, in a rather exaggerated way, it does not suit anybody. The solution was that complementary modules to be developed alongside of the typical modules (Production, Financial, Commercial, Stock, Human Resources, Fixed Means) answering the clients' real needs, a compromise between a variant which was too general to be useful and one that was too personalized to be sold again.

## **2.4 Minimum effort of implementation**

The possibility of implementing at intervals: The modulated structure allows the implementation and the use of modules as long as this becomes necessary. A new information system initially starts from the basic activity, then it expands in a concentric way to the activities of other departments.

- The intuitive and unitary interface for a learning curve which should be as smooth as possible: One of the main causes for the failure of the implementation is the resistance in front of the change of the users. The steep learning curve has an important role here, and the projection of our interface has taken this into account. In Aplix ERP, working in one screen is similar to all the screens.

### **2.5 Automation, safety and control**

Operating easily: The activities of adding/modifying/deleting/searching are done in the same place, with no extra screens. The construction of the entire application interface is done so as the user finds the basic functions immediately and, gradually, as we go along, he/she acquaints himself / herself with them, he/she can also use the more advanced functions.

- The availability of data: Consulting and finding the historical data is done in a unitary way, without archives and it allows to obtain, at any given moment, the reports based on historical data similarly to the present ones without reducing the performances in time.
- The independence of the application supplier: The synthetic economic reports (the balance sheets, the economic indicator graphs) can be defined and adjusted to the immediate needs or to the specific by the beneficiary.
- Safety; data integrity; decision separation: The access multiuser/role system which can be applied at the familiar level of the database allows us to flexibly establish the access levels of different users, both at data operating and at the functions of the system. This provides integrity and safety to the collection of data and it allows us to separate the decision at the level of the organization.
- The control of the business: The price and commercial discount policy and offering in their conditions, the remuneration of the sale agents, the control of the crediting limit and of the due amounts, the stock control, the transparent administration operation (retailers/wholesalers/custodian) in different measures, the control of the supplying necessities and the identification of stock without movement are all achieved

by the application on the basis of some parameters meant to be simply and efficiently established and maintained only by the authorized personnel.

### **3 Problem Solution - Adaptability, flexibility and scalable process**

Some companies, by developing certain specific competences and trying to be closer to the client and because, probably, the size of the market allowed them to, developed niche ERP (see ab-Solution, developed by Process only for the banking area). But these are less known on the Romanian market, and if some local active vendors have inevitably become better known on certain verticals (Microsoft Dynamics NAV on retail and distribution, Oracle and MFG Pro for the production sectors, Charisma for leasing) This thing happened on account of the available add-ons and the accumulation of references.

The most important aspect is that all these elements, being called either add-ons, modules or applications, are integrated in a unique system and use the same database.

- Multiple possibilities and parameter: Aplix ERP allows the adjustment to new legislations without modifications or with minimum ones which don't stop the cursive exploitation of the system. The adaptability is not only referred to the legislative system, but to the specific of the business, the working method within the company or the change of the business flux.
- Reference which is adaptable to the current needs: We can easily obtain consolidated synthetic reports by the simple hierarchical classification/reclassification of the entities of the organization (administration, departments, jobs, etc.) of articles and/or of third parties, of months/years into reference periods. It is not necessary to alter the content of the data which have already been collected in order to get such references even using historical data.
- Open system: Aplix ERP is prepared to be integrated and to operate in the complex heterogeneous information systems using Linux, Windows, OSX, IRIX, AIX, etc. and it equipped with native mechanisms of interfacing with external applications.

In the case of a little local application, such as Aplix ERP, the fundamental modules are fewer: Accountancy, Financial, Administration, Immobilization (Fixed means and inventory items), Wages (it includes human resources), and to these four additional modules are added: production (at the simple level of assembling/producing on the basis of a rule, including the post-calculus), Logistics (SCM – orders, suppliers, internal departments and clients), Activities (for the service segments, IT, project management, transportation etc. which offers some CRM functions as well) and Aplix BI (the Business Intelligence module offered in partnership with Quick View).

Aplix was oriented more towards functions and less towards adding modules.

#### **4 Aplix ERP – Reports Module**

EBS Romania has a different strategy concerning the modules offered to clients. In the offer of the company, there are not fundamental modules, but there are modules which can be combined and they are available in three packets: Clarvision Accountancy, Clarvision Standard and Clarvision Enterprise. In addition, on demand, we can offer the clients modules for: Maintenance, Selection and Personnel Recruiting, Career Development, bar codes Supply, ISO DMS. The ISO DMS module can also be purchased independent of the Clarvision ERP system and it facilitates the supervision and administration of the documents that have an electronic format. The company is now developing two new modules: Cash-flow and Distribution. The investments made by EBS Romania in the series of supplementary modules represent the result of the needs which have been identified amongst clients.

The increase in interest for this type of solutions is not only due to the unfavourable economic climate of investments in complex IT systems, like the ERP solutions, but especially to the maturation of the Open Source offer. (The functions of an ERP represent the main selection criterion of such a solution, which prevail over other criteria.) To this, we add a larger acceptance of the Open Source applications in the business environment.

According to the analysts of the ERP market, this type of Open Source applications address mainly to small and medium-sized companies, which, in the present economic context, have diminished their interest (and, obviously, their investments) in the implementation of IT solutions, focusing on financing the fundamental activity. This happened because the pleading of the vendors of OS solutions chiefly focuses on the reason of costs (detailed further on).

#### **5 Conclusion**

In Romania, the Open source subject is still not enough discussed and known and there are few players on the market who offer ERO OS professional solutions. Actually, I think that, for the time being, we are the only ones who offer a complex and complete ERP/CRM Open source solution, accompanied by professional services for consultancy, implementation and maintenance. At the same time, there are few companies in Romania which know from the very beginning that they want an Open source product.

As a brand, "Socrate" is a (registered) Romanian trademark and can be found on the 9th place in the local market of business solutions, in front of some foreign brands like Epicor, Scala, and so on. (Compiere, as a brand, is still unknown in Romania, but it is better known on the international level). Nowadays we do not feel any disadvantage in competing against other brands. On the contrary, we take pride in our 15-year-long experience, in a strong base of faithful clients and in a 95% successful implementing rate, which is superior to the famous brands on other markets.

Socrate Open is suitable for medium-sized and large companies, because the system is a complete one, with many functions, which answers the requirements of a company whose activity is complex.

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# The Concept of Tourist Motivation

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## Abstract

*In a world dominated by the economic crisis, the competition, regarding the satisfaction of consumers, increases daily. This issue is due to the fact that consumers nowadays have the possibility to obtain information not only from family and friends but also from people, they do not know, from all around the world.*

*The aim of the paper is to introduce to the reader the concept of „motivation” in what regards consumers of tourist packages.*

*Along the years, the tourism industry, along with the service area, has known a huge development so that each destination presents certain characteristics which may serve for the satisfaction of tourists.*

**Key words:** motivation, motivation factors, consumer, destination.

**J.E.L. Classification:** M3

## 1. Introduction

The tourism industry evolves daily due to the exchange of information between people all around the world and due to the evolution of technology.

The marketer, from the tourism area, has to overcome different challenges in order to make the consumer to choose a certain destination, among many others from all around the world. The key of achieving that is knowing the consumer and knowing what the motives for buying tourist packages are.

Nowadays, there exists the possibility to travel not only by car, bus or train, but also by airplane so that the a person can get to a destination faster than before and can reach destinations which are located far away from the country of origin.

Researchers from this field can meet different problems when trying to understand the motives of consumers. Even consumers

do not know exactly why they decide for a certain tourist product.

Each person has different reasons for deciding to travel to a certain destination, either because they travel by a pleasure because they are on vacation, or because they are on a business travel and they may have a couple of hours to visit a certain city after they have finished with the appointments.

Taking all of these into consideration, we can conclude that it is necessary for marketers to understand, precisely, which are the motives tourists have when they decide to buy a tourist product for a certain destination.

## 2. General overview on motivation

When talking about what motivates tourists, we must take into consideration different aspects. Motivation can be of two types: intrinsic and extrinsic.” An intrinsic motivation encourages behaviors for their own sake and an extrinsic motivation is dependent upon the consequential rewards and punishments resulting from the behavior”. [1]

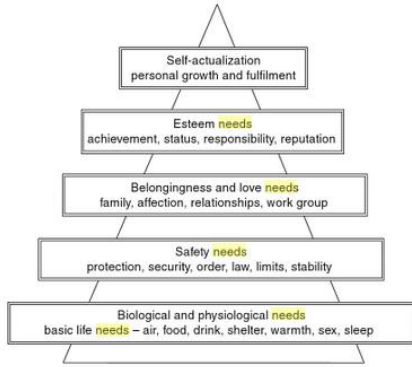
This theory applies also to tourists because some people choose a destination for their relaxation while other only in order to show other people what they can do.

Over the years, different authors have deepened the area of needs and motivation. “Predicting the effects of motivation on behavior also require an understanding of the processes whereby needs is transformed into motivated behavior and, in particular, of the way people’s expectations give motivated behavior its direction”.[2]

People have different needs and these needs are not necessarily similar each day.

One of the most known theories regarding motivation is the theory of Abraham Maslow, „the hierarchy of needs”.

Figure 1: Hierarchy of needs



Source: Woodside, A., Martin, D., „ *Tourism Management, Analysis, Behavior and Strategy*”, Cabi Publishing, pg. 17, 2007

Maslow came with the idea that firstly people need to satisfy the needs starting with the physiological needs like food, drink and ending with the self-actualization ones.

“The satisfaction of esteem needs determines feelings of self confidence, value power, capacity and appropriateness, of being useful and necessary to the world”. [3]

### 2.1 The relationship between needs and motives

The needs mentioned by Maslow have been taken into consideration, when discussing motivation, by different authors. “Following Maslow’s(1943) theory of motivation as hierarchy of needs, Mill and Morrison argued the key to understanding travel motivation was through the recognition of travel as needs and wants satisfier”[4]. The two authors combined Maslow’s needs with the following motives [4]:

Table 1: The relationship between needs and tourism motives

Need	Motive	Tourism Literature
Physiological	Relaxation	Escape, relaxation, relief of tension, sun lust, physical, mental relaxation of tension
Safety	Security	Healthy, recreation, keep oneself active and

Belonging	Love	healthy Family togetherness, enhancement of kinship relationships,  companionship, facilitation of social interaction, maintenance of personal ties, interpersonal relations, roots, ethnic, show one’s affection for family members, maintain social contacts
Esteem	Achievements status	Convince oneself for one’s achievements, show one’s importance to others, prestige, social recognition, ego-enhancement, professional business, personal development, status, prestige
Self-actualization	Be true to one’s own nature	Exploration and evaluation of self, self discovery, satisfaction of inner desires
To know and understand	Knowledge	Cultural, education, wanderlust, interest in foreign areas
Aesthetics	Appreciation of beauty	Environmental scenery

Source: Pike, S., “Destination Marketing Organisations”, adapted from Mill & Morrison (1992:20), p.104, Elsevier, Amsterdam, 2004

As we have seen, each need can have a different motive and each tourist can decide to go to a certain destination according to one of those presented above.

All of these must be taken into consideration by marketers when they establish marketing strategies so that they can attract a bigger number of consumers and the most important thing, the satisfaction of consumers so that a long-term relationship will be created and it will exist positive awareness regarding the destination.

„Witt and Wright suggest at the theoretical level expectancy theory enables many of the existing concepts in the study of tourist motivation to be incorporated within a single theoretical framework i.e., need theories such as Maslow and Murray; emotional aspects of tourist motivation – the needs which instigate the desire to travel in the first place – with the cognitive aspect- the decision making involved in choosing whether to do on holiday and, if so, where”[2].

The two authors came in the year 1992 with a model related to expectancy, “which incorporated needs, attractiveness (valence) of holiday attributes, relative preference of different holidays, and the influencing factors of knowledge of holiday destination characteristics; limiting factors such as cost, others’ preferences; and instrumentality of holidays for providing attributes” [2].As we can see, these factors related to the intrinsic motivation of the consumers.

### 3. Motives for travelling

It is obvious that tourist consumers have numerous reasons for visiting a destination. They can also have a combination of these reasons. People can visit their relatives but they can also visit certain attractions from that destination.

Moving further, Dann proposed seven categories of travel motivation[5]:

- Travel as a response to what is lacking yet desired. We live in an anomic society and this, according to Dann, fosters a need in people for social interaction that is missing from home environment.
- Destination pull in response to motivational push.
- Motivation as a fantasy.

- Motivation as a classified purpose, such as visiting friends and relatives or study.
- Motivational typologies.
- Motivation and tourist experiences.
- Motivation as auto- definition and meaning, suggesting that the way tourists define their situations will provide a greater understanding of tourist motivation than simply observing their behavior.

As we can see, the motives range from the desire to interact with other people, to visiting relatives and friends.

Other authors considered that the „main motives for travel and tourism are as follows [2]:

- Business/work-related motives:
  - Pursuit of private and public sector business, conferences, meetings, exhibitions and short courses.
  - Travel away from home for work- related purposes, including airline personnel, truck drivers, service engineers.
- Physical/ physiological motives:
  - Participation in indoor sport and active outdoor recreation such as golfing, walking, sailing, skiing.
  - Undertaking activities in pursuit of health, fitness, and recuperation.
  - Travelling for social duty occasions- from weddings to funerals.
  - Accompanying partners travelling for their own reasons, such as business or social duty.
  - Visiting the place of one’s birth and exploring historical roots.
- Entertainment/amusement/pleasure/ pastime motives
  - Watching sport/ other spectator events.
  - Visiting theme parks/amusement parks.
  - Undertaking non-routine leisure shopping.
- Religious motives
  - Participating in pilgrimages
  - Undertaking retreats for meditation and study

Specialists in the consumer behavior have tried along the years to identify the needs that consumers have and which are the reasons they decide on a certain tourist product. For marketers it is a true challenge to identify exactly these reasons and to find the best strategy retain the consumers and create a long- term relationship which could benefit both parts.

#### 4. Conclusions

The aim of this article has been to introduce the reader the concept of motivation regarding tourist destinations.

Consumers from the 21st century have the possibility to visit more destinations in comparison with the 20th century. This thing is due to the fact that technology has evolved and consumers are educated so they can travel all around the world without paying a lot of money.

As we have seen above, the motives tourists have can range from visiting relatives to entertainment/ amusement/ pleasure/ pastime motives.

The scope of marketers that promote destinations is to find the best strategy that can fulfill consumers needs and that can answer to the motives tourist have when choosing a tourist destination.

On the whole, we can state that is necessary for marketers to perform regularly researches which show changes in consumers' preferences. These researches can only help them in establishing the best strategy for retaining tourists.

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## External Influences on Caras-Severin Voters

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### Abstract

*The electoral dimension of human existence is perhaps the one that had known the strongest changes along with the evolution of human culture and civilization during the last millennium.*

*This paper aims to highlight the influence of exogenous factors on the behavior of people who live in Caras. The behavior choice ("to buy") refers to the specific actions that the citizen take while making a choice between several political deals. Political goods, which may take various forms, messages, programs, political personalities, and which represent, in fact, the doctrine (concepts, ideas, tenets or principles) of every political party. Along with the appearance, the rise or the decline of some new political systems, evolved, human communities have developed values, norms or political ideals in a wide and diverse range, tailored according to the economical development of the society.*

**Key words:** electoral behaviour, exogenous factors, voters.

**J.E.L. classification:** M31

### 1. Introduction

The consumer behavior, in general, especially the one of the voter represents the subject of study for many materials about the factors that influence the decision of choice. Any behavioral act is motivate [1], although, often, happens that the mobile is not identified and realized by the individual. Many important studies are done within

human communities which have a high degree of political culture [2].

This research influence the relationships between the political environment and its market [3].

The behavior choice ("to buy") refers to the specific actions that the citizen take while making a choice between several political deals. Political goods, which may take various forms, messages, programs, political personalities, and which represent, in fact, the doctrine (concepts, ideas, tenets or principles) of every political party. The decision is not immediately taken, proving to be a matter of choice between many several political parties, functional and existing on the political market, and crystallized behind a sequential process while scrolling. Depending on how the consumer of political products perceives the impulses of the social environment and processes the information at cognitive level, will answer differently, with different types of behavior [3]:

- The unstable choice behavior is manifested by discontinuity and various oscillations at each new and well-publicized impulses (supply), having two causes: unclear a clear choice and the necessity of continuous change with all the conflict risks at emotional lever generated by novelty.

- The occasional choice behavior of the first political choice whereof the individual hears people speaking about, can occur because he has not enough time to search and the provide for it.

- The deliberate choice behavior implies rationality in evaluating all the existing alternatives on the reference market, which involves developing a sober decision.

If the preferred policy offer satisfies from various reasons, the individual will be tempted to take a casual or deliberate decision, depending on the motivation, political life-looking for another political offer.

The multitude of factors that compete in the development of behavior choice and accession and the one that refers to the consumption suggests a systemic approach to the consumption behavior. An opened system model, that correlates the inputs (entrances) and also the endogenous and exogenous impulses, and it processes them at a cognitive level, after the requirements of his personality, and the answers are prepared as: behaviors, attitudes and decisions, within the outputs.

The diversity of policy consumer behavior is explained by many endogenous and exogenous factors that may directly or indirectly influence the cognitive decision process, which is decoded and elaborated at the level of the cognitive system, of attraction and even of solicitation a political offer up to be constant true to that political group/offer.

The literature divides the influencing factors into two categories: the endogenous factors, related to the perception, motivation, habits, beliefs, preferences, learning, the emotional and affective system, the degree of influence, the individual's personality, the temperament, the attitudes, the cognitive style of processing information, the age, the self image and the lifestyle adopted; and exogenous factors, that are generated by the economical, social, political and cultural environment in which he lives, marital status, the household life cycle, the membership group, the reference group, the environment, the social class, the income, the education, the occupation, the social role and status, the ethnicity, the religion and other factors, usually situational, they may occur. [4] [5]

I will stop below the socio-cultural factors.

## **2. Exogenous influence at the behavioral level of the voter who lives in Caras**

For understanding the political behavior, it is necessary to study the factors form the socio-cultural environment, the existence of

which, as it is proved, has a great importance in marketing macro environment.

The economic factors

The income that has the individual, not necessarily form the same source, provides both its own existence, as well as those to which has moral responsibilities. The civilized existence, that each one desires, within the limits of the financial standard assured by the income, is dependent, for the most part, by the economic evolution of the state which, at his turn, is ascending or recession oriented on the effectiveness of programs policy.

The culture

The norms, the values and the common objects of the society, the beliefs, attitudes and habits created by the members of society, the culture influences, at micro level, the individual environment, which is most acquired in the process of socialization. The individual builds a set of perceptions, values, beliefs, preferences and behavior specific to the society in which he lives and transmitted by social institutions: family, school, church, military, media.

The political culture is a part of the culture, which bears the nation specific and historical current time that runs through to it. The political culture reflects the level of awareness of the organization and political leadership of society, becoming the "sine qua-non" for an efficient politic ,both for government and for governed. The civil society which has not a minimum of elements of the political culture is not able to decide fair and realistic in choosing the governors, nor to determine them to serve, in the most effective way, her interests. Between democracy and political culture exist a closely dependent. The democratic regimes are realized within human communities which have a high degree of political culture.

In the studies that were made and synthesized, M. Duverger structured the dimensions of political culture as follows: cognitive, affective and appreciative. [6]

The demographic factors

The demographic factors reflect the structure of the population and the processes that affects its characteristics.

At macro level, the demographic variables include: the population, its geographical distribution, the population growth, the age

structure, the occupation, the income, the education level, the number of families and households, the family and household size, the lifestyle, the mobility of population, the type of habitat (urban or rural) and the income.

At individual level, it highlights: age, sex, marital status and physical characteristics.

The demographic information are describing the political market, but are not able to predict the consumer behavior.

The geographical distribution of population refers to its geographical location, in urban and rural environment, in various geographic regions, with a particular climate or terrain, variables that will influence the needs and the requirement of the individuals.

The occupation of a person reflects the education level, the hierarchical position, its social status and its recognition.

The education level influences the model of the consumption behavior. Most of the time, the reality has shown us that well-informed people are those with a high education level, and while taking a decision, they take into account many factors.

The lifestyle reflects the behavior of people in society, establishing and selecting sets of necessities in relation to their ideals. Moreover, the lifestyle explains, largely, the change of voter's behavior, because it affects all the parts of the marketing mix.

The age oriented the preferences, tastes, needs, interests and even the ability to create ideals in politics.

The income affects the life of the voter and the expenses involved in existence.

The household consists of related or unrelated individuals living in the same housing unit. Most of the times the marketing planning must take into account not only the needs regarding a civilized existence of the individual, especially those to whom the individual has moral responsibilities, namely the household members. Another thing that is worth mentioning here is the difference between the household and the family, the household can be composed of one or more unrelated persons, affiliation family, limited family or even all together.

The social groups

The social groups are the membership groups, to which the individual belongs, even if there are not those to which they aspire,

and those with which the individual identifies, even if it does not have a formal relationship with them, respective the reference groups.

The role and the social status

The role that the individual has in the society consists of activities that are expected to carry out the individual against the others, while the status reflects the general esteem given it by society.

As we know, the Romanian society, like any other society, is divided into classes, which include specific values, certain lifestyles, interests and common behaviors. The level of education, the income, the occupation, the type of owned property, the personal success, as well as social recognition determines the individual in a particular social class.

The opinion leaders

The direct information between the consumers is transmitted through linguistic means. The individuals that affect the opinions of the others, through linguistic means are the opinion leaders. The characteristic that they have, to be confident, sociable and independent, support them to actively seek of information at the intensive use of mass media, involved in categorization and political choices.

### 3. The research methodology

This study aims to highlight the voting influence on the voter's behavior in the population of the county Caras-Severin.

By the type of information that resulted from the research, a quantitative one and by the venue is a field research. [7]

In order to achieve an effective study you need first a research program, setting the stages and the needed resources to achieve the optimal research and obtain the most important information that are necessary for the decision.

The study was conducted in two parts, a qualitative stage and the stage that assure representation at the level of results and formulating conclusions, quantitative study. But as the information obtained from an unrepresentative sample can not be extrapolated to the entire population, the results are merely hypotheses to be validated, we consider it appropriate to present in this chapter only the quantitative study, the results of the qualitative study will be



statistically analyzed with the help of the analysis of correlation and regression, the normality of distribution and the univariate analysis.

The quantitative study follows the next steps: the formation of the sample, determine the sample size, writing the questionnaire, the administration of the questionnaire, processing and analyze the obtained data, drafting the synthesis report.

As a form of survey research was used the investigate: individual and structured based on a questionnaire composed of 14 questions, all closed. The questionnaire includes 11 questions of content and 3 to identify the interviewed person.

The problem that aims to enounce the research is related to the dynamic of voter behavior through the vote at the level of population who is living in the county Caras-Severin.

The purpose of the research is to study the influence of voting on the voter behavior at the level of population of the county Caras-Severin.

The research objectives were the study of voting behavior among voters, identifying the influence of the factors at the level of behavior, determine their implication at voting, determine their implication in the decision to vote, highlighting the voting intentions.

The researched community is made up of the voting population of the county Caras-Severin.

To achieve the higher accuracy for the research objectives, we choose to retrieve information by interview using a questionnaire with predetermined questions, administrated by the interviewer.

The sample consisted of 1308 people, taking into account a probability of guarantee results 97%, given a margin of error of 3%.

The information were collected between December 2012-January 2013, being processed, analyzed and interpreted in the near future.

Appropriate to the method of data collection, was elaborated a questionnaire, as a tool for gathering information, formed by 11 questions of content and 3 questions of identification.

Taking into account that the objective of our research is to study voting behavior among voters, I consider desirable as a way

of making the research, the survey conducted on a representative sample of the population who live in the county Caras Severin. The representativeness of the sample is given by the sampling method used, and the sample size determines the accuracy of the results obtained from the research [8].

Generally, the assumptions that were made for the qualitative studies are validated through quantitative studies. For this can be used the survey, namely an investigation made in order to know the characteristics, the opinions of a given population interrogating a limited number of its member, a sample. It consists in administering a questionnaire to a representative sample drawn from the investigated population [9].

To reduce the risk determined by the relative freedom of the investigators, in case of those who were interviewed, the sampling by quotas associated with the geographical survey, this thing ensured the representation in Caras-Severin.

**The questionnaire was composed of 4 towns of the county Herculane, Caransebes, Moldova Noua, Bocsă and also in 3 villages subordinated to each city, namely 12 localities.**

#### **4. The results of the research**

As I previously exposed, the embodiment of qualitative research, was used the survey, conducted at the level of population who lives in the county Caras-Severin. The questionnaire was applied in 2013 november and includes questions about occupation, age gender, voter turnout, the influence of voting, the influence on the decision to vote, the positive attitude and promoting the campaign, the link between the success of the candidates and the living style, further electoral activities after the elections, the opinion among the electronic vote, the factors which influences the voting behavior, the preference for the presidents and mass media influence.

The answers to the questions from the questionnaire were entered into the SPSS program and formed a database for various tests.

In this type of analysis I wanted to analyze some questions in the questionnaire and more specifically, questions about age,

voting or occupation and the influence towards voting.

By using the SPSS program I have tried to obtain information about occupation, age, gender, voter turnout, voting influence ,the influence on the decision to vote, the positive attitude and promoting the campaign, the link between the success of the candidates an the living style ,further electoral activities after the elections, the opinion among the electronic vote, the factors which influences the voting behavior, the preference for the presidents and mass media influence.

To achieve a more complex analysis, I considered useful to use the analyze of regression and correlation, which allowed me to study the links between the voter turnout and voting influence.

I have applied the analyze of regression for evaluating whether the variable "participation in elections" can be explained by the independent variable "respondent's age" and also in what form, the dependent variable "influence the vote" can be explained by the independent variable "occupation".

The SPSS program estimates the parameters of the regression model that I chose ( I chose the simple model and linear of regression.

For analyze the model of regression I made the following steps:

- parameter estimation equation (based on the method of least squares) regression and interpretation according to the sign and value of the regression model parameters

- Testing the significance of regression parameters. Equation parameters in a simple linear model  $Y = \alpha + \beta X + \varepsilon$  are:

$\alpha$  the intercept (value of variable) Y when X = 0);

$-\beta$  Slope, called the regression coefficient

Independent variable (X) and the dependent variable (Y) are shown in Table Variables Entered.

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	varsta resppnden tului	.	Enter

a. All requested v ariables entered.

b. Dependent Variable: participa re la alegeri

The regression equation parameters and are unknown. In practice the parameters of a regression model are estimated using data observed at a sample:, where:

A and b are estimates of the parameters  $\alpha$  and  $\beta$  .

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.652	.367		7.221	.000
	varsta respondentului	1.205	.445	.308	2.706	.009

a. Dependent Variable: participa re la alegeri

We have obtained in table Coefficients estimates of regression parameters values, namely the values of a and b (Unstandardized Coefficients).

a (Constant) = 2,629

b(age of respondent) =1,205

Estimated regression model is:

$$Y = 2,629 + 1,205X$$

Since we obtained a positive regression coefficient b, means that there is a direct relationship between respondent age and voter turnout.

The value of R (correlation coefficient) shows whether or not there is correlation between the dependent variable (Y) and the independent variable (X). The value of R is equal to 0.308, so we can say that there is a strong connection (but not too strong) between the two variables.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.308 <sup>a</sup>	.095	.082	.4499

a. Predictors: (Constant), varsta respondentului

We calculate the correlation coefficient using Bivariate option order Correlated from the Analyze menu.

Correlations table presents values of correlation coefficients between the variables "age of respondent" and "participation in the elections ". Pearson correlation coefficient (Pearson Correlation) is equal to 0.308. The value of coefficient is positive, so the correlation between variables is close and direct.

Correlations

		varsta responde ntului	participare la alegeri
varsta respondentului	Pearson Correlation	1.000	.308*
	Sig. (2-tailed)	.	.009
	N	72	72
participare la alegeri	Pearson Correlation	.308**	1.000
	Sig. (2-tailed)	.009	.
	N	72	72

\*\* . Correlation is significant at the 0.01 level (2-tailed).

T test is applied to check if there is a significant correlation between the two variables. Value Sig. corresponding t-test equals 0.009, so we can conclude that we have a significant correlation coefficient.

## 5. Conclusions

The goal of this study is to highlight the way in which endogenous factors influence the behavior of the people who live in Caras.

It is already well known informational madness which accompanies an election campaign. Even if Romania joined later this Zodiac sign, before 1989 there was no need for any electoral campaign being able to say that Romanian specialists have adapted on the fly to this current and from campaign to campaign to real professional growth were observed.

Although the global village define by Marshall McLuhan settled over our lands, for the moment foreign expertise in political marketing, was not found to be essential [10].

Architecture of this collection of tools of thought, attitude or behaviour is flexible and can be characterized as a dynamic structure whose metamorphosis is directly related the high volume of information cărășean voter is forced to assess, as the capacity of the processing and integrate or assimilate them into agreement with their lifestyle.

In front of these trends, the voter had to develop its own thinking attitudinal and behavioural mechanisms generating selection criteria of these ideas, values and potential

norms handled by political actors. These are added to those realized in order to solve the problems of coexistence in society and completing complex spectrum of instruments must have an individual as a member of a contemporary modern society.

Scientific analysis of political behaviour is therefore more difficult, because it involves two levels of approach:

- a) the individual's interaction with society;
- b) the individual data analysis mechanism for forming an opinion, to promote attitudes, adopting a behaviour.

Besides a confirmation of what was to happen in the presidential election, the analysis in this paper has revealed several essential aspects.

**Romania in general and especially people who live in Caras have their electoral behaviour, unpolished and not very specific. Not yet reached the ideological arranging, leading to a clear domestic political model for political debate easily integrated into a matrix. Election campaigns have been, and probably will be dominated by emotions more than the programs and they will be more negative than constructive.**

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## Virtual Communication - Modern Business Communication

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### Abstract

*Along with the appearance of the informational technology, social networks and online shops, communication has received a new meaning, a new aspect and a new set of rules. It seems that the act of communication has completely moved on the internet. On-line is a very dynamic domain, new for everybody and with a lot of opportunities to exploit, an environment that offers interactive communication with instant feedback from the consumers when they shop on line. Such knowledge is essential in the management of any modern organization that knows this type of communication is an efficient business strategy to be successful on the market. The quantitative research with the theme „Virtual Communication - modern business communication” presented in this article aims evaluating internet users' opinions, attitude and behaviour regarding online communication in order to identify the best solutions regarding on line communication.*

**Key words:** management, communication, business, virtual communication, internet.

**J.E.L. classification:** M00, L290.

### 1. Introduction

When speaking of business communication we have to look carefully at the new trends that influence modern technology: electronic mail, search engines, blogs, social networks are just a few of the on line communication channels. We cannot

imagine our lives without them, we use these channels every day and business world is no exception.

By definition, electronic commerce means buying and selling products or services on the internet. Its beginning is closely related to the appearance of the internet, the base of the online commercial activities. The ninth decade of the last century can be called the beginning of the electronic commerce as we see it today. The history of the electronic commerce is inconceivable without Amazon and E-bay, the first companies with on line transactions [1] and that today are leading the tops in online business numbers. Later, the appearance of gadgets and the technological development led to the increase of this type of commerce with an amazing speed. The idea of technological performance, the sensation of time compression and commodity are just a few reasons that make electronic commerce an area of permanent expansion.

Now, the great challenge among sellers is using advanced technology to get advantages on the market or competitive advantages. In order to be a really successful environment, the on line environment included facilities specific to the traditional system like immediate delivery, credit facilities, and choosing the pay mode, assistance in choosing the products, services or guarantees.

All these in order to satisfy consumers' needs and convince them to make on line acquisitions. In order to do this, understanding consumers' behaviour is necessary to understand the commercial behaviour. This means first of all understanding the way consumers search for

on line information before acquiring products and services. This information raises the possibility that their site would be the final search point for the consumers. On the other hand, understanding the consumers' value regarding their on line buying experience can be a competitive advantage, important for the organization.

## 2. Communication and Business

The researchers Mohr and Nevin have underlined four aspects of the internet communication that help defining its main features: frequency, direction, content and modality [2]. Virtual communication, offer the perfect connection between the organizations and allows many users [3]. Being an interactive environment [4] it allows clients to start communication and gives organizations the possibility to personalize communication. The flux of the on line communication increases the informational transmission speed [5] and communication is more transparent and more accurate [6]. All these are important aspects that improve business relations through communication.

Nowadays there are 2.4 billions Internet users around the world and their number continues to grow at a fast pace. According to a Nielsen study [7] that shows the internet penetration rate, study taken in 58 countries, Romania is on the 45<sup>th</sup> place in the world and on the last place in Europe with a level of 44% of the population meaning approximately 9 million users. According to GPeC and Eurostat, at present, 1.2 million Romanians [8] shop online, on a market of e commerce B2C estimated at the possibility of making mobile publicity remains unexploited in a great measure. According to the KPCB [9], the on line scenery is richer and more social by using photographs, video and audio files. Looking from this perspective, the report shows signs of interest for portable devices like glasses, watches and bracelets logged and cars logged drones and new platforms.

A new study regarding global tendencies of the electronic commerce B2C announces that it is possible to personalize shopping online and great use of mobile devices [10].

So, the mobile electronic commerce (m-commerce) is expected have a bigger part in

the future with half a billion costumers that will shop through their mobile devices by 2016. The same study estimates that world wide it will increase the online payments when buying on the internet, encouraging increase in the number of their and the increase in payments from mobile devices. The tendency at European level in online shopping is increasing with 81.3 billions of euro in 2010 and 133.6 billion euro in 2015 [11]. According to the predictions of e-Marketer [12], shopping on line B2C in North America and west Europe is growing all the time, estimating that by 2015 a percentage raise of 23.4% for western Europe and 3.8% for eastern Europe.

The world has evolved and consumers are more and more aware of the role they have on the market [13]. The raise of buying power, of education and culture level, gives buyer the possibility of satisfying his more and more sophisticated needs with a higher quality level. The producer has to keep these things in mind in order to satisfy consumers' desires. Consumers can shop online 24 hours a day, 365 days in a year, eliminating this ways the time spent in physical shops, distance, parking and traffic. So, the act of buying can be done so easily that the shopping barrier will be reduced and the buying feeling will increase.

Internet has the capacity to support all the dimensions of the informational searching process, operational dimensions in time and space.

The commodity of the internet shopping from home can save time and in some cases can lead to unplanned acquisitions. A way to get client's satisfaction means understanding the consume value thinking that the taxed value is an important factor in the client's satisfaction.

The taxed value can be defined as the benefit received by the client related to the total cost or as a global appreciation of what is being received compared to what is being given. Gordon and De Lima-Turner have discovered that generally, consumers are more attracted by the mobile advertising on the internet. They also concluded that online advertising creates a positive image for a brand [14].

In 1999 Schloser, Shavitt and Kanfer have made a study among 400 internet users. After the study, the three authors affirmed that the

internet users see internet advertising as informative and less amusing not encouraging them to make online acquisitions [15].

Some other studies about online consumers revealed in 2000 that because of the easiness perceived by the client the internet acquisition influenced their attitude positively regarding purchasing [16]; in 2002, Alreck and Settle discovered that online shopping was regarded as a time saver more than the traditional type [17] and Constantinides in 2004, placed easiness as a major influence on the online shopper's behaviour [18]. In 2010, P.B. Brandtzaeg [19] has made a study on the internet consumer's behaviour. After the research he divided the internet consumer behaviour in categories based on: the frequency of the internet use, diversity in use and preferences content.

The typology identified by Brandtzaeg was: non users, casuals and debaters (the ones that use the internet for debates), the entertainment users, spectators, social networks users – the ones that use the internet to socialize with family and friends and the advanced users.

The consumer's behaviour has changed lately and the consumers are more and more different, more exigent and aware of the place they held on the market. Internet is one of the main information resources for consumers, the online environment offering many advantages and knowing the consumer's behaviour is essential in taking an efficient decision.

### 3. The Research Methodology

The quantitative research with the theme „Virtual Communication - modern business communication” presented in this article was realized with the help of an online questionnaire platform offered by Google Docs.

The *group of the research* is represented by 492 consumers; *the observation unit* is represented by the online organizations.

The *research unit* is set as the person, no matter of gender or social-professional category.

The research *aim* is evaluating internet users' opinions, attitude and behaviour regarding online communication in order to

identify the best solutions regarding on line communication.

The *research objectives*:

The present research has two study directions: the use of the internet and the quality of the online communication.

I. The objectives of the first study direction are:

- Identifying the place where users access internet the most.
- Identifying the activities that internet is being used for.
- Measuring the degree in which is the internet is the main shopping source.

II. The objectives of the second study are:

- Measuring the satisfaction degree regarding the online communication organizations
- Identifying the main interaction instruments agreed by the internet users.
- Measuring the trust degree that internet users have in internet advertising.

The *research method* used was the sociological investigation.

The *investigation technique* used was the self applied questionnaire.

The *research instruments* – a structured questionnaire (15 questions) administrated to a number of 500 people and 492 questionnaires were valid.

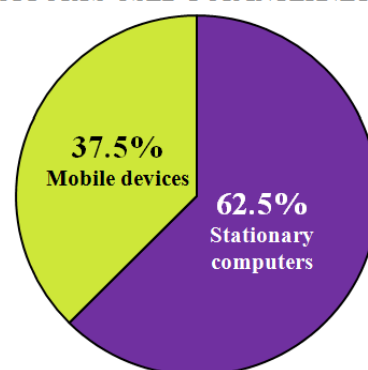
The *data collection* took place between 16<sup>th</sup> of February and 20<sup>th</sup> of March 2014.

### 4. The Results of the Research

I. For the first study direction – the use of the internet – it is not surprising that 93.8% of the respondents use the internet network.

Accessing the internet on fixed computers (diagram 1) still owns a high percentage

Diagram 1  
SUPPORTS USED FOR INTERNET ACCES

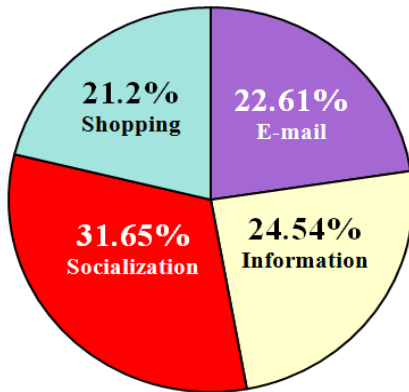


Source: own projection

(62.5%) compared to accessing internet on mobile devices (phones and mobile computers) 37.5%.

In what reasons for accessing the internet (diagram 2) are concerned, this is the situation: 31.65% of the 492 respondents access the internet for the social networks, 24.54% access it for information, 22.61% for e-mail and 21.2% for online shopping.

Diagram 2  
**REASONS FOR ACCESSING THE INTERNET**

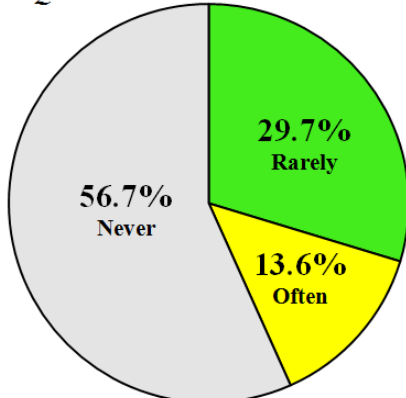


Source: own projection

So, from the 492 respondents, 46.8% are 25-40 years old, 29.6% are between 41 and 50 years old, and 14.2% between 18-24 and 9.4% are over 50 years old.

Among the 21.2% respondents that said they used internet for online shopping (Diagram 3), most, meaning 74.5% are between 20 and 50 and they shop on line rarely (29.7%), often (13.6%) or never (56.7%).

Diagram 3  
**FREQUENCY OF SHOPPING ONLINE**

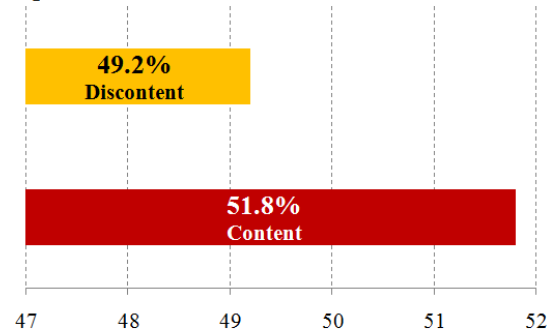


Source: own projection

**II. For the second direction of the study – the quality of the online communication – the**

respondents of almost equally divided in content and discontent groups (diagram 4), 51.8% are content and 49.2% are discontent with the quality of information.

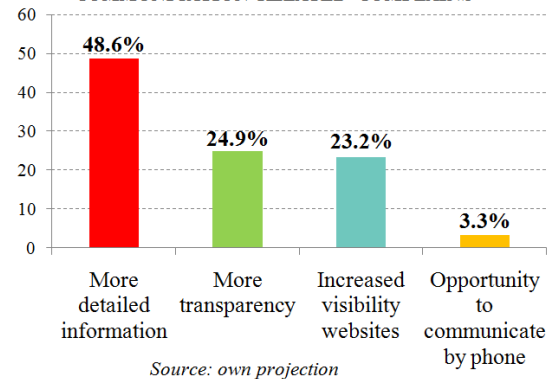
Diagram 4  
**QUALITY OF THE ONLINE COMMUNICATION**



Source: own projection

The discontent ones want (diagram 5) detailed information about services / products (48.6%), more transparency in describing the firm's history (24.9%), sites with increased transparency (23.2%) and the possibility to phone communication in order to get or ask for information (3.2%).

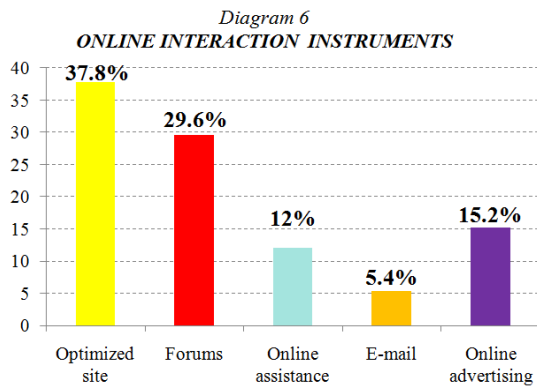
Diagram 5  
**COMMUNICATION RELATED COMPLAINS**



Source: own projection

The respondents declared themselves content mainly because they could interact with their favourite brand (54.3%) and the prices of the online acquisitions (28.5%).

In what online interaction instruments are concerned (diagram 6), they declared they like the optimized site (37.8%), forums (29.6%), the online assistance (12%), e-mail (5.4%) and online advertising (15.2%).

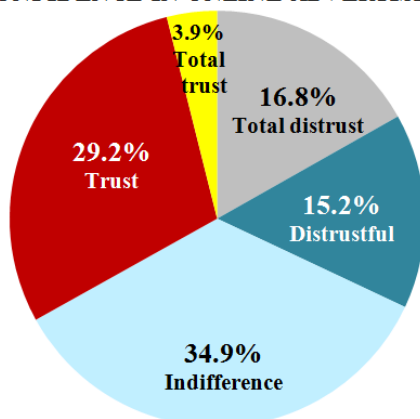


*Source: own projection*

80.7% of the respondents declared that they like the idea of advertising. Among these, 68.3% are between 18 and 40 years old, 25.8% are between 41 and 50 and 5.9% are over 50. Interesting is the fact that all the respondents between 18 and 40 like the idea of advertisement and only 19.3% of the 492 respondents do not agree advertising.

A surprising result was received in what the trust degree is concerned (diagram 7).

*Diagram 7*  
**CONFIDENCE IN ONLINE ADVERTISING**



*Source: own projection*

So, only 3.9% of the respondents trust online advertising, 16.8 % totally lack in trusting online advertisement, 29.2% do not trust this type of advertisement, 15.2% trust online advertisement and 34.9% declared they did not care.

## 5. Conclusions

A first conclusion that can be drawn is that online instruments allow interaction, conversations, discussions, powerful instruments that can be used today with professionalism to raise the visibility and the

business profit of an organization.

The efficiency of an online communication is related to a major advantage - the redirecting of the visitor. The visitor can be redirected on the company's page towards complementary pages, pages with more information, etc.

Improving communication instruments on the internet to have a friendlier interface with the user is strictly related to the evolution of the technology, with the multimedia development, attractive animations and appropriate sounds, gathering a large area of products, finding more creative and attractive methods.

In order to have positive results, internet communication should be managed through the target's characteristics, by creating some event type promotions, by posting messages on social sites, by involving potential clients actively on the social networks.

The advantages of the online communication are: interaction, complexity, flexibility, efficiency, precise targeting, relatively low costs the possibility of sending information to a wide area of people in a very short time, creating some opinions about the product and for the internet company, the possibility of getting a rapid feedback.

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## Study on Leadership Factors and Performance Parameters

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### Abstract

*Research is based on theories in the field, and analyzes two dimensions: organizational leadership and organizational performance within Romanian companies and correlations and influences of these two dimensions. The most important part of the study is to define the leadership variables or factors and the performance. The aim of this article is to present these factors.*

*We considered eight causal factors or variables of leadership, such as: vision, flexibility, confidence in leader, communication, teamwork, learning within organization, motivation through equity and employee motivation. Through these variables we will identify how Romanian organizations are led, how Romanian leaders are perceived by their employees and the extent to which these variables lead to organizational performance in Romania.*

*Another key issue of this research is the set of indicators used in performance measurement. To measure performance, we used both financial and non-financial indicators: dedication and employee satisfaction and customer satisfaction.*

**Key words:** leadership, organizational performance, followers.

**J.E.L. Classification:** M10.

### 1. Introduction

Results of group analysis made within Romanian organizations, studying the topic of leadership and its presence within these organizations - such as companies, governmental agencies, autonomous and non-profit organizations - have reported a permanent crisis of leadership. Studies in the field show that most employees, whether part of a hierarchical structure or a team, believe

they never worked with a true leader, involved in management of the organization and people-oriented.

The topic of this research is to measure the impact of Romanian leaders on organizational performance and the extent to which this impact is perceived by followers as an effective and efficient one, leading to performance.

This study aims to identify the outcomes of Romanian leadership by, firstly, identifying the "leadership factors" or "leadership variables" that have an impact in improving organizational performance. Furthermore, results will be obtained throughout evaluation of leaders' actions within organizations made by subordinates. Evaluation is approached by a number of criteria and organizational variables and represents foundation of our entire research. These variables or leadership factors will be presented in this study.

Diagnosis of Romanian organizational leadership will serve as framework for training and improving those managerial practices that Romanian managers lack of, in order to become effective leaders.

### 2. Research framework

It is important to be realistic and to know the limits of Romanian managers, often results-oriented and vivid of power, which frequently forget team members, forget the importance of having a close relationship with their teams, do not win team's respect and confidence, fail to place each member at the right place and fail to orient them in achieving objectives. These limits must not only be identified, but also prioritized in order to be improved. Leadership is not just about learning and developing, working with followers or changing hierarchical structure and organizational culture, but all these simultaneous actions and even more than

that. Therefore, it is important to evaluate leadership factors that evince within Romanian companies, as all these factors need to appear simultaneously, and thus to be rapidly assimilated by Romanian leaders in order to become effective leaders for their teams.

Research also aims to demonstrate the existence of a strong link between leadership and organizational performance. Analysis of relationship between leadership and different forms of organizational performance, such as customer satisfaction, employee satisfaction and financial performance is more accurate than that of the relationship between leadership and financial performance. Precisely because of the multidimensional nature of performance, we did not limit its analysis to a financial analysis and took into consideration the relationship between profitability, customer satisfaction and employee satisfaction. In measurement of organizational performance, we used both financial and non - financial indicators.

To all intents and purposes, research aims to develop an instrument that will be used to measure leader's impact on organizational performance by calculating eight key leadership organizational variables, respectively vision, flexibility, confidence in leader, communication, teamwork, learning within organization and motivation by its two components - fairness and job fulfillment of employees, and three performance parameters: customer satisfaction, employee loyalty and commitment and financial performance and, finally, to correlate obtained values in order to determine influences.

Definition of leadership variables and performance parameters is based on a critical analysis of current state of knowledge in the field, on theories and elements of good practice and excellence in leadership, carried out within first stage of research. Briefly, the instrument - the questionnaire - will be used to measure the extent to which leaders influence, inspire and motivate followers to achieve goals, and the extent to which leaders have impact on organizational performance and efficiency. After diagnosis of leadership and current organizational performance within studied companies and correlative analysis of results obtained, statistical validation of the instrument is performed.

### **3. Concepts operationalization for determining effective leadership model**

Research and hypotheses are preceded by study of literature in the field. Definition of studied variables is based on articles, confirmed theories, researches, classical works in the field of organizational management and human resource management, such as Theory X - Theory Y, developed by Douglas McGregor, Elton Mayo - social relations at work, the need for fulfillment and affiliation developed by David McClelland, Maslow's pyramid of needs, Likert's leadership styles, Warren Bennis's studies [1] that attempted to transform leadership in practice, research conducted over a period of 10 years by U.S. Sirota group [2] on human motivation, research of J. Pfeffer [3], Romanian researches and more. Based on previous studies and information provided by literature and other international studies, we established the elements underlying our study on the impact of leadership on Romanian organizations. We developed a model of effective leadership, considering eight causal factors or variables, such as: vision, flexibility, confidence in leader, communication, teamwork, learning within organization, motivation through equity and employee motivation. Through these variables we will identify how Romanian organizations are led, how Romanian leaders are perceived by their employees, how Romanian leaders influence these eight variables, extremely important for an effective management, and the extent to which these variables lead to organizational performance in Romania. Another key issue of this research is the establishment of indicators used in performance measurement. Hence, to measure performance, we used both financial and non-financial indicators: dedication and employee satisfaction and customer satisfaction.

#### **3.1. Identification of leadership factors within studied organizations**

Research addresses key policies and practices of leadership. Thus, it is important whether leaders manage to influence followers in task achievement, to make them feel part of the organization, to make them

loyal, satisfied and committed employees, with a high morale, by analyzing eight organizational variables (they are listed in the following as seven variables, but motivation variable involves the analysis of two important dimensions, which will be treated separately).

What do we intend to measure?

1. **Vision and organizational values**, referring to:

- a. Vision articulation - whether mission and values are clearly defined, communicated by management of the organization and understood by employees;
- b. Align the vision and values - the extent to which followers believe in the vision and values of the company, is identified with its own system of values and they are respected leaders and other members of the organization.

2. **Confidence in leader** - is vital to transform employees in followers that follow their leader and become loyal to him and to the organization, and includes:

- a. leader integrity and organizational integrity is basis of trust. In practice, leaders do not deviate from their value system, values they believe in and their behavior are in perfect harmony. Also, values of the organization are not mere slogans that no one takes into account, including leaders;
- b. leader compliance with commitments, "what he says is always what he does";
- c. credible and consistent management - leaders treat their followers the same way they want to be treated by them, respecting promises and commitments, respecting organizational values. What leaders say and what they do are the same thing;
- d. joint leadership - leaders support their followers when needed, guide them and give them advice.

3. **Organizational flexibility**, analyzed throughout:

- a. the importance given to rules, regulations and organizational procedures;
- b. bureaucracy within organization - decision approval process and speed

of this process.

4. **Communication with employees** - underlies all organizational variables: vision alignment, teamwork, motivation and job fulfillment, and includes:

- a. communication to lower levels: communication of mission, strategies and objectives, communication of procedures and necessary information for task achievement, leaders' transparency and openness to employees, knowledge of their aspirations, employee access to information about the organization;
- b. communication to senior levels: giving employees chance to be listened to, providing information to higher levels by employees, consulting employees in decision making;
- c. inter-departmental communication;
- d. communication for learning: leaders' feedback to followers referring to their ideas, their performance, teamwork communication sessions, communication between team members for learning.

5. **Teamwork** - the extent to which leaders encourage employees to work together, to collaborate, to develop an atmosphere of fellowship and support within teams, analyzing the following aspects:

- a. team members professionalism;
- b. team ability to fulfill tasks: information on responsibilities of each member and clarity of expected results;
- c. members participation in decision making, together with superiors, through consulting and involving them in setting operational objectives;
- d. collaboration among team members - members make decisions together, have their say in the team cooperate to fulfill the tasks;
- e. trust between team members;
- f. mutual support within teams - team members exchange expertise within teams, share knowledge;
- g. fellowship - informal relationships between employees of the organization;
- h. perception of belonging to a team, dedication and fulfillment within

team;

- i. coordination between departments - the extent to which employees of different departments work together in order to achieve tasks and objectives of the organization, and the extent to which these departments communicate and coordinate their activities in order to avoid delays and conflicts.

6. **Learning within organization** - the extent to which organization's followers are offered various training opportunities, improving their skills and directing the organization to continuously adapt to current economic environment dynamics, assessing the following components:

- a. encouraging excellence and professionalism within organization through access to knowledge and learning resources, training and professional development;
- b. sharing knowledge and expertise necessary for task achievement among team members and dissemination within organization;
- c. encouraging experimentation and innovation;
- d. inspiring followers to training because of their leaders' power: as a specialist, as a referent, as a charismatic person;
- e. interchanging positions within organization in order to gain new skills and knowledge.

7. **Employee motivation** - determination, by leaders, of certain employee behavior, dedicated and oriented towards goals' achievement, by two types of motivational factors: equity and employee fulfillment within organization.

7.1. **Equity**, fair treatment of employees from an economic, psychological and social perspective, analyzed as follows:

- the extent to which employees are satisfied with their salaries and benefits;
- safety at workplace;
- employment stability - the extent to which people fear for their jobs can significantly influence their morale and is measured by number of layoffs;
- respect shown by leaders to employees, highlighted by ways employees are treated by leaders: their

knowledge of each employee and consideration for their wishes and aspirations;

- accurate treatment of employees within organization and hiring and promoting them strictly by professional criteria;
- the extent at which employees feel satisfied with their current job.

7.2. **Employee fulfillment** within organization, resulting from:

- employee empowerment and accountability - examines job autonomy of employees and their authority to make decisions related to their work or customers;
- micromanagement - the extent to which leaders give clear instructions and controls task achievement when delegating responsibilities;
- constructive feedback - leaders provide direct information on followers activities within discussions and dialogue sessions, and this is basis of reward system, but also of learning. Feedback contributes significantly to improving employees performance and morale because followers want to know how leaders appreciate their work, need leaders' opinion. It refers to:
  - evaluation of employees actual results - consists of interpreting employee results, dimensioning their contribution in relation to leader's expectations;
  - mentoring - leaders provide directions to improve employee performance relative to their expectations, guide and counsel them;
  - correction of errors - consists of leaders' constructive criticism, through discussing with employees about their weaknesses and establishing methods of correcting them.

- compensation scheme - aims to evaluate whether reward system is based on employee results:

- fairness of evaluation system - the extent at which reward system is known to all employees and is applied fairly, without discrimination, evaluation criteria are both qualitative and quantitative;

- granting rewards - the extent at which positive results are recognized by leaders and encouraged through different facilities to employees or financial rewards.
  - use of penalties - the extent at which errors are punished immediately and not analyzed and corrected. Research analyzes leaders tendency to amplify consequences of errors in relation to recognition of merit;
  - recognition of employee contributions to goals achievement - refers to praising employees, to granting merit certificates;
  - promotions - the extent to which leaders give employees opportunities for personal development, primarily promoting them within organization and not persons outside the organization, in cases when employees are candidates with expertise and results.
- pride and job satisfaction, which comes from:
- job challenges - within organizations, standards are high. For achieving tasks, employees share their skills and competencies, their work is motivates them;
  - work significance - employees wish to achieve important tasks at work, they wish to have a significant contribution. They want their job to have a significant impact on organizational performance;
  - providing quality - for employees, quality is a performance indicator of their work; providing qualitative products and services is an important source of pride for employees. Leaders must obtain from their followers both quantitative and qualitative results, many of them focusing exclusively on work volume and financial results.

### 3.2. Evaluation of organizational performance

Blachard once said "Profit is the applause you get for taking care of your customers and motivating your people right." [4] Hence, we analyzed organizational performance throughout developed questionnaire by a series of statements referring to three basic parameters: employee satisfaction and

commitment, customer satisfaction and financial performance.

What do we intend to measure?

1. **Employee satisfaction** and commitment implies people's affiliation to vision and values of the organization, employees' passion and satisfaction with work performed, leaders' inspiration and maintenance of high morale, thus resulting from voluntary cooperation for achieving objectives. Employee satisfaction can be traced by analyzing the following:

- Employees fluctuation - this is an important indicator reflecting employee morale;
- Loyalty, commitment and enthusiasm of employees towards organization;
- High employee motivation;
- Earning respect and trust within members of the organization.

2. **Customer satisfaction** - implies knowledge of customer wishes and expectations, possibility to meet these expectations, customer loyalty, quality of products or services. These aspects are analyzed by the following:

- commitment to customer, as "everyone works for customer";
- quality provided to customers;
- employees' knowledge of customer's wishes and readiness to satisfy them;
- durable relationships with customers;
- organizational ability to adapt - shows the extent to which leader is responsive to customer's needs, to rapid changes in the economic environment, and the ability to manage a flexible organization that can quickly and efficiently adapt.
- organizational advantages in relation to competitors, regarding products and services.

3. **Financial performance**, measured by various indicators. Statements used are general because assessments are made by employees, according to their perception, as this is not based on a detailed financial analysis on financial performance, but on subjects' responses and considerations regarding:

- Financial developments;
- Profit per employee.

### 4. Conclusions

Conducted study is to be used - both as a tool and as a model - in the following. Both will provide essential information for

Romanian leaders interested in increasing performance of their organizations. Diagnosis tool of leadership and organizational performance is based on a simple calculation methodology; it can be used by any manager to diagnose its organization, and then, by using obtained scores for the eight variables and the proposed model, he will know where to intervene and what to change in his driving style. The study based on the presented variables will provide leaders clear evidence on what changes are needed, but it takes leader's actions to intervene and change methods and strategies leading to positive impact on organizational performance. For those organizations that will be included further in this study, research will offer objective feedback on situation perceived by employees.

We will probably not be able to change Romanian organizations entirely, but our intend is to understand the issue of leadership and its manifestation within studied sample and, most importantly, to highlight what efficient leadership means and what needs to be transformed and changed, so that Romanian organizations are responsible and efficient, their employees are fulfilled and loyal and their customers are satisfied.

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# Banking Security Characteristics in Cloud Computing Technology

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## Abstract

*Cloud Computing technology has become an imminent reality by penetrating all the environments. Although the benefits of implementing Cloud Computing solutions are obvious, there is still a reluctance to use them, especially in the banking sector. Some authors have compared the banking environment itself to the Cloud Computing technology in terms of security and confidence. In what follows, we propose to highlight the main aspects of Cloud Computing security and to detect any elements of vulnerability, as well as directions for improvement.*

**Key Words:** Cloud Computing, data privacy, information security, banking system.

**J.E.L. Classification:** D80, M15

## 1. Introduction

The information and communication avalanche of the recent years, mainly due to the unprecedented development of Internet based applications, has brought to the fore the Cloud Computing technology. The characteristics of Cloud Computing technology are: providing services on demand, payment according to usage, services management performed by the Cloud provider and connectivity regardless of user location. The benefits of Cloud Computing are: providing user access to a wide range of applications without having to download or install them, applications can be accessed from any computer at any location, avoiding the additional costs of improving the hardware and software [2]. Although Cloud Computing technology is a natural tendency, there still exist many issues related

to security and users' reluctance. The problem of data security in Cloud Computing can be seen from a classical perspective because data can be vulnerable to a cyber attack regardless of their location. Therefore, Cloud Computing security covers issues related to computer system security, adoption of suitable architectures, using software protection, user access control.

## 2. Security in Cloud Computing

Although security issues in Cloud Computing successfully integrate in the field of information technology security, there are certain characteristics that define them [3], [7]:

1. Cloud includes shared resources, and certain users can affect existing data through their actions;
2. Data in data centers are often exposed through connections with low security level;
3. Data stored in the Cloud may be affected by incorrect handling or even removal by the Cloud provider;
4. Cloud data can be accessed by the Cloud provider, by their partners or even by their employees.

As it can be seen, the potential security problems are mostly generated by the human factor involvement in erroneous or malicious actions, rather than by using specific equipment and technical procedures. The main problem of security and confidence derives from data access of an authorized, but unknown Cloud provider.

In traditional architectures, trust in information systems was ensured by well-defined security policies. Thus, clear restrictions that applied to external information systems, involved staff and users were established. If one chooses to store data



in public, organizational or hybrid Cloud, the security policy is established by Cloud provider. Thus, the possibility of involvement in the security policy creation is impossible. This problem can be limited or even eliminated by using private Cloud, securing the data by the holder and establishing rights and restrictions for the involved staff.

An important aspect of Cloud Computing security is the deterioration of the security perimeter concept. Security perimeter is a set of physical and virtual security policies that provide data protection at a conceptual level. Traditionally, it is considered that access to other systems or to the systems of other organizations can provide access to unwanted people. Traditionally, security perimeter was clearly established, but in the context of Cloud Computing, by transferring data to the Cloud providers, security perimeter becomes vague. Organizational resources identification, authorization and users monitoring are essential to protect the organization. To this end it is proposed to build a Cloud component that contributes to increasing the level of trust. This component covers the following aspects: privacy levels; client authentication; secured areas; cryptographic data segmentation; certificate-based authorization [8].

### **3. Similarities of security issues in Cloud Computing and banking environment**

The requirements of competitiveness, efficiency and sustainability in the banking sector increasingly require the transformation of the traditional business models, the supply, as well as the operations, to better meet the needs of customers. In this regard, the banking systems require a customer-focused interface as flexible as possible, allowing rapid adaptation to market needs, to specific regulations and to increased security and capacity requirements, which is possible by using Cloud Computing solutions [4].

The adoption pace of Cloud Computing solutions by different types of organizations worldwide is experiencing a tremendous growth - the Cloud solutions market is estimated to increase from 11 billion USD in 2010 to 65-85 billion USD in 2015, according to McKinsey consulting firm [6], and the banking sector is part of this trend, given that Cloud offers begin to dominate the

financial services market. Banks are opting for private Cloud services, preferring total control over their own data centers, due to the high security requirements specific to their business, but also for public or hybrid Cloud solutions for certain processes, especially CRM, procurement and human resources applications.

It can be asserted that as the banking sector confidence in Cloud Computing solutions will increase in the coming years, along with the evolution of the relevant regulations, banks will increasingly use Cloud Computing solutions, both public and private, and due to their nature, CRM as well as procurement and human resources processes are particularly targeted at the industry level.

In Romania, the banking environment is ready to migrate to Cloud Computing technology mainly due to high-speed Internet connection, investments in technology upgrading, and competent staff ready to implement and use services based on Cloud Computing. The testing of Cloud Computing technologies started in the Romanian banking system since 2009, when servers' virtualization began, thus building private Cloud systems. However, according to a study on the Romanian banking system, most of the analyzed banks do not intend to use Cloud Computing solutions in the near future, because of the risks involved [5].

The characteristics associated to the infrastructure adopted in the banking systems are however significantly different, depending on the adopted solution. Traditionally, the classical intranet has been used, involving a number of end users who use certain software programs to access the specific applications located on the server. Also, a Virtual Desktop Infrastructure model (VDI) can be used, which excludes the need for storing content at final client level, as both the operating system and the software applications are located at server level, and are directly accessed by users.

A summary of the main characteristics of these models is presented in Table 1, in a comparative perspective to the Cloud Computing model, based on a case study conducted specifically for the banking system [1]. The study highlights the multiple benefits brought by the implementation of Cloud

solutions in terms of security, efficiency and effectiveness.

Table 1. Comparison between classical, Virtual Desktop Infrastructure, and Cloud Computing intranet models

No.	Characteristics	Classical intranet	VDI intranet	Intranet in Cloud Computing
1	System vulnerability	Medium-High	Medium-Low	Low
2	Number of Servers	4	> 4	Infinite
3	Number of Clients	8	8	Infinite
4	Number of Software per Client	10	10	0
5	Total time for software installation on each client station (hours)	10	10	0
6	Dynamics of Clients Number	+5 (in 6 months)	+10 (in 6 months)	+5.000 (in 6 months)
7	Connection mobility	Low	Medium-High	High
8	Software portability	Low	Medium-High	High
9	Interoperability level	Low	Medium-High	High

Adapted from: Apostu, A., Rednic, E., Puican, F., "Modeling Cloud architecture in banking systems", Emerging Markets Queries in Finance and Business, *Procedia Economics and Finance*, 2012, pp. 543 – 548.

For classical intranet and respectively VDI model average values have been considered, estimated for the measurable characteristics according to the results of the conducted survey. It can be seen that the model based on Cloud Computing, compared to the other two considered models, is characterized by lower vulnerability and the ability to integrate a virtually infinite number of servers and clients. The Cloud-based model does not require the installation of programs or software applications at the end users level and allows them very high dynamics; also, the characteristics of connection mobility, software portability and interoperability level are rated at a high level.

Safety, protection and trust are essential issues for both the Cloud Computing and online banking systems. Both should contain software systems to detect threats and stop unwanted access, firewalls, antivirus software, authentication systems, data encryption and authorization [2].

Banking security systems are designed to protect population's assets and are structured on several levels: physical, electronic and informational. The security systems in Cloud Computing environment have the same goal, protecting the information assets of the population against unwanted attacks.

The following key issues for Cloud Computing security and respectively, for the banking sector can be identified [2]:

- Addressing security as critical problem - On the one hand, bank security systems include various levels and components, as physical, transactions and electronic security, to prevent fraud attempts and to protect customer property. On the other hand, Cloud services are available in an open virtual environment, and thus exposed to hacking attempts. In this respect, it is critical to recognize the potential threats and to establish security processes in order to protect Cloud services and platforms against possible attacks.
- Access control and accessibility - Restricting clients' resources access to unauthorized individuals or entities is a major concern for any Cloud provider, imposing strict control, which usually involves authorization and authentication. Similarly, in the banking system, access control is achieved through multiple ways, such as requiring a PIN code or using ATM solutions that allow resources access only for authorized users. Implementation of similar, strict access mechanisms for Cloud services, would

significantly contribute to increasing trust and confidence. In terms of accessibility, both banking and Cloud services should allow access to data and resources as per the request of the authorized entity, regardless of location or time. Similarly, Cloud services would benefit from the adoption of certain methods and techniques aimed at increasing their accessibility.

- Confidentiality - For both for banking and Cloud services, ensuring confidentiality to clients is a vital aspect. Stored resources and data are critically important for customers, and the violation of their confidentiality can have severe consequences. However, the responsibility in this respect lies with both the providers of these services and the customers.
- Long-term viability and regulations - The long-term viability of a Cloud service provider is another major concern for any organization or person wishing to transfer information resources into the Cloud. As in the case of banking services, the bankruptcy of Cloud service provider may have a critical negative impact on its customers, and in this respect, a strategy aimed to ensure business continuity and to provide guarantees to customers is essential. In this regard, establishing a robust regulatory framework for Cloud services - which is not yet completed - becomes essential.

#### 4. Conclusions

The key aspects of Cloud Computing security are derived from data sharing, their exposure through different types of connections, their dependence on the interaction with the human factor, their entrusting to the Cloud provider. Practically, by using Cloud Computing solutions, the security perimeter is affected, that concept which defines the policies aimed to ensure data integrity. In what concerns the penetration of the Cloud Computing technology in the banking environment, there is a tendency to use it, but also the reluctance due to trust and security. We consider that a viable alternative is the use of private Cloud solutions. This eliminates the security issues derived from providing the data to an

external Cloud holder and their inadequate handling by non-bank staff.

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## Research on How the Port May Influence the Social Life of the Community

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### Abstract

*The concept of social life is present, with a very high frequency, in our everyday language, but also in analysis, studies, debates, micro and macro economics political strategies. Even if we do not find it in a dictionary, in order to meet its academical sense, we use this concept in relation to people's life in society, under various aspects: the affiliation to a certain social class/category, social group or community (the residents of a city, country, region). People have social needs, which reflect, especially, the desire of affiliation to a group, completed by communication and closeness, involvement in solving social problems, involvement in the community to which they belong and the participation in social events. [1]*

*We consider it important to have concerns regarding the knowledge of social needs and identify actions that people expect to be taken for their social life.*

**Key words:** influence, port, social life

**JEL Classification:** M31

### 1. Introduction

It is appreciated that, within society, people are bound together through an active organization, but also through a spiritual interdependence. Social life is influenced by many factors, economic, cultural-educational, historical, political, legal. In turn, social life occurs on all these aspects.

There are studies and research conducted by specialists from different fields, at different times, which demonstrate the

existence of these interdependencies and the importance of being familiar with them for the economic and social development. We believe that The “Danube Spirit In Port Communities” project, Romania-Bulgaria Cross-Border Cooperations Programme 2007-2013, project code 2(4.i)-3.3.-14, CODE MIS-ETC-602, co-financed from european funds in the Operational Programme on Cross-Border Cooperation Romania-Bulgaria, Priority axis no. 3: Economic and social development, Intervention area: 3.3 „People to people”, fits in this direction of research. The project partners were: The Art Museum of Constanta (P1), „Dunarea de Jos” Museum of Calarasi (P2) and the Art Gallery of Ruse (P3). [2]

### 2. The organizing and the course of the marketing research

The project had as a general objective the contribution to the growth of social and cultural cohesion at local and cross-border level, in three danubian port cities: Constanta, Calarasi and Ruse. To fulfill this objective, within the project, it was realized a marketing research regarding the way in which local and port communities perceive each other- the perception of local communities regarding the ports and vice versa.

The marketing research was conducted following the next steps: (1) Establishment of the research objectives, respectively, the knowledge of the connections between the port and the social life of the three port-cities, members of the project; (2) Defining the researched collectivity- the population of the three cities: Constanta, Calarasi and Ruse; (3) Establishment of data collection methods –

occasional survey, based on questionnaires [3]; (4) Establishment of the sample- 150 individuals, 50 from each city, but we effectively used a sample of 154 individuals, because from the partner from Ruse were received 154 questionnaires; (5) Data collection- it was compiled a questionnaire with 38 different types of questions: simple options questions, multiple options questions, semantic questions in scale, open questions, control questions. [4]

The period to complete the questionnaires in the three port cities, was established between July 27 and August 15, 2013.

The processing of the questionnaires, the elaborations of the conclusions and the

writing of the research report were done between August 16 and September 5, 2013.

### 3. Research on how the port may influence the social life of the community

For this study, we have selected from the summary of the project, only the aspects regarding the influence of the existence of the port and the social life of the communities from the three cities.

a) We considered it good to know, from the beginning, if the residents of the three port cities feel connected to the port life.

Table 1. Centralization of the answers to the question no. 1: „Do you feel connected to the port life?”

Project partners	Yes	No	Total
P1	37 (74%)	13 (26%)	50
P2	30 (60%)	20 (40%)	50
P3	24 (44%)	30 (56%)	54
Total	91 (59%)	63 (41%)	154

Source: own research

It can be observed that more than a half, respectively 59% of the studied sample (of 154 individuals), consider that they feel connected to the port life. This means that the sense of connection to the port is obvious for the social life of the residents of the three cities. But, towards the value recorded at the sample's level, we have two extreme situations, respectively for the residents of Constanta it was registered the highest percentage of affirmative answers (74%),

while the residents of Ruse had the highest percentage of negative answers (56%).

b) The direction in which we continued the orientation of the research was to identify the aspects that reflect the connection felt by the people of the three cities with the port. Thus, the persons who answered affirmative to the question above, were asked to state if they consider that the port determines a specific lifestyle.

Table 2. Centralization of the answers to the question no. 2: „Do you consider that the port located in your city determines for you a specific lifestyle?”

Project partners/ Individuals who answered YES at question no. 1	The port determines a specific lifestyle	
	Yes	No
P1 (37-74%)	32(86%)	5(14%)
P2 (30-60%)	17(57%)	13(43%)
P3 (24-44%)	-	-
Total 91(59%)	49(72%)	18(28%)

Source: own research

From the centralized data we can assume that the residents of Constanta and Calarasi, those who at the previous questions answered affirmative in a higher percentage than the average of the sample, consider that the port determines in a high percentage (72%), a

specific lifestyle. This time also, we find the highest percentage at the residents of Constanta, which means that for them, the presence of the port has a high influence (86%) to determine a specific lifestyle.

A very special situation we meet at the

residents of Ruse. For the previous question, they registered the lowest percentage of affirmative answers (44%), which shows that they feel less connected to the port life, and further they did not say whether or not the port determines for them a specific lifestyle.

c) We continued the research with the individuals who answered „no” at the first question, to find out what kind of expectations they have in order to feel that they are connected to the port life.

Table 3. Centralization of the answers to the question no. 3: „Could be the port involved in the financial support of the local community and in the imprinting of a specific lifestyle for the city you are living in?”

Project partners/ Individuals who answered NO at question no. 1	Involvement in the financial support of the local community		Imprinting a specific lifestyle	
	Yes	No	Yes	No
P1 (13-26%)	11 (85%)	2 (15%)	11(85%)	2 (15%)
P2 (20-40%)	16 (80%)	4 (20%)	19 (95%)	1 (5%)
P3 (30-56%)	16 (53%)	14 (47%)	26 (87%)	4 (13%)
Total 63(41%)	43 (68%)	20 (32%)	56 (89%)	7 (11%)

Source: own research

The persons who offered negative answers at the first question, considering that they do not feel connected to the port life, showed through their answers that they have high expectations regarding the involvement of the port, both in the financial support of the local community and in the capacity to imprint a specific lifestyle for the inhabitants of the three researched port cities.

Analyzing the obtained data at for each partner, we can say that the inhabitants of Constanta, where there is the smallest percentage of individuals who consider that they are not connected with the port life (26%), still have very high expectations (85%, see Table no. 3), regarding the involvement of

the port in these two directions. The situation is someway similar with the residents of Calarasi. Surprisingly, the residents of Ruse also have high expectations (87%) regarding the involvement of the port in the imprinting of a specific lifestyle, given the fact that here we meet the highest percentage (56%) of individuals who consider that they do not feel connected to the port life.

d) In order to find more aspects about the influence of the port, we tried to discover if the people from the studied sample consider the existence of the port as a determinant of the history of their cities, especially under social and cultural aspects.

Table 4. Centralization of the answers to the question no. 4: „Do you consider that the presence of the port has determined your city history?”

Project partners	Yes	No	Total
P1	43 (86%)	7 (14%)	50
P2	47 (94%)	3 (6%)	50
P3	53 (98%)	1 (2%)	54
Total	143 (93%)	11 (7%)	154

Source: own research

The answers at this question are very similar and the large proportion of affirmative answers (93%) demonstrates clearly that the residents of the three cities appreciate that the presence of the port determined the history of their cities.

e) We asked additional information from the persons who answered affirmative at the question above, in order to measure the intensity of the port activity influence in the history of each city, under social and cultural aspects.

Table 5. Centralization of the answers to the question no. 5: „To what extent do you consider the port activity determined the history of your city in the social life?”

Project partners/ Individuals who answered YES at question no. 4	To what extent the port activity determined the history of your city in the social life?				
	Very great extent	Great extent	Some extent	Little extent	Very little extent
P1 (43-yes)	13	17	11	1	1
P2 (47-yes)	10	13	14	9	1
P3 (53-yes)	9	23	15	4	2
Total 143	32	53	40	14	4

Source: own research

To calculate the extent in which the residents of the three cities consider that the port activity influences the history of the city under the social life aspect, we used as a statistical-mathematical method the semantic differential with five levels. [5,6]

The obtained values are: P1=3,93, P2=3,47, P3=3,62, and 3,66 for the total

sample, figures that show that on average, the appreciation of the studied sample is situated between the levels „some extent” and „great extent”. The highest value, of 3,93, which corresponds to the „great extent” appreciation was recorded at the residents of Constanta, while the lowest value, of 3,47 was found at the residents of Calarasi.

Table 6. Centralization of the answers to the question no. 6: „To what extent do you consider the port activity determined the history of your city in the cultural life?”

Project partners/ Individuals who answered YES at question no. 4	To what extent the port activity determined the history of your city in the cultural life?				
	Very great extent	Great extent	Some extent	Little extent	Very little extent
P1 (43-yes)	9	11	14	8	1
P2 (47-yes)	12	19	10	5	1
P3 (53-yes)	9	19	19	3	3
Total 143	30	49	43	16	5

Source: own research

The obtained values are: P1=3,44, P2=3,76, P3=3,52 and for the total sample 3,57. Also regarding the importance of the port activity for the cultural life, the residents of the three cities offered similar appreciation values, and the total sample registered a value of 3,57, situated between the levels „some extent” and „great extent”.

f) We went beyond with the research within each city, by including some aspects able to help us to discover whether the residents consider that there are links and approaches between the three port cities.

Table 7. Centralization of the answers to the question no. 7: „Do you appreciate that there are links and approaches between the three partner cities from the project- Constanta, Calarasi and Ruse?”

Project partners	Yes	No	Total
P1	34(68%)	16(32%)	50
P2	39(78%)	11(22%)	50
P3	25(46%)	29(54%)	54
Total	98(64%)	12(36%)	154

Source: own research

At the entire level of the sample, the affirmative answers recorded a value of 64%, which means the residents consider that links and approaches do exist between the three port cities. Compared to this value, higher percentages of affirmative answers were recorded at the residents of Calarasi (78%) and Constanta (68%), whereas the residents

of Ruse recorded the highest percentage of negative answers (54%), compared to the sample's average, which is 36%.

g) The persons who answered affirmative, expressed their opinion regarding the way in which the links between the three cities can be realized.

Table 8. Centralization of the answers to the question no. 8: „If your answer is YES, please state what kind of links and approaches do you appreciate that exist between the three cities?”

Project partners/ Individuals who answered YES at question no. 7	Cooperation between ports		Common lifestyle elements		Similarities regarding population structure		The organization of entertainment events with navy specific	
	Yes	No	Yes	No	Yes	No	Yes	No
P1 (34)	25(73%)	9(17%)	22(64%)	12(36%)	11(32%)	23(68%)	30(88%)	4( 12%)
P2 (39)	28(72%)	11(18%)	23(59%)	16(41%)	13(33%)	26(69%)	34(87%)	5(13%)
P3 (25)	22(88%)	3(12%)	18(72 %)	7(28%)	19(76%)	6(24%)	24 (96 %)	1(4%)
Total(98)	75(77%)	23(23%)	63(64%)	35(36%)	43(44%)	55(56%)	88(90%)	10(10%)

Source: own research

After processing the answers, it can be observed that 90% from the researched sample consider that the organization of entertainment events with navy specific may create approaches between the three port-cities. Other two activities, respectively the cooperation between ports, with 77% and the common lifestyle elements, with 64%, were considered by the members of the sample as being important for the establishment of links and connections between these cities. In the same time, we can appreciate that, through

these answers, the residents of the three cities also expressed their expectations regarding the directions in which there should be taken actions to increase the connection between their cities.

h) In the context of identifying the existence of links, we wanted to know if we can talk about the existence of a spirit of the Danube, which connects and approaches these port-cities.

Table 9. Centralization of the answers to the question no. 9: „Do you appreciate that we can talk about the existence of a spirit of the Danube, which approaches these port-cities?”

Project partners	Yes	No	Total
P1	41 (82%)	9 (18%)	50
P2	38 (76%)	12 (24%)	50
P3	46 (85%)	8 (15%)	54
Total	125 (81%)	29 (19%)	154

Source: own research

In a large proportion (81%), the individuals from the studied sample consider that it can be talked about a spirit of the Danube, which approaches these port-cities. Higher values than the average of the sample were recorded in Ruse (85%) and Constanta (82%).

i) The residents who answered affirmative at question no. 9, expressed, next, the intensity of the perception of existing a spirit of the Danube.



Table 10. Centralization of the answers to the question no. 10: „If your answer is YES, please indicate how intense do you consider the spirit of the Danube?”

Project partners/ Individuals who answered YES at question no. 9	The intensity of the „Spirit of the Danube”				
	Very high intensity	High intensity	Moderate intensity	Low intensity	Very low intensity
<b>P1 (41)</b>	7	3	10	21	1
<b>P2 (38)</b>	2	20	13	3	1
<b>P3 (46)</b>	5	25	11	5	2
<b>Total 125</b>	14	48	34	29	4

Source: own research

The value obtained for the whole sample is 3,38, which corresponds to the „moderate” level. But, compared to this average value, the residents of Ruse and those from Calarasi obtained higher values, respectively P3=3,65 and P2=3,55, which corresponds to the levels „moderate” to „strong”. Regarding the residents of Constanta, even if they considered in a percentage of 82% that the spirit of Danube exists, they appreciated the intensity of this spirit with the lowest value of 2,90, close to the „moderate” level.

#### 4. Conclusions

The current study is part of a broader marketing research, conducted in the “Danube Spirit In Port Communities” project, Romania-Bulgaria Cross-Border Cooperations Programme 2007-2013, within the Operational Programme on Cross-Border Cooperation Romania-Bulgaria, and the studied issues aimed to highlight the connection between the social life of the residents of Constanta, Calarasi and Ruse, and the existence of the port in these three cities.

After processing the information gathered through questionnaires, we can draw the following conclusions:

- the sense of connection with the port is obvious for the social life of the residents of the three cities, even if there are differences from one city to another, probably determined by the size of the port;
- the residents of these cities consider that the existence of the port has a significant influence in determining a specific lifestyle;

- the expectations are high regarding the involvement of the port in both the financial support of the local community and in its ability to imprint a specific lifestyle for the residents of the three studied port cities;
- the population surveyed believe that the existence of the port influences the social and cultural life in each city and also creates links and approaches between the three port cities;
- we can talk about a spirit of the Danube, which approaches the port cities, but the spirit has currently a moderate intensity;
- the studied sample consider that the organization of entertainment events with specific navy, the cooperation between ports and the common lifestyle elements are the directions in which actions should be taken to develop links between the three port cities.

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# Study Concerning Information Management and Knowledge Management at Chamber of Commerce and Industry Braşov

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## Abstract

*The paper aims to present a comparative study regarding information system and knowledge management system within the Chamber of Commerce and Industry, study conducted based on questionnaire, over two years, namely 2012 and 2013.*

*The study aims to focus on the differences between the two terms and the application of the two terms within the Chamber of Commerce and Industry and also on the evolution of understanding the differences between the two concepts over the two years.*

**Key words:** Knowledge, Information, System, Chamber of Commerce and Industry  
**Classification J.E.L.:** D80, D84

## 1. Introduction

Over the past years the terms information management and knowledge management have been used simultaneously and most of the time interchangeable [1].

Information systems regard computers, people, information and flows, and knowledge systems regard the difference between information and knowledge, namely that knowledge is information combined with experience and judgment of people, thus being very hard to be captured, mainly tacit knowledge [2].

Information systems are a foundation for conducting business today. In many industries, survival and even existence is difficult without extensive use of information technology [7].

Information systems have become essential for helping organizations operate in

a global economy. Organizations are trying to become more competitive and efficient by transforming themselves into digital firms where nearly all core business processes and relationships with customers, suppliers, and employees are digitally enabled.

Businesses today use information systems to achieve six major objectives: operational excellence; new products, services, and business models; customer/supplier intimacy; improved decision making; competitive advantage; and day-to-day survival.

## 2. The knowledge economy, information system and knowledge system

The economies are increasingly based on knowledge and information, knowledge is now recognized as the driver of productivity and economic growth, leading to a new focus on the role of information, technology and learning in economic performance [4].

The term "knowledge economy" is concerned with the recognition of the place of knowledge and technology in modern economies.

Many analyses are increasingly directed to understanding the dynamics of the knowledge economy and its relationship to traditional economics.

From a technical perspective, an information system collects, stores, and disseminates information from an organization's environment and internal operations to support organizational functions and decision making, communication, coordination, control, analysis, and visualization.

Information systems transform raw data into useful information through three basic activities: input, processing, and output.

From a business perspective, an information system provides a solution to a problem or challenge facing a firm and provides real economic value to the business [7].

The process of growing codification of knowledge and its transmission using communications and computer networks has emerged "information society" [3].

New issues and questions are being raised regarding the implications of the knowledge economy for employment and the role of governments in the development and maintenance of the knowledge base.

Knowledge management refer to any kind of system that stores and retrieves knowledge, improves collaboration, locates knowledge sources, mines repositories for hidden knowledge, captures and uses knowledge, or in some other way enhances the knowledge management process [1].

Information systems professionals work with others to design and customize the systems that you interact with everyday. When you register at a hospital, the information goes into an information system designed to support administrative reporting and insurance processing [6].

The concept of information system gives high regard to the individual and his ability to use information [5].

An information system gives information through data analysis. The foundation of information system is the principles of management and if its practices. It uses the concept of management and it can be evolved for a specific objective if it is evolved after systematic planning and design.

It calls for an analysis of a business, management views and policies, organization culture and the culture and the management style. The information should be generated in this setting and must be useful in managing the business. This is possible only when it is conceptualized as system with an appropriate design.

Therefore, it relies heavily on the systems theory and offers solutions to handle the complex situations of the input and output flows. It uses theories of communication which helps to evolve a system design capable of handling data inputs, process, and outputs with the less possible noise or distortion in transmitting the information from a source to a destination.

It uses the principles of system and the

ability of continuous adjustment or correction in the system in line with the environmental change in which the information system operates.

The initial concept was to process data from the organization and present it in the form of reports at regular intervals.

The system is largely capable of handling the data from collection to processing. It was first more impersonal, requiring each individual to pick and choose the processed data and use it for his requirements.

This concept was further modified when a distinction was made between data and information.

### 3. The study

The study aims to present the difference between the knowledge management and information management, differences studied for two years.

The study is based on questionnaire and the results shown that for the first year the people involved, answering the questions, were very confused regarding the using of the two terms, considering that information system and knowledge system are the same.

But things are different for the second year, the people answering the questions, the employees, were able to identify the differences and the right use of the two terms.

The main hypothesis of the study was that the respondents did not know the correct explanations for knowledge and information system.

The objectives of the study were represented by determination of the perceptions regarding information system, identifying the present achievements regarding knowledge systems and information system. There were used 82 questionnaires.

The first question from the questionnaire was concerned with meaning of knowledge system, as shown in figure number 1.

The respondents' understanding of the notion was different in the first year, the next year, 2013, the percentage of the respondents knowing the meaning of the notion being slightly different.

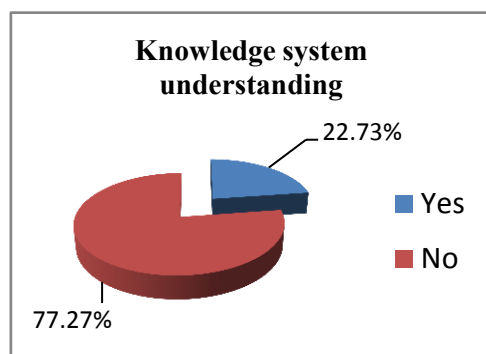
The second question was concerning the understanding of the meaning of the notion "information system", and the results were

totally reversed: 90% of the respondents knew the meaning of the notion and 10% of the respondents did not know the meaning of the notion.

The next year of the analysis the situation was the same.

The next question was concerned with the association of the term "information system" and "knowledge system" with IT concepts like expert systems, intranet, continuously learning.

Figure 1. The repartition of the responses regarding the understanding of the notion "knowledge system" in 2012



All of the respondents identified correctly the items of an information system, both years of the analysis.

The next question was concerned with the projects of information system initiated in the organization. In the first year 80% of the respondents said that the organization initiated such projects, and they are using information system. The next year, 89% said that the organization initiated projects of information management and they were using these technologies.

The next question was about the projects of management systems finalized or not, and in the first year of the analysis, 72% said that there are projects unfinalized, as shown in figure number 2.

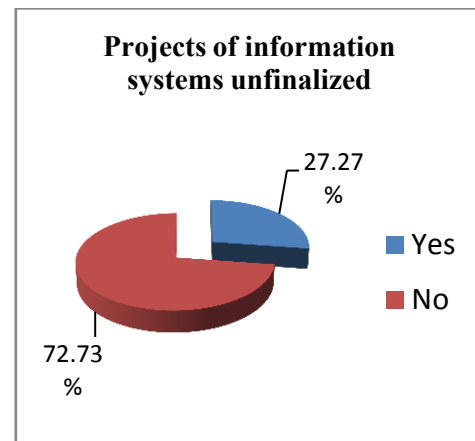
The next year, in 2013, the results were different, 34% of the respondents saying that there were projects of information systems not finalized.

The next question was concerned with the results of implementing a knowledge system or an information system.

Both years, most of the respondents, 78% in 2012 and 83% in 2013, said that the information system implementation had as result reducing the time for solving the

problem, encouraging team work, increasing the efficiency.

Figure 2. The repartition of the responses regarding the understanding of the notion "projects of information systems" in 2012



The next question was regarding the information technology used within an information system and a knowledge system.

In the first year, most of the respondents, 90%, said that e-mail and groupware were the most used technologies. The next year, 88% of the respondents indicated the expert systems and virtual reality.

The next question was about the importance of human resources and ground vase processes in information system, and most of the respondents, 87% in the first year and 90% in 2013 said that they were the most important elements.

#### 4. Conclusions

The study revealed that compared with 2012, in 2013, the respondents were more aware of the difference between the information system and knowledge system.

The initiatives of information system implemented within the Chamber of Commerce and Industry Brasov, conducted to the increased efficiency and results of the work.

The next step in implementing information system initiatives is to develop the intranet and a portal and all the applications of the information system.

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## The Potential of the Relationship Capital

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### Abstract

*Assessing human capital contribution to the value generated by an organization is one of the major concerns of the organization management. This emphasizes the potential of an organization as regards its human resources and how these relate to the players in the business environment. Obviously, when speaking about employees' skills, we should also consider the quality of the relationships created by them. Thus, we are to define the consistency of such relationships by analysing the relationship capital within an organization and its relations to the outer environment.*

**Key words:** Relationship capital, stakeholder analysis, environment analysis, SWOT analysis, team

**JEL classification:** A30

### 1. Introduction

The aim of our paper is to emphasize the role of relationship capital within an organization. The methodological approach was based on literature review.

The reminder of our paper is structured as follows. The next section deals with the theoretical perspectives on relationship capital. Then, the case of Team Work association within the University of Bucharest is presented. The paper ends with conclusions.

### 2. Theoretical perspectives

According to Roos and St Onge, "Relationship capital represents the value generated by employees' productive relationships with other persons inside or outside the organization" [6]. Relationships with customers bring value to the organizational results but also pose certain risks unless properly managed. A comparative analysis on the efficacy of impersonal relationships in relation to the efficacy of customized relationships is required. An excessive use of impersonal relationships has been noticed lately due to the fact that the exclusive use of state-of-the-art technologies is thought to contribute to the proper use of time. Thus, the importance of trustful relationships with customers is neglected. Personal contribution bolsters up customers' loyalty. Very often, sale agents are inclined to use customers from the former workplace in settling the issues they deal with in the organization where they are to be transferred. There is law stipulating sanctions on those who use at their new workplace the information acquired at their former workplace for a certain period provided by contract. If there is a continuous concern regarding the quality of the partnerships, relationships maximising general interests will be created. The scope of the created partnerships may be that of cooperation in the field of: technology, research, production, marketing etc. The temptation to cut the traditional relationships may trigger consequences whose impact is hard to foresee. An objective assessment of the advantages and disadvantages in continuing a partnership may lead to conclusions that provide the necessary information required to take the correct decision. Often, the rivalries

among the departments of an organization may lead to the disappearance of some partnerships which are vital for the company.

Increasing mutual trust and the cooperation capacity, and the interdepartmental sessions of team-building may help increase mutual trust. J. Kotter states that "the abundance of communication channels and mutual trust of individuals connected by those channels allow the existence of an uninterrupted process of accommodation and adjustment in relation to who is to play a certain part" [4], while the company may turn to profit such opportunity which may help make inter-human relationships more flexible and ensure a permanent exchange of information and experiences by various types of communication which will lead both to individual, and organizational development.

Labour social side is as important as the vocational one, the employees being encouraged to work properly. The quality of the relationship capital is decisively influenced by how the team head maximizes team spirit, contributing to the increase of motivation. In his work "Human Capital" [1], Th. Davenport sees the employees of an organization as the investors of their own human capital. Hence, the idea that any investment is a multiplication of its value. From this perspective, the leadership of an organization should find the most efficient ways of motivation so that such investments should yield the outcomes anticipated both by the individual, and by the organization. When forming a team, we should consider, besides the need for competences required to attain the goals, the roles the employees are ready to play (Belbin's model). If people within a team play concurrent roles, then the relationship capital tends to decrease.

The relationship capital is rendered more valuable if every employee of the organization is furnished teaching and growth as elements of value added by the organization for its people. As A. Mayo sees it, "people growth and formation are activities fundamental to a future value-oriented organization. Such activities require a series of roles, skills, and processes imposing a disciplined involvement. A characteristic of the value-generating organization is the importance placed on individual development plans" [6]. These

may contribute to career advancement, creation of competences specific to a certain job, and improvement of inter-human relationships. The quality of such relationships depends on individual and collective accumulations and, in this case, individual learning plays an essential role. Any system requires periodical assessments in order to identify the learning needs.

Each of us has a dominant part of the learning style. According to P. Honey and A. Mumford, there are 4 learning styles [6] – theoretical, pragmatic, active, and reflexive and four stages of learning – concrete experience (exercising in the work environment /experimentation), reflexive observation (debriefing/assessing/sharing the experience), theory construction (changing individual's vision on the world /academic resources, books), plan of action (planning the actions to follow).

Giles and Robinson [2] come to the conclusion that people have characteristics that allow value generation for the interested parties. It is essential that managers should put forward their competences in the created contexts, and unless such competences exist, instructions plans are required.

The quality of the network of relationships is directly dependant on the facilities provided by the organization to its members in ensuring permanent instruction. In this context, there may be invoked D. Celinski's perspective according to which "instruction yields the highest benefits when it is structured so that the needs identified for every employee are consonant with the long-term plan of the organization" [5], underlying that the instruction programs thought at individual level should be optimally integrated in the whole vision of the organization as regards its long-term initiatives.

Starting from the assumption that each of the members forming a team has his/her own learning style, it is essential that the instruction programs should be customized according to the learning styles. In his work, *The Wisdom of Strategic Learning* [6], I. Cunningham provides several directions in relation to the efficient learning process, highlighting the main stages to be followed in this regard: identifying the learning needs, defining the learning objectives, choosing the learning solutions, negotiating time, funds,

and other resources, implementing the plan, assessing the success. Thus, by the process of learning, each member of the organization is encouraged to put forward the skills created during the development of this process. Provided the stages were determined on a real basis, there are chances that every employee should gather information and define his/her competences which are to contribute to the organizational growth. The facilities related to the instruction programs are encouraging for the members of the organization, contributing to the increase of the quality of inner inter-human relations. To identify the agents involved in attaining the organizational goals, three types of analyses are required. The results of the environment analysis identify the internal and external entities involved in the organizational game. We specify here: employees, the management team, shareholders, suppliers, beneficiaries, the competition, banks, NGOs, public entities, social, political, economic, legislative factors etc. D. Lock states that "the syntagma "organizational relationships" is used to indicate the deliberate attempt of an organization to maintain the best relations possible to every identifiable group, whose interests and activities are supposed to have good or bad outcomes on the company's prosperity and progress" [5], which renders evident the permanent need of maintaining a balanced relation to the interested parties facilitating careful information and deep knowledge of the effects these can exercise on the future of the company.

In order to highlight the outcomes of the environmental analysis, it is necessary to achieve the stakeholders' analysis which indicates, by using the influence-interest diagram, what is the position of each internal and external stakeholder in the relationships with the organization, and what is their influence on the environment as well. The outcomes of the SWOT analysis provide essential information on the strong and weak points inside the organization, and the threats and opportunities outside the same.

In relation to the set objectives, we can choose one of the following strategies: maxi-max, maxi-min, mini-max and mini-mim.

### **3. The relationship capital within the association Team Work**

Team Work is a non-governmental organization (NGO) legally set up in December 2005, having carried its activity under the aegis of the University of Bucharest between 2002-2005.

The market analysis has shown that companies are interested in hiring graduates with the basic competences required to work for them - the creation of such competences requires a professional association where students should be able to develop specific and general abilities.

The founders of Team Work are: students, Ph. D. candidates, MBA graduates, university professors. The active members of the organization undergo a process of recruitment and selection at the beginning of each university year. Periodically, training sessions are held involving students, professors, business men.

The activity of Team Work is focused on project management and team work. Team Work projects are carried on by the principle of voluntarism and are mainly student-oriented. The number of persons involved has been growing every year (between 500 and 2000 people annually, for the projects of the Botanical Garden, and between 5 and 15 persons for the projects type "Youth in action" and POSDRU "Start your career"). Among these, we can identify: parents, students, pupils, pre-school pupils, business men, advisers. Thus, it is possible to attain the set objectives to act as a mediator between the academic environment and community, providing closer relations which may favour the perspective development of other projects. At this point we can talk about the importance of the relationship capital and how each component of this capital fosters the outcomes of the projects. The figure given below shows the environmental components with which Team Work cooperates, highlighting: the virtues of the human capital in attaining the organizational objectives, the synergic (intensifying) effect of the partnerships (University, Team Work, Family, Public Entities, NGOs, The Centre of Organizational Strategies and Leadership of the University of Bucharest – CSOL-UB, School, Business Environment), benchmarking utility in finding some



solutions within the projects starting from the experience of other companies and NGOs.

From among the multitude of projects and programs the Association Team Work contributed to, we name the following:

- The "Botanical Garden" Project aimed at ensuring:
  - spring cleaning in the Botanical Garden of Bucharest;
  - a team-building session "Treasure Hunt" in the Botanical Garden of Bucharest;
  - Junior spring cleaning in the Botanical Garden of Bucharest;
  - Financing the program "Human Being Restoring the Green Areas and Rearrangement of Children's Garden in the Botanical Garden of Bucharest";
  - autumn cleaning in the Botanical Garden of Bucharest;
- The "Children's Garden" Project has contributed to:
  - financing Urban Green Areas for the project Children's Garden;
  - the first arranging activities of the Children's Garden;
  - launching of the website [www.gradina-copiilor.ro](http://www.gradina-copiilor.ro);
  - inauguration of the area arranged within the Children's Garden project;
  - carrying out some ecological educational activities within the Children's Garden project;
  - carrying on certain maintenance activities for the Children's Garden;
  - carrying on creative work-shops in the Children's Garden, event: Autumn Colours;
- The "Granny's Garden" Project succeeded to ensure:
  - gaining of the prize and trophy Green Areas MOL 2011 for the Granny's Garden projects;
  - launching of the website [www.gradina-bunicii.ro](http://www.gradina-bunicii.ro);
  - carrying out ecological education activities in the Granny's Garden;
- The "Youth in Action" Program
  - launching of the brochure Trainer's Laboratory – Experience non-formal training tools! as a result of the project YiA;

- taking part to Team Work YiA - Training course Take the challenge Kobuleti, Georgia;
- taking part to Team Work YiA - Youth Exchange Discover new cultures through art experience Manresa, Montserrat, Spain;
- taking part to Team Work YiA - Training course Stereotypes in Europe Gdansk, Poland;
- taking part to Team Work YiA - Training course Inclus'in Action, Sevilla, Spain;
- implementing the project YiA S.O.C.I.A.L. Entrepreneurship - Seeking Opportunities, Creating Impact and Learning Entrepreneurship;
- taking part to Team Work YiA - Training course Hints of Life, Antalya, Turkey;
- taking part to Team Work TiA - Training course Growing Together, Gran Canaria.
- The POSDRU project, "Start your career!":
  - launching of the project POSDRU "Start your career!", Team Work being a partner;
  - launching of the website [www.incepeticariera.ro](http://www.incepeticariera.ro);
  - achievement of various practice stages for the students from the fields of business and administration sciences.

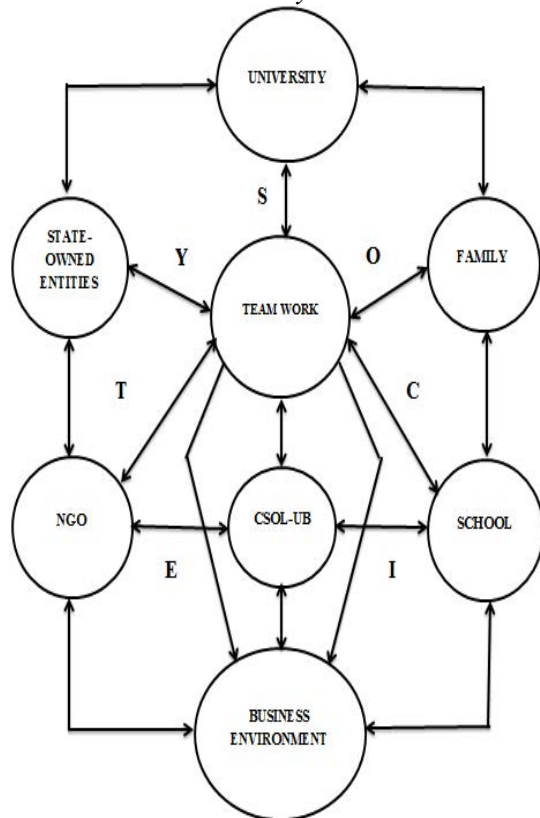
From the perspective of creating certain competences specific to the project management, we specify: the "Youth in Action" program, and the POSDRU project, "Start your career!".

These facilitated the creation of certain specific competences: project management, training, team work. By some team buildings and workshops, partnerships with the business environment were created. Thus, the relationships network which expanded outside the Team Work Association has contributed to the increase of its efficacy.

For the completion of the three projects within the Botanical Garden, the following took part: members of Team Work, professors, children, retired, college students. These projects contributed to the team spirit growth on a side, and to people's encouraging to help themselves on the other

side, assuming risks, supplying feedback, determining certain procedures that facilitate the exchange of experience.

Figure 1 Team Work as a synergic system



Source: <http://www.teamwork.org.ro/>

We can talk about the loyalty of the interested groups (stakeholders) in developing such projects and how we render evident the need for an increase of mutual trust and capacity of cooperation. It is obvious that not only the activities generating direct profit are intensifiers of the relationships capital but also the volunteers' activities.

Moreover, one of the arguments brought by a graduate during the employment process is related to the volunteer activities he/she was involved in.

#### 4. Conclusions

In order for us to get organizational performance, it is essential that we achieve an optimum combination of the components of the individual human capital. We consider: share capital, emotional capital, relationship capital, and knowledge capital.

The personal values systems are rendered consistent with the systems of organizational values and may contribute to the improvement of the inter-human relationships.

People have characteristics that allow value-generation for the interested parties. This is a necessary but not sufficient condition. The organization management should create the conditions by which individual competences are conjugated to materialize the organizational objectives. These competences are developed in relation to how people assume roles, get involved in individual or team activities, or react under tight situations.

The network of an organization creates the premises for putting forward the competences of each node in the network and their use for various configurations of partnerships. Encouraging the exchange of knowledge by creating opportunities represents a way to stimulating people to get more involved in the exchange of knowledge and creating communities for experimentation.

The relationship capital represents a potential but in order to be put forward this should highlight the productive relationships of an employee with other people in the organization network of partnerships.

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## Design and Aesthetic Elements on the Energy Drink Market Case Study: Red Bull

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### Abstract

*We live in a society ruled by consumerism and in a fierce market competition which leads (determine) marketers to find the most effective and suitable way to influence consumer behavior. One of this ways of influencing consumer behavior are the design elements and aesthetics of the packaging. Thus, designers and marketers opt for different items depending on the type of product sold. Choosing the best elements of design and aesthetics are essential on the energy drink market as well.*

**Key words:** energy drink, design, aesthetics.

**JEL Classification:** M1, M3

### 1. Introduction

The development and modernization of trade marketing and diversification of trade forms leads to an intensified concern for the producers and retailers regarding to expand pre-packaging operations. Therefore, we are currently witnessing a fervid attitude in the design of packaging, many talented designers are looking to find new and creative solutions, in order to respond with their vision and projection to the main functions of product protection, to fulfill the saving tendency and rationalization, as well as the aesthetic and promotion functions.

The problem of creation and production is not related only to the research and development sector, but also to the new manufacturing techniques and processes. This aspect is becoming more related to the activities which include storage, shipping and transportation (logistics), marketing and advertising.

The elements of social psychology, consumer desires and the importance of informational messages on the packaging in order to ensure a real protection of them, the public relations and advertising, ecology and design, are factors which determine the complexity of creating packages. The aesthetics of packages means the careful selection of colors and shapes [3]. In order to create the suitable aesthetic for the product's package it must be taken into consideration the existence of a sensory complex, which will determine an expression of approval or rejection from the aesthetic sense of each individual, by the emotional effect induced by the act of buying and consumption.

If at the beginning the package was considered just a simple 'package' which contains a product, it is currently representing a main component of the product, and within the marketing policy the package reflects the most important message about the product that is addressed to the consumer.

Labels helps in promoting the product through attractive and bright graphics replacing paper labels glued on cans and bottles [5]. At the same time, differentiation is a major approach in obtaining obvious competitive advantages [1] and in this respect the package is a major instrument.

### 2. Design and aesthetic elements on the energy drink market

In 1982, Dietrich Mateschitz became aware about the so-called "tonic drink" product, a drink which enjoyed popularity in the Far East. In 1984, Mateschitz created the Red Bull. He improved the product, developing a unique marketing concept and started selling the Red Bull Energy Drink on

the Austrian market in 1987. This moment did not represent only the launching of a new product, in fact it represented the birth of a new category of products on the market. Currently, Red Bull is present in 164 countries. The responsibility of this number one product's success is divided between the 8.294 employees worldwide. The Red Bull headquarter is located in Fuschl am See, not far from Salzburg, Austria. Today, Red Bull has sales of over 4 billion doses in more than 160 countries all over the world.

The brand's identification elements are placed on a aluminum can, there are used three colors, red, blue and silver. The red color induces action, it is a color that suggests strength and force, a high pulse, rapid breathing, whereas blue and silver are noble colors indicating the premium level of the product. The package attracts through the unique shape, a high and supple can. Regarding the functionality, the product is easy to handle with the help of the aluminum key. The combination of these two colors – blue and silver – contributes to a strong attraction for the product, the package inspires trust for a pretentious consumer.

The sugar-free version of the Red Bull has also two colors: silver and light blue. Light blue and silver are noble colors and both reflect the premium level of the energy drink. Light blue is used for indicating the fact that the product is sugar-free. The symbol and the logo are red, signifying energy, strength and vitality. The graphic is a significant element in the process of forming an aesthetic image for the package. The graphic part is accessible and suggests - through the logo and emblem - the product's features, utility and purpose. The combination of these two colors gives the product a strong attractivity, the package inspires trust for the pretentious consumers. The silver color is mainly used for light drinks.

For the Red Bull with Cola there are used three colors: blue, red and silver. On the silver background appears the red colored Red Bull symbol. The logo is visible on a blue background, on the top of the can, and it is different from other types of Red Bull. The combination of these two colors is suitable, blue reflects the Red Bull energy drink, while the red color draws the attention to the cola ingredient. It symbolizes strength, passion, it suggests force, urges to action and

dynamism. Also, the red color is intense, not too bright, nor too dark, it is a color which inspires youth and joviality. The combination of these two colors, red and blue, involves a particular state of mind, causing an immediate reaction of the body and psyche.

The Burn energy drink was manufactured in the European Community and released in Romania in 2001. Romania was the forth country on the Coca-Cola list for launching Burn, after New Zealand, Australia and England. What makes Burn to be a special drink is a number of herbal extracts in its composition, known for their energy boost effects: guarana, ginseng, but also the classic ingredients with high efficiency against fatigue: caffeine and taurine. The name Burn that appears on the product's package refers to energy, intense activity, euphoria, happiness, excitement, pleasure. All these attributes are promoted by the brand.

The shape of the Burn energy drink is similar with the one used for Red Bull and it is represented by a cylindrical metal can, weighting 250ml. It is easy to hold in hand, it's practical and has the advantage that it is not fragile. It has a suitable package for Horeca distribution, the main distribution channel for this kind of drinks.

Compared to the colors used on the packaging of the Red Bull drink, in this case the colors used are: black for the background, red and silver for the symbol and logo. An interesting aspect at this product is that the top cover of the can is black and the ring that unfolds is red. All these details and color combinations have the purpose to draw the consumer's attention, creating for the clients the sensation of manufacturer's care.

As well as in Red Bull's case, the can for Burn is made of aluminum, but without a proper label. The inscription is made directly on the metal can. This makes it resistant, comfortable and aesthetic. Like the Red Bull can, Burn cans are easy to handle with the help of the aluminum ring which also provides protection for the energy drink.

### **3. Qualitative marketing research regarding design and aesthetics of the Red Bull energy drink**

This qualitative marketing research (focus group) was realized among young people,

because they are the main consumers of Red Bull energy drink.

There were 60 participants in the first stage (the stage which included filling in the questionnaire), of which 40 male (representing 66,6% of total sample) and 20 females (33,3 of total sample). Among these subjects, 18 participated at the second stage too, the phase of focus groups (representing 30% of the original sample), there were 13 males (72,2% of the final sample) and 5 females (28,8% of the final sample). The subjects included in this qualitative study have ages between 19 and 28 years old.

The working procedure consisted at first in filling up by themselves the questionnaires about the energy drink consumption. The second stage was represented by creating focus groups, and based on the qualitative information obtained, to realize an in-depth analyze of every investigated subject. The topics addressed in the focus group were: presentation of the participants, introducing the topic of discussion, analyzing the elements of design and aesthetic regarding the Red Bull product. The participants were selected based on the answers provided by filling up the questionnaire, thus were taken into consideration only the Red Bull consumers, those who consumed, at least once in their lifetime this energy drink. There were excluded from the study those who have never used energy drinks, respectively those who had never consumed Red Bull. After all these put outs, 25 people were announced that they got in the next stage, and 18 accepted to continue the qualitative marketing research. Thereby, there were 3 focus groups of 6 participants each.

For the following qualitative data analysis there were used the transcripts from the focus groups, in this way, every session of focus group was audio recorded with the consent of the participants, and for the further processing of the raw data there were made transcripts of the discussions that took place.

One of the focus groups was formed of clubbers (people who frequently go to discos), another focus group was composed of sportsmen, and the third group was made up of programmers.

Regarding to the first topic addressed (after the preliminary part which included the presentation of the rules that are aiming a focus group, and the presentation of the

moderator and the participants) targeting the consumer opportunities, the moment, the location, and the reason why they drink Red Bull. There have been identified some differences between the responses provided by the different group members. Therefore, the athletes and the clubbers said that they consume energy drinks for boosting their energy. Furthermore, athletes claimed that they drink Red Bull before, or in the breaks during making some pronounced physical exercise, whereas clubbers are consuming these kind of products when they are making exercise. The programmers mentioned drinking energy drinks more likely for the psychical reviving and not for the physical one, unlike clubbers and sportsmen. Among the occasions they consume this energy drinks, there mentioned the days when they had deadlines at different projects, and that's why they were forced to work overtime for several days. Therefore it is clear that while athletes and clubbers use energy drinks to boost their energy, programmers use it to refresh their mental forces. These facts are in accordance with the message promoted by Red Bull energy drink (written on the can as well) which is to invigorate the body and mind, and the message sounds this way: "Vitalizes body and mind".

The financial crisis has caused the economic system both direct and indirect effects [2]. One of these is decrease of power purchase. This has led to lower sales of energy drinks to all consumers.

Moving on to the second topic, the description of Red Bull package, we have the opportunity to find out the participant's impressions regarding the Red Bull brand. Again, there were some slight differences among the three groups. Thus, the description made by each group was in agreement with their activities and lifestyle. Certainly, there were common aspects too. Among them was the fact that everyone, unanimously, recognized the Red Bull brand by seeing the logo, the two bulls and the can's package. Everyone recognized the colors used and the aluminum can. There were also differences in the projected images for the three groups. Thereby, females easily remembered the sugar-free light blue packaging can.

Appears the slogan too "Red Bull gives you wwwwings" which shows that it is

memorized, updated and used in a funny manner.

Furthermore, analyzing the energy drink's disposition in stores, the subjects included in this study claimed that they do not have difficulties in finding the product, because, usually they can see it unwittingly. The specific color (dark blue and silver) and the can's unique shape make it easy to notice on the shelves. In the last point there was an attempt towards indentifying what would the participants improve at Red Bull energy drink. Mostly, they are satisfied with the shape and colors of the pack, but they showed some dissatisfaction on the can's closing possibilities. One of the athletes suggested that it would be more practical if the can could be closed during use. This way, when you are running or riding the bicycle you are able to close the energizing can.

Based on the results of the research, the following conclusions can be taken: firstly, not only those who need some extra physical energy drink Red Bull, but also who need mental reviving (in this way was identified a different group of Red Bull energy drink consumers, the programmers, those who need a sharp mind, and they are not part of Red Bull's target audience.

#### 4. Conclusions

In a continuously evolving world, where the standards are higher and higher, it is not difficult to see that every company or manufacturer needs a strong reputation.

Although the exchange of goods existed since antiquity, in our modern times the competition is the one that requires creativity and innovation. The success of a product depends extremely much on the image the company has it over the consumers. On a market with numerous products alike, it is extremely difficult to make a choice. Therefore, an important role in this decision is determined by the product's package.

The package sends a strong promotional message especially for elite products. Formal aspect, the visual factor is one of the major data of emotion which the designer has to solve [7]. The majority of consumers choose branded products, that are easy to recognize thru the package or the specific colors.

Behind the name of an underlying sustainable packaging are numerous aesthetic

and design elements, which are extremely important. Introducing self-servicing determined a change in the way consumers make the purchasing decisions. The products, with their attractive packages became real sales representatives, direct contact between retailers and the exposed good is being removed. Labeling helps in the identification and principal place of business of the person by or for whom the prepackaged product was manufactured, processed, produced or packaged for resale [6], but labels provide the information regarding the food product. It describes the contents, nutritional values, cost, product usage methods, shelf life etc. [4] Based on the performed qualitative research, it can be said that within the target population the package of the energy drink has a high degree of recognition. All respondents recognized the aluminum can as well as the blue and silver from the classic energy drink. Very few respondents reminded all assortments of the energy drink; furthermore, females recognized the light blue color from the sugar-free, dietetic energy drink.

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# Povizion's Model for Salary Benefits Granted under the Collective Work Agreement

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## Abstract

*Provisions are accounting tools scripting correlation with economic reality factual records. Reserves are the reserve for possible future foreseeable losses that may result from ordinary activities included the costs of which will be covered any losses or to pour revenue due to cancellation provision. These costs are due and are designed to cover these losses. In this paper I will address the methodology for the establishment of a provision for wage benefits granted by a company under the collective agreement.*

**Keywords:** work; provision; reserve; coverage.

**JEL Classification:** M40

## 1. Introduction

Provisions are elements intended to cover debts the nature of which is clearly defined and which on balance is likely to be, or is certain that there will be, but are uncertain in terms of amount or date will appear.

A provision is a liability of chargeability or uncertain value.

Provisions are recognized as liabilities (assuming accurate estimates can be made), as is the present obligation at the balance sheet date is probable that outflow of resources will be required to settle the obligation.[1]

Provisions may not exceed in value terms amounts which are necessary for extinguishing obligation at the balance sheet date.

Conditions for the provision:

1. Exists a present obligation generated by a previous event;
2. Likely that an outflow of resources will be required to honor that obligation;

3. Could be made a credible estimate of the value of the obligation.

If these conditions are not met, you will not recognize a provision.

Provisions are normally made for items such as:

- a) litigation, fines and penalties, damages, damages and other doubtful debts;
- b) expenditure in respect of service during the warranty and other expenses relating guarantee for clients;
- c) restructuring actions;
- d) pensions and similar obligations;
- e) taxes;
- f) other provisions.

It will recognize that provision only those obligations arising from past events that are independent of the entity's future actions (ie the progress of the business in the future). [2]

Accounting provisions are you on ways depending on the nature, purpose or object for which they were established.

Provisions for restructuring may be in the following situations:

- a) sale or termination of a part of the business activity;
- b) closure of branches of the entity;
- c) changes in management structure, for example; eliminating a layer of management;
- d) fundamental reorganizations that have a material effect on the nature and purpose of the entity.

Provisions for taxes constitute payment of future amounts owed to the state, given that the amounts do not appear reflected as a liability in relation to the state.

Provisions should be reviewed at each balance sheet date and adjusted to reflect the current best estimate. Where to settle an obligation is not probable an outflow of resources, provision must be canceled by resuming revenue.[3]

The provision will be used only for the

purpose for which it was originally recognized.

## 2. General information

This paper presents the result of the actuarial salary obligations owed by the company with the following:

- Payroll due to last year;
- Social security costs recorded in the same year

Table 1. Staff numbers at 31.12.2013

<b>Total Staff</b>	<b>317</b>
• Men	136
• Women	181
Staffing in 2013	74
Layoffs in 2013	0
Resignations recorded (2013)	45
Retired in 2013	0
The average age	31.84

Source: Own contribution

Table 2. The staff dynamics recorded in 2013

Month	Number of employees	Month	Number of employees
January	296	July	320
February	295	August	325
March	295	September	325
April	316	October	330
more	311	November	331
June	318	December	327

Source: Own contribution

The average retirement age practiced in Romania under the law is as follows:

Table 3: The average retirement age practiced in Romania

Ladies	63 years
Men	65 years

Source: Own contribution

The average age of the staff in the company is as follows:

Table 4: The average age of the staff in the company

Personal	Number	Average age of staff	Weighted Average	
0	1	2	3=1*2	4=3/1
Ladies	136	31.20 years	2683.2	<b>32.5 ani</b>
Men	181	33.20 years	6009.2	
<b>Average</b>	<b>317</b>		<b>8692.4</b>	

Source: Own contribution

The table below shows the maximum year that can interfere retirement staff currently considering the average age:

Table 5: Maximum year that can interfere staff retirement

Category personal	Age of retirement	Average age of staff	Period until retirement	Year of retirement
Ladies	63 years	31.20 years	31.8 years	2045
Men	65 years	33.20 years	31.8 years	2045

Source: Own contribution

## 3. Trend analysis

To determine future developments in salary expenses due to staff under the Collective Bargaining Agreement was made this trend analysis.

Thus, it was considered the wage dynamics and social security costs related view of future accessions to the system for a period of 32 years.

Future accessions to the system were made based on the following characteristics of staff:

- The average age of the staff - can be followed on social categories, the age profiles etc. Analysis of the age structure allows easily viewing the situation retirement.

In the analyzed company, the average age of the staff is about 32 years. With reference to the average age of employees of the entity's related analysis it would be 64 years.

Average retirement age = (63 years x 181 women 65 years x 136 men) / (317 employees) = 64 years

Thus, given the value previously determined indicators and characteristic age staff can be assigned 0.5 point determined as follows:

The average age of staff reported the average retirement age = (32 years) / (64 years) = 0.5

- The age of the staff - determine aspirations, status, behavior and performance of employees in the company.



Given that the average age of staff of the company is 32 years we can say that the age of the labor market is about 8 years (calculation was made in relation to the educational system of Romania according to which a finished master graduate studies higher average age 24 years)

The average age of staff employment = 32 years - 24 years = 8 years

This indicator is assigned a score of 0.2 determined by years of service personnel reporting to the difference between the average age and the average age of the staff:

The average age of staff reported the average age of retirement should work = (8 years) / (64 years - 24ani) = 0.2

- Staff turnover within the company - reflects the percentage of employees to be recruited in the next period in order to maintain the average number of employees in the unit.

The value of this indicator is determined by the number of resignations recorded in

2013 (45 resignations) reported the average number of employees in the company (317 employees).

Staff turnover in the company =  $45/317 = 0.16$

- **Wages payable staff** - the core of the individual employment contract, the consideration to be a work of an employee based on individual employment contract (the amount of money owed by employers to employees for work done or services rendered by the employee).

In 2013 the amount of wages owed to staff was 17,822,279 lei (representing approximately 52% of the total registered by the company in 2013) and that related a social insurance contribution was 5,079,712 lei (representing 15% of total expenses incurred by the entity).

Table 7: Centralizing calculated indicators

Indicator	The average age of staff	Length of service personnel	Number resignations recorded in 2013	Wages and salaries accounted for in 2013	Social insurance contributions to 2013
Value	32 years old	8 years	45 resignations	17.822.279 lei	5.079.712 lei

Source: Own contribution

Table 8: The centralization of indices calculated

Indicator	The average age of staff in relation to the average age of retirement	The average age of staff in relation to the length of the required average retirement	The rotation of staff within the company	The share of expenditure on wages in the year 2013 total	The share of expenditure on social security contributions in the year 2013 total
Percentage	0.5	0,2	0,16	0,52	0,15

Source: Own contribution

#### 4. Conclusions

Total wages due on 2013 were in amount

of 17.822.279 lei. In the calculation of the provision will be taken into account in the amount of 2.790.382 lei in respect of wages

calculated on average two months.

The determination of the provision was made through the reporting of wages owed to the two months from those 3 pointers stipulated on O.M.F.P. 3055/2009 updated with subsequent amendments and additions.

Depending on the average age of staff in relation to the average age of retirement provision is found to be necessary in the amount of 651.856 lei determined as follows:

Provision required = 2.790.382 lei x 0.5 = 1.485.191 lei.

By reporting the amount of 1.485.191 lei to the second indicator of average staff Age in comparison with the average age in the work necessary to obtain a retirement provision required by 297.038 lei.

Provision required = 1.485.191 lei x 0.2 = 297.038 lei.

According to staff rotation indicator, the provision is required in the amount of 249.512 lei determined according to the formula:

Provision required 297.038 lei x 0,84 = 249.512 lei.

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# Business Intelligence and the Benefits of this Concept Integration in Enterprise Resource Planning and Customer Relationship Management Systems

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## Abstract

*The purpose of this paper is to demonstrate that Business Intelligence is not a new concept, or it should not be an automated solution. Thus, we'll review the implementation of Business Intelligence within some companies, a phenomenon that includes the following steps: Identify priority strategic objectives; Combination of Key Performance Indicators (KPI) to these objectives; Identifying generators factors correlated with KPI; Implement a process / system that periodically collects the necessary data.*

*Achieving the proposed goal is conditioning the following tasks of the research: what data to capture; how to store data (Data Warehouse, Data Repository); how to process the data; how to use these data in order to help us make the best decisions.*

*The study of these issues are important both theoretical, providing an increased complexity of social and economic research, and practical.*

**Keywords:** business intelligence, CRM, company, benefits, communication channels

**Jel Classification:** M1, M2

## 1. Introduction

Business Intelligence (BI) is a process that serves and supports the management of a business, in order to streamline it through the right decisions, timely and well-founded. To function, this process has, in addition to people, a set of tools and specialized software and methods, services and techniques (search engines) for the collection, storage, analysis and exploitation of data and information derived and accumulated in the other processes of an organization in order to base the business decisions. In the literature the concept of BI is found in the form of synonymous terms such as "Data Warehouse" or "Analytical Applications" [1].

Entries in the Business Intelligence process are data from the organization business processes (sales, inventory management, finance, accounting, purchasing, marketing, personnel, logistics, administration, etc.) and those coming from outside through flows, circuits and communication channels with business partners, suppliers, customers or records/databases thereof.

Most of these data and information are found in transactional systems and applications serving internal processes (ERP, CRM, WMS, databases, files, etc.) and they

are characterized by large volumes of data, high degree of specificity and particularity, diversity of preservation/storage (different systems and databases, websites, forums, publications, sources with unlimited access and commercial sources, different external memory support) and the variety of presentation (structured and unstructured; aggregated or disaggregated, operational data or electronic archives, multimedia information, etc).

Internal processing specific to Business Intelligence process varies from one process to another, depending on the diversity and complexity of software components, methods and techniques used, and these can be of the following types [2]: processing for identification, collection, collation of necessary data for the analysis; information processing through specialized software mechanisms (internal processes of normalization and transformation of information in different formats to be brought to a standard form); processed data analysis (the analysis is automatic but it requires the intervention of the analysts, also, who will use a range of analysis tools); dissemination of information (transmission of information resulting from the processes of analysis and processing to potential users); archiving of information model, of relations and entities in the central information repository, etc [3].

The outputs of the process of Business Intelligence are products such as summary reports, performance indicators, graphics, complex and comparative analysis, simulated scenarios; automatic monitoring and alerting systems, classical analysis of the planned and achieved results, sectoral studies or at the level of business lines, studies of human resources, risk assessments, analysis of resource consumption and efficiency, analysis of profitability or cash flow, automatic planning mechanisms for the due and outdated payments, predictions and forecasts on the evolution of business, etc [3].

We appreciate the Business Intelligence procedural approach as a modest contribution

for this concept theorization, made from exclusive desire to facilitate rapid and accurate understanding by the stakeholders of all the notions that define this concept.

## **2. The need to integrate Enterprise Resource Planning or Customer Relationship Management systems with Business Intelligence component**

Enterprise Resource Planning (ERP) systems integrate functional business processes, themselves improving the reporting to management and decision-making within the organization, but the tools to exploit the information stored in the ERP system have limited functions, being focused primarily on facilitating user access to a unique source of data, in shared and fast mode, with the aim of analytical information capitalization and less of the synthetic ones [4]. Also, Customer Relationship Management (CRM) systems benefit from own analysis and reporting functionality (Analytical CRM).

Conducting complex analysis of data stored in the databases of ERP or CRM systems requires a great and dissipated effort in the organization's processes and the results are only visible at this level. Furthermore, these analyzes are not systematic and are not correlated with predefined requirements for the measurement of processes performance, of business lines or of efficiency of the organization as a whole.

Automatic planning and monitoring of performance measures and evaluations of the processes are specific and can only be achieved through strategies and tools for Business Intelligence [5]. Moreover, only through Business Intelligence solutions an organization can achieve the integration and the exploitation of all dispersed information, necessary to support decision and gauge their effectiveness.

A BI system helps processes managers to take informed decisions based on data from in-depth analysis of the business process, on

a superior capitalizing of a large amount of information, on automatic calculation and evaluation of pre-defined performance indicators, generally on the complete and correct organizational knowledge [6].

Business Intelligence component is needed that helps optimize business processes by automatically identifying trends, deviations/changes or behaviors that require corrective action at the managerial level. However, the BI can bring added value to the business through management, systematically and efficiently, performing shift from reactive style, based on reference to past events, to a proactive style based on forecasting and prediction. Using BI leads to an increase of the benefits of using an ERP system, encouraging also tighter integration between IT and the rest of the organization.

### **3. The benefits of joining a component of Business Intelligence in Enterprise Resource Planning or Customer Relationship Management systems**

Integration of a Business Intelligence component in ERP and CRM systems functioning in an organization brings a number of benefits to the business [7], such as:

- The possibility of a superior exploitation of a large amount of data accumulated from dispersed and heterogeneous sources and the establishment of a virtual unitary deposit of information that is visible to all employees with access rights, and allows for aggregation, filtering and transforming these data, through analysis, in useful information for development and improvement of business;
- The use of flexible working interface (in Romanian and other languages) that bring a range of user satisfaction: the elimination of routine, use of advanced software tools that provide quasi-instantaneous access to relevant and real information, as well as tools for sophisticated analysis of information,

monitoring of critical indicators or those who define business performance, flexibility in analysis requirements formulation depending on the context, facilitating the modeling of the complexity of business environment or simulation of business scenarios or trends;

- Harnessing of high capacity search engines, Business Intelligence applications being equipped with search/retrieval tools that can quickly manipulate an impressive amount of multidimensional heterogeneous data structures, relational databases or other databases, ensuring the use of working prospects, zoom in or out or rotate tools, and the control of the detail level of displayed informations;
- The use of modeling and analysis functions of the business built in BI applications, and advanced/sophisticated tools and mechanisms of logical modeling of information, based on predefined collections of entities as well as exposed or stored data at the managed sources level.
- Using online tools for reporting and monitoring, with forecasting and warning capacity that allow for the management of an organization to have a rapid and efficient reaction and to be one step ahead of the competition. BI component integrated with CRM ensures increasing and detailing customer information, and improving decision support and speed of response to market changes;
- The possibility of achieving an information exchange with other external systems, which is provided through open communication protocol, connectors databases or web services type.
- Securing the information managed through BI application mechanisms that provides: authenticate connections to the application, ensuring the user access to application functionality on a "need to know" principle, journaling user

requests; securing access to data sources, etc..

#### 4. Conclusions

Choosing a BI solution is based on top-down analysis of the requirements in the superior/strategic exploitation of the information, from the informing needs of executive management and ending with the requirements of integration of multiple data sources to meet those needs.

Purchase and implementation decision of business intelligence applications is strategic and it must be well-founded, involving organizational change, of infrastructure and management at the organizational level.

The main criteria to be considered when making the decision to purchase and implement a BI component are: the application price, reported on the available budget and business, how BI application functionality meet the requirements of superior capitalizing of identified information, the quality and the facilities of BI application interfaces, the amount of data that can be processed, ability to manipulate and integrate information from multiple and heterogeneous sources, response time, internal development tools for reports and analyzes, necessary infrastructure for the implementation and that used for development of the system, references on implementer experience.

IT budgets have suffered greatly during this turbulent period. The uncertainty has led many companies to cut massive costs without a well-documented analysis, delay important projects or to freeze investment budgets. The visionary with good strategic thinking now chose to invest in solutions that provide significant competitive advantages. So, there where were budgets, most of them have been concentrated on the adoption of CRM

(Customer Relationship Management) and BI (Business Intelligence) solutions. The goal: a better understanding of customers, with direct results in the quality of marketing and sales, streamline of decision-making processes and, very important, reducing the costs in the medium term.

This period brought a maturation of CRM concept in the Romanian market. Two or three years ago, for many companies CRM represented a database of customers and their history, which was far from being a competitive advantage in the market.

"Companies are beginning to understand the concept of CRM differently than a common database of customers. In the CRM field it begin to enter e-business, collection, promotion and marketing applications, intelligent sales systems, customer behavior analysis systems - data mining and BI", says Theodore Blidaruş, managing partner, Softelligence.

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## Fundamentals of Smart Geolocation Solutions for Business

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### Abstract

*The applications related to geolocation went from belonging to a niche software solutions, specific applications of users specialized in Geographic Information System (GIS), to the category of essential software used in any computing system. The business sector understands the potential that is represented by linking information about the location to actual and potential clients, for example, information that enables directing the marketing strategies at precise geographic areas. We consider that the current development of the Business Models Based Geolocation has become a necessity for every economic entity.*

**Keywords:** Business applications, GNSS, GPS, IP Location, Location Based Services.

**J.E.L. Classification:** L8, M1, M3.

### 1. Introduction

There are distinct areas that can vary in the use of specific geolocation functions. Some of these are: Geomarketing, Crowdsourcing, Geosocial, Geotagging, Geo-Applications for M-Commerce (Mobile Commerce), POIs (Points of Interests) Search, Augmented Reality. We consider that the current development of the Business Models Based Geolocation has become a necessity for every economic entity. This is the reason our paper presents fundamental elements regarding the current methods,

techniques and geolocation solutions, and also their development directions. These aspects are addressed in the next two parts of the paper. The information presented is based on tested solutions, presented in the fourth part that allows developers to choose an adequate geolocation solution, personalized by the adopted business model. Considerations regarding the tendencies of addressing geolocation in an integrated solutions system, both current and prospective, for the general interest and for the business sector, are presented in the last part of the paper.

### 2. GNSS Overview

The Geolocation enables finding the geographic location (latitude and longitude) of an entity that can be a person, building object, or anything else. In the Information Technology field this localization is referred to the devices for storage, processing and transmission of data: computers, routers, tablets, smart-phones or devices equipped with satellite navigation also known as Global Navigation Satellite System (GNSS). In order to determine a location, the GNSS receiver has to receive signals from the four satellites simultaneously, needed to calculate the position (longitude, latitude and altitude) and for the current local time to high precision, which allows time synchronization [1]. Current operational GNSSs [2] are the American GPS (Global Positioning System) also used in Europe and the Russian system GLOBAL NAVIGATION Satellite System

(GLONASS).

Geolocation oriented toward its Internet linked applications is defined as a technological solution that determines, with somewhat precision, the position of an object in the physical (geographic) or virtual (Internet) space. The geolocation services use by the economic agents, private or public, by governmental or non-governmental institutions, by physical persons and the Machine to Machine (M2M) communications. There are situations where the referred object is a person that uses Internet services based on localization and, at the same time, wishes to hide their identity. Utilization of systems with graphical information (for example, maps) allows that by geolocation to be determined locations with signification for the user (for instance, street names) and not just a set of geographical coordinates. Geolocation of a device connected to the Internet can be done by associating a geographical location with the IP (Internet Protocol) address [3], the MAC (Media Access Control) address [4], RFID (Radio-Frequency Identification) [5], the production serial number of the embedded hardware, the integrated software serial number, for example: UUID (Universally Unique Identifier) [6], IPTC (The International Press Telecommunications Council – information) or XMP (Extensible Metadata Platform) [7], the Wi-Fi location or GPS coordinates. Many times, geolocation uses the IP address determined with the help of a WHOIS service [8].

The precision of the GPS system grew from 100 meters to distances less than 10 meters [9], [10]. The Satellite-Based Augmentation Systems (SBAS) [11] uses geostationary platforms that improve precision, integrity and availability of the base GNSS signals. The precision is improved by using a couple of large area corrections for the satellite orbits and ionospheric errors. The information integrity is improved by the SBAS network by rapid detection of satellite signal errors and their transmission to the receivers. The availability is increased by using an additional localization signal (pseudo-distance) associated to each geostationary satellite in part.

A new localization technology is named NAVSOP (Navigation via Signal of

Opportunity) [12]. This uses almost any signal source or interface to determine its position. The signal sources can be radio/TV stations, cellular triangulation or even GPS jamming devices, and many more can be added. NAVSOP does not need details about the type of the signal used as the source of information and is recommended as a perfect solution for the zones where there is no GPS signal. The new SBAS and NAVSOP systems join the GPS in a tendency to offer localization solutions more and more efficient, of great interest for both the military and the civil sectors. Both development and the administration of the business sector are some of the main aspects targeted by geolocation.

### 3. Basic characteristics of geolocation

The position of a point on a map is represented by using two components, called coordinates, latitude and longitude, values obtained easily and precisely currently with the help of the GPS system. After this position is determined, the coordinates can be used by specialized software applications for the purpose of offering additional information such as economical, touristic or medical points of interest, determining the location of traffic problems or even information about the addresses of nearby people. Geocoding is the process through which the position of an object defined indirectly (by using the postal address, by naming the administrative unit or of a known designation) is transformed in geographic coordinates, and therefore can be localized on a map. In short, information about an objective is introduced and the result is its geographic coordinates. Reverse Geocoding is the techniques through which a geographic location is associated in public databases information about that specific location, for example information about economic activities that take place at that location, etc. The information about the position is not necessarily obtained using the GPS system, and the way this information is obtained, how it is processed and presented to the user depend on the details of each specific device used. The following remarks are useful for understanding what kind of information is transferred between the geolocation specific APIs (Application Specific Interface) and to



control and obtain information that is useful for the application that is being designed.

The position of a geographic point is represented using the bidimensional or tridimensional cartesian coordinate system, the polar coordinate system or the geographic coordinate system [1]. For this last system the coordinates are expressed by latitude, longitude and altitude or elevation. The most frequent methods of expressing the position of a point are: degrees, minutes, seconds and second divisions (dd° mm' ss.s"); degrees and minutes and minute divisions (dd° mm.mmm'); degrees and degree divisions (dd.ddddd°). Every program that uses such data has functions for conversion between the different display formats, that are absolutely necessary because they're currently standardized and accepted various formats of expressing a geographic location. The geodesic system ensures the correspondence between the geometric and the real position on the surface of the Earth on the bases of references, generically named Datum. These define the real form of the Earth.

There are various different notation and representation system used for Datum. The currently most used are: World Geodetic System (WGS 84), North American Datum (NAD 83), European Datum (ED 50). These can be supplemented by Ordinance Survey of Great Britain (OSGB 36), Swiss Datum (CH 1903), Japanese Datum (TOKYO), Pulkovo Datum (S-42) etc. Between the information offered by the geolocation systems, the most important are, obviously, the latitude and longitude, plus the altitude, or its alternative names, elevation or height. These can be joined by other parameters of the point, offering the user many more options. The most used additional parameters, especially for a moving object, are the direction and the speed. The direction of motion is represented by the angle usually measured between the geographic North and the direction of motion of that specific object, usually expressed in hexadecimal from 0° to 360°clockwise, so that 0° actually expresses the North direction, 90° represents East, 180° South and 270°, West. Obviously, the direction of motion makes sense only for a moving object, the direction being obtained by the difference between its positions in two different locations. The motion speed parameter is obtained in a similar way to the

direction of motion, by comparing the distance travelled by an object to the time interval elapsed between the two successive positions.

The performance of a positioning system is characterized by four parameters: the accuracy or precision, the integrity, the availability and the continuity. The accuracy refers to the difference between the measured and the real position, speed or time of the receiver. The resulting values for the latitude, longitude, altitude, speed, direction of motion, can have lesser or greater errors, depending of the used technology, the conditions on the spot and many other variables involved in the system [13],[14],[15]. A statement such as "the point has a precision of 10 meters", means that the real position is somewhere within a sphere with a 10 meters radius from the indicated position. The main factor that determines the precision value is given by the method by which the location is obtained. The least precise method is obtaining the location by using the IP address, that is, usually, the declared location of the closest router or firewall in the connection chain. The next method in the precision classification is to obtain the location from the ID of the GSM/CDMA cell, and the most precise method is considered to be the position obtained from a GPS receiver. The equipment errors and its eventual malfunctions, the radio interferences, the weather conditions but other phenomena also can lead to a decrease in precision. Integrity represents the probability that an alert is sent to the user, in a given time interval, in event of any element of the system malfunctions. Availability is characterized by the probability that the system provides a service according to its requirements, regarding integrity and accuracy. Continuity represents the probability that the system is available in the near future.

#### **4. Research approach**

The geolocation based on HTML5 functions relatively precisely in dense urban zones, especially if the location is static. In this case, the precision is good enough because these zones contain many WiFi routers, the mobile phone network antennas are numerous and close to each other, and

HTML5 uses these methods to determine the location. The mechanism by which the location is determined is: the API for geolocation approximates the location based on a number of factors, discussed previously, the IP address, the WiFi access points, the signal strength, the WiFi and Bluetooth interfaces' MAC address. The approximated value is transmitted to a localization service, usually by using a HTTPS request, and the localization service tries to correlate the sent location to several databases that include known positions for the WiFi access points, locations known for the GSM antennas and the IP addresses' location. After the database query, an answer is formulated and sent as a reply to the JavaScript call. Not all the geolocation services function in the same way, the search algorithms differ, the databases that are used to determine the location also differ. The location determination depends on the used browser type and the used geolocation service. We recommend that the used integrated solution supplements the above mentioned technologies with information geolocation database providers, GPS, together with those offered by the non-GPS technologies.

#### **4.1. Working with HTML5-Geolocation API (Application Programming Interface)**

The HTML5-Geolocation API (W3C) document [16] defines the specifications for accessing the location information with the help of JavaScript. The API is designed as a high level interface, therefore the developers don't need to concern with detail problems, such as the methods of retrieving the information regarding the location. The process of application development is irrelevant if the computing system uses a GPS receiver, the IP address, the MAC address for Bluetooth, WiFi or RFID, or the GSM/CDMA cell address. The application user must be noticed if the location data can originate from less precise sources, containing errors. There are situations such as despite the location information being from usually precise devices, like the GPS system, it is not precise nonetheless: the GPS signal is received from an insufficient number of satellites or it is targeted by a spoofing attack [17]. In conclusion, although in most cases the precision of the data

obtained through the W3C Geolocation API is satisfactory, especially if the system possesses GPS receivers, the obtained values should not be considered as absolute validity and, if possible, it is recommended to be verified using alternative methods. Currently, the W3C Geolocation API is known and usable by most modern browsers, both the desktop versions and also the mobile communication equipment.

The HTML5-Geolocation API is used to get the geographical position of a user. Since this can compromise user privacy, the position is not available unless the user approves it [18]. The geolocation object gives Web content access to the location of the device and has three methods: `getCurrentPosition` (retrieves the current geographic location of the user), `watchPosition` (begins listening for updates to the current geographical location of the device running the client), `clearWatch` (stops listening for updates to the current geographical location). In the Geolocation API, location is defined in terms of `Position` and `Coordinate` objects. The `Position` object is simply a `Coordinate` coupled with a timestamp. A `Coordinate` has the following properties: `latitude`, `longitude`, `altitude`, `accuracy` (for the latitude and longitude values), `altitudeAccuracy` (optional, for the altitude value), `heading` (optional, the current direction of travel of the device, in degrees between 0 and 360, clockwise from North), `speed` (optional, the current speed of the device, in meters per second), `timestamp` (specifies the time when the location information was retrieved and the `Position` object created), `enableHighAccuracy` (indicates that the web application would like highest accuracy possible, default value false), `timeout` (the length of time to wait before receiving user's location, default value infinity) and `maximumAge` (indicates that cached location information should be no older than this number of milliseconds, default value 0). The geolocations methods `getCurrentPosition()` and `watchPosition()` make use of an error handler callback method which gives `PositionError` object. This object has following two properties: `code` (contains a numeric code for the error) and `message` (contains a human-readable description, string format, of the error).

#### 4.1. Working with Google Maps JavaScript API v.3

Google offers the API called Google Maps JavaScript API v.3 freely, which is specialized for geolocation, with access to its private maps and offering detailed information for software developers. According to some published statistics [19], most of applications that use online maps are built using this API. It is possible to combine APIs from various sources, thus creating the so-called *mashup* applications [20].

Although at first sight the application seem to have a complex structure, actually, each is created using common technologies: HTML, CSS and JavaScript. The maps are nothing but images that are loaded by using a number of Ajax calls and are inserted in HTML pages with the <div> instruction. As the navigation is done on a map, the API sends Ajax calls to the server about the new coordinates that must be loaded and the zoom level asked by the user, and the server sends the client the latest requested images. The API itself is comprised by a set of JavaScript files that contain classes with methods and properties, and also their usage indication. Google Maps JavaScript API v.3 is a completely rewritten version and has a number of features, compared to the previous version: a new type of class naming, using passing of values through references exclusively (the parameters' values is transferred almost exclusively using variables), asynchronous data transfer, that makes parallel method execution possible. Starting with the necessity that the applications can run as fast on a desktop, laptop, tablet or smartphone the API has been aimed to speed and performance.

The security of the location services is of great interest and continues to cause a number of controversies [21],[22].

#### 5. Conclusions

The usage of applications that use geolocation modules has an exponential growth. The adoption of several adequate technical solutions that are founded by a strategy based on combining the localization methods is a challenge that fits the development concept of a Business Model Based Geolocation. The first step was made

by the large transnational companies and corporations that realized the potential that is represented by linking location information for the actual and potential clients, information that allow, for example, directing the marketing strategies on precise geographical zones, and creation of a service distributed exactly to a certain zone or location. Currently every firm or organization uses geolocation services. The applications that use geolocation are used almost obligatory from any modern mobile device, regardless of the user category of that specific equipment. There are different areas that can differentiate in the use of the specific geolocation services. Some of these are: Geomarketing, Crowdsourcing, GeoSocial, Geotagging, Geo and Social Travel, Geo-Fencing and Keeping Track , Health & Fitness, Local Experts & Real-Time Knowledge, Time-Based Apps and Memory Aids, Neighborhood Connections & Actions, Geo-Applications for M-Commerce (Mobile Commerce), POIs (Points of Interests) Search, Augmented Reality and Games. The geolocation database providers type solutions can be used by the localization service to determine the user location. There are available results [23], [24] regarding their comparative evaluation. Obviously they need to be periodically updated. An analysis that we conducted highlights the Neustar [25], that contains a number of 21 available database fields: Continent, Country, State/Region, City, Zip Code, Latitude, Longitude, ISP, Organization, Organization Type, ASN, Net Speed, Net Type, Domain, Area Code, Metro Code, DMA Code, Time Zone, Proxy. MaxMind dedicated solutions are available [26]: GeoIp, for content personalization, ad targeting, traffic analysis, digital rights management and minFraud for prevent online fraud, cut chargebacks, and reduce manual review using. A number of applications, that also interest the business sector, use the Indoor Geolocation [27], a domain that we did not intend to address in this paper. NAVSOP [12] is one of the localization solutions based on the non-GPS technologies that intend to supplement the primary localization information, using GPS or IP. Trusted geolocation in the cloud [28] is one of the modern concepts that interests the researchers that work to identify a feasible solution based on cloud computing,

developed inclusively for the business sector.

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## Challenges of Modern Management. Crowdsourcing

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### Abstract

*The contemporary society was given a new feature, called virtual aspect, that gets involved into the daily life of people at a speed close to that of the sun. The Internet and nowadays technologies have become an absolutely perfect integrated part, offering better circumstances for development and a higher standard of life. All these areas have become basic in the international process of globalization and companies are looking to expand the possibilities of getting a higher income with lower costs. Internet opportunity called Wikinomics, gains momentum. The world evolves, people are becoming more interested and captivated by the idea of providing "something" to those companies. Crowdsourcing or outsourcing to online communities through social media and forums not only becomes the decisive factor in making important decisions in economic companies and in general, but it becomes a normal assimilation of the intellectual power of crowds in solving challenges of modern management in any field such as arts, culture, science, education, government and the economy, on the high current paths.*

**Key words:** internet, wikinomics, crowdsourcing, outsourcing, industry democratization.

**J.E.L. Classification:** F21, F23, L21, L22, M16

### 1. Introduction

Since the economic boom, manifested by the appearance of personal computers and the

Internet not only physical technologies have expanded worldwide, but also virtual possibilities of innovation and coordination of economic activities. Major changes in technology, global population growth, crystallization of global economy increase the strength of new business models based mainly on community, collaboration and self-organization than the existence of censorship [5].

Not just spreading technologies in production workshops created performances, the emergence of so-called Web 2.0 technologies has created many opportunities. The idea of Web 2.0 supports that information becomes more valuable once they increase the number of those who use them. The goal of using this technology by large corporations is getting innovative solutions, establishing business partnerships, increasing sales, improving the firm's ability to increase competitiveness.

In particular, the Internet has set the base for connecting crowd at the international level. But not all online communities are entitled as crowdsourcing. Serve as an example, social networks, largely facilitates communication between individuals, but not outsourcing to them. The idea is to use the active contribution of the community by companies. All ideas born in the minds of everyone, profitable for large companies obviously have "demanded" to be involved, and the potential for "new" has been exploited as a perfect combination of intellectual possibilities of individuals.

The result turned to crowdsourcing, "self-organized masses of individuals, hyperconnected, amorphous, which hold tightly in one hand, the economic needs and

on the other, their economic destiny.”[4] In English - source community, is an action of the company through which a function performed by employees has been outsourced to a virtual community through an open call, consisting of customers first. Besides the act of final consumption, human skills, ingenuity and customers' intelligence they get to be "consumers involved in the production".[2]

## **2. Crowdsourcing-ul – Response to changes in socio-economic environment**

Jeff Howe has named four defining factors of crowdsourcing phenomenon: the increasing number of well-informed and experienced amateurs; spread of open source technologies and successful examples of the collective production (example Wikipedia); increased accessibility to communication, the online media and the increase of virtual communities. [2]

Currently, large companies engage active and trusting relationships with external customers, establishing business ecosystems energy that creates, in fact, more value today. The first example of worldly industries which gained great transformation through mass collaboration, is the media, which "turns the economy upside down". [5]

Another economically important example are the employment sites that have recently emerged and have gained large territory. The best known is the Mechanical Turk, representing a virtual labor market in which companies post their job notice and users accept the job to which they relate. [2] MySpace, Youtube, Linux and Wikipedia - exemplary models of mass collaboration today and it is just the beginning of a big step in history. Wikipedia, an encyclopedia created based on cooperation, it is not owned by anyone. Have five permanently employees and tens of thousands of co-authors volunteers, but its capacity is more informative than the Britannica Encyclopedia, namely through the use of wiki software, which allow users to edit web page content. And even if one information is wrong, very quickly are authors to correct the contents, named moderators. In this way, online encyclopedia progresses through his quality.

The contributions of this phenomenon can be passive or active. In Google Search or Amazon case we are speaking passive participation. Consumer behavior determines the priority of ads on Google.com or recommendations for quality products on Amazon. Users may even be unaware of the value created by its contributions. In the case of active participation, online participation is achieved by exposure to material such as uploaded videoclips on Youtube [1]. In many cases, the audience knows better, because they are involved and with more experience than company experts. Even the democratic system can be considered crowdsourcing in evaluating government. Another categorization can be defining the contribution of operational and research and development. Operational contribution is given by creating new direct value, case of Youtube or GalazyZoo, while the other one shows improvement and modernization actions for the of existing concepts.

## **3. Benefits generated by collaboration mass culture**

Many international companies have huge benefits from the exploitation of collective power, companies such Goldcorp, Amazon and Procter&Gamble. Amazon was one of the pioneers of crowdsourcing domain, but many companies have expanded the field, such as Skype, the internet telephony services, online auctions Ebay, most multinational companies use virtual communities in their engagement in economic activity. Intellectual force of crowds created virtually allowed companies not only to capture new ideas, but to invent, design and create products and services, improve customer relationships, increase sales volume, speed up production, to find new sources of funding or new employees, and own resources management modes.

Crowdsourcing has become a very important mechanism in organizational management. Using source data in an organization starts with the strategic approach of the goal that can be achieved, benefits suppressing costs. It usually causes restructuring HR flow and tend to be more open and cooperative with online communities, including customers themselves.[3]

In addition to the benefits for innovation, collaboration and self-organization, crowdsourcing offers a great financial advantage, reducing costs. Individuals contribute to the creation of "digital communities" at a relatively low cost, which allows collective action to be very attractive. Crowdsourcing work saves company from large costs, lost time, tedious tasks (such as Facebook's translation into Spanish by volunteers in 4 weeks) and acquiring new skills that the company does not dispose, and even other important benefit is improve quality and development activities.

Moreover, the costs of crowdsourcing should be considered and compared with the costs of the same activities within the company or contracted through outsourcing. One benefit less material would be the possibility to access a group that can be more valuable in economic activity of the company and novelty that crowdsourcing participants' are involved in generating ideas and other innovation activities. Companies such as Boeing, BMW, Procter&Gamble have used crowdsourcing as new ways to reduce costs, to innovate in spectacularly rapid rhythm, to interfere with other ways of survival in business environment of XXI century.

For managers in any industry, this new possibility conditioned on participation and collaboration system is both tantalizing and alarming. CEO of New Paradigm, David Ticoll, says: " Not all examples of self-organization are beneficial or exploitable", but the transfer of information means new ways of entertainment, communication and negotiation. [5] In each case, traditional buyers are involved in decision-making processes in generating value. But since crowdsourcing is conditioned to progress and spread of technologies, some corporations were hit by difficult situations that could create financial obstacles, and even to determine their removal from the market. One of these companies is famous corporation Microsoft. Its founder, Bill Gates, sustains that the talents union to create free property appears as a threat to the company to obtain profit from programming industry, where all the developers will continue to offer the same programs improved and "for free" . The perception is charged with a communist twist. The activity of the production of knowledge that can help

a growing number of individuals becomes a common action, circumstances threaten protected groups of influential people who have taken advantage of this fact under the protection of access barriers , which include high costs of specialized labor and required physical capital investment.

The benefits of participant include the reputation, reciprocity, competitiveness, altruism, self-confidence, personal satisfaction, recreation and direct material reward, money, and indirectly, finding a job. In a normal way, any person with performance abilities wishes to obtain an income when provides a service. For example, Linux, a free alternative operating system is maintained by the powerof thousands of web developers volunteers. Yet these developers are evaluated in terms of their voluntary work, are encouraged financially by large corporations such as IBM and Intel in their involvement in specific projects. Another example of crowdsourcing's remuneration is even video search engine, Youtube.com. In recent years, users who have made the most popular video publications, helping to spread advertising through number of views, obtained a share from the company's revenue from advertising. On InnoCentive, persons able to provide the best solutions are awarded between 1000 and 1 million dollars. Collaboration with crowds provide benefit both companies and their crowds partakers.

#### **4. Good practices in crowdsourcing. The example of Amazon**

Collaboration crowd always existed in nature. A good example is the bee hive, which is coordinated by a series of signals, keeping active the entire hive, whether it is by releasing a perfume or dancing bee seeking pollen. This model is an inspiration for many other systems.

Amazon appears as one of the first cyber-businesses, appeared as a online store where, Jeff Bezos, Amazon.com founder and director of the virtual store, wanted to promote its new product for reading electronic books, Kindle. Being an infallible entrepreneur, Bezos has demonstrated its innovative character, by first implanting the idea of crowdsourcing in its business. The idea arose with the desire to use the

instrument as a store promotion and online books. The next step, Bezos expand the possibilities store by introducing on-line system reviews for every product on the site, but perhaps rather thought the benefits of Amazon's customer database. This concept launched them as the pioneers of given business[6].

Like any other company "on the internet", Amazon has been preoccupied with the security of company's and customer data. In the first ten years, invested a sum of two billion dollars in setting up a huge database of proprietary information and effectively securing them, when, in 2004, Bezos addressed to his team of managers the proposal to provide public access that database, analogously, the right to participate in the process of selling the site. Free access to the outside would be enhanced the company with new profitable collaborations. And Bezos' conclusion remained single "We will aggressively expose".

After activation Amazon Web Service, were attracted 240.000 participants, and continuous alignment of software developers and entrepreneurs to crowd Amazon left a phenomenal impact, an increase of 55% until January. A risky experiment, like opening to the public, has become the most important part of the company's Amazon strategy. Due to the advices of customers a direct contact was created, without cost to the customers themselves, crowdsourcing generating customer loyalty and attract new potential users of the virtual store.

Moreover, Amazon receives daily collaboration proposals for introducing on its pages the products of other companies. It is a sustainable possibility of expanding the company's services. Traders can exhibit their products on the site for sale. Calling crowdsourcing generated long-term contracts and profits assured in advance. Independent contractors affiliated with the company are Daryl Butcher, Jason Meyer and Hector Rivas. Their old books were valued by the whole Amazon and sold at priced of millions. Thrift Books Businesses benefit from collaboration with Amazon taking advantage of its efficient technology, achieving some sales from which result enormous annual revenue of \$ 2.5 million. Another company receiving from the relationship with Amazon is ScoutPal, technology offering smartphones

the function to read the barcode. The idea gained momentum for the first time, being connected to the Amazon, as well as technology. This allows users to find prices of similar products in the online store.

What becomes evident, based on the model of Amazon is that interaction with the crowds inside and outside the company is both inevitable and highly necessary. Suddenly, matter how appeal to customers, employees and suppliers. Internet becomes a giant system that anyone could program, providing a complete infrastructure for collaboration and information dissemination. Professor at the University of Michigan in the economy, CK Prahalad, called trend Wikinomics, "democratization of industry", as the concept used daily, speaks for itself about "people's economy, realized by the people for people." Based on the collaboration, the economy becomes more dynamic and productive.

## 5. Conclusions

Small steps, but confident, the world steps into the information revolution, established through the Internet by enabling free access to crowds. Compete with Renaissance and the early industrial revolution in history.

And it all started with a single invention, the Internet. In just 15 years, the impacts of Internet use has penetrated into the homes and daily needs of each person. The outbreak comprised of intellectual power of virtual communities is exploited by large companies or governments economic societies they belong, that source became very attractive, being located at a much higher return over costs arising from its use. From current called crowdsourcing, we all seize the advantages. Among the first companies that have used this trend are Amazon, Goldcorp, Skype, eBay and Procter&Gamble. And now, we can not imagine life without their services, as well as corporate work with our strength. Interdependence of online communities and large companies create benefits both companies and individuals in the community, benefits information, financial, social and cultural. Force communities destroyed most conventional business rules. All solutions have become suddenly much easier. This paper describes a new model of value creation by its users, consumers. It is about a



giant brain and an independent economy based on customer involvement.

But when you look at it from another point of view, perspectives are changing. Large corporations like Microsoft have realized the threatening impact of crowdsourcing for his business, reducing sales. We can not get something perfect in this century, but we try to bring the best solutions. And this challenge will have positive effects on the quality and price of services. Companies need to progress with the world and its capacity to adapt will determine the final result. Law of the jungle always works, best wins. However, there are a lot of things to learn and crowdsourcing occurs as a response to modern challenges of management in today's society.

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## Methods for Determining the Advertising Budget and its Distribution in Different Media

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### Abstract

*The process of determining and establishing the necessary advertising budget is approached based on the situations that precede it. There will be virtually no easy task for marketers, with the risk overvaluation or undervaluation of the budget. To avoid broader range of situations, the company uses specific tools and methods for determining the advertising budget. An advertising budget is established for each product.*

**Key words:** consumers, marketers, advertising budget, product

**JEL Classification:** M31

### Introduction

Once we set the advertising goals, we create the advertising budget for each product.

Determining the advertising or promotional budget is one of the most difficult things that you have to do as announcer. In theory, marginal reasoning should allow determination of an optimal budget. Theoretically, the advertising expenses increase until this increase turn into a null return. In practice, this method is not used. It conveys the message accurately knowing the marginal efficiency of advertising, but on the other hand it does not take into account the circumstances in which it strongly supports the company's strategy to invest beyond holding temporary equilibrium (launch of a new attack in the competition, etc.). Most announcers do not use one method for determining the advertising budget, but they use various combinations of several methods.

### 1. Methods for determining the advertising budget

#### a) The percentage of sales method

Many companies define their advertising costs by applying a percentage to sales volume.

Determination versus promotional advertising budget from a percentage of sales should be based on the sales forecast and not based on past sales. This does not have to be rigid, but should be linked to each situation and calculated on a time interval that exceeds the budget year. There is no need to keep the appearance that often consumers are excited by the "quantity" of advertising and not by the absolute percentage of the turnover of the product. [1].

#### b) Budgeting method by comparison with the competition

In a market where there is a large number of competitors, a brand has to do a lot of advertising to be heard in the market commotion; even the 'noise' created by advertising brands that are not direct competitors requires a relentless publicity campaign in order to be heard.

It consists of estimating the costs of advertising and competing by establishing the size of the budget estimate and the objective expressed as part of announcer market [2].

#### c) The available amount method

In this case, your advertising budget is directly linked to the availability of short-term cash flow.

This method leads to cutting the advertising budget when things go wrong or

to investments in advertising when everything goes well. To be noted that the tax system encourages such methods, since an increase in advertising spending decreases the taxable income. [1]

#### **d) The target method**

Since the advertising targets are known in measurable terms, this method consists in determining the means to achieve them and expressing the costs involved. If the budget so calculated exceeds the financial possibilities of the company, such budget shall be adjusted to the advertising goals, decreasing their level.

This method is, of course, the most logical and the most rigorous one. Its use requires a knowledge of the response curves, i.e. the causal relations that link the advertising actions to the end results. Often this method requires the use of tests.

Most announcers do not limit to a single method of determining the advertising budget and make use of various combinations of several methods, taking into account other factors, such as: [1]

- stage of product's life cycle; new products are allocated large advertising budgets to increase market penetration, while already known products are assigned lower budgets set as a percentage of sales;
- market share and customers; brands with high market share usually require lower advertising expenses, calculated as a percentage of the sales volume. If we want to increase market share, obviously advertising budget will be higher for those products [1]

Market share also influences the amount of advertising: because increasing market share and taking market share from competitors require more advertising as an expense than in maintaining the market share, brands with larger market share need more funds for advertising as a percentage of sales. [3]

- market competition; the greater the number of competitors, the higher the advertising costs for a particular brand.
- repetition frequency of advertising; as the number of repetitions of the ad is frequent in order to convey the message to consumers, and advertising budget will be higher.
- the degree of substitution of the product; the higher the consumption rate of a given

product (household item such as: cigarettes, soft drinks, toothpaste), the brand will have to proceed with a sustained publicity image to differentiate itself from competing products of the same kind. [1]

Marks a class of undifferentiated goods (cigarettes, beer, and soft drinks) require sustained advertising, in order to create a distinct image from the other brands. [2]

After setting the advertising budget, the follow up decision will allocate this budget between the various media and their supports. At this level, the choices are made with those involved in creative advertising. Basically, the existing advertising budget binds not only the hopes of a future product, but also keeps alive a well-known product and, why not, the whole image of the company may depend on this.

## **2. Advertising media**

After setting the advertising budget, a follow up decision will assign this budget by dividing it between the various media and their supports. At this stage, the choices are made with those involved in creative advertising.

We distinguish five categories of media: press, television, radio, cinema and display. They do not carry the same importance on the advertising plan.

**a) The print media has always been and will remain for a long time the most used means of mass communication.** Considering its frequency, we distinguish: the daily press and the periodicals. Daily press is both national and regional (local).

Among its disadvantages, one can name the following: poor quality paper, difficulties in presenting ads in colour, rapid obsolescence. Periodical press consists generally of store magazines, which offer a variable selection depending on the lifestyle of readers, the sports, hobbies, socio-professional category of the readers, etc. Reproduction quality is good, even excellent. Ads are often accompanied by genuine art photos. However, the cost is relatively high.

### **b) Television**

Television advertising remains indispensable for certain product categories. When you need to put on a demonstration in order stir up an interest in a product, only

television enables such demonstration. The advantage is that television programs are often watched in a family environment and the product quality can be discussed in the family group.

#### c) Radio

Listening to radio is most often a background sound while doing other activities such as DIY, reading, housework, cruises, etc. There are certain times which are the favourite for airing advertising: 06.30 – 08.30 and from 20.00 to 22.00. The radio cannot transmit every theme since, by nature, visual evocations are inconsistent with the radio. Despite these drawbacks and limitations, the radio benefits however of many advantages. It is very flexible, the ad is prepared quickly and scheduling airtime is much easier than on television. The costs are lower and allow massive advertising campaigns that can be repeated over time.

#### d) Display receives a large audience.

Display is versatile since one can stick posters on the different supports in the most remote places. The audience, however, is little selective. The poster is a privileged medium of creative advertising. It achieves a prospectus fun in a minimum of space, but must be shocking to draw attention to the plate and to give information. With the technical improving, the display received a very wide use. There are: permanent and temporary display;

- mobile display and immobile display (on bus sides and on walls)

- display on a mobile or immobile panel (a mobile road panel has the same features as a location on the platform of the subway or a bus stop).

e) Cinema, as exclusive media, loses some of its importance, but it can bring great services as complementary media. Simpler than television, it proves quite low as far as selectivity is concerned and it tends to attract people from the city and young people, but actually, it all depends on the nature of the screened film. Advertising is received under ideal conditions because the target is paying attention. Before proceeding to making the choice of advertising media and their support, there must occur a collection of quantitative and qualitative information on

the composition of the audience. Sources of information are diversified. For example, the Romanian Institute for Public Opinion Polling (IRSOP) provides extensive information on advertising media and certain characteristics of their audience. Numerous studies on the audience are made by news agencies, some sections of television, radio, national press, etc. Once the market segments for placing the products are chosen, the brand proceeds to retaining a number of criteria in order to choose the most appropriate media. Generally, two factor groups are considered: the nature of the product and the nature of the clientele. Regarding the choice of supports, models have been created that allow an automatic choice. [5]

We cannot discuss the advertising budget without mentioning a few words on the advertising objectives.

The advertising objectives face two instances. The first instance considers that advertising should not be other thing than causing additional sales mission. The second instance recognizes that advertising may be limited to more specific and immediate objectives than increasing sales. From this confrontation results the distinction between business objectives (sales) and advertising specific goals (goals of communication).

a) commercial objectives. Without a doubt, the ultimate goal of advertising is to influence the share of market turnover and profit. During the launch of a product, the targets are set in terms of penetration in different market segments. Later, advertising aims loyal consumers, causing them to repeatedly buy the delivered product. In the longer term or short advertising campaigns must speak in turnover.

b) communication objectives. They refer to three basic ideas:

- exposure to a message; the purpose of an advertising campaign is getting an audience determined. When a product is launched, it must be made known to a large number of potential consumers;
- memorizing a message; consumers need to remember the message. The product is already known, but buyers remain somewhat indifferent as a key argument for the sale is unknown and therefore the advertising campaign sets the target to print this argument in the mind of the buyer;
- attitude; prospectus (the potential buyer)

must show a favourable attitude towards the product. If consumers demonstrate a negative attitude towards a product, the campaign's goal is to overthrow this attitude.

It is understood that ad agencies must be attached to the communication objectives rather than the announcers who prefer commercial objectives. The notion of "public limited liability" was used for advertising that targeted only the communication objectives.

Determination of objectives is very closely linked, on one hand to the position of the chosen marketing and advertising, and on the other hand to the targeted customer segments. [6]

### Conclusions

The existence of promotion sales is explained by three reasons. First of all, the diversity of products offered to the public has led to their routine, very similar to each other. In this regard, sales promotion brings additional means of differentiation, able to facilitate the picking of the consumer.

The second reason is related to the media, which, by nature, results in terms of implementing long advertising campaigns and do not accompany the consumer to the place of purchase. A good addition is provided by the sales promotion which will ensure the communication policy and will seek feedback until the final decision.

The evolution of the relationship between retailers and manufacturers is the third reason for the existence of sales promotion.

Distributors have taken real power in distribution channels and sales are carried out according to their objectives. Distribution is not a simple barrier between producer and consumer, it may pose a threat. If, for example, the producer wants to reduce the price to the public, the retailer or the dealer believes that this discount would be harmful and will not apply such discount.

Promoting sales through multiple techniques it offers is an excellent way to resolve disputes that may arise between producers and distributors.

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## Trends in the Evolution of Retail Commerce

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### Abstract

*Trade has proven to be a suitable field for introduction of scientific and technical achievements despite the fact that a large part of the transactions are (remain) customized by the seller-buyer contact. Technical progress in trade means quantitative and qualitative changes in the application of information technology: the automation of processes, using modern equipment, the introduction of automatic data processing.*

*Electronic commerce is one of the most important aspects of the Internet, which runs in the context of internationalization of economic activities continue under contemporary technological revolution and especially the new information technologies and telecommunications.*

*The present paper aims to highlight the key trends in retail trade in the context of introduction on large-scale of information technologies, the use of smart devices and social networks.*

**Key words:** development, retail, electronic commerce, networks.

**J.E.L. Classification:** L81, L84, M10, M31

### 1. Introduction

Trade is an important branch of any national economy, a complex of socially important activities subject to the general level of development and civilization of the community it serves. Electronic commerce is one of the most important aspects of the

Internet, which runs in the context of internationalization of economic activities continue under contemporary technological revolution and especially the new information technologies and telecommunications. Business models used for online sale of goods, information or access to databases, differ considerably from those used for the sale of physical goods. New technologies and new shopping channel promise a shift to a relationship management model that allows retailers to pinpoint exactly the customers and allowing customers to decide and define how they interact with the retailer, including what brands, products and locations will be specifically communicated.

### 2. Distance selling-the main challenge

A revolution is underway in the retail sector. The previous commercial revolution, occurred during the 1960s, generated the great scale distribution .As previous, the current commercial revolution is a process through which the commercial device and, more broadly, the consumers means to satisfy their needs are deeply transformed in order to adapt to an economic and social context itself changing.[1]

The passage from the catalogue to the screen was accompanied by a deep renewal of the business material and by experimenting of innovative business models.

Distance selling is a vantage point of the commercial revolution in progress and especially since, with the generalization of the multichannel model (e.g. Internet and store); it is increasingly entangled throughout

the retail commerce.

In fact, societal and economic changes that occurred during the last thirty years tend to undermine the foundations which had brought the development of the mass distribution. The trade is being adapted to the new situation.

The term distance selling means selling products or services to consumers without face-to-face contact, and where the consumer has not had an opportunity to examine the goods before buying or discuss the service in person. Examples of distance selling include selling via: the internet, text message, and phone call, fax and interactive TV or mail order.[2]

If distance selling is now, in many ways, point in testing new models, it has probably not destined to become hegemonic, or even permanently maintain leadership in innovation commercial. Distance selling is expected to find its place in a service-based chain construction, whose key centre will be in information systems that connect brands to their customers on the one hand, and their network partners value each other. [1]

Distance selling is distinguished from the stores primarily in relation to the client. The virtual character of the interface to customers (catalogue or screen) offers them up - whatever their position - full access to supply, with the opportunity to prepare the acquisition, ordering and receiving products without moving. It is very important to develop and produce a catalogue to comprise different merchandising competences (valorisation of the offer in page, space optimization). [3]

The distance selling electronization significantly affected the economic models of remote sales. The impact is particularly evident in terms of front-office work with progressive passage from an interface, mostly tactile (surface paper) to a virtual, electronic interface. The new media of transaction change in depth the nature of the relationship with the customer but also the offer content that multiplies and diversifies (more options more prices, quality of the services are improved, the integration of new services). This change requires a mobilization of skills in designing commercial websites and information systems related, meaning new skills in the field of relational marketing for all actors in the retail field of activity.

Besides, distance selling a very different cost structure in comparison with the sale in shop. Clearly, the market share of distance selling is growing. However, the figures show a communicating vessels mechanism between the distance selling trough catalogue and the on line commerce. The dynamism displayed by the appearance of the Internet distance selling is maintained by an intense innovation process. The spread of broadband in homes has released the exploitation of technological potential in terms of customer interface. Meanwhile, the back office is structured and Professionalized, improving service quality, which in turn, fuels the growth of the market.

These developments cross a process of trial and error to develop efficient business models. In fact, from the outset, the development of e-commerce and competitive dynamics that takes place based on an intense innovative activity around economic models, so that e-commerce has rapidly emerged as being more than a transposition on screen of the catalogue sales model. In this respect, Amazon and eBay have emerged in this new work by inventing new ways to trade. Today, the importance of the flow of new entrants is accompanied by experimentation with original business models that have yet to prove their viability. And while e-commerce is not yet out of his emerging stage, the first initiatives of m-commerce - e-commerce on mobile phone - open already a new front in the creation of economic models. The effervescence that surrounds the distance selling, the slow but steady growth in its share of market across the entire retail trade, and a growing number

Of retail chains store engage in online sales incite to make it the epicentre of the transformation of commerce. However, it should be underlines that e-commerce has emerged as the retail trade as a whole seemed already entered in a phase of structural transformation. In fact, several indices of deep changes throughout the trade as a whole manifested themselves before the e-commerce

Reaches a significant level of activity and begins to exert cascading effects on other areas of commerce. [1]

### **3. The vending market**

In English vending means the sale of

goods by automatic machines without a salesperson in the sales process. Although this practice was mentioned the first time in 215 BC, (when the Egyptians could buy holy water by coins in a distributor), sales through vending machines is a form of service that has expanded greatly in countries with developed trade. [4]

Practicing this trade presents a number of advantages such as:

-a business easily to be initiated and managed;

-requires no large amount of work and is extremely flexible in terms of working hours;

-do not need a particular specialization.

-a business that has not yet developed enough and entering this market would be easy and highly profitable;

-vending need no advertising or salaries; the trader can be focused on purchasing machines and supplies and make sure they are fully functional and have stock;

-investment return within few months if the machines were placed in strategic locations (companies, hospitals, universities etc.). [4]

Consumers targeted in this business are divided in two categories:

- Captive consumers - in organizations, health institutions, education etc., that have no other means of procuring supplies near them.

- Casual consumers - in subway stations, train stations, on the street, and so on.

At present, in Europe there are 3.77 million devices with a total turnover of € 11.3 billion.

The most important 6 countries (Italy, France, Germany, UK, Spain and the Netherlands) cumulate 80% of the total number of devices. The Netherlands has the highest penetration of appliances / person, while the lowest penetration is seen in Russia and 60% of European vending machines are machines for hot drinks. Total revenue from vending in Europe totalled 11.1 billion Euros, less with 2.5% from the previous year. On the European market operates around 10,000 vending operators, of which 69% have less than 100 machines. Approximately 85,500 people work in the European vending industry. Almost every of the most important markets in Europe vending suffered from income or the number of cars operated and generally each market as a whole has had a setback. [5]

The increasing diversification of the types

of products sold through vending machines and operators in recent years has led to accelerated growth in the number of machines that we encounter everywhere. Romanian market follows the same trend with the countries of Western Europe. While most prices are starting to rise, perhaps not significantly, vending market continues its maturation phenomenon, in terms of demand. In this sense, more customers require diversification of vending. Recently were developed eco-friendly facilities. Thus, certain parameters are changed depending on the time of day and the report with the client, who may mean turning off lights when not in use or regulate the temperature inside at night. [6]

The vending market in Romania is still marked by "hegemony" of coffee machines that occupy 90% of the territory. But this year there is a growing and vending machines offer snacks, a presence that Romanians are still not very common and is the beginning. According to a report by Euro monitor International, vending in Romania remains rather underdeveloped and the channel maintains solid growth potential both in terms of accommodating more vending machines and in terms of diversifying the range of products offered through vending. Vending is expected to increase in constant value at a CAGR of 6% over the forecast period, rising to RON23 million by the end of 2017. [5, 7]

For the world vending industry, 2014 will be a year of unprecedented changes. Vending specialists has a look at the major trends that will determine the changes in the industry over the next 12 months and later. Vending industry has survived for decades with only minor changes. Customers place coins in vending machines and in return receive a drink or a snack. Type of products available through vending was limited at coins that customers can wear in their pockets and no one cared too much for the products distributed. Modern payment technologies and the transformation of mechanical, simple vending machines into sophisticated computers and advanced communications capabilities of digital screens has become the new reality of suppliers who want to satisfy their customers. Vending analysts have identified seven major trends that all participants vending businesses around the



world will have to follow in 2014: changing the legislation concerning healthier snack options in vending machines; consumer demand for vending machines that meet special dietary needs and personal preferences of snacks; interaction; remote monitoring; cashless sale; mobile payments; marketing of higher value becomes possible due to remote monitoring and cashless vending. [8]

Vending network optimization means improving the quality, and quantity, if necessary, the constituents of operation of vending machines, ie equipment designed ultimately to increase profits. Network optimization involves constant work. It is impossible to give a complicated instrument once and get an efficient operation, especially in a modern city, where working conditions are constantly changing; new outlets are developing, with competitors on alert. [9]

#### 4. Retail through social networks

Internet fundamentally change the way that **people** buy, putting traditional suppliers with physical stores in difficulty, according to an analysis of retail trends, conducted earlier this year. An analysis conducted by Manhattan Associates, provider of supply chain solutions for retailers, shows that there is an increasing impulse purchases and greater consumer control due to the use of smart devices and social networks. [10]

In parallel, physical stores will be increasingly converted to experienced centres to counter the growth of online shopping.

"Rising prices for raw materials, fuel and transportation, along with stagnating wages, the threat of rising inflation and global financial turbulence continued uncertainty will continue to represent a challenge for the retail industry in 2014," said Martin Lockwood, senior director of Manhattan Associates. "At the same time, new technologies, smart devices and social networks, merchants gain new opportunities to satisfy customers more effectively than in the past," said Lockwood. [10]. In perspective, customers will have the opportunity to buy whenever and wherever they want, while having the same overall experience. Future includes traditional trade (in stores), e-commerce (online shopping),

m-commerce (mobile commerce), f-commerce (Facebook commerce), s-commerce (social) and v-commerce (video).

To compete with e-tailers (online retailers) that sell through stores of "pop-up" and "product-less" traders in traditional stores have to offer self-checkout systems and to move toward a more mobile sales force, equipped with hand-held devices to check stock availability and price correlation when needed. [11]

Retailers need to invest more in the creation of centres of experience with high-touch, high-tech and memorable design. An example of this is the online retailer eMag that after arriving at the biggest online store in Romania, opened several showrooms in major cities where customers can come in contact with products and services and can benefit from pre-and post-delivery. [11]

Technology oriented trends, and traders will have to be prepared to react face to challenges like mobile price comparison applications, sites "deal of the day", online shopping or shopping abroad via smart devices. [12]

Facebook has a history of eight years and it is hard to believe that just five years ago opened the social network Facebook Pages, allowing brands and celebrities to create a profile and post original content dedicated to encourage interaction with fans. [13] As Facebook has become a big market for brands, companies have seen the potential to use Facebook as a revenue-generating platform. Commerce on Facebook was initially seen as an additional source of income. Switching to Facebook Timeline meant users involvement. Everything from picture input to the reference points in its history are a part of a brand's ability to turn into an online person, instead of providing separate articles. On the other hand, Facebook has become an important source of traffic to retailers' websites. For example, 1.9% of the Burberry's website traffic, in September 2010 was generated by Facebook. A year later, 29.1% of the traffic was generated by the social network. [14]

The popularity of Facebook, which will soon reach over one billion users, attracted, as expected, the interest of major brands to sell through the social network. It seems that sales are not as high as one would expect. Facebook stores begin to close, writes

Mashable, citing a Bloomberg report. For example GAP, J.C. Penney, Nordstrom and GamStop opened stores on Facebook and it closed in less than a year. It is a blow to those who extol the Facebook as the future revenue generator for retail business sites. However, none of the withdrawals from Facebook proves that Facebook does not have potential for companies that want to sell products through social media. Failures explanation could be that some companies do not understand how social platforms should be used to generate sales. In most cases, retailers have entered the trade on Facebook by simply importing product catalogues and making them available to the Facebook channel or through a Facebook application.

The experience is almost identical to that generated by their websites, with two major differences: buyers can buy without leaving Facebook and Facebook moves much harder than the dedicated website of the retailer. [15]

Facebook is reaching out to small businesses with a series of summer boot camps designed to load them with expert advice on how to become successful. Of course, part of that advice includes "advertise on Facebook." This "could really pay off, both in terms of additional revenue and driving interaction between small businesses and their customers on Facebook," said business proof Bruce Bachenheimer. Small businesses have been an elusive market for sellers of online advertising. That's because the value proposition of those ads is a tough sell.

Facebook hopes to reduce some of the resistance in the small business community to advertising online with a series of summer boot camps, dubbed "Facebook Fit," that combine business advice with a soft sell for Net marketing. [11]

Today, the social commerce has been expanded to include the range of social media tools and content used in the context of e-commerce. Examples of social commerce include customer ratings and reviews, user recommendations and social referrals, shopping tools (sharing the act of shopping online), forums and communities, social applications and social advertising. We live in a mixture of images. From all side we are assaulted by various and disparate visual information. Landmarks of contemporary art

of a restless world are in constant motion and transformation. The border between the visual arts and information, especially for the new generations, is in a continuous confrontation. The impact force of visual language is more impressive than the word because, unlike this one, it works directly, beyond the language barrier. [16]

The buzzword on everyone's lips at the moment is social commerce. It's the area within social media that shows the most promise as it represents a step change in the way in which people engage with social media. Regarding the advantages of social commerce, they can be analyzed from three points of view: the company, the consumer and society.

## 5. Conclusions

Despite the rapid evolution of digital technologies, most traders hardly responded to these new opportunities. In the future, the situation will improve in this regard and there will be reactions to the exchange of power, originally from manufacturers to retailers, and now, to consumers. Looking ahead, customers will have the opportunity to buy whenever and wherever they want, while having the same overall experience and new technologies and smart devices at their disposal.

More and more people today are choosing to purchase goods online and research on consumer behaviour indicates a growing appetite for alternative methods of home delivery and return services need. Estimates mention e-commerce growth rates in Europe so e-commerce is an area of great interest for retailers.

The retail through social networks brings a new challenge for local business sites, ristproducts being sold via an array of recommendations and references from acquaintances to reach the final recipient.

We live in an age of speed, where any savings time becomes an advantage. Online website is the present and the future, as more and more of the entrepreneurs are turning to the virtual environment to conduct their business.

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## Financial and Banking Markets and Data Mining Techniques

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### Abstract

*At present, institutions and banks back up electronic data deposits, where information is checked in data bases. As data bases are very large, bankers wish to obtain applications to help improving business process. The paper presents the categories involved in extracting information in the domains of finance and banking, by the help of the data mining techniques, as well as the financial performance and client relationship in institutions.*

### Key words

analysis, bank, data mining, data deposits, fraud

**J.E.L. Classification:** L86

### 1. Introduction

At present, institutions and banks back up electronic data deposits, and information is incorporated in data records. The big volume of the data sources makes their analysis almost impossible for humans coming with information to help the decision making process. Bankers wish to get data mining applications to improve performance in the business process, by also discussing direction applications such as: risk management, portfolio and transaction management, client portfolio. Business Intelligence focuses on discovering knowledge in various electronic data deposits, backing up best decision making, while data mining techniques become important to find out knowledge in the data bases. Lately, intelligence business systems have played an important role in organizations, its targets being profitability, efficiency, and the improving of clients' loyalty.

In most cases, all these are determined by the historical data analysis. Data mining can contribute to solving intelligence business issues in the banking and financial fields by means of finding, causality and correlation models in the business information which are not immediately obvious for managers, as the volume is too big, and the banks managers go further in finding sequences and methods related to the periodicity of transactions, oriented towards keeping and maintaining profitable clients data basis. [1]



Figure: Data mining techniques use

Here are the large categories used to extract data to be used in the banking and financial field:

a). *Risk management* in which its running and measuring are part of each financial institution activity in which market credit and risk represent a major challenge based on advanced data bases and the data mining technology.

Data mining mining is widely used for risk management in the banking industry.

Bank executives need to know whether the customers they are dealing with are reliable or not. Offering new customers credit cards, extending existing customers lines of credit, and approving loans can be

risky decisions for banks if they do not know anything about their customers. [2]

Nowadays, measuring different risk types are based on models that represent simple financial instruments as important research issues.

i. The financial market risk. For simple financial instruments such as stock exchange indexes, rate, currency, measuring market risk is based on models related to a series of factors among which: the interest rate, the stock exchange indexes etc. At present, there are different approaches to measure market risk, based on models representing its behaviour and interaction with the market; many of them can be built only through the use of different data mining techniques on portfolio data, as they are not public data and need to be monitored.

ii. The credit risk. Its evaluation is the main component in the loaning process, and it can be classified in:

- the credit rate (assigning a client or a product at a risk level, for example: credit acceptance);
- analysis of credit rating migration in which a client or a product evaluation is achieved in a given time.

In the commercial creditation, the risk evaluation is a trial to quantify the loss risk for a creditor when there is a credit related decision. There are three types of approaches at the transaction level: accountancy, statistical prediction and theoretical analytical approaches.

b). *Managing portfolios*. One can say that a portfolio is a group of actives, and their management consists in forming groups of actives in such a way that the market price evolution could ensure the capitalization targets as defined by the investor, based on respecting restrictions in risk terms determined by active allocation.

## 2. Financial - banking data mining

Modern technology has made major changes in the banking field. The new generation in the new banking technology urged the traditional banks to adopt and to focus on the new trend. Starting 1990, the banking concept moved towards the centralised data bases, and the online transactions as well as the ATM made it

stronger and more client oriented. To improve financial performance and client relationships, the financial institutions have started to use the internet and other electronic channels in applying demands for various products, thus reducing time and costs. The internet, the automatized soft systems have changed the fundamental concepts of the banking activity, as well as the way in which operations develop activities.

In the financial services world industry, the contact with the clients have been replaced by electronic contacts to reduce time and demand processing for various products and to improve the financial performance. Informatization of the financial operations, the use of the internet and software have changed the business fundamental concept and the way they act. There are more domains in which data mining can be used in the financial sector, such as: consumers segmentation, profitability, credit analysis, payment incapacity estimation, fraudulent transactions etc. Data mining is the process of extracting hidden, unknown, valid and attackable information from the big data bases and the use of it in business decision taking. Data mining is the process of identification and finding models in the big data bases and can be made at any time period when intended for a target application. Data mining can be considered an evaluation of the information technology with an influence in more domains.

The process of discovering knowledge contains several steps which describe the way in which the unprocessed data are changed into information:

- data selection. At this stage, they identify the location and the data relevance for the business environment;
- data preparation, by selection, cleaning and extraction;
- data transformation. At this stage, data are selected and transformed in an adequate form to be introduced in the data mining;
- data mining. This is the most important stage in which the algorithms and techniques are applied to project the model in achieving business;
- evaluation. The models are represented by knowledge and are identified based on the data measurements;

• representation. At this stage, the visualization techniques are more efficiently understood for the final users.

Advantages for the data mining usage:

- to better understand the business;
- to better serve clients;
- to raise organisation efficiency on a long term.

Data mining in the financial domain includes:

- analysis of the financial market and prediction;
- account classification;
- banking guarantees;
- credit evaluation.

There are several methods to extract data and algorithms, such as:

a) *association*. Association is one of the mostly used techniques in which a found model is based on a relation in the same transition. They include:

- the association on several levels rule;
- the multidimensional association rule;
- the quantitative association rule;
- the direct association rule.

b) *classification*. One can define classification as a process through which they build a function  $f$  (called classifier or a classification model) which associates to each set of  $x$  attributes a label of  $y$  class from a predefined lot). Its utility is used in modelling, which can be descriptive or predictive.

c) *grouping* (clusterization). Clusterization is the organizing process of objects in groups whose members are alike, and the groups are collections of similar though different objects as they belong to other groups.

Advantages:

- high performance;
- large capacity;
- high disponibility;
- elementary raising

Disadvantages:

- complexity;
- incapacity to recuperate corrupted data bases.

Clustering methods:

- partitioning method;
- aglomerative hierarchy method;
- density based method;
- gride based methods;
- model based method.

Clustering is a data mining technique that makes meaningful or useful cluster of objects that have similar characteristic using automatic technique [5]

d) prediction. Prediction unveils the relation between independent and dependent variables.

e) sequential models. The analysis of these models is to unveil patterns similar to tranzactions for a time period. The unveiled models are used in suplimentary analysis in recognizing data relations.

f) regression.

g) neuronal network, etc.

*Detecting fraud* is defined as a fraudulency deliberately practiced aiming at getting illegal gains. It refers to detecting criminal activity which takes place in a commercial organization, such as a bank, credit cards, insurance agencies, mobile phone company etc. The data mining techniques will help the organization to focus on the ways and means of analyzing the customer data in order to identify the patterns that can lead to frauds [10]

Detecting fraude usually includes several techniques, such as:

i. Proactive (for example: it evaluates risks), and reactive (for example: it helps fraud reports).

ii. Manual (for example: audit on the spot), and automatic (for example field software).

Even the most comprehensive checkings can be avoided by a qualified lawbreaker. The promotion of the detecting activities of an organization can be a discouragement factor for the dodgers.

Key elements:

- risk evaluation, in which the risk varies according to the business nature, volume and sector in which the activity is developed;

- personnel training, as part of the newly employed people, on periodical training sessions;

- fraud reporting mechanisms, in which the staff confidentially reports concerns related to suspected or real fraud;

- checking and audit sessions.

Data mining and data analysis can include:

- interrogation of calculation sheets;
- audit software;

- personalised software;
- data viewing.

It is important to review and to act on the information obtained from the data extraction and analysis.

#### *A. Marketing*

The mostly used area in data mining in the banking and commercial domain is the consumption products trading. The sale and marketing department in a financial organization can use the data mining algorithm to analyse the real clients, the way another product in association with the existant one can be traded etc. One can use the DM technique to analyse the past trends, to find the present trends and to foretell the client's behaviour aiming at getting more business opportunities. The DM techniques can be used to identify the client reaction related to the adjustment of the interest and loans installments. DM can improve marketing by identifying clients through modern technology, such as the internet and smart phones. In the banking domain, one can use an algorithm called a model of efficient usage (or of frequent sequences) which can be used by the users for different objects.

#### *B. Risk management*

DM is used to identify risk factors which can appear in every banking department. To approve credits, authorities use the DM techniques, to determine the risk factors in creditation decision taking, by analysing several factors (for instance: nationality, reimbursement capacity etc).

Bank executives by using Data mining technique can also analyze the behavior and reliability of the customers while selling credit cards too. It also helps to analyze whether the customer will make prompt or delay payment if the credit cards are sold to them [4]

The risk can be identified as a reduction of the company value, given the changes in the business environment, while the main sources of loss are identified as:

- a. market risk, which is the modification of the company value, given the changes in the business environment;
- b. credit risk, which is the modification of the active net value, as a consequence of the changes, without achieving the duties according to the agreement;

- c. risk results. The operational risk is the risk registered as a loss and it is determined by domestic or external factors, while the legal risk is a component of the operational risk affecting the operations and the credit institution in a negative way;
- d. performance risk.

#### *C. Customer Relationship Management*

The Customer Relationship Management-CRM is a vital instrument for a modern company. It evolved from a rather old technology which united a phone call with a PC screen providing certain information- CTI or Computer Integrated Telephony. The client is offered an opportunity to feel himself important due to the personalized message he could receive.

The evolution towards CRM consists in using the internet and the data bases potentiality. The abundance of personal data, the use of the client's specific characteristics regardless the way in which he contacts the company, have transformed the classic marketing in the personalised marketing or the *one to one*. So far, there is not a single definition for the CRM, first of all because there is a great variety of CRM. It is important for a client to find out that he is treated respectfully, that his problems are searched and sometimes he is redirected to the same operator, thus an almost personal relationship being created. The operator would be perceived as a close person if he had the client's data - such as his birthday, his zodiac sign, family details, children, photos – on the computer screen and would use these during his conversation with the client.

The main domains to use the CRM type application are:

- providing support for the communication process and searching opportunities for the marketing activity;
- choosing the correct sale strategy in the sale activity, information analysis and decision taking tactics to effectively improve clients' relationship;
- creating a general vision of the whole business for the organization management, client's needs and wishes satisfaction, in the post-sale activity.

The application user benefits from the following main advantages:

- a rapid implementation of applications in the organization;
- a system easy running;
- mechanisms of documents flow configuration and implementation, checking in;
- integration with the messaging system;
- scalability solution to grow together with the organization, useful from small companies with only several tens of workers, up to organizations with hundreds of thousand employees.

The first target in applying a CRM strategy is to build a solid and detailed plan implying all the aspects related to the working place, the technological processes and the personnel.

When implementing a CRM, one should also take into account the company profile and the aspects related to the own domain of activity, the information to be provided to the clients, the history of the orders made by each client, and, at the same time, it should be able to eliminate the irrelevant information.

There are multisided failure causes in implementing CRM:

- technological causes: the purchase of an unfit product or the lack of integrating it with the other systems used in the organization;
- causes related to the management of the project: the project management cannot succeed the implementation in due time according to the budget, and does not get the new system user's acceptance;
- in terms of the sale management, the unethical sale management determines the users not to avoid the system.

In general, the architecture of a new clients' relationship management system is structured on three components:

- CRM operational;
- CRM analytical;
- CRM collaborative:

The CRM components:

- the data base of the client activity;
- the data base analysis;
- the decisions taken on the target clients;

- the instruments to direct clients;
- issues confidentiality;
- measures to evaluate the CRM program.

A necessary step in a complete CRM solution is to build a data base to manage clients' relationship.

### 3. Conclusions

Data mining has a strategic importance in many domains for many organizations, the banking sector inclusively, as a process of data analysis from various perspectives, by the help of the valuable information, through stocking methods and through combining data in the data bases, so that they can be made available and used. Then, the data are analysed and used in the organizations to support the decisional process.

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## Particularities of Recruitment in Crewing Agencies

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### Abstract

*In the challenging domain of seafaring, when crewing agencies choose the right seafarers for their clients, the agency has to consider that the recruited seafarers not only have to produce good results in order to satisfy the ship management and the ship owner, but also they have to improve the image of the crewing agency worldwide. This paper presents the particularities of recruitment of right people in a crewing agency.*

**Key words:** seafarer, manning, maritime transport, employment, shipping

**J.E.L. Classification:** J5, J21, M5, M540, M510

### 1. Introduction

Staffing an organization requires certain basic activities, including recruitment and selection of right human resources.

By definition, the verb “to recruit” refers to employ, to get someone on the basis of an election; to attract, to win someone for a particular task [1]. According to A. Manolescu, personnel selection means to choose, according to certain criteria, the most competitive and most suitable candidate to fill a specific job [2].

According to O. Nicolescu, the selection means all the processes by which are choose those people who meet the qualities, knowledge, skills, abilities and behaviors necessary to achieve the objectives, tasks, competencies and responsibilities of a certain posts [3]. The same author also considers the severity and objectivity are absolutely necessary for selection of personnel and are mandatory a series of rigorous selection

criteria and tools [4].

In general, recruitment is the activity of identifying people who have the characteristics required of vacancies and implies the activity to attract them to the crewing company where are available workplaces. The selection is the process of choosing, according to some criteria, the most suitable candidate to fill a specific post.

Recruitment and selection process involves the steps of determining the need for recruiting, analysis of recruiting demand, definition of job content, internal prospecting of employment opportunities, screening candidates, preparation of questionnaires, interviews, tests and final decision [5].

According to A. Manolescu, V. Lefter and A. Deaconu, recruitment means to identify a sufficient number of candidates, so that those who qualify to be recruited and selection is one of the activities of human resource management by which is chosen, according to certain criteria, the most suitable candidate to fill a specific job [6].

From a global interdisciplinary perspective, recruitment is the moment of confluence of seeking the perfect job by the employee side, with searching the perfect employee, by the employer side. This moment is materialized by the employment offer and concludes with making a full concordance between job demands and professional and personal characteristics of the future employee [7].

The recruitment of candidates for enrollment must complete several steps such as identifying the need for recruiting, analysis of recruiting request, design of job description, design of the job requirements as well as prospecting recruitment sources inside and outside the crewing company.

Nowadays recruitment of diversified workforce in shipping means not only social

responsibility, but also, more importantly, a necessity imposed by current macroeconomic conditions: globalization, unprecedented advances in technical and technological progress, jobs externalization, the change of the nature of work itself, multinational crews, international regulations in shipping, particularities of working aboard ship as well as demographic evolutions.

In such context, a challenging situation is when employers tend to recruit actively a multinational workforce oblivious of the requisite that the work should be adapted to the individual [8].

## 2. The process of crew recruitment

Compared to other industries, the maritime industry is very complex and includes different categories of companies and stakeholders that permanently interconnect: owner companies, ship management companies, spare parts companies, harbor operators, harbor authorities, shipyards, personnel recruitment companies (crewing companies), training centers, specialized schools, universities, institutions of the state authority concerned with shipping, financial institutions and many other companies and authorities which have activities in connection with the maritime industry [9].

In maritime transport, recruitment and selection is an essential activity for the smooth functioning of shipping industry and this is one of the reasons is often outsourced to crewing companies that are specialized in seafarers recruitment [10].

In a crewing company recruitment means the activity where arrangements are made for identifying the perfect seafarers for owners who seek human resources employment. In this regard, the clients of a crewing company are the ship owners who intent to make a ship voyage with outsourced crew. The recruited seafarers must meet minimum competence established by both international navigation regulations and those set by the prospective employers.

A seafarer will be recruited only if he/she detains a certificate of competence (for cadets), a certificate of capacity (for ratings). The certificate of competence is entitling the holder to execute service on a specific function aboard ship as well as to meet duties

and responsibilities aboard ship corresponding to a certain level specified in the respective document. The capacity certificate is a document that entitles the holder to perform the specified job, with exception of the master or officer positions on board ship. In this case is needed a licence obtained after graduation of specific university or vocational studies.

The mandatory international regulations that should be considered when recruiting is the STCW Convention - International Convention on Standards of Training, Certification / Certification and Watchkeeping for Seafarers, adopted in London on July 7, 1978 by the International Maritime Organization. The latest update of this regulation was in 2010. Romania joined the Convention, protocols and amendments according with Romanian State Law no. 107/1992. According to STCW international convention, crew members have to hold a licence or certificate of competency achieved in accordance with the STCW mandatory regulations which entitles them to perform functions on board ships. According to Section AI/14 of the STCW Convention [11], shipping companies are held responsible for the appointment of seafarers serving on board their ships. Also, the companies must ensure that every seafarer named on the company's ships hold a certificate appropriate to the STCW Convention and to the ship's state flag regulation (ship's state flag refers to the state where the ship is registered, regardless the nationality of the owner or of the seafarer's).

The crews must be made in accordance with applicable requirements of the flag regarding manned safety documentation. The crewing company must keep data on all seafarers serving on board ship of the client company. Such data must include, without limitation, documentation and data on the seafarers experience, training, medical status and competence regarding the positions that were employed. When hired for service aboard ships, seafarers should be familiar with their specific duties and with the situation, facilities, equipment and procedures found on board ship in order to best perform tasks and to quickly act in case of emergency. The crew must be able to coordinate effectively the emergency and critical safety situations for life safety as well

as to reduce pollution.

The expansion of a shipping company, crew exchanges due to illness, study leave or promotions due to retirement are just some of the reasons to carry out a recruitment plan. Also, a newly acquired vessel will require adequate manning.

Most crewing agencies document, implement and maintain a recruitment procedure in order to ensure quality recruitment operation. Not all companies have their own policy for recruiting and training newcomers.

International shipping companies have their own traditional programs of "cadetship" which ensures crew proper progression in time over various functions, in line with developing the company's organizational culture. Cadetship combines formal vocational training with practical work experience and is similar to internship in other industries, with the particularity that cadetship means the cadet (the student) will be trainee on a ship and not onshore. Cadets receive payment for the period onboard ship and cadetship is mandatory for gaining the seafarer licence after the graduation of maritime studies. Often cadets remain in the database of the crewing company and further collaborate once they gain the seafarer licence.

For a owner who outsource manning to a crewing agency the advantage is that the shipping company will eliminate overloading staff and will not have to deal with crew recruitment. On the other hand, a drawback of this situation might be a lack of loyalty of employees employed on different positions.

In the recruitment process, the General Director of the crewing agency approves both the minimum conditions for accepting application for new seafarers as well as the media solutions to advert the available positions.

As in any other industry, the Director of HR department is responsible for ensuring appropriately qualified staff permanent available. A particularity of the domain is the fact that, if manning is outsourced, the crewing agency will easily search and select from its database the right seafarer according to the demands

Beside recruitment, the crewing agency is also responsible for verification of candidates' documents, making interviews,

ensuring that, before sending aboard ship, the recruited and employed seafarer has the necessary qualifications and certificates and is medically fit [12]. The personnel files are kept onshore and are constantly checked for correct and valid certificates. For the purpose of effective recruitment, seafarers applying for a position must complete the "Seafarers Employment Application" which is a form where should be enlisted all their qualifications. Also the seafarer has to provide evidence of the stated qualifications (eg. valid sailor licence or equivalent and a valid medical certificate acceptable by the relevant flag state).

Another responsibility of the crewing agency is to ensure the selected crew personnel has the ability to communicate in a language relevant to the ship where they will. The agency will identify any possible specific training requirements and will notify the commander.

Also the agency will verify that each ship is manned in accordance with the owner or clients' requirements and consistent with international mandatory regulations.

The task of the crewing operator is to achieve advertising tools and to identify skills requirements for seafarers. The staff of the crewing company will assist seafarers to complete the employment application. Following, the staff will compile and analyze data and will prepare reports to the Romanian Naval Authority and to insurance companies.

### **3. Establishing the crew size**

Determining the number of persons to be employed aboard ship is an essential aspect to be considered from the point of view of owner's strategy: some may demand a number of seafarers lower than required, while others submit efforts to maintain a number of employees close to the theoretical needs. In general, in the last decade the crew size reduced along with advances in ship technology, from 40 seafarers to 20 seafarers or even less.

In the case of establishing the need for cadets and mid-level officers it must be taken into account the need to attend trainings needed for promotion, though not all of them will participate in the same time. While taking the training onshore, the respective seafarers will be unavailable for voyage

onboard ship. Also is desirable to take into account the reduced likelihood of disease among available seafarers.

In the case of masters and chief engineers there may be a higher probability of illness and of occasional participation in training courses organized by the company. In their case, they are not required courses for promotion.

Regarding the establishment of safe manning size, the first thing to be determined is crew size and qualifications of the personnel who will operate the ship. Most governments, shipowners' associations or unions require a minimum number of crew members aboard and this must be taken into account when determining the number of crew members. Similarly there may be technical requirements or operation of the vessel which may need an increase number of crew members.

In some cases, the introduction of performance management systems or agreements with the unions or the government may grant exemptions from the minimum number of personnel on board. Regardless of the criteria that are taken into account in determining the number of crew members, the crew size must be established and approved by the ship. In shipping companies with centralized organizational structure this decision is made by the technical department and the operating department. In a decentralized shipping company the opinion of master and chief engineer is essential in establishing the crew size.

The need to recruit seafarers depends on the job position. It may be difficult to recruit personnel as electricians and refrigeration engineers because they can be easily attracted by other industries [13].

#### 4. Conclusions

Seafarers' competence, the demonstrated sum of personal skills and the evidenced ability to apply knowledge and skills are basic criteria taken into account when recruiting seafarers.

Seafarers' recruitment also implies to identify legal crew requirements, including the additional requirements of the country of the ship's flag, if any, as well as to identify minimum requirements of ship owners.

Crew recruitment policy is also directly related to the crewing agency's objectives and to the level of proficiency necessary to achieve the objectives.

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## Bidding Price Foundation And Update

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### Abstract

*Setting the bidding price is made according to the settlement of profit margin and indirect tax volume and company trade markup. The manufacturer is interested in obtaining the product with the smallest cost and must use the analysis of design costs. In the market economy, the manufacturer is interested in obtaining the product with the lowest possible cost and for this he must use the analysis of design costs whose object is to eliminate the unreal costs.*

*Setting the bidding price is concomitantly made with setting the profit margin and the indirect tax volume and the company trade markup. The profit remains a variable size which is defined in the bidding price depending on the strategy that the company promotes in the market. The other elements that characterize the product can be determined, starting from the total profit per company and the total costs afferent to the performed production.*

**Key words:** product, the price index, the profit, the inflation rate, the market mechanism

**JEL classification:** D 40, G 10

### 1. Introduction

The objectives taken into account in the analysis of design costs are the following[1]:

- ✚ the use of consumption norms for raw materials, materials, fuel and energy periodically reviewed in accordance with the degree of processing,
- ✚ the recuperation of a larger volume from the materials resulted in the process,
- ✚ framing the consumption norms taken into account when elaborating the projected price.

The main factors that determine the changes in the cost are[2]:

- ✚ the prices of raw materials,
- ✚ fuels and energy,
- ✚ the modification of material consumptions and energy,
- ✚ indications for use of raw materials,
- ✚ the proportion in recovering recycled materials,
- ✚ salaries and other personnel's rights,
- ✚ percentage costs of the national insurance contributions and those regarding unemployment benefits,
- ✚ the labor productivity index,
- ✚ share of indirect expenses.

### 2. The total cost of the product

Calculation within the articles, the total cost of the product is established after the following relation:

$$C_p = (M_p - M_r) + (S_b + CAS + AS) + CIFU + CCS + SDV + AC + CG$$

Were:

- C<sub>p</sub> – total cost on product unit
- M<sub>p</sub> – raw materials and direct materials
- M<sub>r</sub> – recoverable materials obtained in the manufacture process of the product
- S<sub>b</sub> – direct salaries
- CAS – contributions for national insurance
- AS – contribution for unemployment benefits
- CIFU – shares for maintenance and operation of machines
- CCS – common expenses of wards
- SDV – tools, devices, checkers
- AC – other expenses
- CG – general expenses of the company

The following **factors** can act on the elements contained in the calculation of the unit cost per product:

- ◆ the update of price for raw materials,
- ◆ materials,
- ◆ energy,
- ◆ fuels.

In the case of the change, it is taken into account the modification index of prices in the updating period compared to the period when the last calculation was made. The update is made on each mark of raw materials, materials, fuel, and energy. In this update, besides the price index, we also have to take into consideration the modification the use indices of raw material compared to the previous indices, the update of recoverable materials, the update of direct gross salaries, the update of CNI and CUB, the update of indirect expense shares, SMOM, CEW, GE, the update of the total cost per product compared to the previous level, the update of bidding price.

Three different moments are met in the strategy that a company supplies in the market, in which the size of the manufacturer's made profit is established. These moments are:

- ◆ in the foundation stage of the price when the profit is the resultant of the product between the turnover and the profitability rate estimated to be obtained from the respective products in the stage to establish the market price,

- ◆ in the negotiation moment when the profit is determined from the sale price minus the turnover afferent to the performance of the respective product, upon sale of the product when the profit results from the difference between sale price accepted by the buyer and the total cost later calculated, afferent to product realization.

The level of the profit and profitability rate in price depends on a series of *factors*[3]:

- the level and tendency of free prices on the internal and external market under the incidence of the legislation specific to the market economy,

- the manufacturers' subjective orientation depending on the strategies and management methods applied for different products, different markets, different time intervals, which leads to practicing competitive prices, promoting some new products,

- the degree of integration of the production activity,

- the pressure exercised by different taxes,

- the pressure exercised by direct taxes/ corporate income tax, land fees, taxes on salaries,

- the real possibilities for saving resources.

### 3. Inflation - as monetary phenomenon

Inflation, as monetary phenomenon, means excess of money supply, in relation to the quantity of goods and services that ensures the covering.

The indicators that measure the inflation are the general price index, degree of erosion of the national currency, the report between the money supply and GDP.

The inflation rate through the general index of prices constitutes a factor that must be taken into consideration in the substantiation of process and in the anti-inflationary programs, those of social protection.

The index of the general price level, which measures the inflation, cannot be summarized only at the price of a product, but it has to be the result of the combined action of several price mechanisms from economy. The consecution between prices and the manufacturers' performed incomes, on the one hand, and between incomes and prices, on the other hand, bears the denomination of inflationary spiral.

Stopping the inflationary spiral and establishing prices are difficult or even impossible to make for all products.

Inflation is also maintained through predicted factors and the economy agents expecting a growth of prices integrate these criteria in their predictions.

The offer prices must be based and correlated through the economic calculations detailed in the price documentation that is going to serve to the economic agent in his options in regard with the price in the negotiation process, in the elaborated stages, for the internal and external behavior specific to the market economy.

For the times of crisis, in which the offer is poor, when the prices can be influenced more than usual on the inflation, legal regulations are necessary in regard with the state control to perform the prices established by the manufacturers, when respecting the

debts in regard with its competence and loyalty, the efficient use of material, financial and human resources by the autonomous economic agents, ensuring market transparency, etc.

The offer price is substantiated by taking into consideration the influences produced by the factors specific to the cost in the interior of price, for each period in contracting the sale of a product to the beneficiaries.

The material to form prices represents the buying and social verification method both for the production expenses and the utilization value.

The utilization value consists in the property of a product to have utility that is to say to satisfy one or more necessities of the customer. For those involved in the foundation work of prices, their ability is necessary in order to situate concomitant on two different positions, with apparently opposed interest:

- manufacturers and
- consumers.

They have to investigate the two contrary side of the process to form the value of goods and to promote both categories of interests.

The practice from the last years in order to establish prices extended the necessity to take into consideration the utilization value.

That orientation is determined by the fact that a judicious correlation of prices in the products which satisfy different needs, but which are also obtained with the same production expenses is not possible without taking in account the utilization value of the respective products.

The utilization value, as an expression of the product utility, is given by the technical and economic, aesthetic and psycho sensitive features of the goods. Depending on the utility character, all use attributes of products can be divided in two groups[4]:

- functional features (utility) and
- aesthetic- ergonomic features.

The two groups of features have a different importance in appreciating the utilization value of economic goods and of consumer goods.

The utilization degree of the products is determined by the working-exploitation features, for the means of production.

In some cases, the ergonomic features have a certain importance[5]:

- ✿ convenience,

- ✿ safe use.

Both groups of features are important in appreciating the utilization values for the consumer goods, but according to the population's consumer needs concerning the basic necessities grow its demands for aesthetic and ergonomic features of those goods.

The reflection of the utilization values is performed through the following ways:

- ◆ substantiation of price in the new products on the base of the optimal report between costs and the parameters of the utilization value also depending on the importance of the parameters in the total substantiation of the products, on the base of the specific methods of value analysis, the correlation of the price in the new product with the price of the standard product, by comparing the technical, operational and constructive parameters of the utilization value and on qualities in the same utilization values,

- ◆ substantiation of prices in the homogenous groups of products, in which one or more parameters uniformly varies from one size to another with the help of diagram costs, price scales and coefficients of calculation.

A reduction in the request of goods takes place when setting a specific duty on a good that was not taxed before, and setting a subvention leads to the increase in the request of goods.

#### 4. Conclusions

The effects of setting indirect taxes are the following[6]:

- prices increase, demand and production decrease;
- the government through the indirect setting tax will obtain a supplementary income for the state;
- setting a tax also presupposes a relocation of the resources.

A reduction of production takes place and the available resources are divided again in the industry of processed goods on which is setting a duty.

The cash accumulations represent the part of the cashing with which the price exceeds the pecuniary expenses afferent to the production, provision of services, and their

commercialization, stability on the product or series unit.

The dimension of pecuniary accumulations in the negotiable prices concluded the decisional activity concerning the bidding price.

A direct connection is concretely manifested and performed between the pecuniary accumulations and price.

There is a direct relation between pecuniary accumulations and price, unlike the relation between cost and price, in which the cost can exist outside the price.

While cost is known outside the market, before the product reaches in the market, being an exclusive size of production, the price can be known only in the market, when establishing its level in the complex process of change under the action of own legalities in the market mechanism.

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# Management Control and Social Balance, Instruments of Company's Performance

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## Abstract

*Global performance, as defined by its economic, social and environmental dimensions, has its intimate resort, first of all, at the human resources of the organization in the position of the subject and its object.*

*Social performance conditions economic performance through its many motivational resorts. For these reasons social performance must, in turn, be carefully planned and monitored through a consistent social policy. Management control and social balance are among the most reliable planning and social reporting tools. Using analysis of reference works in the field of design and implementation of social policies to sustain performance, this study highlights the social balance sheet developments at European level and the ongoing efforts to improve its content in the two stages of social policy.*

**Keywords:** social performance, management control, social balance, improving, potential

**J.E.L. Classification:** M12, M41

## 1. Introduction

Social performance has already created more theoretical guidelines. The institutional approach, which argues that institutions and social structure shapes the specificities of the company through "organizational fields" [10] justified the publication of social data [8]. Legitimacy theory is founded on the idea that organizations must act within the borders "socially acceptable" proving that their activities comply with the society's expectations [4] by publishing social information [7].

To design a social policy that supports organizational performance, the company has available increasingly sophisticated tools starting from the mix of personal to the social balance dashboard or balanced scorecard in its various versions. Social balance is the instrument which carries the so-called "reporting" and social piloting necessary to achieve the policy and strategic objectives chosen in this field. Its options are pursuing a continuous improvement of the structure and content for a faithful playback of the social dimension of organizational performance.

## 2. Social balance and its specific in some European countries

Global performance, defined as "the aggregate economic, social and environmental performance", [2] is a multidimensional concept difficult to measure from the technical point of view. Studies and research in this field began in 1997, within the work group organized at the General Plan [3] in France, which defines the overall performance "as a multidimensional, economic, social and societal, financial and environmental target, which concerns both enterprises and human societies, both employees and citizens". This performance is defined by multiactive and multicriteras indicators and excludes single measure. It is a necessary, but not sufficient condition. For economic performance to be perennial and sustainable, the researchers showed that it must hand with social performance and environmental performance. Today, to create value, economic performance is a necessary but not sufficient condition. Social performance is synchronization between individual performance, collective performance and organizational performance.

In order to achieve social performance the performance of each employee must synchronize with the team's performance and further that of the whole social body part. Finally, the performance of the human factor must be synchronized with the organization's performance.

From these definitions it appears that the performance intimate resort is found primarily in the human resources of the organization in the position of the subject and its object. Social performance determines economic performance through its many motivational resorts. For these reasons social performance must, in turn, carefully be planned and monitored through a consistent social policy, which has provided a panoply of increasingly rich instruments.

Management control and social balance are among the most reliable planning and social reporting tools.

Designed as a tool for information, consultation and planning, social balance was introduced in France by Law 77-769 of July 12, 1977 (Articles L. 2323-68 and following of the Labor Code) and includes a set of quantitative social data about the company. For the public interest, this balance allows access to some of the social reality of the enterprise and for the employees' representatives it proves to be a valuable tool for monitoring and analysis for highlight developments in the past and anticipating trends.

Social balance must be established within the businesses with at least 300 employees, who are required to establish a work council. The legislature wanted to give a wider scope and providing for the obligation of the State to public bodies in local and state services that are not subject to the obligation to establish a works council. The obligation extends to different units of the same enterprise, which reach 300 employees. Thus, there are companies which prepare social balance in each unit with 300 employees and more an overall social balance, which summarizes all the information from these structures. Each of the seven chapters is divided into categories, which contain numerous indicators.

The concern for the design of a complete social information system which promotes

the existence of an efficient and effective control and improves performance has become a reality in most European countries. If the French social balance is criticized for his age, namely because of the fact that it looks exactly like when it was introduced, other European countries have tried to improve the content and make it closer to the ideal prototype.

Thus, in Greece, the social balance consists of seven chapters, but its structure is slightly different. The first chapter provides all the information to enable the quantification of the social product, an indicator close as size to the largest recorded value added from the enterprise. From this point of view, its potential information is better and closer to his balance sheet.

In the northern countries (Finland, Sweden, Denmark), social balance is divided into three main chapters (Table 1 in Annex 1): quantitative information about human capital; qualitative information about human capital; work organization.

A particularly interesting aspect is provided by the qualitative information about the human factor, which shows a breakdown of staff by level of skills, which means that the identification and management skills has become a reality in these countries.

This means that the companies have inventory tools and skills assessment at the organizational level and annually, based on strategic forecasts, some are dropped and others are planned to be accumulated.

Management skills and their quantification at the enterprise level is actually another way through researchers examine the possibility of human capital measurement inside the company [5]. The third chapter highlights and appreciates also very interesting qualitative factors such as management style and corporate culture. As these concepts are difficult to quantify, the balance shall be accompanied by detailed rules that provide a relatively high level of objectivity, as it happens in all the countries that have adopted it.

Table 1. Constitutive elements of human capital balance in Finland

Human capital balance		
1. Quantitative information about human capital	1.1. Number of employees	1.1.1. Permanants
		1.1.2. Temporary
		1.1.3. Full time
		1.1.4. Part time
	1.2. Categories of working time	1.2.1. Productive labor time
		1.2.2. Labor time for the development and training
		1.2.3. Lost work time due to various reasons
2. Qualitative information about human capital	2.1. Distribution by age	
	2.2. The sex ratio	
	2.3. Distribution by skills level	
	2.4. Distribution in terms of health	
	2.5. Distribution in terms of working capacity	
3. Labor organization	3.1. The internal organization	3.1.1. Turnover and mobility
		3.1.2. Teamwork
		3.1.3. Management styles
		3.1.4. Social labor relations
		3.1.5. Compensation systems
		3.1.6. Investments in IT and human development
		3.1.7. Corporate culture
	3.2. The external perception	3.2.1. Clients opinion
		3.2.2. Others opinion

### 3. The potential of social balance in the business world

Social balance [6] was created primarily to support social negotiation rather than social pilotage. Despite criticism against him, this tool has advantages that make it useful and necessary for enterprise performance growth. First, *its indicators are obtained by computing means strictly regulated by law.*

Effectives at 31st December, permanent effectives, calculation of the absenteeism level and work accidents are fixed by the legislature, so that such a rule (constraint) allows, in fact, reliable and meaningful comparisons with other companies. Moreover, in the social balance, each indicators is compared to the values registered in the past two years, allowing an analysis of the evolution in time of the phenomenon studied and any unit.

*A number of social indicators used in the company draws on the definition and calculation methods proposed in the social balance.* If every human resources manager

may go beyond what is stated in the law and wants to build new indicators, he can not ignore the others. Thus, age or seniority are useful in building a pyramid of ages or get details on socio- professional category. Other indicators are more sensitive, reveal the extent to which a malfunction or provide analysis regarding social environment, such as turnover or absenteeism, which are embedded in such a logic.

If social balance is used mainly in social negotiation, it proves to be a *good tool to start social piloting* because it offers benchmarks for building and comparing indicators from one unit to another, from one enterprise to another, from one sector to another.

To its critics, the social balance is an outdated instrument designed in the socioeconomic context of the '70s and built on enterprise model factory. Among the criticism against it, detaches the one claiming that the social balance sheet presents a misleading picture of the company, based only on quantitative and inconsistent indicators overall. It is also considered a poor instrument because it is published next year in April – May, too late to have a proactive

role. Another criticism concerns the sheer volume of information presented, and that is not always useful to employees or other interested partners.

All these criticisms, which they consider unnecessary, globalized, too centralized or less accessible, make it less exploitable. If it makes a good starting point, social planning and pilotage require supplementing it with other tools such as social scorecard.

Social balance was developed in the spirit of better visibility, for social information regarding partners, employees, shareholders, the public authorities, to support social dialogue and social planning. The literature on social balance is generally rare but it can identify two trends within two research groups.

A first group emerged in the years following the appearance of the law, and it criticizes social balance insufficiencies and difficulties of its realization [11], while the second examines the instrument through statistical research based on large samples [1].

The last group has in common the social balance analysis order to assess social performance of French companies or to identify links between social and economic performance. Less interested in the balance social criticism, this group merges the center of gravity in the direction of balance social utility as a source of information for measuring social information.

Allouche's research [1] showed the main advantage of this balance sheet that it enables the analysis of social spending based on a single document. From the average wage, safety and accidents studies, the author shows the need for studies related to calculation of indicators to improve knowledge about the genesis of social performance. He was able to demonstrate that the level of wages is correlated with the social climate (measured by resignations, absenteeism and accidents in the workplace).

D'Archimoles is more interested in using social balance by foreign shareholders and its added value for them. All these contributions were not successful in the texts of the law, which have remained unchanged since 1977, which stressed the need of changes in the social balance.

Analyzing the social balance sheet management in France, [9] mentions that he's

drawn more than 6,000 businesses or businesses with more than 300 employees, constituted the core of the information system and the minimum vital for most medium businesses. He adds that companies with fewer than 300 employees, which hopes to join the club of those who must complete social balance, its political structure after the contents of the instrument. Therefore, concludes the author, social balance is the unavoidable fact and must be considered as priority tool information.

#### 4. Conclusions

Analyzing the link between social balance and social dashboard, it can be concluded that social balance was not designed as a management tool because it is not a forward-looking document.

Therefore, even if the information provided is used, it is necessary to build a new system to have other ends. Essentially, the revisions should refer to:

- adding result indicators to some means indicators, for example, formation;
- getting out of a retrospective annual analysis and the transition to a forward-looking prospective on, for example, employment and wages;
- the processing of all aspects of social management by adding, for example, career management, performance tracking, management commitment, follow the detailed absenteeism etc.;
- producing decentralized indicators that allow a social pilot of the subunits by their leaders.

Social balance is worth redesigned and completed to become an instrument in social piloting Service.

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## The International Nature of Human Resources Management. Case Study at Ford Romania S. A and Lafarge Romania S. A.

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### Abstract

*This paper capture stages international evolution of big companies and the stage reached by human resources management in such a development. Case study carried out in two large companies in Romania stage analyzes the richness of international management of human resources in close liaison with their international development developments. It provides a methodology for the evaluation and comparison of dimensions and of the policies that characterizes international management of human resources, taking to practical example existing situations to the companies Ford and Lafarge.*

**Keywords:** internationalization, management, human resources, assessment, comparison.

**J.E.L. Classification:** M51, M54

### Introduction

One of the main objectives of this work is construction, in an optical drive exploratory, a schedule of analysis which will allow a synthetic perception of human resources on an international scale, on the basis of theoretical and practical build up in the present. As a support to this grid and for discussions of various configurations for management of human resources, we have used two cases offered by international business and developed business in Romania.

#### 1. The internationalization strategies and their consequences on human resources management

#### 1.1 Transformations consequences international evolution and management of human resources

In the multinational help enhance, the human resources management has a more diverse role, in so far as the appearance of new mechanisms, which allow solving the problems of control and the gears different cultures that appear inside or outside them. At the same time, multinational companies must cope with challenges and higher as compared with those which do not go beyond national boundaries, because geographical dispersion of their activities, to enhance intercultural problems that occur, direct world of competition and greater dependence on divisions abroad. As a result, it is expected that the implementation of these concepts in the context multinational is more complicated than at national level.

After the decision has been taken to place on international markets, a company has to be taken more steps. Conversion of national organizations at the international level involves browsing through several stages [3], and has consequences as regards the content and the structure of management of human resources.

The countries of origin of the parent company, but also other variables, as well as organization's size, management policies etc. play an important role in its growth but human resources management exerts a strong influence on its mode of development.

Procedures for responding to the problems of human resources management within international companies are diverse, but literature [5] ranks them in four main categories. These rules may have a noticeable

influence on the practices and human resource strategies.

*Ethnocentric approach.* The concept of ethnocentrism represents a tendency to consider the values and cultural patterns of a group superior to those of other groups. A human resources management of ethnocentric type promotes recruitment and the training of managers within the headquarters, through which it may be appropriate culture and work processes adopted in the units of host countries.

*Polycentric approach.* Human resources management in the enterprises which adopt such a position is based upon the premise that the values, rules and habits differ from one country to another and that the management of establishments abroad is more successful if it is ensured by the local staff.

*Regiocentric approach.* Within this approach the decisions with a regional character decisions are entrusted to local units. The practices of human resources management are harmonized between branches which of the same geographical region, personnel can be promoted to the level of these units, but hardly to be recruited at the parent company.

*The geocentric approach.* In this case the human resource practices implanted within the branches of an international business fosters the exchange of information, ideas and work processes. Such an enterprise seeks and uses competent human resources on the world labor market without being interested in the origin of its staff.

## **1.2. Perception of international human resources management at the organizational level**

An examination of literature in charge of such themes may suggest indicators to a global vision of international management of human resources in a particular enterprise. The list proposed by [2] comprises 10 criteria divided into three sections, i.e. stage of internationalisation of human resources, the organization of human resources function as regards its international size and major components of human resources management.

Adler's and Fariborz's typology [1] may serve as a good reading grid and allows the ranking of enterprises in four groups, which correspond to the four stages of

internationalization. From this point of view, were adopted indicators which allow a fair classifying of the situations in which it is company or another, depending on the levels recorded (Table 1).

The second family of criteria is as follows:

- organization of international management of human resources, linked to its level of centralization-decentralization;
- relations headquarters- branches, and for this purpose the typology of [4] may constitute a good specification of these reports;
- composition of directing committees under the aspects of the variety of nationalities and the variety of international journeys of the managers;
- the degree of formalization of management policies and practices.

The third group of criteria is linked to the major components of international management of human resources, for the purposes of activities and of its instruments, and may refer to:

- management of expatriation and its approach (ethnocentric policy, polycentric policy, or geocentric policy);
- management of careers and remuneration, which involves access to the democratization of international careers;
- social relationships, which can be deeply anchored in national characteristics or may have recourse to regional realities;
- multicultural management teams, through his promotion and enhancement is aimed at improving performance;
- the international information system of human resources, in terms of its content and promotion.

Based on these criteria, we could propose a coherent and comprehensive analysis of international human resource management.

*Table 1. Stages of internationalisation by Adler and Fariborz*

No.	Stages	Characteristics of international management of human resources
1	<b>National management</b> All staff from one single country	National Management strictly with an index of transnationality close to 0%
2	<b>International management</b> First exchanges between subsidiaries	The emergence of management expatriates
3	<b>Multinational management</b> Number of countries extends	Management repatriates (directors of subsidiaries who have increased the teams of parent company) and expatriates, the reference by the directors with great potential in subsidiary
4	<b>Transnational or global management</b> Global network	Presence of a variety of nationalities in the executive board and the requirement to have a significant international experience to achieve organization's top

## 2. The reality of international human resource management in two cases developing in Romania

In terms of research methodology, we started from the 3 groups and the 10 criteria mentioned above and have been drawn up a meeting guide for a better manage maintenance tasks semidirective with specialists and staff of the national or international human resource structures.

The two companies chosen were Ford Romania S.A. and Lafarge Romania S.A., so the people who accepted this study were responsible and advisers of the human resources structures of their branches in Romania.

Ford Company has looked to consolidate and develop its policy internationalization, fixing as objectives the local implantation on all continents in order to be closer to the markets and to better respond to the specific requirements of the consumers. Another major reason was to benefit from the opportunities offered by the structure of the international labor market, i.e. the competitive advantage of the payroll costs and more permissive legislation of various countries seeking to attract foreign investors.

This internationalization process continues in a manner almost identical to the performance of human resources. The human resource activities are carried out under the authority of the General Division of Human Resources, in seven geographical directions and four "corporate" functions (develop the skills, internal communication etc. ). Within

the company, the human resources function has the main responsibility in relation to the practical application of some homogeneous policies of recruitment, appraisal, mobility and remuneration. Management of the enterprise is interested, in the first place, in the international action of investigator(s) of human resources, in the ability to support real-time succession plans "worldwide" and develop foreign specialists in the management committee. This presence, which currently includes three members of a total of nineteen, is considered to be inadequate and must be improved.

On the development policy of international evolution, expatriation has reached in the course of the year 2010 at approximately 5% of staff, as compared with 3% four years ago. After a sustained policy of decentralization, Ford went to the complex process of mixing of the specific action through a sustained formalizing. The process of mixing of international human resources management, clearly expressed with regards to the intentions of the enterprise, be identifies a specific manner in its major components. A specific system of valuing rests on Hay system, which causes a good simplification for this point of view, as well as the assessment of the support. The same international dimension also present in the training of staff, which takes the form of seminars for the integration carried out with their own resources or in partnership with experts of representative structures of continents where Ford is present.

The support for an effective management cannot be imagined, also, without the



existence of an international human resources information system, developed as the enterprise is implanted in different geographic areas. All these findings support the conclusion that this change process planned and formalized of international human resources management in Ford has reached a certain maturity, fledgling by its effectiveness and efficiency that determines, in the first place, its speed of reaction and mobility.

The leadership of human resource center considers that the international management of human resources should continue to develop.

Starting out in 1833 as a limestone mining company, Lafarge transformed itself and now has a presence in 66 countries around the world, with a turnover of 15.8 billion euros in 2012. At world level, Lafarge is located on the first place in terms of production and marketing cement, in second place to granular for civil engineering and on the place of the fourth for the production of cement.

Published for the first time in 1977, the principles of action of the group took a behavior of all employees from all over the world, and is supported by the vision, commitments and on the Lafarge Way, which is built around three concepts. In the first place the company is relying on making its *employees successful*, the objective pursued being support for each individual, for it to be successful in work and personal lives. Another priority of Lafarge group represents continuous optimization of products and services, in order to influence, in this way, *continuous performance improvement*. Activities of the group are, thirdly, local, but they shall remain integrated in its global approach.

As regards international management of human resources, it should be noted that this recovers its applications in particular in the framework of the management policies of the quarry, in the management of key items and for the development of the potential high. Political career management aims, in the first place, attracting best candidates at international level, in a long-term perspective, various and able to evolve. Those performance indicators are to remember satisfaction of the employees (the special investigation), the quality of the

annual maintenance process for the evaluation, the index of departure of managers in the group.

Politics key items shall be carried out on the basis of principles which highlight the level of internationalization of the activities of the group Lafarge. As main ways operational processes are retained management of the careers, and promotional opportunities as tools and plans for succession. As indicators of performance, the company Lafarge uses number of persons likely to occupy posts of managers and external recruitment index for key positions.

With respect to the development potential high, operational procedures for the most commonly used in the context of this policy are defining "young people with great potential", an examination of this categories of employees by the executive committee, and as tools appear maintenance of appreciation and the development plan to the staff.

Lafarge group considers that the internalization of its management teams is crucial to ensure a world leadership and a multilocal management. Internationalization of human resources favors the development of the enterprise, but must be carried out on the basis of the cost and the benefits which may bring them.

Within the Lafarge Group, actions responsibility career returns structure in the country of origin. Another observation about career is that if potential rose, international experience is a component of any importance. To put it in practice principles international evolution, executive committees of each branch should include at least one member of another country.

Implementation of the policy of internationalization has at its disposal a logistics quite rich, consisting of administrative rules of external mobility, the distinction between expatriation and missions on short term, the maintenance tasks and reports of appreciation, the appraisal before the decision etc. The performance indicators by which is tracked policy enforcement refers to the number of members of the board coming from another country, the number of expatriate employees within the group (by country of origin and branch), the percentage of former collaborators holders of posts

which is of at least 20 which have been expatriates during the last two years etc.

## Conclusions

From analyzes of above that stages of internationalisation of management of the two companies are substantially similar. Judging by these stages after Adler's typology, it can be said that both companies are located at the level of a real world management of human resources.

*Points of convergence.* Organization of the structures of human resources at the international level follows a scenario. On the one hand, there is a central structure to the group and structures more or less decentralized on geographic criteria, which aim at the overall organization of the two companies. With all that the level of internationalization is to be lifted, to both companies it is to be noted that this management committee of experts in host countries is, with only a few exceptions, quite low.

Other common points are noticeable on the specific activities of management of international human resources. Thus, it must be noted that both companies preferred the method Metra Hay in the actions of valuing, that transnational social relations are well supported and that their intercultural training of the candidates is organized with a sufficient period of time prior to departure, so that accommodate to be easier. Career management, staff remuneration mobilized its assessment are activities that shall enjoy in both cases of special attention and are subject to a number of separate procedures or procedural additional very clear and transparent, in the framework of a information system richer and more effective.

Another common point is high degree of formalization of policies by staff who accompany internationalization, through the existence of some principles and clear rules, certain regulations and procedures that evokes quality spirit duties charged at the level of human resources.

*Profile however different.* Analyze the way of organization of international management of human resources reveals and differences smaller or bigger. Thus, it is to be noted that the level of progress of the structure of human resources is higher in the

case of Lafarge, which has a direction across all branches, which does not appear on the company Ford, where geographical scope is wider. Differences are visible and organization of activities due to the product, much more emphasized at the company Lafarge, which has at the central level a direction of human resources for each branch of activity.

As regards the relationship between headquarters and branch offices, it is to be noted that Lafarge group helps promote greater autonomy in comparison with Ford, which means that the importance and the volume of activities delegated are lower in the second case. On the line of expatriation it must be noted that Lafarge promotes a polycentric political motivation than Ford, and does not have recourse to expatriation if an application may receive an appropriate response on the labor market in the host country. There are different view when it comes to the managers, but Ford practices a policy with geocentric trends, justifiable, among other things, and by the technical nature and complexity of the products made, as well as an improvement in the production processes.

Specific instruments of international human resources management can be considered to be a bit more sophisticated and more numerous in company Ford, although the difference is quite small.

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## The Business Environment: A Stakeholder of the University: An Exploratory Approach

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### Abstract

*Starting from the Romanian Higher Education realities, from study of the international experiences of other universities and stakeholders theory, this paper aims to analyze the relationship between Romanian universities and employers, as stakeholders. The goal of this article is to identify the employers' opinion towards the strengths and weaknesses of the Romanian Higher Education. This work is part of a larger research aiming to investigate the role and the place of Romanian universities in the today Romanian society. This inquiry is an exploratory investigation which will be used as a foundation for a future quantitative research. The results of this study show that employers perceive a decreasing in the quality of the Romanian Higher Education, in terms of less qualified graduates, both in knowledge and skills. However, they are optimistic about the future and they are ready to help universities. Surprisingly, maybe, the employers do not consider the research activity less important than teaching.*

**Keywords:** universities, stakeholders, employers, Romania

**JEL Classification:** I23, M31

### Introduction

In the last 4-5 years, Romanian universities confront many phenomena with

negative impact, among which can be identified: (i) demographic crisis, determined by the time the generation born in 1990 gets to the age of university studies, (ii) the global economic crisis which reduced the budgetary allowance and the students financial resources available for tuitions, (iii) the internationalization of Higher Education, not wisely managed, which led to negative balance of student movement, (iv) reorientation to the research, which disturb those professors familiarized only with the teaching activity, (v) massification of higher education, which decrease the trust in its quality

Under this context, the universities have to respond. As Bejou and Bejou state "because of the current high level of competition, both for students and for funds, institutions must embrace the principles of marketing and develop strategic models that include customer relationship management (CRM), niche marketing, brand management, student support services, faculty support and professional development, and a shared governance culture". [3]

Therefore, from the educational marketing point of view, this response should be both at the theoretical and practical level and at the strategic one. It should base on a precise analysis of the external environment. This article proposes an analysis of the relationships between universities and one of it's the most important stakeholder: the employers.

## Literature Review

There is a rich literature that investigates the connections between educational system and its principal stakeholders: students, professors, parents, graduates, employers, etc. Thus, Munteanu et al. [15], Gruber et al. [10] and Alva et al. [7] analyze satisfaction and the values of students in business and economics from Alexandru Ioan Cuza University at Iași, an University of Education in Germany, and a large and comprehensive Brazilian university, respectively. Bejou [2] investigates the parents' satisfaction regarding the public schools in the USA, and Prokou examines the orientation towards employability of the European universities and the consequences of this orientation on the traditional academic values [17].

But, who are the stakeholders? According to Boni and Gasper, "if we think that universities should respond to the challenges of society, the stakeholders are all citizens, who, by using existing mechanisms or creating new ones, should take a greater part in defining university policies and activities". [4]

Each stakeholder has its interests and perceives the role of universities and the quality of their activity according to these interests. As Gruber et al. state "every stakeholder in higher education (e.g. students, government, professional bodies) has its own view of quality due to particular needs". [10] And, as Van Ginkel and Rodrigues Dias stress, to know what quality is, all university stakeholders should take part in defining what society expects from higher education institutions. [19].

Traditionally, a university has three responsibilities: research, teaching and services for the society. Although teaching is a traditional activity, and research is more recently the main criterion in ranking universities and in evaluating the performance of professors, there are numerous and important the voices that ask for a greater importance the universities should attribute to the society's needs (employers being among the most important representatives of the society's needs). Thus, OECD stress the necessity for the implication of the universities in the community, together with traditional functions of teaching and

research: "HEIs [higher education institutions] must do more than simply educate and research—they must engage with others in their regions, provide opportunities for lifelong learning and contribute to the development of knowledge-intensive jobs which will enable graduates to find local employment and remain in their communities". [16].

Boni and Gasper reject the criteria used in the hierarchies as Shanghai Index (based exclusively on the research results) and proposed the view of the university based upon the principles of the human development approach. [4]

Brown states that "academic articles are unreadable and unread" and the authors should address first to the practitioners. [5] Boni and Gasper conclude that "a powerful idea of quality connected to human development thinking must consider all the activities developed in a university and not only a limited vision of those activities related mainly to teaching and researching, as followed by current university rankings". [4]

In order to reveal the real importance of the employers for a university, it has to be decided how the role of the universities would be approached: from the traditional academic perspective or from the services perspective. As Bejou and Bejou explain, "from the academic point of view, students are products developed by faculty members. However, from the service side of an institution, students are customers who expect to receive high-quality and prompt service". [3]

The opinions are divers, but many authors consider that universities should orient mostly towards employers requirements, not students requests. Driscoll and Wicks express their fear that "a strong customer orientation can subordinate the values and objectives of academics and other stakeholders to the perceived needs and wants of students". [8] Karapetrovic and Willborn ask: what is the product of universities, and who are the customers? Their answer is that "the product is students and the customers are employers, governments, professional institutions, and society at large. As products students have to be subject to the design specifications that meet customers' requirements". [11] Emery, Kramer and Tian describe the student-as-product approach as follows: "incoming

students are considered as inputs (raw material) which go through a program of study (as work-in-process) to emerge as more knowledgeable and capable graduates (finished products)". [9]

It is necessary to mention that these two approaches (student-as-product, student-as-customer) are not the only possible. Khalifa identifies more approaches in the literature: student-as-client, student-as-co-producer, student-as-partial employee, student-as-partner or junior partner, and student-as-citizen, and propose the metaphor "student-as-aspirant" which "captures effectively the student learning journey [...] as aspirant of transformation". [12]

From traditional academic perspective, the immediate consequence is that university has as client not the students, but the entire society, or more concretely, the employers. This means that, applying the marketing principles, the employers become the most important stakeholder for the university.

Additionally, there is another aspect that should be analyzed. The business environment is important from another perspective. As Whelan and Wohlfeil mention, "higher education institutions need to be managed more and more as corporate brands". [20] Khalifa adds "universities are under pressure to behave like businesses. They are pushed to borrow and use business concepts, principles, tools, and techniques. Chief among these are TQM and marketing". [12] Adcroft, Teckman and Willis consider that this tendency will be stronger in the future: "universities will increasingly adopt a competitive orientation which will make issues such as management, performance measurement, globalisation, mergers, acquisitions and partnerships become ever more prevalent in the sector". [1]

This may increase the importance of the business environment as a stakeholder. Under this approach, business environment should be taken as a model by the universities.

## Methodology

The research conducted for this study is an exploratory inquiry, qualitative in nature, based on in depth interviews. The results will be used in a future quantitative research. There have been interviewed 24 employers from different companies. These companies

were different in size, in the field of activity, and from 4 important cities in Romania: Bucharest, Braşov, Iaşi şi Piteşti. The interviews lasted between 20 to 30 minutes. Before the interview, the respondent filled in a short 6 questions questionnaire regarding the degree and the involvement ways of the companies in the CSR actions and in supporting universities. The discussion followed a conversation guide and discussed the answers to the 6 questions from the questionnaire.

The research methodology is similar to that used by Morrissey [14] in order to illustrate the managers' opinions from Chinese universities regarding the importance of reputation. Also, it is similar to the methodology followed by Chapleo [6] to explore the marketing variables associated with branding activity for UK higher education institutions and to that used by Raddon to determine the opinions of faculties and researchers from the UK related to the evolution of the scientific research. In our study, in-depth interviews were carried out with participants, covering a number of core themes, but allowed each individual to tell her/his story in whatever way made sense to her/him. [18]

The sample size of 24 respondents was appropriate based on recommendations by McGivern [13] who suggests that sample sizes of between 20 and 30 as appropriate to understand interviewees' collective views on a topic.

## Findings

The first objective of the research looked to estimate the degree of companies' involvement in CSR activities and mostly is supporting universities. The majority of the respondents consider their involvement on solving social problems at a low level. From 24 respondents, only 5 considered their involvement as a strong one and nobody considered the involvement as a very strong one. The similar responses have been offered for the implication of the companies in the field of Higher Education. The filed companies involve are sport, health, environment protection and only after these comes education.

Among the way for supporting universities, the most used are sponsorship

and internship, followed by support for professor for documentation and occasional lectures offered by practitioners to the students as an invited lecturer. Only in 2 cases out of 24 were mentioned agreements with universities for research or consultancy. Related to the intention of developing cooperation between companies and universities, business representatives were not very enthusiastic. The majority of them answer that they will maintain the cooperation at the same level and in the same ways as before.

One of the questions from the questionnaire was investigated the reaction to the situation in which the legislation will offer a tax reduction for training expenditures. In this situation, the majority of the companies would not provide more than 5-10 % from the tuition fees for their employees for higher education. The main reason was related to the too theoretical character of knowledge disseminated by the universities.

The second objective explores the degree in which graduates fulfill the employers' requirements. Most of the employers were unsatisfied by the quality of the graduates. Almost all of the employers underlined the lack of practical experience of the graduates. Much enough (7 from 24) mentioned, also, the weak theoretical knowledge the graduates have. Regarding the main qualities the graduates have, adaptability, theoretical knowledge and self-confidence have been mentioned. The general characterization will be "they have knowledge, but they don't know how to apply this knowledge" (Ileana, 29).

The third objective followed an evaluation of the state of the art of the higher education in Romania, from the employers' point of view.

In their opinion, the most important problem the Romanian universities face is that "students are not enough trained" (Andreea, 27), that "they (the universities) tend to have a profit from students money, and that profit is not visible in the universities performances" (Maria, 28), "absenteeism is very high" (Virgil, 49), "there is shortage in well-equipped laboratories" (drian, 47), "teaching methods are old fashioned and boring" (George, 32).

Answering to some Likert questions from the questionnaire, employers express their totally accord with the statement "Romanian Higher education is too much oriented to the theory and too less to the practice". Regarding the statement "if the resources allocated to the universities will be doubled, the quality of higher education will increase significantly" the opinions were very diverse. This reflect the fact that employers' opinion is that not the lack of money is the major problem in the Romanian universities.

The Romanian higher education is considered more far away from practice and less efficient comparing to higher education from other countries. The higher efficiency of higher education from other countries is given by the "the correctness, seriousness and investment in research" (Elena, 34)

The public higher education is perceived as being superior to the private higher education. In public universities "knowledge is evaluated more accurate" (Mihai, 39) and "have more good students" (Dorin, 44). Private universities "propose new study programs" (Mihai, 39), but is "knock out: graduates don't have minimum knowledge" (Dorin, 44), and "diplomas are obtained without attending courses" (Andreea, 27), which leads to the impression that "diplomas are bought, not earned" (Nicolae, 48).

In comparison with the higher education from 15-20 years ago, almost all of the respondents of the respondents considered that "graduated from 15-20 years ago were better in their field" (Georgeta, 31). One possible explanation is that "20 years ago, the students attended courses and had internship" (Marius, 51). Other causes could be "low standards in admission" (Adriana, 40) or "the inefficiency of professors" (George, 32), or the fact that "companies had a moral responsibility in accepting internship" (Claudiu, 46).

The fourth objective looked for the employers' opinion regarding the balance between the university functions. The respondents were invited to split 100 points between those three functions of the university. They offer a large part to research (an average of 42 points from 100), on the second place being the teaching activity (38/100) and services toward the community (20/100). Additional, almost two third of the respondents express their accord with the

statement "if a Romanian university will be in the first 500 universities from the world, this will be a proof that the students of that university are very well trained". This means that employers agree that research performance is at the foundation at the performance in teaching.

The fifth and last objective looked for some proposals from employers in order to improve the activity of Romanian universities. The proposals were extremely diverse: orientation towards practice, increase the exigency, modernization of the teaching and research infrastructure, increase the international exchange, both for students and professors, the stability of the legal environment. Other proposals were: "avoid those lecturers were 'I speak, you listen, don't ask, it is right only how I say'" (Sorana, 30), "the goals should follow the education process, not the profit for university (to make money from everything possible)" (Maria, 28).

## Conclusion

According to the literature, employers are among the most important stakeholder of the university. Therefore, it is very important for the university to know the opinions and expectations that they have, in order to have good relationships with them. This study is part of a larger research and aims to illustrate the most important opinions the employers have regarding the state of the art and the evolution of the Romanian higher education. It, also, wants to investigate the possible ways of collaboration between business environment and academic environment.

One conclusion is that companies have a low involvement in supporting universities, the main complain being that universities have a too theoretical approach, and therefore their graduates lack of practical knowledge and skills. Romanian higher education is perceived as less inefficient than in other countries and less performant that 15-20 years ago. The private higher education institutions are much less performant than the public higher education institutions.

Employers desire a better educational process, with well-trained graduates, and consider equal important the research activity and the teaching in the universities. They are

opened to sustain universities, mostly on increasing the orientation towards practice.

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**Section II**  
**Business Economy and Administration**

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**Subsection 3**  
**Finance and Accounting**

## The Need and the Importance of Diagnosis and Evaluation for the Enterprises in Difficulty

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### Abstract

*During this period, in which the economical environment must face a significant effort to adapt to market conditions, the activity is conducted in a strong uncertainty and risks.*

*So, the advanced and emerging economies, in which the Romanian economy is included must take with priority some measures, which lead to restoring confidence, ensuring a viable financial system, reviving economy with a direct impact on commerce sector. More than ever, the greatest challenge for the commerce sector is to continue to be efficient, competitive and sustainable, recognizing the fact that, on long-term, performance depends on durability.*

*In this context, the diagnosis and the evaluation of an enterprise, through calculated indicators, are meant to highlight the economic agent's ability to adapt and to survive in the market, in which it is acting, in a fierce competition and of course in the current conditions of instability.*

**Key words:** global recession, social unrest, viable financial system, diagnosis

**Jel Clasification:** G 32

### Introduction

The problem of the economical-financial performance analysis falls within the current concerns of managers and specialists in management sciences. In this respect, the paper addresses the issues concerning the diagnosis and the evaluation of the performances of an enterprise that is in difficulty.

Current market conditions require a careful management of the enterprises's

activity. In addition, the strategy adopted has an essential role in the smooth running of an economic agent's activity.

An essential and necessary condition, regarding the effective management of an enterprise, is to make its diagnosis and evaluation. It is essential to make a global diagnosis, periodically, to control the process of conducting the enterprise's activity and to avoid the risk and its consequences. Equally important is the partial diagnosis, which may lead to the detection of problems for an enterprise, and also to remedy them if they were detected in time.

All the legal, commercial, technical, human resources, and financial issues of an enterprise must be followed.

The enterprise's diagnosis requires the determination of its value through a series of methods, the enterprise's value being its „mirror” in front of its suppliers, customers, competition, etc.

The activity of evaluation is present in the economic life, being a complex of operations carried out based on some methods respecting the evaluation standards through which the value of a property (enterprise, business, real estate, securities - securities, shares, bonds) is assigned at a certain time. The price of an enterprise is subject both to rigorous calculations based on objective calculations and to subjective criteria of economic or psychological nature.

### Diagnosis - a preliminary stage of the evaluation

For the experts, who assesses the enterprise, the diagnosis is the preliminary stage of the evaluation, through which the enterprise can be very well known (in legal terms, the object of its activity, its internal potential, its relations in the market, its economical-financial performance, etc.), to identify the elements that will determine the

increase in value of the enterprise, or the opposite, its decrease. We cannot make a prognosis regarding the evolution of the enterprise without knowing its present situation, which means that the evaluation methods, especially those based on updating the future cash flows of revenues, depend on the relevance of diagnosis.

It is important to realize that the enterprise's weaknesses must be found and the situation rectified, and from the economic point of view, we must focus on the enterprise's strengths.

The diagnosis is the most complex stage, holding about 80% of the time spent for the evaluation [1]. The diagnostic analysis allows assessments of the economical-financial performance of an enterprise, and it ensures the investigation of the enterprise and its structural and procedural components, using specific tools to identify the major strengths and weaknesses.

The diagnosis is a real help in knowing the economical-financial situation, because it provides the necessary information for the appreciation of the past and present situation, and it constitutes a basis for future estimates. The diagnosis helps the enterprise's management in decision making, regarding the actions to be undertaken in the future.

The diagnosis is thus the first stage in knowing the state of the enterprise, and it contributes to establish measures and recommendations required for the correction of deficiencies or for the recovery or the improvement of the enterprises's performances. The diagnosis is also the main stage of the evaluation in which the elements, that determine the increase or decrease in value of an enterprise, are identified.

We can discern many forms and types of diagnosis by different criteria: in regard to the nature of the problems that have to be analyzed and their urgency, after the content and approached issue, after the pursued objectives, after the level of the management decision.

For a more accurate evaluation of an enterprise, a complete diagnosis is necessary, which aims to know all its sides of activity, legal, human resources, technical, commercial and financial.

CECCAR (The Body of Expert and Licensed Accountants of Romania) specialists, and not only them, believe that

the relationships with the owners, third parties and their own employees should be considered, and, in general, the legal character of the documents, on which these relationships are based on, is aimed [2].

The technical part of an enterprise must carefully be observed and analyzed for the best performance of the enterprise's activity; human resources must be carefully managed. These were approached from two points of views: the size and structure and the efficient use of the staff. The objective of the human resources diagnosis in general is: the measurement of the management's performances, the evaluation of the management's coherence, which was followed in the present paper. The commercial part of an enterprise must be well managed to have a fruitful relationship with customers, suppliers, etc., which I have highlighted through the commercial diagnosis.

The analysis from the financial point of view of an enterprise is very important, because we can obtain very important information regarding the growth, the structure and the financial solidarity, the level of self-financing, the profitability, the situation of the permanent capital and of the treasury, as well an estimation of the enterprise's value.

Within the financial diagnosis of an enterprise, it is necessary to analyze the financial situation and other indicators that highlight its place in the market.

### **The process of the economic evaluation of an enterprise**

The process of the economic evaluation aims to establish the market value, the amount of movements of goods, of assets of an enterprise; it constitutes an instrument of orientation for the economic agents in the internal and external economic space. The need to evaluate an enterprise occurs when in the enterprise's life, significant changes take place, such as:

- changes in the size and structure of the social capital;
- changes in the number and composition of the shareholders or associates;
- in case of the commercial transactions;
- ensuring some loans;

- legal action for patrimony, inheritance, partition, bankruptcy;
- in case of privatization;
- selling or buying a property;
- mergers or exchange of properties;
- insolvency process.

In the practical evaluation of an enterprise, the diagnosis must provide the information necessary for the appreciation of the past and present situation, which constitutes a basis for estimating key elements and variables that must be considered when applying various evaluation methods. As the enterprise's evaluation does not mean a mechanical application of some techniques, but it requires a deep appreciation of the enterprise's performances, the evaluation team must operate with parameters considered to be normal for the activity of the enterprise that is evaluated at the time of evaluation.

In the present context, the activity's evaluation is natural for any economic agent, who wants to know his financial position, market position, prospects, and necessary measures to be taken, being so a necessity.

### **Estimating the value of an enterprise using market comparisons.**

There are several evaluation methods, that determine the value of the enterprise, from which I stop at a model which has been analyzed, estimating the value of an enterprise using market comparisons [3].

Estimating the value of an enterprise, using market comparisons, is obtained by analyzing transactions with similar and relevant enterprises, comparing these enterprises with the enterprise that is evaluated, and estimating the value of the enterprise that is evaluated using some multipliers [4]. The market comparisons approach is based on the principle of substitution, after which an investor, if there are more alternatives, will prefer the lowest price to equal risks. This principle does not require that the comparable enterprise to be identical, but similar and relevant:

- similar refers to the nature of the enterprise, and it includes both quantitative and qualitative elements;
- relevant is an attribute that refers to the desires and expectations of a potential buyer, and it refers to the degree of risk taken by the

investment in that enterprise, investment's liquidity, possible performance of the enterprise, etc [5].

Providing the basis of an appropriate comparison and the correct choice of the multipliers are the two hotspots, which manifest themselves in applying the evaluation methods based on comparison.

- to ensure the comparability between enterprises, in the evaluation standards, the following requirements are specified:

- the domain of activity: the comparable enterprises should operate in the same activity field and be subject to the same economic variables (market supply, outlet, etc.)

- quantitative characteristics: the enterprises considered to be the basis of the comparison should be close in size with the enterprise that is evaluated (volume of assets, turnover, number of employees);

- qualitative characteristics: the comparable enterprises should also coincide from the qualitative point of view (technical parameters, economical-financial parameters).

The second important factor, in the evaluation based on market comparisons, is the use of the multiplier, multiplication rates or evaluation rates, which give us recent and direct information about sellers and buyers' confidence in the securities traded on the market and can be found in [6]:

- general feeling toward the market - multiples calculated for a stock exchange;
- feeling toward a particular economic sector - multiples calculated for a certain sector;
- feeling toward a particular enterprise - multiples calculated for that enterprise.

The following three methods are used to estimate the market value of an enterprise, using analysis based on comparisons:

- comparison method of sales of similar rated enterprises;
- comparison method of sales of similar un-rated enterprises (mergers and acquisitions or combinations of enterprises);
- comparison method with previous transactions or transactions offers with shares to the capital of the enterprise that is evaluated.

Comparison method of sales of similar rated enterprises, it involves the following steps [7]:

-identifying the comparable similar enterprises to obtain their values in the market;

- transforming these market values into price multiples, because the absolute market values cannot be compared;

- comparing the multiples of the comparable enterprises and collecting them for the differences between the shares in the enterprise that is evaluated and those from the similar enterprises regarding the existence or lack of control, the liquidity or lack of liquidity;

- determining VPCI by applying a multiple of EBITDA, annually normalized;

- adding to the value of the shareholders' capital, the value of the investors' capital, the net achievable value of the assets outside exploitation, calculated separately.

Comparison method of sales of similar un-rated enterprises, it uses as a comparison basis the transactions with the enterprises as wholes or transactions with majority of stakes.

The particularities of this method compared to the previous method refer to:

- the resulting value refers to the value of the invested capital because an enterprise is taken over entirely;

- an additional correction is necessary associated with the time elapsed since the date of the comparable merger / absorption to the evaluation date;

- a particular attention should be paid to the conditions of realizing transactions with comparable enterprises, because, in many cases, the operations of mergers and acquisitions benefit from the synergy effect.

Comparison method with previous transactions or transactions offers with shares to the capital of the enterprise that is evaluated, it uses as a basis for comparison previous shares' transactions of the enterprise that is evaluated.

Applying this method should take into account:

- the causes of previous transactions or sell offers;

- the size of the equity stakes that was traded;

- the buyers and their interest;

- the date to which the transactions were made;

- how the equity stakes, that was traded, was evaluated.

## Conclusions

To understand better and to estimate correctly the value of an enterprise, the enterprise must be integrated in the economic context in which it is part. The more so as the need to interpret the series of historic data regarding the enterprise's past activity, and to realize a correct prediction of its future. The economic context will influence continuously the enterprise's activity in a positive or negative way. Activity's performance, annulment of the partnership deed, reducing the number of members and shareholders under the number required by law or other provisions in the bylaw.

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# The Analysis of the Influences Coming from Different Solvency Systems on the Construction of the European Solvency System "Solvency II"

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## Abstract

*In the literature can be found different analysis or comparisons among systems of insurance solvency, and here can be mentioned [1], [2], [3], [4], [5], but in everyone of these works the analysis or the comparison is centred on similarities and differences among certain systems of solvency, without being included Solvency II among them, the latter not existing at that time, or because it was still under construction. This analysis evolves around Solvency II and it is trying, in addition, to identify in the construction of Solvency II the influences coming from the major solvency systems applied in different countries of the world.*

**Key words:** Solvency evaluation, capital requirement, solvency II

**JEL classification:** G18, G22

## 1. Introduction

Reporting the present analysis to the main solvency systems applied across the world in the insurance industry, I have identified three major categories of systems, depending on the model applied to determine the capital requirements.

The first category of solvency systems used models built based on statistical factors. Models built based on statistical factors can be divided into uncorrelated bias risk models, and correlated bias risk models. The present solvency system „Solvency I”, applied in the EU, or *General Insurance Act*, which was applied in Australia until 2001, does not calculate the capital requirement taking into account the risk to which the company is exposed, the capital requirement being determined on the business's volume. At present, in the world, the uncorrelated bias

risk models were replaced with those of correlated bias risk models or are in the process of being replaced, as in the European Union's case. The first system, which changed to the evaluation of solvency based on the risk to which an insurance company is exposed to, was the American system of the US (RBC - Standards).

The second category of solvency systems uses dynamic models of solvency evaluation built based on scenario analysis by modeling the cash-flow of the insurance company. Scenario from these models, as the Canadian system, can be predefined chosen (for example, the scenario of the stock market fall), or can be generated stochastic, considering the probability distributions of the variables representing „cash outflows”.

The third category of models combines the approach based on statistical factors with that based on dynamic modeling of the financial flows. The Swiss system *SST* assesses the exposure to risk of the insurance companies with both the help of factor models and based on scenario analysis, which are used especially in the quantitative risk profile.

The standard formula in Solvency II uses for the determination of the solvency capital requirement (SCR) almost for all the risk modules, the factorial model. More they are sub-modules of the standard formula, as the sub-module for the market risk (See [7], p90), for which the standardized scenario analysis is used. From this point of view Solvency II may be regarded as a new-generation system, but the fact that it integrates only standardized scenario, can be a weakness.

If we think, for example, of the American crisis of „subprime” and its effects in the European Union (see [6]), we could say that the standard formula from Solvency II would not have been fully prepared, because that crisis, which stated in the USA and

ended in Europe, would not have been considered a standardized event, but a rare event, that the standard formula does not integrate. Making a direct comparison of the standard formula with the models applied in the systems from Canada, England and Switzerland, we could say that Solvency II is on the last place regarding the prudentiality captured in the standard formula.

## 2. General risk profile analysis

All the solvency evaluation systems which are based on the risk models have been taken into account the determination of a general risk profile of insurance and re-insurance companies. The solvency systems, analyzed, consider unanimously that the most important risks to which an insurer is exposed to is the risk asset (credit risk and market risk) and the insurance risk (life module, health module, general module). Within these large risk categories, the view on the risk exposure may differ from one system to another. Moreover, even if the systems refer to the same risk component, the weighting factors associated to that component differ from one system to another, considering the particularities of the economic area in which companies carry out their activities.

The general risk profile, gained by the Solvency II standard formula, contains the following risk modules: life module, health module, non-life module, market module, counterparty risk module, intangible asset risk module. Comparing this general risk profile with that considered in other solvency systems, we can say without reserve that Solvency II is the most prudential system from all the systems that developed a standard formula of evaluation of risk exposure.

However, we have to mention that the solvency systems from Canada and Switzerland do not calculate the risk exposure after a standard formula. These systems are built primarily based on scenario analysis, so they are first dynamic, and then they are based on factors. Such systems, as their name „*dynamic*”, are able to adapt easily to any particularity of risk exposure of the insurance companies. From this point of view, the Solvency II standard formula is below the level of prudentiality reached by

other solvency systems from Canada and Switzerland. Regarding the influences received by the new European solvency system, we can observe an influence from the Swiss system by seeking to integrate the scenario analysis in the standard formula.

Very important and unusual within the Solvency II standard formula is the system's intention to compensate certain flaws of the quantitative level of prudentiality by qualitative growth of the internal process of risk management from each company. In this direction, the Solvency II standard formula incorporates for the insurance and re-insurance company for incitative conditions of fortification of the governess system by qualitative growth of the internal process of risk management.

The first incitative condition relies on the integration of the benefits of diversification in the standard formula. The advantages of diversification are integrated in the formula, first by the modular construction of the Solvency II standard formula. The RBC formula of the American system provides the determination of the capital requirement based on three distinct standard formulas, one for each general insurance, life insurance and health insurance. The Solvency II standard formula, in contrast, proposes a common formula for all three classes. This approach, although it is more sophisticated, will allow the (re)insurance company to set the level of exposure considering the lines of activity that it wants to practice, being able to benefit, in this way, from the advantages of diversification among the lines of activity belonging to the same class, and among the lines of activity belonging to different classes. Standard formulas from other solvency systems do not integrate the level of advantages of diversification among classes, forcing insurers to calculate separately the capital requirements for each class.

The incitative condition of the benefits of diversification can be found at the sub-module level – *concentration risk* from the module – *market risk*. In this way, the standard formula offers the possibility to the companies through a better management of the investments' portfolios to reduce their level of exposure and, hence, to diminish the level of the capital requirement solvency. At the level of the other solvency systems analyzed in this work may be identified the



capturing of the concentration risk with the purpose of integrating the benefits of diversification of the investments' portfolios.

The second incitative condition relies on the facility granted to the (re)insurance companies to replace certain predefined parameters from the standard formula with their own risk parameters. Thus, (see [10]-p244), after prior approval of the supervisory authority, this facility will incite companies to improve the process of collecting premiums, and to improve the process of developing damages, hoping that they will obtain a less exposure to risk. This incitative condition is also new for the standard formulas of solvency evaluation.

The third incitative condition relies on the integration of techniques for the reduction of risks, such as guarantees at the level of the standard formula. These techniques may be specific to financial techniques (such as options) or can be insurance techniques (such as quality regarding rating for credits of a counterparty). This type of incitative condition is integrated into other standard formulas.

Finally, a fourth incitative condition would be the facility granted to the (re)insurance companies to be able to develop and to implement an internal model, partially or completely, for the allocation of capital. To this type of condition, I would like to express my reservation, at least for the complete internal models because there are no European (re)insurance companies, considering some of the hypothesis of calculation in the standard formula, that can be incited to implement a complete internal model.

Regarding the trial of the Solvency II standard formula to motivate companies to fortify the governess system, we can identify an influence coming from the British solvency system. By applying individual capital adequacy standards (ICAS), in insurance, the British system has in view, in fact, to compensate for a lower level of quantitative prudentiality represented, first, by the approach on the principles of the solvency evaluation, and by making responsible for the company's management. From this last perspective, we can say that the British system has the highest level of qualitative prudentiality.

### **3. Analysis of the capital requirement, the time horizon and the confidence level**

The capital requirements are structured in all the solvency systems presented above, except the Australian system on two levels of protection. *The minimum* level of protection, which, for the European countries, is the same as the one provided for in the Solvency II Directive, found at the level of the minimum capital requirement (MCR), and *the desired level* of protection, which is different from one solvency system to another. The desired level of protection under Solvency II is found at the level of the solvency capital requirement (SCR). In addition, in Switzerland, the desired level of protection is the target capital (TC), and in Great Britain, the enhanced capital requirement (ECR).

The design of the capital requirements is based on common principles. Thus, regardless of the solvency system that is analyzed, the capital requirements have, on the one hand, to provide a high level of protection of holders of insurance policies, and, on the other hand, to provide the supervisory authorities the necessary prospective instruments to detect early problems of solvency at the level of (re)insurance companies. In this respect, the desired level of protection can be determined according to a time horizon and a certain confidence level. With the help of these measures, a solvency regime may set the level of the desired prudentiality. Making an analysis on this criterion, the European systems have the same time horizon, but they differ at setting the confidence level. Solvency II and the British system have a confidence level of 99,5 %, and the Swiss system has a confidence level smaller, of 99%.

The Canadian System is distinguished by a time horizon of about 3 or 5 years, and the Australian system provides that the allocation of capital shall be made in such a way that the company will be able, at any time, to meet the commitments it made. The Australian and the American systems did not set a confidence level because their standard formulas use risk measures different from the European systems. In the Canadian system, the confidence level is set actuarially.

It is difficult to say, which would be the best calibration for the time horizon and the confidence level. The most pertinent, it seems to be, the time horizon of one year and a confidence level of at least 99 %.

We must add that, at this level of analysis, the statistical factors based on risk, regardless of the solvency system in which they are applied, they are calibrated through actuarial methods based on the scenario analysis. The supervisory authorities, under the legislation that regulates the functioning of the solvency systems, have the obligation to communicate any change in the economic field which would require a re-calibration of those risk factors. From this point of view, the Canadian solvency system has the most flexible construction; in this respect, the role of the actuarial is very important. In the same way as the Canadian system, Solvency II also assigns a great importance to the role the actuarial has to fulfill in the life of an insurance and re-insurance company. The governance system, provided for by the Solvency II Directive, includes, besides the risk management's functions, compliance, internal audit and actuarial function.

#### **4. Analysis of the surveillance's prerogatives**

Except the American system, all the solvency systems confer the surveillance the power to intervene in the (re)insurance company's activity whenever appropriate. The American system sets the prerogative to intervene regarding 5 levels of set intervention.

The European system is distinguished by a high attention given to the market discipline. Solvency II, influenced by the British solvency system, has in its structure of a component provided for expressly for the market discipline (Pillar III).

#### **5. Conclusions**

After several delays, EIOPA announced on its site that the Solvency II system will enter fully into force on 1st of January 2016. Any solvency system is perfectible [see [8]], and it should have the ability to respond to multiple changes that appear on the market. During its construction, the Solvency II system benefited from the experience of the

most important solvency systems applied in the insurance field, such as those in the United States, Canada, Australia, Switzerland, Great Britain, etc. From this point of view, Solvency II inspired itself, and then it adapted in an own manner the best practices used by the other important solvency systems.

Solvency II standard formula has a construction similar to the RBC standard formula applied by the American solvency system, but in Solvency II this formula is applied unitary to the three largest classes of insurance activity (life, non-life, health), while in the American system, we find three different forms for each class. In other words, the insurance companies will be able to benefit under Solvency II from the advantages of risk diversification among the activity classes.

The Canadian and Swiss solvency systems, being dynamic systems based on the scenario analysis, are able to correlate much better the risk exposure of the insurance companies with allocation of capital requirements. Wanting to gain prudentiality, inspired from the Canadian and Swiss systems, Solvency II integrates the scenario analysis, but under a standardized form, by integrating only predefined scenarios and just for some sub-modules from the standard formula.

We can say that Solvency II, in comparison with pure dynamic solvency systems, may be less prudential if the capital requirement allocated under Solvency II would prove to be insufficient in certain circumstances. To compensate this weakness, Solvency II, inspired from the British solvency system, integrates in its structure a component dedicated to the market discipline.

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## Base Criteria Used in the Evaluation of Investment Projects

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### Abstract

*Investment projects have as purpose the satisfaction of some necessities or wishes of the management of a company. When it is taken a decision regarding investments it is known the fact that these assume the consumption of human, financial and material resources. Thus, the decision factors take into consideration a series of aspects as: the identification of the objectives of the investment, the establishment of strategies, the mobilization, use and control of the resources involved in the realization of the investment, etc.. From this point of view it is analyzed carefully the following evaluation criteria of an investment: the net present value, the internal rate of return, the recovery period and the profitability index.*

*The aim of this article is that of highlighting the fact that the investment decisions are the most important at the company level in what regards the creation of value.*

**Key words:** net present value, internal rate of return, recovery period, profitability index

#### **J.E.L. Classification:**

D53 - Financial Markets

E22 - Capital; Investment; Capacity

G11 - Portfolio Choice; Investment Decisions

### 1. Introduction

In the conditions of market economy, the development and implementation of the strategy of economic development of the company, renovation and production potential, enhancing the competitiveness of goods (services), as well as consolidating the market position calls for an active and justified investment activity.

The investment strategy represents an

efficient tool in the management of investments and a component part of the general strategy of the company. The use of the investment strategy in the managerial practice requires scientific methods and techniques created regarding the elaboration and realization of it. [14]

The choice of the optimal variant of investment follows the maximization of the net actual value and it is based on the decreasing yields of the investment opportunities. In the case of a secure environment and of an unsaturated monetary market, the rate at which will be actualized the future cash flows generated by investment projects is the average interest rate. Therefore, the investments with high or equal yields to the interest rate are recommended. Any consequent reinvestment of capital will be realized through the insurance of superior yield to the average interest rate ( $R_i$ ). The average interest rate has an essential role in the evaluation and selection of the most efficient investment projects (benchmark). The profitability plus will contribute at the increase of the value of the company. [12]

### 2. Evaluation criteria of an investment project

#### 2.1. The net present value (NPV)

The net present value criterion assumes the selection, from a series of investment projects, of that one which has a maximum net present value. Though, there are situations when it is accepted a project with a negative net present value, it being a premises necessary for another project with a significant net present value. From the financial point of view the investment represents the decision through which a present and certain sum is changed into

future superior values with a certain degree of probability.

The net present value criterion has a special importance in the evaluation of an investment project. The major advantage of the method is that once estimated the future cash flows and knowing, obviously, the initial investment expense, the calculus is easy to perform. It is a rapid and efficient method.

The Net Present Value (NPV) is the updated value of the cash flow cumulated for an investment (the amount of the annually updated cash flows for a project). It is a unique value, expressed in monetary units. Usually, the balance of the cash flow in the first years is negative and becomes positive after a few years. A positive net present value means that the project generates a net benefit and it is desirable. The value of NPV depends on the discount rate used. A project can have a positive net present value for a smaller discount rate and a negative net present value for a higher discount rate. [15]

The net present value (NPV) of the project indicated the expected impact of the project on the value of the company, and the projects with positive net present value are assumed to lead to the increase of the value of the company. In this way, the rules regarding the adoption of the decisions on the basis of the net present value specify the fact that all independent projects with positive net present value must be accepted. If net present value is higher than zero the project is accepted, because the revenues are enough for obtaining a benefit and the initial invested capital will be returned before the life period of the investment.

If net present value is equal to zero, the equilibrium is realized at the end of the lifetime period and the investment is less attractive.

The net present value criterion starts from the hypothesis, mentioned above, of unsaturated monetary market: capitals can be reinvested at anytime on the monetary market, at the interest rate from the market, in order to obtain future cash flows: [7]

a) for a year:

$$I_0 \cdot (1+k) \leq CF_1 + VR_1 \quad (1)$$

or

b) for  $t = 1, 2, 3, n$  years:

$$I_0 \cdot (1+k)^n \leq \sum_{t=1}^n CF_t \cdot (1+k)^{n-t} + VR_n \quad (2)$$

from where:

a) for a year:

$$I_0 \leq \frac{CF_1 + VR_1}{1+k} \quad (3)$$

b) for  $t = 1, 2, 3, n$  years:

$$I_0 \leq \sum_{t=1}^n \frac{CF_t}{(1+k)^t} + \frac{VR_n}{(1+k)^n} \quad (4)$$

where:  $I_0$  - initial expenses for the investment;  $k$  - the interest rate from the market;  $CF_t$  - future cash flows;  $VR_n$  - net residual value.  $\sum_{t=1}^n \frac{CF_t}{(1+k)^t} + \frac{VR_n}{(1+k)^n}$  - the discount value of the future cash flows.

The more the actualized cash flows ( $V_0$ ) will be higher than the invested capital, the more the investment project will be efficient. [1]

Net present value is calculated as the actual value of the cash flows entered in the Project from which we decrease the actual value of the cash flows that are out of the Project. This relationship is indicated by the formula:

$$VAN = \sum_{i=1}^n \frac{CF_i}{(1+d)^i} = CF_0 + \frac{CF_1}{(1+k)^1} + \frac{CF_2}{(1+k)^2} + \dots + \frac{CF_n}{(1+k)^n} \quad (5)$$

where:

$CF_i$  - the net value of the cash flow from from year  $i$ ;  $CF_0$  - initial investment;  $d$  - discount rate;  $k$  - the interest rate from the market;  $n$  - number of years.

If the discount rate varies from a period to another, the relationship  $NPV_0$  becomes:

$$VAN_0 = -I_0 + \frac{CF_1}{(1+K_1)} + \frac{CF_2}{(1+K_1) \cdot (1+K_2)} + \frac{CF_3}{(1+K_1) \cdot (1+K_2) \cdot (1+K_3)} + \dots \quad (6)$$

where:  $K$  - the discounted rate.

For exemplification we shall present the following case study [5]

In the purpose of realizing a modernization project of the own line of production, the company Alfa has in view an investment of 500.000 €. On the basis of the estimations made by the company's

management are established by two different scenarios:

-scenario 1, the base one in which the cash flows derivate from the investment will be of 150.000 €;

-scenario 2, a pessimist scenario in which the cash flows generated by the project will be of 120.000 €.

It is supposed that the financial recovery of the investment is made in 5 years. The discount rate is of 10%.

Subsequently, as a result of in-depth financial analysis and of the sector in which the investment is to be made it was found that the discount rate should be a bit higher than the one previously forecasted. Thus, in order to raise a prudential manner, the company's management in relation to the basic scenario takes into account a discount rate of 15% for which it will be willing to accept an investment with a NPV equal to zero.

Scenario 1 – base case (€/000) Table 1

Years	Cash Flows	Discount Factor	Discount Flows	Cumulated Discount Flows
0	-500	1,00	-500	-500
1	150	0,91	136	-364
2	150	0,83	124	-240
3	150	0,75	113	-127
4	150	0,68	102	-25
5	150	0,62	93	<b>69</b>

Source: Gangi Francesco, *Analisi degli investimenti aziendali*, Ed. Egea, Milano, 2011, pag.70

Scenario 2 – base case (€/000) Table 2

Years	Cash Flows	Discount Factor	Discount Flows	Cumulated Discount Flows
0	-500	1,00	-500	-500
1	120	0,91	109	-391
2	120	0,83	99	-292
3	120	0,75	90	-202
4	120	0,68	82	-120
5	120	0,62	75	<b>-45</b>

Source: Gangi Francesco, *Analisi degli investimenti aziendali*, Ed. Egea, Milano, 2011, pag.70

Base case with a discount rate of 15% (€/000) Table3

Years	Cash Flows	Discount factor	Discount flows	Cumulated discount flows
0	-500	1,00	-500	-500
1	150	0,87	130	-370
2	150	0,75	113	-257
3	150	0,65	98	-159
4	150	0,57	85	-74
5	150	0,49	74	<b>0</b>

Source: Gangi Francesco, *Analisi degli investimenti aziendali*, Ed. Egea, Milano, 2011, pag.70

The above calculations it show that the net present value of an investment project is inversely related to the opportunity cost of

the projects and/or of alternative scenarios, the higher the cost increases, the more the financial and economic efficiency of the project is reduced.

If the discounted cash flows will be higher than the capital invested, the investment project will be more efficient.

## 2.2. The internal rate of return (IRR)

The internal rate of return (IRR) is the discount rate that brings to zero the net present value of streams of costs and benefits of an investment. It is expressed as a percentage and is the indicator of the relative efficiency of the investment. In general, IRR has to be higher than the discount rate in order for a project to be accepted. There are cases when this indicator cannot be calculated ( project with only negative flows, for example an investment project for a county road, where the financial flows are negative) or when a project has multiple IRR ( projects where the revenues are reinvested, as it will be an ecologic warehouse for waste for which the analysis horizon is given by the capacity of the warehouse- for example 30 years- but from 5 to 5 years are necessary investments for the closure of a cell and the construction of the next one). [15]

The second fundamental method of financial evaluation of the investments is represented by the internal rate of return IRR. This represents the ratio taken into consideration when the investment is in equilibrium and so the net value is equal to zero.

$$VAN_0 = \sum_{t=1}^n \frac{CF_t}{(1+r)^t} - CF_0 = 0 \quad (7)$$

**where:**  $CF_t$  - future cash flows;  $r$  - discount rate.

A project is developed if the internal rate of return is higher than the cost of the resources involved in its realization.

The internal rate of return is based on the fact that future cash flows can be reinvested at this internal rate of return. Basically this is the solution to equation  $NPV = 0$ . The formula is as follows:

$$I_0 = \sum_{t=1}^n \frac{CF_t}{(1+RIR)^t} + \frac{VR_n}{(1+RIR)^t} \quad (8)$$

**where:**  $CF_t$  - future cash flows;  $RIR$  - the internal rate of return;  $VR_n$  - net rezidual

value.

For example, we consider an investment project worth 5000 € with the following cash flows (-50.000, 55.000) where NPV for this project can be calculated as follows:

$$VAN = -50.000 \text{ €} + 55.000 \text{ €} / (1+r) \quad (9)$$

**where:** r – discount rate.

Based on the above dates and details, we have to determine the values of the discount rate for which NPV = 0. Thus, we assume that r will have the following percentages: 8%, 10%, and NPV will be determined as follows:

**For r = 8%**

a) we determine de discount factors:

$$- \text{anul}_1 = \frac{1}{(1+8\%)} = 0,555555 \quad (10)$$

$$- \text{anul}_2 = \frac{1}{(1+8\%)^2} = 0,308642 \quad (11)$$

b) we determine the discount values (€/000):

$$- \text{anul}_1 = (-50) \cdot 0,555555 = -27,78 \quad (12)$$

$$- \text{anul}_2 = 55 \cdot 0,308642 = 16,98 \quad (13)$$

It results that:

$$NPV = -27,78 + 16,98 = -10,8 \quad (14)$$

**For r = 10%**

a)we determine the discount factors:

$$- \text{anul}_1 = \frac{1}{(1+10\%)} = 0,909090 \quad (15)$$

$$- \text{anul}_2 = \frac{1}{(1+10\%)^2} = 0,826446 \quad (16)$$

b)we determine the discount values (€/000):

$$- \text{anul}_1 = (-50) \cdot 0,909090 = -45,4545 \quad (17)$$

$$- \text{anul}_2 = 55 \cdot 0,826446 = 45,4545 \quad (18)$$

It results that:

$$NPV = -45,45 + 45,45 = 0 \quad (19)$$

Thus, we can say that the internal rate of return is 10% for the investment project, that IRR is the rate at which NPV = 0.

The investment projects that will have higher IRR than the average interest rate will be accepted, those that have IRR lower than the average interest rate will be rejected. Basically, the selection of investment projects assumes that the IRR criterion is equivalent to NPV. Hence, the investment rule for IRR is the next one: "the project is accepted if the IRR is greater than the discount rate. The project is rejected if the IRR is less than the discount rate.

The interpretation of the internal rate of return is extremely simple. If it exceeds the cost of permanent capital, then the project is accepted; if the IRR is less than the rate of return of permanent capital, then the project is rejected. Among several projects is selected, while the decision is made only after the IRR criterion, the one that ensures maximum IRR.

If the flows considered as outputs are not constant over time, then successive probing appear to determine an acceptable IRR. Basically, both the calculation of IRR and NPV is based on the same data and the same assumptions. The more realistic assumption is that once generated the output funds of an investment project, they are reinvested at an interest rate equal to the cost of permanent capital. If those cash-flows are used to repay debt or to pay dividends, as well as for investment in new projects, they will be paid at the cost of capital.

### 2.3. The period or the duration of the investment payback (Payback Period – PP)

This factor represents the period of the return on an investment and measures the time required for the recovery of the cash flows involved in an investment project. We have accepted that investment project whose recovery time is lower than the maximum level, namely:

a) if the payback period is greater than the time limit decided by the company, the investment is not achieved;

b) if the payback period is less than or equal to the limit decided by the company, the investment is achieved..

The payback of an investment expresses the time the investment is recovered from profit or net income earned from carrying out investment. [8]

The payback period of an investment (Payback Period - PP) is the time measured in years, after which the participants in the financing of an investment project recover their investment and the profits as expected. The payback period of an investment is calculated based on available cash flows, discounted at the discount rate estimated to calculate the NPV as follows:

- we calculate the available discounted cash flows, annual aggregated from the first year of the projection (year 0).

- we note the number of years (i) after which the available discounted cash flows cumulative shift from a negative to a positive value. Its disadvantage is that it does not take into account the benefits arising after the year i.

This indicator can be calculated in several situations, given the diversity of investments. For example, for a new investment we will have the ratio of the investment value and the average annual profit. If we speak of a refurbishment, the ratio will be: investment value / (profit obtained new - old profit obtained). Basically, in the second case we are talking about the extra profit obtained after refurbishment. [11]

For illustration we present the following study case [5]

We consider two different projects (A and B), whose initial investment is of 1.5 billion euro for both.

These projects have the following cash flows:

The cash-flows for projects A and B Table 4

Projects (value in €/000)	F0	F1	F2	F3	F4	F5
A	-1.500	300	500	500	1.000	1.200
B	-1.500	500	700	900	400	400

Source: Gangi Francesco, *Analisi degli investimenti aziendali*, Ed. Egea, Milano, 2011, pag.77

The discounted cash flows are obtained with a discount rate of 15%.

Discounted cash-flow - project A Table 5

Year				
0	-1.500	1	-1.500	-1.500
1	300	0,87	261	-1.239
2	500	0,76	378	-861
3	500	0,66	329	-532
4	1.000	0,57	572	39
5	1.200	0,50	597	636

Source: Gangi Francesco, *Analisi degli investimenti aziendali*, Ed. Egea, Milano, 2011, pag.77

Discounted cash-flow - project B Table 6

Year				
0	-1.500	1	-1.500	-1.500
1	500	0,87	435	-1.065
2	700	0,76	529	-536
3	900	0,66	592	56
4	400	0,57	229	285
5	400	0,50	199	483

Source: Gangi Francesco, *Analisi degli investimenti aziendali*, Ed. Egea, Milano, 2011, pag.77

$$532 \text{ €} / 572 \text{ €} + 3 = 3,93 \quad (20)$$

$$536 \text{ €} / 592 \text{ €} + 2 = 2,90 \quad (21)$$

According to the decision criterion – the payback period - plan B is preferred, which allows the recovery of cash flows in the shortest time (third year) compared with A project for which the recovery takes place in the fourth year.

## 2.4. The profitability index (PI)

The profitability index expresses the relative profitability of investment throughout its life, i.e. the net present value less the initial investment relative to the amount originally invested.

The computation formula is the next one:

$$PI = \frac{NPV_0}{I_0} \quad (22)$$

**where:** PI - profitability index; NPV<sub>0</sub> - present value; I<sub>0</sub> - originally invested.

The criterion of the profitability index seeks the investment project selection with its highest value. Also, for a project to be profitable, it must have PI > 1.

$$IP = 1 + \frac{NPV_0}{I_0} = \frac{\text{total net income discounted}}{\text{investment expenditure discounted}} \quad (23)$$

For example, we consider a project that generates the following cash flows (-40.000, 60.000, 60.000 €) at a discount rate of 11%.

The profitability index is calculated in two steps. The first step is determining the present value of the cash flows generated by the project (without the initial investment):

$$60/1,11 + 105/(1,11)^2 = 139,27 \text{ €} \quad (24)$$

The second step is determining the profitability index:

$$PI = 139,27/40 = 3,48 \quad (25)$$

For a more complex analysis of the profitability index we can consider several investment projects with investment opportunities at the same discount rate.

## 3. Conclusions

The main measures of investments are designed to take into account the temporal scope of inflows and outflows relating to an



investment, in relation to the economic attractiveness and compared with the profitability expectations. Creating value for shareholders through higher profitability than the cost of capital is the key criterion of the investment analysis, the net present value and the internal rate of return can be used for the analytical testing of this result. [6]

NPV represents, increasingly more, an essential criterion in differentiating the investment projects. Thus, if through discount processes we bring to present all expenses, income, future profits and compare with each other then it means the practical application of the NPV.

The NPV criterion leads to the idea that among a number of investment projects, we choose the one that has the maximum net present value.

The internal rate of return criterion is not really a suitable criterion to compare several different investment projects in amount and duration. It is possible that an investment with a higher internal rate of return to have a lower NPV than another investment that has a lower IRR.

Regarding the recovery period, the preferred projects are the ones that provide a quick recovery of investment costs.

Regarding the profitability index, in practice, the accepted projects will be those that have  $IP > 1$ . Using this rule will be selected investment projects that have the greatest positive profitability index. By dividing the net present value to the initial investment expense, the profitability index favors the projects with small initial outlay, even if others have a higher net present value. The IP is recommended to realize the hierarchy of the non-competing investment projects under budget restrictions.

All evaluation criteria are very important in making management decisions, as most of the company's management decisions affect the present and future cash flows.

The most important ways of increasing the efficiency of investments are:

- making a rational investment structure;
- establishing the optimal size of the production capacity;
- reducing the periods for achieving the investment objectives;

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## The Estimates of Environmental Protection Costs

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### Abstract

*More often the quality aspects of environmental factors are emphasized, a thorough approach of the issue on the basis of reality facts is imposed. By critically generalizing and driving the essential from the regional reality, a better underlying of the environmental protection politics can be reached. In order to achieve this, one must allow for the maximum exploitation of the region's potential in consonance with the processes related to environmental protection, to eradicating (attenuating or diminishing) and tracking those elements that prevent or delay the growth process, to tracking those external factors (national or international) that can contribute to the development of a region.*

**Key-words:** environmental costs, typologies, estimating costs.

**Classification J.E.L.:** Q51, Q52.

### 1. Introduction

The environment represents the external world of some people from a certain geographical region, from a community, in interdependent daily relationships, without taking into consideration the elements that represent the goods owned by those people and everything that is not linked to the geographical area that they are part of.

Environmental costs are defined as representing the costs of possible damages or the effectiveness of the natural activities produced as a consequence of the economic activities, such as those achieved by the water users on the environment, ecosystem and on those that use the environment – the reduction of the

quality of the aquatic ecosystem or the degradation and salt of productive soils.

The costs of environmental restoration consist in the costs of the damages brought to the environment because of the degradation and exhaustion of the aquatic ecosystem and because of the discharge of residual wastes in rivers or the transmission of pollutants.[1]

The environmental costs result only if changes (transformations) appear in the natural surrounding environment because of the urban crowding, that use resources under different shapes. (an example is represented by the unloading of a quantity of used water with a charge of nutrients in a water stream over the allowed level, which has negative consequences for the environment – both for the biological diversity and for the aquatic system and the recreation possibilities delivered by the water streams, including the possible negative effects on human health when the water is used in recreational purposes). It is important to know which is the size of the prejudices and their causes, as well as which of the damages are carried by the pollutant or by the polluted. The dimension of the damages depends on the difference between the reference situation and the objective that is desired to be achieved (from a chemical and ecological point of view). The environmental costs are caused by the difference between the stipulated situation and the well-defined state of the environment. In order to achieve a programme of measures cost-efficiency, the environmental costs have the purpose to evaluate until what level the costs of the environmental damages or any other costs that are the result of an inefficient ruling referring to environment protection.

The estimation of environmental costs is based on establishing the impact on the ecosphere as well as on the knowledge, the

expertise and the information offered by the experts in the environmental field. In order to estimate this costs it is necessary to make some steps, as following:

- the identification of the factors that cause the modification of the environment. Mainly, if an important pressure does not exist, there will not exist environmental costs;
- the assessment of the impact of factors on the environment, in chemical and ecological terms;
- the identification and estimation as possible of the nature and size of the damage involved, both on environment and on population; the damage is represented by the difference between a certain reference situation and the target-situation.[2]

## 2. The typology of environmental costs

- A criterion of classification of environmental expenses can be made depending on the impact of the economic activities on the environment and we have two types of costs: generated costs and incurred costs.

The generated costs are those associated with the economic agents, that after the economic activities deployed bring real prejudices to the environment or they can produce damages. The evaluation of these costs is made based upon the preserving costs that are established in order to limit or even to stop the degradation of the environment and there are costs charged additionally. The sum of generated costs is a cumulus of effective advanced expenses to block the degradation of the environment and the charged costs that mirror the impact of economic activities on the environment.

The environmental costs born by the economic agents that caused or not damages to the environment represent the second category of costs, the incurred costs, and these are established after some assessment methods, depending on the factors that contribute to the degradation of the quality of air, soil, water and natural ecosystems.

The overall incurred costs represent the sum made up of the costs of the activities to prevent environmental degradation, the costs caused by the exhaustion of the natural

actives, of the degradation of the environment and the functioning costs.

- Another criterion of classification of the effective and charged environmental costs is represented by the malfunctioning of using the natural surrounding environment: exhaustion costs that appeared as a consequence of the quantitative exhaustion of the biological actives, of the actives of the underground, of water, after the activities deployed by the economic actives and degradation costs due to the decreasing of the quality of environment caused by the evacuation of wastes in the environment as a consequence of the economic activities and they cover the costs of the agents that deploy economic activities and the costs generated by the effects of the damaged environment on other fields of activity and on population.
- From an accountant point of view, the environmental costs are classified as following: expenses with materials and direct salaries, indirect manufacture costs, outlet costs, indirect costs of management and general costs and expenses for research – development.

Direct costs, especially known under the name of usual costs, are those that mainly preoccupy the managers of the economic units. However, we cannot let at random the evolution of the other categories that bring their contribution to the establishment of the final costs. These final costs are also found in specialised literature under the name of hidden costs, unforeseen costs or less tangible costs.

Conventional costs are linked to the use of raw materials, capital goods, suppliers, but they are not seen as belonging to the category of environmental costs, even if we find them in the accountancy of costs and in the investment budget. However, it is desirable that these costs should be given importance from an ecological point of view, because they have their purpose both in diminishing the consumption of exhaustible and non-regenerable resources, and from the perspective of environmental degradation.

In the category of potentially hidden costs there are two types of costs: on the one hand, the anticipated costs, caused by the expenses charged before the deployment of the production process (costs with location, with

the supervision towards the concern for environmental protection of projecting the processes and the products, the appraisal of the possibilities in choosing the most effective control equipments in what regards pollution), and on the other hand, the fixed and voluntary committed costs, charged in the exploitation process. Their differentiation and their clear framing among those linked to environmental protection must stay in the attention of the managers and of the specialists in the field, so, their dimension is lost in indirect costs, or even worse, they can be omitted in the processes of analysis or in the decisions referring to exploitation. The unforeseen costs (contingent) represent another category of environmental costs, whose existence is necessary for the removal and/or the compensation of damages brought by the penalties applied for breaking the subsequent regulations, by an accident that may produce or not in future, as a consequence of a future activity ( a petrol leak, a gas transmission), but whose dimensions cannot be previously foreseen, but it is possible to produce.

The image costs, also called relations costs are made in order to improve the vision on the company in front of the customers, employees, partners, community or in front of the competitors. This type of costs includes amounts of money allocated for making the annual environmental reports or the costs of the actions deployed to establish and to maintain good relations with the community, such as planting trees, developing green spaces, recreational spaces, afforestation, costs for programmes of preventing pollution.[3]

All these environmental costs are analysed from a statistic point of view at different levels (an individual process or a group one; a system; a product or a line of products; a branch, a branch office or a company; regional groups of departments) and with different purposes such as the increasing of the statistic analysis and on other problems except those referring to potentially hidden costs, future, unforeseen or image costs, or with the purpose followed by the managers of companies, that of taking into account only the costs that directly influence the profit, the financial losses or the social costs.

The costs obtained directly from the production processes and that are included in the financial assessment of capital investments (materials and direct salaries) represent conventional costs. These, together with the potential costs represent the private costs and they are obtained from the activity deployed by the company, leaving their hallmark on the financial result of the company. Apart from these, we also have social costs which are costs associated to the effects of the economic activity of the company on the environment and on society, but which are not highlighted in accountancy, because the legislation does not provide them. So, they are the consequences of a productive process on individuals or foreign companies from that industry. Thus, on the one hand, pecuniary effects may appear if after using some substances, the production grows, and on the other hand, positive or negative technological effect may appear, which are translated through changes in the structure of costs. The social costs are the costs given by measures of improving the environment and the state of health of the individuals affected by the destruction of the ecosystem. The external cost is the cost that is applied to a production process of other economic agents, and the social cost represents a sum of internal and external costs, in other words, the cost of the productive process of the entire society.

When establishing the environmental costs, we can face difficulties in the physical measurement and in the evaluation in monetary terms of the quantified effects.[4] That is why the different prejudices brought to the environment and the social costs are taken into consideration only as far as effective monetary transfers take place.

- The environmental costs can also be grouped after the way in which they appear as a result of pollution. Some elements of the environment such as air or water are public resources that do not belong to an owner and the use is free in the case of air, and in what regards water, its use is at a quite low price. So, the market prices of goods and services do not reflect the real cost of using those resources. This fact has as a result the recording of pollution as a negative externality as it has repercussions on some branches or people that may be

involved or not in activities which generate pollution, but it is not up to them if they are or not affected by pollution. From this point of view, we have direct or causative costs and induced costs. From the point of view of the analysis cost – benefit, the first category of costs corresponds to benefits and the second corresponds to costs.

The direct costs appear because of the actions initiated to diminish pollution and they are charged to polluters. The induced costs appear as a chain reaction in the situations in which measures are not taken to reduce the pollution whose results are seen both on the environment and on the population's health.

In the case of market economies, when they plan the level of production, of consumption or of investments, the economic agents usually take into account only the private costs and benefits that interest them directly. In the given situation, the economic and social consequences of environmental degradation are traced in a small proportion in the direct costs born by the pollutants, these being transferred by the economic agents on others after the competitive fight. That is how externalities appear, environmental costs generated by third parties, without a desired involvement from these.

### **3. Environmental externalities and the internalisation of environmental costs**

Externalities are social costs as a consequence of the degradation of the environment caused by pollution, so they appear as a result of the economic processes on the environment, seen from the perspective of the quality of the environment and its non-quality (the economic and social prejudices brought by the pollution which is not abolished). In other words, these are the effect of a housing without discernment of some natural resources, of using some non-performant technologies, of the individuals' lack of ecological education, thus, of the misunderstanding of the relationship man – nature.[5]

If there is an interdependency between the activities of two or more companies, without any type of reciprocal value reward or of any other nature, then an externality appears and

also, in the case in which the activity of an economic agent is influenced by elements or external factors that do not depend on its power of decision.

Externalities are both positive and negative. In the case of positive externalities, the private benefits are smaller than the social benefit, while in the case of negative externalities, the private costs are more reduced than the social costs.

The topic of externalities concerns the whole population without making any distinctions, irrespective of the position or the quality of each towards the economic goods. Then, in the case of not respecting the legislation regarding environmental protection, there appear contradictions between the particular interests and those of the society, external costs appear. In this situation the internalisation of these costs is required, in other words, their charge by including them in the production costs of those that polluted the environment, according to the principle "the pollutant pays".

All individuals have the right to use the environment and that is why it is required that through political measures, the economic agents that bring prejudices to the environment, to take the consequences by internalisation in the costs that are not covered by the current market prices. This makes each industry to consider the purification and elimination of its own wastes. The consequence of those costs must be according both to the criterion of equity which requires that the person who benefits of these products to pay the production cost, and to the criterion of efficiency that requires that in all the productive processes to equalize the social cost and the social price. In the case in which the process of production, by its nature, does not permit the purification or elimination of its own wastes, a tax on contamination can be established or an ecological rate equal with the external costs and according to the criterion of equity, the taxed sums to be intended for those who were prejudiced.

### **4. Conclusions**

The real assessment of environmental costs is a problem of great importance, because their wrong establishment can have

undesired and unpredicted consequences regarding the political strategy in the field of environmental protection and it will be by all means found at the level of the funds allocated to carry out the proposed actions, in order to limit the degradation of the environment and to improve its quality.

The environmental cost and benefit are measured in terms of prosperity for each dweller of the planet. For this fact and for maintaining and increasing prosperity, people should understand that for every product brought on the market, they must have the accord of each person to pay and the medium cost that has to be included in that product.

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## Priorities and Premises Concerning the Fiscal Politics

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### Abstract

*The fiscal politics signifies an important instrument that manages the national economic, owning the ability of influencing the total added value of the manufactured production, meaning the gross domestic product (abbreviated as GDP). The possibility of influencing this indicator, by means of modifying the aggregated request, will confer the potential part of economic steadiness instrument. The governments are endowed with various instruments, able to promote the most important objectives: the resources allotment, the economic steadiness, the redistribution of incomes and the economic increase. All over the time, such instruments have suffered changes, but the most important governmental objectives have remained those four mentioned above. The public expenditures represent a traditional fiscal instrument. Both the level of public expenditures and their structure will remain essential, and will be seen as separate instruments.*

**Keywords:** public finances, fiscal politics, the fiscal-budgetary strategy, financial resources.

**JEL Classification:** G18, H21, H30, H60, H61.

### Introduction

The fiscal politics has influenced the development of the economic and financial processes, and implicitly, the progress of the entire society [7]. But, on its turn, it is conditioned by the economic environment, by a series of factors, among which the following can be mentioned: the economy's status, the reports between the public and

private departments or the level of citizens' revenues etc. as forwards, one has analyzed the design of fiscal politics on mean term, for the following years, taking into account the fundamental objectives of the fiscal-budgetary strategy, as well as the measures imposed in the view of a future time horizon [1].

The design of the fiscal-budgetary politics on mean term has been based upon its anchorage in some economic and institutional points of view, which are essential: *the macroeconomic equilibrium, the fiscal-budgetary [9] responsibility and the financial discipline*. Practically, an equilibrated behavior has been continued, started in the second half of 2012, regarding the sustainable fiscal strengthening, and in this context, the economic re-launching.

### The fiscal strategy vision

The fiscal strategy vision [8] on mean and long term is qualitative, aiming towards the stimulation of the economic environment, the investments and entrepreneurship initiative, towards activating the reforms included within the public department, as well on encouraging the honest behavior in business and relationships between the state and contributors. In the same time, within its financial-budgetary dimension, the economic model of development will focus upon the public investments of training; those investments intended to support the infrastructure, agriculture and rural development, the energy and the advanced technology, as well.

### Priorities and Premises Concerning the Fiscal Politics

*The fundamental objectives of the fiscal-budgetary strategy aim the following [2]:*

- a. *A benchmark system of the public finances* – efficient, transparent, predictable, which is able to lead towards the growth of budgetary revenues, by means of enlarging the taxation basis and not towards the growth of fiscal pressure over economy;
- b. *Ensuring the macroeconomic steadiness and the sustainability of public debt*, by maintaining the budgetary deficit within the current trend of fiscal strengthening;
- c. *Simplifying the system of taxes and creating the predictability within a stimulating fiscal-budgetary frame*, in order to develop the private and public economic environment;
- d. *The growth of public finances quality*, the strengthening of discipline and fiscal governance, as well as the reducing of discretionary decision within the fiscal and budgetary politics, in conditions of the same rules for all the contributors;
- e. *Rationalization of expenditures and the transparency of their use*, in parallel with re-establishing of public acquisitions, upon basis of opportunity criteria, priority and efficiency.

In this way, besides the fiscal-budgetary political measures, regarding the growth of collecting the budgetary revenues and the quality growth of the public expenditures, structural reforms were imposed, able to aim towards the loss and backwards reduction, as well as on increasing the financial discipline, especially within the state companies sector.

The fiscal-budgetary strategy aims on establishing a new approach [6] of the relationship between state and contributors, based on transparency and accuracy. This involves the re-thoughtfulness and redesigning of the entire fiscal system. The major principles of this fiscal reform are represented by the transparency, the simplification and reduction of the fiscal conformation costs at the level of economic agents, as well the reduction of the fiscal management costs, at the level of public authorities.

As regards the macroeconomic balance, the main objective [3] on mean term refers at reaching a value of the structural deficit on strengthened general budget, able to meet the provisions of Treaty regarding the Steadiness, Coordination and Governance within Economic and Monetary Union, respectively on framing within the limit of 1% of GDP. In order to reach this structural objective, starting with the prognosis horizon beginning, and respectively for 2014, and in conditions of the most recent macroeconomic prognosis on mean term, it became necessary the reduction of cash deficit on the strengthened general budget by only 0.3 percentage points as comparing to 2013 [8], a less sharp approach toward the magnitude of fiscal consolidation, applied in the years that followed after the economic crisis launching.

*The fiscal consolidation measures taken into account starting with May 2012 and continuing during the interval 2013-2015[8]* will aim towards a new approach, related to development, equity and discipline, respectively.

The directions of mean term action will take into consideration the following:

- General diminution of taxation;
- Enlarging the taxation basis;
- Simplifying the taxes system;
- Increasing the budgetary revenues collection;
- Reducing the fiscal evasion.

Concerning the revenues side, the following will be aimed:

1. Increasing the level of taxes and dues collection, by fighting against the fiscal evasion;
2. Rising the fiscal assessment mass, by including some non-chargeable revenues related to the agricultural sector, adjusting the regime of deductions, as regards the redemption on cars and expenditures with daily fee, given to employees within the private sector;
3. Measures of adjusting the fiscal assessment system for the natural resources sector, and to transport operators within the gas and energy sector, up to the introduction of a new system of dues;
4. Increasing the level of excise duties, for some products and postponement of the application term relative to the



program of rising the excise duties to cigarettes;

As regards the expenditures part [2], the following will be seen as fundamental objective: increasing their efficiency, focusing on results and quality as regards the budgetary allotments.

For the time horizon included within 2013 and 2016, the following issues will be regarded as specific objectives [8]:

- Coming back of VAT to the level of 19%;
- Maintaining the debt limit to 16% and introducing the tax differentiated on the wage revenues, by fiscal deductibility: quota of 8%, 12% and 16%, which will be established on revenues categories;
- Reducing to a half value the number parafiscal taxes;
- Increasing the expenditures deductibility in research and development from 20% to 50%;
- Alignment to the European average, as regards the dues collected from the state, as result of state's assets leasing;
- Exemption from taxation for a period of five years [9], of the dividends that will be reinvested in technological machines and equipment, in the research and development field, under the form of majoring the social capital to companies at which they are stakeholders, or by the participation to social capital of other trade companies, and which lead towards the creation of new work positions;
- Stimulating the business environment in the admissible limits for the macroeconomic steadiness, by simplifying the procedures and dis-bureaucracy for the small enterprisers;
- The extension of taxes on revenues, for the micro-enterprises, by a turnover lower than 65.000 Euro, in the view of simplifying the fiscal system and of reducing the management costs;
- Reducing the VAT to producers of agricultural products, from 24% to 9%, and the value of 15% will remain for the development processes;
- Reducing the social insurances contribution to 5 percentage points for the employers.

Concerning 2013-2014, the prior objectives aim towards:

- a) Rethinking the direct taxation, by means of diversifying the fiscal assessment, and depending upon various criteria;
- b) Enlarging the taxable basis, by including within the taxable basis some categories of exempt revenues;
- c) Increasing the fiscal revenues, by means of significant reduction of the fiscal evasion, especially in the fields known as having a high risk level within the fiscal evasion field;
- d) Reducing the number of parafiscal taxes;
- e) Following the way of applying the "VAT on encashment" system, in the view of adopting some correction measures;
- f) Rewriting of the fiscal code and the fiscal procedure code, by the end of the current year;
- g) Stimulating the research and development activities, by increasing the supplementary deductibility limit for the expenditures started from 20% and up to 50%.

Concerning the legislative field, the fiscal strategy aimed on ensuring the improvement of the budgetary revenues collecting, fighting against the fiscal evasion and supporting the business environment will mainly include the following[8]:

1. Modifying the legislative frame, in the view of operative recovering of the prejudices, established on fiscal evasion actions, including by majoring the minimal and maximal limits of the contravention sanctions, as regards the actions of fiscal incidence;

2. Modifying and completing the acts specific to the regulation of discovering and sanctioning the fiscal evasion, by redefining the infringements of the law within the fiscal evasion area, and extending the ANAF competences on making efficient the activities of fiscal evasion control;

3. Strengthening the financial discipline, by applying restrictions to payments and receipts in cash, by significant diminution of the maximum limit on cash payments admitted by law, between the economic operators, and the drastic sanctioning of non-meeting this limit, as well as the restriction of payments in cash,

accomplished by the economic operators toward the physical persons;

4. Modifying the Law 31/1990, as regards the trade companies, by establishing the compulsoriness of majoring the social capital in conditions of registering the negative capitals, as well as introducing the solidary awareness of the stakeholders or co-partners or managers, which are leasing the trade companies with debts toward the state budget and or the trade partners;

5. Modifying the Law 85/2006 as regards the insolvency, in the sense of introducing the possibility on carrying out the fiscal audit and after the date of opening the insolvency procedure, respectively the conditioning of volunteer insolvency entrance, relative to the fiscal inspection;

6. Improving the legislation as regards the samples on budgetary obligations payment, by establishing some conditions less difficult as comparing to those current, in order to achieve and maintain the samples on payment; this will be carried out towards the viable contributors being in temporary financial difficulty, and towards the institutionalization of simplified procedures necessary to achieve the sampling.

Simultaneously, organizational measures will be adopted, in the field of significant reduction of the fiscal evasion:

- Unifying the operative control structures, at the level of ANAF, correlated with the establishment of the unique control over the contributors' activity, once per three years, for the SMEs and once per five years, for the high developed contributors;
- Reorganization of the territory apparatus, on the regional structure;
- Requalification and redistribution of the staff towards the adverse activities;
- Modernization and integration of the information and communication technology system;

- Redesigning of the activity processes of ANAF;
- Developing the fiscal risk analysis, generalized at the level of the entire fiscal management.

## Conclusion

In conclusion, the volume of financial resources susceptible to be immobilized at the public funds is highly related to the level of the country's economy development, to the efficiency ensured by the economic agents, as well as to the solutions adopted by the public authorities, as regards the way of satisfying the social necessities and of financing the expenditures carried out.

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## Considerations over the Foreseen Level of Government Gross Debt in Romania

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### Abstract

*The current paper emphasizes, besides the definitions specific to the public debt concepts, the government public debt and the local public debt, as well as some data related to the gross government debt, in accordance to the European Union methodology, the analysis of influencing the economic growth under the estimations and as regards the level of government debt, financing the budgetary deficit and the estimated data, as regards the specific risks of the above mentioned terms. One of the most important tasks of those that manage the public debt refers to the identification of the specific risks, their evaluation and developing a strategy related to the predictable risks. The management politics of the debt portfolio and risks are carried out into practice in accordance to the Government approval.*

**Keywords:** public debt, Government gross debt, budgetary deficit;

**JEL:** E62, G32, H60, H61, H63.

### Introduction

The public debt [1] signifies the entirety of internal and external financial liabilities of the state, at a given moment, coming from loans taken directly or assured by the government, by means of the Public Finances Minister, of by the local public management, from various creditors, physical or judicial persons living or not in Romania.

The public debt is established and managed in a different way, as concerns the two known shapes[2]:

- The government public debt – which signifies a part of the public debt, meaning the entirety of internal and external financial

obligations of the state, at a given moment of time, coming from the loans taken directly or assured by the Government, by means of the Public Finances Minister, in the name of Romania, on the financial market;

- The local public debt – which signifies a part of the public debt, meaning the entirety of the internal and external financial debts of the local public administration authorities, at a given moment, coming from the loans directly taken of assured loans, on the financial markets.

### The estimated level of the gross government debt

The gross government debt, in accordance to the European Union methodology, has represented 37.2% of the GDP, at the end of November 2012, placed under the limit of 60% and established by the European Union Treaty. If one considers the financial reserve in currency, being at the disposal of State's Treasury, the level of net government debt, at the end of November 2012 was of 34.2% of the GDP. The government debt growth was mainly determined by the debt employment for the budgetary deficit financing, and by the re-financing of the public debt, on both the internal market, by means of public securities issuance, as well as by external market, by means of Euro-liabilities issuances, and on extractions from the loans specific to the projects financing[9].

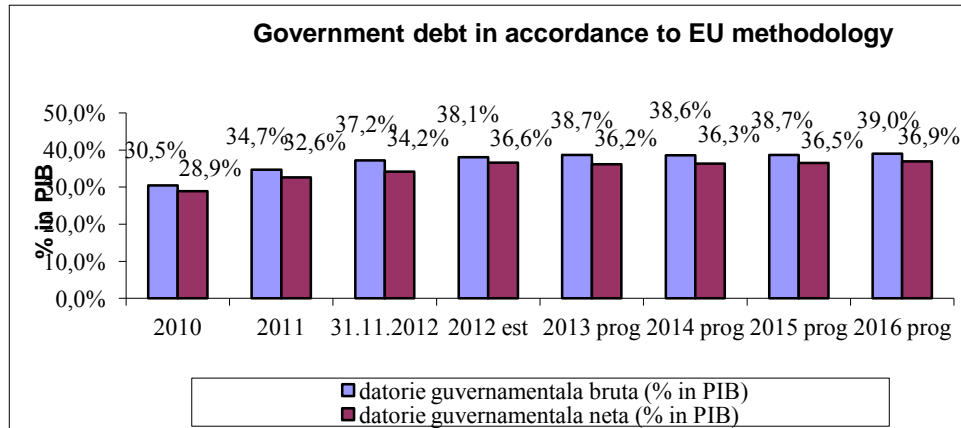
The estimated level of the gross government debt for the end of 2012 is of 38.1% of the GDP, and for 2013 the value is of 38.7% on GDP, while the government net debt level is estimated at 35.5% for the end of 2012, and of 36.2% of GDP, for the year 2013.

At the level of European Union member states, at the end of 2011, as well as at the end of first semester for 2012, Romania was

placed on the fourth position between the EU states, with the lowest level of indebtedness after Estonia (7,39%), Bulgaria (16,51%) and Luxemburg (20,91%). As result, one

estimated that the indebtedness level on mean term will be placed forwards amongst the lowest, as concerns the member states of the European Union

Table 1: Government debt in accordance to EU methodology



Source: The Fiscal-Budgetary Strategy, 2012-2014, 2013-2015

[http://discutii.mfinante.ro/static/10/Mfp/strategbug/STRATEGIA\\_2013\\_2015revizuita.pdf](http://discutii.mfinante.ro/static/10/Mfp/strategbug/STRATEGIA_2013_2015revizuita.pdf)

*The analysis of economic growth under the estimations, over the government debt level*

Concerning the analysis of influencing the diminution of economic growth rhythm, relative to the gross government debt stock, two scenarios were used[7]:

- the basic scenario, carried out upon basis of designs emphasized within the macro-economic context on mean term and,
- The second scenario (meaning the alternative scenario), which was built upon basis of a lower economic growth hypothesis, of about 1% as comparing to the basic scenario.

As regards the basic scenario, the weight of the gross government debt in GDP will be increased by 0.6% in GDP at the end of 2015, as comparing to the level of debt estimated for the end of 2012 (from 38.1% in 2012 to 38.7% in 2015), and as regards the alternative scenario, the government gross debt weight in GDP increases by 1.0% (from 38.1% in 2012, to 39.1% in 2015)[10].

*1) The analysis of influencing the national debt depreciation towards EURO and USD, over the debt payments level included within the state budget*

For such analysis, the following were used:

- The basic scenario, accomplished upon basis of designs illustrated within the macroeconomic context on mean term and,
- The alternative scenario, built upon basis of hypothesis depreciation by 5% of the national currency as comparing to EURO and USD on mean term.

If within the basic scenario, the debt payments weight in GDP paid from the state budget will be increased from 1.58% in 2012, up to 1.66% in 2015, as regards the alternative scenario, the weight of debt payments in GDP will be increased up to 1.72% in 2015.

*2) The analysis of increasing the debt rate growth by 1% over the debt payments from the state budget*

As regards this analysis, the basic and alternative scenarios were used, built by underlying on the debt growth on public securities, and on those variable, as well (EURIBOR and LIBOR), by 1% as comparing to the basic scenario.

Concerning the basic scenario, the weight of debt payments in GDP from the state budget will be increased from 1.58% in 2012 up to 1.66% in 2015, while in the alternative scenario, the debt payments weight in GDP paid from the state budget will be increased up to 1.91% in 2015.

## Financing the budgetary deficit

The financing strategy of the budget deficit within the following period of time (2013-2015) foresees the financing in equilibrated percentage from the internal and external sources. In this context, as regards the financing on the internal market, the Ministry of Public Finances will act in order to:

- extend the public securities maturity, issuing besides the treasury certificates, the state liabilities denominated in lei and currency, with falling due up to 15 years, and even on longer falling dues, in accordance to the investors' requirement, and depending upon the opportunities identified on the market and,
- for the strengthening of the efficiency position, as regards the public securities on the secondary market, so that it would signify a reference for the financing in lei on the internal market of capital.

As regards the external financing, for the coming years, the following will be ensured:

- mainly, by the issuance of Euro-liabilities on the external markets of capital, the Ministry of Public Finances might act in the view of extending the maturities, and of strengthening the efficiency position, for such debt tool, as well as,
- by loans taken from the international financial institutions, dedicated to financing certain budgetary expenditures (of the BIRD type, upon basis of results) or programs of development.

The fiscal strengthening process and fulfilling the objective on mean term[10], as regards the structural deficit (1% of the GDP), in accordance to the Treaty related to steadiness, coordination and governance within the Economic-Monetary Union, signed by Romania in March 2012, will determine a decreasing trend of the financing necessities related to the budgetary deficit in cash terms.

*The budgetary risk resulted from the payments carried out by the Ministry of Public Finances, in quality of Guarantor, specific to the public issued liabilities*

Taking into account the decreasing stock of public liabilities, issued in the past time, for the loans taken by companies, and the very reduced level of the payments carried

out by the Ministry of Public Finances, in quality of Guarantor, and in the name of liabilities issued within the government programs, the estimations as regards the payments that are to be accomplished from the state budget, in the account of such liabilities, are placed as forwards at a very low level, of about 0.02% - up to 0.03% from the GDP during the interval 2013-2015.

The hypothesis of such scenario take into account the public liabilities issued within the government program of financing, specific to housing purchase, known under the name of "First Home", as well as the support program for the project beneficiaries, in prior fields for the Romanian economy, financed from the structural instruments of the European Union allotted to Romania, to the program of thermal rehabilitation of inhabitations sets, the "Kogălniceanu" program on supporting the SMEs and the government program, as regards the measured imposed in order to achieve the architectural improvement and the environment requirements of the inhabitations sets[10].

## Conclusions

Drawing some conclusions, one might say that the optimal strategy [6] depends upon the risk level, which the authorities are ready to accept. Such threshold of tolerance can be modified in time, depending upon the size of public debt portfolio, as well as upon the vulnerability of economic and financial shocks. Generally, as much a country is more indebted and more vulnerable to the external shocks, the more the losses are higher, as regards the financial crisis or the entrance [4] in the payment incapacity, of the public debt; in this way, the risks should be reduced as much as possible. As regards the governments that frequently adjust the public debt stock, the strategic reference points can establish those efficient tools on the debt management, since they signify the portfolio's strategy related to the management requirements, and as regards the risks and costs, as well.

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## Approaches Related to Tangible Assets Depreciation

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### Abstract

*In writing this article I have started from the importance that tangible assets have in conducting the activity of economic entities. Thus, I have tried to make a brief analysis of the aspects related their depreciation, as well as of the main depreciation methods. I have also presented the fiscal implications of either of the depreciation methods analysed.*

**Keywords:** depreciation, depreciated value, residual value, lifespan, depreciation methods.

**JEL Code:** M41 - Accounting

### 1. Introduction:

Accounting standards and literature define depreciation as the systematic allocation of the depreciated value of an asset over its functional lifespan [4].

The allocation of the depreciated value is determined by the fact that through its use in time, due to physical wear and other various causes, a tangible asset gradually loses its value.

The gradual loss of value leads to the need to replace the tangible asset with a new one at the expiry of the lifespan.

Given that the allocation of value of the asset is made on account of the (calculated) expenses, the respective amount, included in the sales price is recovered by selling the products and it represents a source of self-financing of the fixed assets at the expiry of the lifespan. Until then the accumulated funds are used to finance any other assets or activities of the entity.

### 2. General information regarding depreciation of tangible assets:

The amount of the sum calculated to allocate the depreciated value of an asset is determined by three factors: functional lifespan, depreciated value, depreciation methods used [1].

According to IAS 16 “Intangible assets”, the functional lifespan is:

- the period over which an asset is expected to be available for use by an entity; or
- the number of production units or similar units that the entity expects to obtain from the asset.

Being estimated, the functional lifespan of the fixed assets should be reviewed periodically and if the estimates differ significantly from the previous ones, we should proceed to its adjustment and implicitly of the depreciation allowances for the current or future periods.

The resulting differences are recorded according to the national accounting rules, respectively according to IAS 8 “Accounting Policies, Changes in Accounting Estimates and Errors”.

Taking account of the lifespan, tangible assets are divided into two categories [4]:

- assets with indefinite lifespan, namely land that is not subject to depreciation;
- assets with limited lifespan, the other assets that are subject to depreciation.

The depreciable value of an asset is the cost of an asset or another value that replaces the cost, from which the residual value of the asset is subtracted.

The residual value is the net value that an entity estimates that it will obtain for an asset at the end of its useful lifespan after previously deducting the estimated disposal costs [2].

The residual value of an asset is often insignificant and can be ignored in

calculating the depreciation. If the residual value is considered to be significant, it is estimated on the date of acquisition or on the date of any reassessment of the asset, depending on the accounting treatment chosen.

### 3. The depreciation methods used:

The depreciation methods used can be shown by means of the accounting rules as follows:

Table 1

IAS 16 Provisions [5]	OMFP 3055/2009 Provisions [6]
<p>The depreciation method used should reflect the expected consumption pattern of the future economic benefits of the asset by the entity. The depreciation method applied to an asset shall be reviewed at least at each financial year-end and, if there is a significant change in the expected consumption pattern of the future economic benefits brought by that asset, then the method must be changed in order to reflect the changed pattern. Such a change shall be accounted for as a change in the accounting estimate in accordance with IAS 8. Various depreciation methods can be used for the systematic allocation of the depreciable value of an asset over its useful lifespan. These methods include the straight-line method, the diminishing balance</p>	<p>The depreciation method used should reflect the way in which the future economic benefits of an asset are expected to be consumed by the entity. The depreciation method is applied consistently to all assets of the same type and having identical terms of use, depending on the accounting policy adopted. The depreciation method may be changed only when it is caused by an error in the estimation of the consumption of the benefits related to the respective tangible assets. Entities depreciate the tangible assets by using one of the following damping regimes: a) straight-line method of depreciation achieved by the uniform inclusion in the operating costs of certain fixed amounts, established according</p>

method and the units of production method.	<p>to the number of years of their economic useful lifespan; b) diminishing balance method of depreciation, which consists of multiplying the linear damping rates with a certain coefficient, a case in which the legislation in force can be taken into account; c) accelerated depreciation method; d) depreciation calculated per unit of product or service, when the nature of the tangible asset justifies the use of such a method of depreciation.</p>
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Source: processing by author

Basically, depreciation is calculated by applying the depreciation rates on the input accounting value of the tangible assets. The calculation starts from the date of service of the tangible assets until recovering their full input value.

### 4. Straight-line method:

The straight-line method consists of calculating and uniform allocation of the accounting value of intangible assets throughout the entire period of functioning expressed in years. It is the simplest method of calculating depreciation, being very close to the real depreciation of the asset (depreciation economically justified) [3].

In this method, the depreciation costs are constant over time, but the maintenance and repair costs increase together with the depletion of the lifespan.

It results that at the beginning of the life period the total of the operating costs (depreciation + maintenance and repair) is lower; as depletion of the lifespan increases the total of the operating costs (depreciation + maintenance and repair) is higher.

The calculation relationships specific to the straight-line method are:



Annual linear rate of depreciation (RL) =  $100 / D$ , where:

- 100 is the book value or the depreciated value expressed relatively;
- D represents the useful lifespan expressed in years.

Annual depreciation (A.a) = Accounting value or depreciated value of the tangible asset  $\times$  RL;

Net accounting value (VCN) = Input accounting value – Sum of annual depreciation.

To give an example I consider that an entity acquires on the date 01.01.N a machine at the purchase price of 16,000 m.u., with a lifespan of eight years. It results that  $RL_a = 12.5\%$ .

The calculation of the machine depreciation using the straight-line method is as follows:

Table 2

Year	Entry book value	Annual depreciation	Accumulated depreciation	Net book value
N	16,000	2,000	2,000	14,000
N+1	16,000	2,000	4,000	12,000
N+2	16,000	2,000	6,000	10,000
N+3	16,000	2,000	8,000	8,000
N+4	16,000	2,000	10,000	6,000
N+5	16,000	2,000	12,000	4,000
N+6	16,000	2,000	14,000	2,000
N+7	16,000	2,000	16,000	0

Source: processing by author

### 5. Diminishing balance method

The diminishing balance method consists of calculating and allocating unevenly the book value/depreciated value of tangible assets during the useful period, meaning that the diminishing depreciation is greater than the straight-line depreciation in the early years and lower in the recent years. It thus follows a descending line [3].

The diminishing depreciation is calculated in two ways:

- Option 1 (AD1), without taking into account the technical obsolescence;
- Option 2 (AD2), taking into account the technical obsolescence.

The calculation of the diminishing depreciation (AD1) is done by applying the diminishing rate (RD) on the net book value:

The diminishing balance method with taking into account the technical obsolescence applies only to tangible assets with lifespan duration higher than 5 years included.

The method has as result a recovery of the book value/depreciated value over a period of smaller than in the AD1 alternative.

The essence of the method consists in calculating the duration in which the full depreciation is achieved and of the duration of the diminishing depreciation. Further on, the calculation of the depreciation is done similarly to the AD1 alternative.

The steps for calculating the duration periods mentioned above are the following:

- calculation of the linear rate (RL);
- calculation of diminishing balance rate:

$$RD = RL \cdot K;$$

- calculation of the duration of use (DU) related to the RL recalculated according to the RD;

- calculation of the duration of use (DU) in which the full depreciation is achieved: normal duration – DU related the RL recalculated;

- calculation of the diminishing balance depreciation: full depreciation period – period of use related to the RL recalculated.

As shown in the presentation, the depreciation included in the operating costs decreases together with the depletion of the lifespan. The maintenance and repair costs increase. Overall, there is a certain standardisation in time of the operating costs, of the profit and of the income tax.

If we refer only to depreciation, then:

- in the first years, the operating costs are higher, the profit lower and the income tax also lower;

- in the recent years, the operating costs have been lower, the profit higher and the income tax higher.

Thus, by applying the declining balance method the tax incentives provided by the laws are capitalised.

Resuming the previous example in calculating the depreciation of the machine in the diminishing balance method (AD1), it looks as follows:

$$RD = RL_a \times K = 12,5\% \times 2 = 25\%$$

Table 3

Year	Book value	Diminishing rate	Annual depreciation	Accumulated depreciation	Net book value
N	16,000	25%	4,000	4,000	12,000
N+1	12,000	25%	3,000	7,000	9,000
N+2	9,000	25%	2,250	9,250	6,750
N+3	6,750	25%	1,688	10,938	5,062
N+4	5,062	-	1,266	12,204	3,796
N+5	5,062	-	1,266	13,470	2,530
N+6	5,062	-	1,266	14,736	1,264
N+7	5,062	-	1,264	16,000	0

Source: processing by author

## 6. Accelerated depreciation method

The accelerated depreciation method represents the inclusion in the operating costs in the first year of operation of a rate of up to 50% of the book value/depreciated value. In the subsequent years depreciation is calculated according to the straight-line method. Hence the conclusion that the accelerated depreciation method is similar to the diminishing depreciation method, but the financial and tax effects are more evident [1].

Starting from the previous example, the calculation of the equipment depreciation in the accelerated depreciation method looks as follows:

Table 4

Year	Book value	Annual depreciation	Accumulated depreciation	Net book value
N	16,000	8,000	8,000	8,000
N+1	8,000	1,143	9,143	6,857
N+2	8,000	1,143	10,286	5,714
N+3	8,000	1,143	11,429	4,571
N+4	8,000	1,143	12,572	3,428
N+5	8,000	1,143	13,715	2,285
N+6	8,000	1,143	14,858	1,142
N+7	8,000	1,142	16,000	0

Source: processing by author

## 7. Conclusions:

The depreciation method chosen by the management of an entity obviously influences the outcome and the income tax. Thus, the existence of options in terms of

tangible assets depreciation methods paves the way towards creative accounting. Depending on the desired outcome, the management of an entity may choose one method of depreciation, as follows:

- if the entity's management seeks rapid recovery of the depreciated value of the tangible assets and, implicitly, the reduction of the result earnings in the first years of use of the intangible asset, it will choose the accelerated or the diminishing depreciation method;

- if the entity's management seeks a balanced recovery of the depreciated value of the intangible assets and, implicitly, a reasonable influence or as small as possible of the result, it will choose the straight-line method.

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## Measuring Internal Audit Performance (KPIs)

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### Abstract

*Internal audit has a responsibility to its stakeholders to provide reports on the operations of the organization's risk management, control, and governance processes and the responsibility to justify the value added to the organization.*

*Internal audit assesses the performance with some **key performance indicators (KPIs)** designed to demonstrate internal audit function performance. This paper purpose is to present the most important ways to measure the work of internal audit function.*

**Key words:** internal audit, key performance, indicators

**J.E.L. classification:** M 42

### 1. Introduction

The IIA defines internal auditing as “an independent, objective assurance and consulting activity designed to add value and improve an organization's operations.” In the Glossary of The IIA's International Standards for the Professional Practice of Internal Auditing (Standards), “add value” is defined as, “Value is provided by improving opportunities to achieve organizational objectives, identifying operational improvement, and/or reducing risk exposure through both assurance and consulting services.”[2]

In these circumstances auditors need to define some **key performance indicators (KPI)** that measure the value they are adding.

The Audit Committee should be involved in providing regular feedback on the quality and cost-effectiveness of audit reports and other services provided by internal audit.

Measuring the performance of the internal audit function is important, so the department needs to develop performance metrics carefully and use them with good judgment — in order to demonstrate internal audit's value to management, the board, and the organization, as directed by The IIA's International Professional Practices Framework.

### 2. Measuring the performance of the internal audit

Assessing performance measuring is necessary for maximise the efficiency and effectiveness of the internal audit function and Audit Committees should review the performance of internal audit each year and to approve the performance indicators used. Also, the views of the Chief Executive and the external auditor would be sought periodically, but at least once annually and a self-assessment by the Head of Internal Audit on the performance of the function over the year is also a useful contribution to measuring performance, when done in conjunction with other surveys.

The Audit Committee reviews the performance of internal audit and the Head of Internal Audit prepares a report for the Audit Committee, at least annually, on progress in implementing the internal audit strategy and completing the work plan. [2]

The content of the report, agreed by the Audit Committee, could be expected to:

- comment on the internal audit activities and any variances from approved plans;
- report on progress in implementing the internal audit strategy and completing the work plan;
- discuss highlights and challenges during the period;
- report on internal audit's overall contribution to managing the entity's risks and improving performance; and
- identify issues that may require attention in relation to the internal audit function.

An external quality assurance review is also an important tool in demonstrating internal audit's commitment to quality and external scrutiny and can provide valuable input into the internal audit strategy, an assurance over the quality of internal audit work.

The external review should assess the entity's use of internal audit, the effectiveness and efficiency of the internal audit unit and identify areas where processes and outcomes can be improved and could include benchmarking of the performance of the internal audit against similar organisations.

Such reviews cover the entire spectrum of internal audit activity and should be conducted at least every five years and include as a minimum the:

- relevance and adequacy of the internal audit charter to the needs of the entity;
- compliance with the requirements of the internal audit charter;
- competency and capacity of the internal audit function;
- efficiency and effectiveness of the planning processes;
- timeliness, quality, costs and benefits of audits;
- efficiency and effectiveness of the reporting arrangements;
- compliance with specified professional or other standards and internal audit manuals; and
- identification and reporting of leading practices. [4]

### **3. The key performance indicators (KPIs)**

The key performance indicators (KPIs) used should be aligned with the entity's internal audit strategy and work plan.

Because every organisation is different, every entity may benefit from formal or informal benchmarking of indicators and performance across other entities.

KPIs will vary depending on entity's internal audit strategy and its the role assigned to internal audit. KPIs should measure the timeliness, cost and quality of both audit work and any other services provided by internal audit.

Better practice KPIs include measurement of the:

- timeliness and cost of internal audits commensurate with the objectives or benefits of the internal audit;
- acceptance of recommendations made by internal audit;
- quality of assurance reviews, advisory services and audit support activities, including stakeholder satisfaction;
- progress in delivery of the approved program;
- internal audit staff qualifications and professional development;
- internal audit staff satisfaction; and
- overall contribution made by the internal audit function. [6]

Measurement of the effectiveness or the value added by individual reports and the internal audit function itself is generally best measured by seeking the views of key stakeholders.

These internal audit metrics can be divided into two categories:

1. to the operations of the internal audit department and
2. to the reactions of the organization to the internal audit department.

#### **INTERNAL AUDIT OPERATIONS**

There are numerous KPIs internal auditors can use to measure the effectiveness of their department's activities. Some of these metrics are quantitative and easily measured, while others are subjective and more difficult to

capture. Many KPIs can be communicated to the audit committee, the chief financial officer (CFO), and the CEO to document the value internal audit adds to the organization. [3]

### Key Performance Indicators — Operations

KEY PERFORMANCE INDICATORS – OPERATIONS	
This table summarizes the KPIs related to the operations of the internal audit department as well as questions internal auditors should ask related to each metric.	
KPI	Things to Consider
Number of audits completed vs. audit plan	Is the department auditing the right things? Is the department auditing high-risk areas?
Analysis of the total pool of audit hours	How many hours are spent on audits vs. other tasks? How many hours are spent on high-risk vs. low-risk areas? How many hours are spent on special management requests: fraud investigations; planning, executing, and reviewing audits; supporting the work of the external auditors; and training internal audit staff?
Number of high-risk areas audited per year	Does internal audit have enough personnel to cover the high-risk areas timely?
Number of frauds uncovered and investigated	Is the fraud an isolated incident or could it be happening elsewhere? Were new internal controls implemented or existing controls shored up?
Certifications, advanced degrees, and prior experience	Is the skill mix of the internal auditors correct?
Benchmarking	Does internal audit benchmark against The IIA's GAIN survey? How many auditors does the firm have vs. peer organizations? Does the CAE benchmark against his or her professional contacts?
Number of days from field work to audit report	Does the number exceed a target benchmark? Has completing audits more quickly had a negative impact on quality?

#### Other performance metrics could be:

- the audit plan: number of audits completed versus the audit plan or the number of hours that are spent on audits versus other tasks( consulting and special assignments
- the ability to audit high-risk areas: to audit 100 percent of new facilities acquired each year
- the number of days from completion of the fieldwork to the issuance of the audit report: audit reports communicate audit findings to the client before the report becomes stale

### ORGANIZATIONAL REACTIONS TO INTERNAL AUDIT

Internal auditors should be good, essential, helpful, and valued colleagues at what they do and well respected within the organization. Auditors can use some KPIs to determine how others in the organization view them.

Importance present client satisfaction surveys at the end of an audit which measure the level of satisfaction with internal audit services. Some short surveys could be completed electronically and any significant issues identified from such surveys should be followed up in an interview, where possible.

Key issues to address in such audit surveys include the:

- internal auditors' understanding of the area under review;

- quality of the analysis undertaken;
- usefulness of the recommendations;
- efficiency of the process;
- level of collaboration with management; and
- overall value of the report to management. [3]

### Key Performance Indicators — Organizational Reaction

KEY PERFORMANCE INDICATORS – ORGANIZATIONAL REACTION	
This table summarizes the KPIs related to the organization's reactions to the internal audit department.	
KPI	Things to Consider
Tracking audit issues	How many audit findings are generated? How many audit findings are implemented by management? How many audit findings are outstanding? How many days are audit findings outstanding? Is there an escalation plan for dealing with the findings? Are findings categorized by severity level? Does internal audit use trend reporting?
Number of repeat findings	Why are there repeat findings?
Number of special requests	Does the request involve a high-risk situation? Does internal audit have the hours and skill set to handle the request?
Number of audit requests turned down	How many requests are turned down because of insufficient audit hours or personnel? How many are turned down because of low-risk/immaterial items?
Survey data	Are clients satisfied with internal audit's work? Is the internal audit staff knowledgeable? Is the internal audit staff professional? Does internal audit have goals for survey results (e.g., 80 percent of audit clients are highly satisfied)? Has internal audit considered interviews of audit clients in addition to survey results?
Number of employees wanting to rotate through internal audit	Is a rotation through internal audit considered a valuable career move?
Internal auditor turnover	When people leave internal audit, do they stay within the organization or leave? Do people make lateral moves or are they promoted?
A seat at the table	How often is internal audit involved in high-level management decisions?

#### Other performance metrics could be:

- How does management respond to the internal audit report: how many audit action plans were outstanding 30, 60, and 90 days after the action plan completion date.
- How internal audit is doing and how it is perceived by its clients: client-satisfaction surveys- audit's professionalism, its business knowledge, the meaningfulness of the audit findings, and the client's satisfaction with the department.
- How it is perceived internal audit department within the organization: what percentage list internal audit as one of the next three places they want to go? (internal audit employee turnover)
- How many special requests does internal audit get
- How often executive management includes the department in its decisions.

In the following list there are alternative measures of performance that an internal audit department may use. In implementing a performance measurement system, internal auditors must conform to appropriate practice. For example, measure selection

should be based on plan goals, targets should be set and departments must understand what they will do if targets are not met. [4]

**KEY PERFORMANCE INDICATORS:  
SERVICE DELIVERY**

1. Audit Plan

- Reports issued compared to agreed\planned
- Plan revisions
- Budgeted hours compared to actual hours (variance)
- Plan remaining compared to capacity

2. Quality Assurance

- Results of Independent internal QA Review (every 6 months)
- Results of Independent external QA Review (every 5 years)
- Number of key risks identified
- Number of 'best practice' recommendations made that are accepted/implemented by the organization

3. Productivity

- Actual hours compared to benchmark (by categories)
- Number of uncaptured hours (total & per team member)
- Percentage coverage of total audit universe

4. Client Satisfaction

- Number of reports in respect of which client feedback has not been received compared to total reports issued
- Results of client feedback received
- Timeliness of issuing of client satisfaction surveys

**KEY PERFORMANCE INDICATORS:  
CLIENTS**

1. Client Satisfaction

- Number of issues requiring immediate attention
- Level of client satisfaction

2. Client Interaction

- Clients not visited in last 3 months
- Major issues requiring follow up
- Number of instances client seeks ad-hoc advice from the department

3. CRM Strategy

- Level of client satisfaction compared to plan and previous year
- Level of 'client education'/marketing of internal audit department to clients

**KEY PERFORMANCE INDICATOR:  
FINANCE**

1. Forecasting (and recoveries)

- Forecast compared to Budget

2. Expense Management & Recoveries

- Month Actual compared to Budget vs. Forecast

3. Finance Strategy

- Budget to Audit Plan

**KEY PERFORMANCE INDICATORS:  
TECHNICAL (IT)**

1. Availability (server level)

- Downtime (hours x people x average cost)

2. Problem & Incidents expectations

- Number of policy violations

- Inappropriate access

- Theft \ loss of hardware

- Loss of data

- Number of days since last Business Continuity was planned\ tested

- Results of user satisfaction survey

3. IT (Information Technology) Strategy

- IT strategy planned objective achieved

**KEY PERFORMANCE INDICATORS :  
QUALITY ASSURANCE**

1. Third (3rd) Party Reliance

- Number of audits not relied upon by External Audit

- Reduction in external audit hours based on reliance on internal audit

- Level of reliance internal audit places on other assurance providers

2. IIA Standards Compliance

- Results of Independent internal QA Review (every 6 months)

- Results of Independent external QA Review (every 5 years)

3. Quality Management

- Number of engagements completed (final report issued) without signed off QA checklists

- Level of client feedback satisfaction

- Timeliness of client feedback forms sent to clients

- Results of Independent internal QA Review (every 6 months)

- Results of Independent external QA Review (every 5 years)

**4. Conclusion**

Measuring the value of internal auditing is important activity because of the value delivered by an internal audit activity viewed from the perspectives of internal auditors/internal audit service providers, customers (such as the board, audit committee, senior management) and other stakeholders.

The internal audit activity performance measurement most frequently used include assessment by percentage of the audit plan completed, acceptance and implementation of recommendations, surveys/feedback from the board/audit committee/senior management, customer/auditee surveys from audited departments, assurance of sound risk management and reliance by external auditors on the internal audit activity.

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## Characteristics of Nuclear Risk Insurances

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### Abstract

*In present, the European nuclear private insurance sector is structured in pools because none of the existing insurance companies are able to provide the required capacity on an individual basis or under conventional arrangements. Every pool is organised by the principle of streamlining nuclear insurance pools, along national lines.*

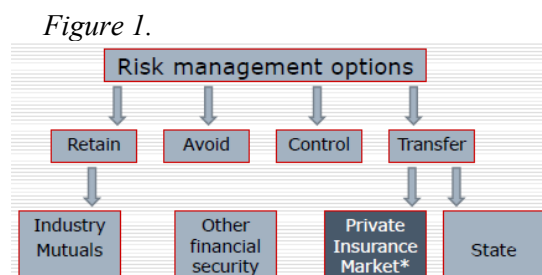
*This article analyses some aspects of nuclear insurance pools and it examines how is insured the Cernavodă nuclear power plant, in Romania.*

**Key words:** nuclear insurance, nuclear insurance pool.

**J.E.L. classification:** G22.

### 1. Introducere

After nuclear energy became the source of electricity generation, the need to solve civil liability and financial coverage questions came at the outset. There are currently 132 nuclear reactors in operation in the EU, grouped on 58 sites (European Commission, COM(2012) 571 final) and over 442 nuclear power plants were in operation throughout the world . The risk management options in the area of nuclear risks presume:

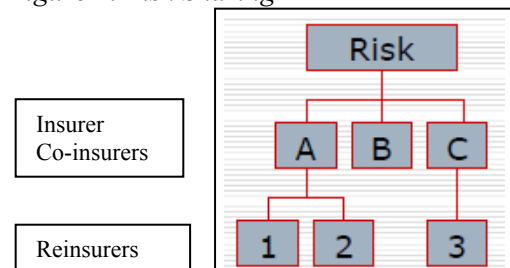


\*A financial safeguard against the economic consequences of unknown loss events

Source: Evelyne Ameye, Iñigo Igartua Arregui, 2012, National nuclear third party insurance pools revisited from a European Union competition law perspective, Biannual Congress of the International Nuclear Law Association, Manchester, pg. 3, [http://www.burges-salmon.com/inla\\_2012/10140.pdf](http://www.burges-salmon.com/inla_2012/10140.pdf)

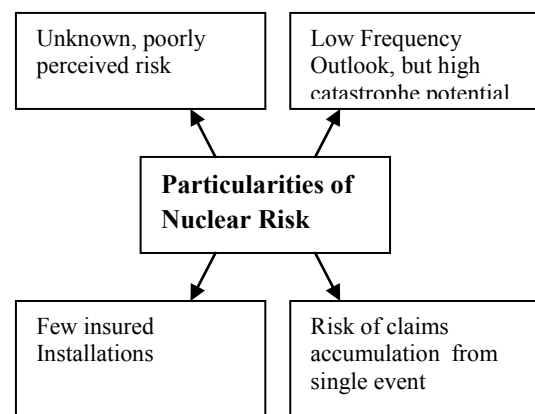
The risk sharing can be done:

Figure 2. Risk Sharing



None of the existing insurance companies was capable of providing the required capacity on an individual basis or under conventional co-insurance arrangements for insure this special risk (see figure 3).

Figure 3. Particularities of Nuclear Risk





Source: Evelyne Ameye, Iñigo Igartua Arregui, 2012, National nuclear third party insurance pools revisited from a European Union competition law perspective, Biannual Congress of the International Nuclear Law Association, Manchester, pg. 3, [http://www.burges-salmon.com/inla\\_2012/10140.pdf](http://www.burges-salmon.com/inla_2012/10140.pdf)

Moreover, nuclear risks have been, from the outset, beyond the resources of any one national market.

The normal reinsurance and retrocession treaties could have created unknown accumulations and clearly, traditional insurance mechanisms were not suited to covering such risks.

So, were set up 'pools' of insurers and re-insurers in world-wide to provide the necessary coverage to the operators of nuclear power plants.

Insurance pool is essentially a mechanism whereby a number of insurers agree to appoint a common agent to underwrite jointly a particular risk or class of business.

Nuclear power plant operators take out their insurance for nuclear first or third party liability directly with the nuclear insurance pool, without having to establish a contractual link with each and every of the pool's members.

## 2. Nuclear insurance pools

The reasons for pools establishment may be summarised as follows (*Nuclear Risk Insurers Ltd.*, the British nuclear insurance pool, [www.nuclearpools.com](http://www.nuclearpools.com)):

- i. The risk was unknown and potentially catastrophic and, therefore, would have discouraged most individual insurers from insuring it on their own.
- ii. The risks were few in number and neither allowed a sufficient spread to provide a balanced portfolio nor warranted the establishment of individual underwriting departments by each insurance entity wishing to operate in this sphere of business.
- iii. The catastrophe nature of the business would have rendered individual insurers vulnerable to unknown accumulations had the business been placed in a conventional manner using normal reinsurance and retrocession treaties.

- iv. However unlikely a nuclear catastrophe, should such an event occur, claims handling and settlement procedures would require the support of the whole national insurance market - or, indeed, international markets.
- v. The exchange of common account reinsurance between national pools provides access to the worldwide insurance capacity to those national markets which wish to participate.

Characteristics of nuclear insurances pools:

- mostly consist of investor-owned and stock insurance companies;
- the operation depends on their own individual establishment, procedures and the law of the jurisdiction in which they operate;
- all pool members declares the specified amount at which it is willing or able to provide insurance coverage and contributes a portion of its participation as contractually agreed within the pool, if made payment of compensations;
- members of the pool are often bound by a solidarity clause;
- do not fall under the solvency regulations applicable on the insurance market.

Civil liability for nuclear damage system at European Union is divided into Vienna Convention and Paris Convention.

At present, there are 27 nuclear insurance pools world-wide:

Table 1. Nuclear insurance pools world-wide

NUCLEAR INSURANCE POOL	COUNTRY
Syndicat belge d'assurance et de réassurance des risques nucléaires (SYBAN)	Belgium
Coordenação de Riscos de Energia	Brazil
Bulgarian National Nuclear Insurance Pool	Bulgaria
Nuclear Insurance Association of Canada	Canada
China Nuclear Insurance Pool	China
Croatian Nuclear Pool	Croatia
Czech Nuclear Insurance Pool	Czech Republic
Nordic Nuclear Insurers (composed of the Finnish Atomic Insurance Pool and the Swedish Atomic	Finland

Insurance Pool)	
ASSURATOME	France
Deutsche Kernreaktor Versicherungsgemeinschaft	Germany
Hungarian Atomic Pool	Hungary
Japan Atomic Energy Insurance Pool	Japan
Pool Atómico Mexicano	Mexico
Nederlandse Pool voor Verzekering van Atoomrisico's	Netherlands
Romanian Pool for the Insurance of Atomic Risks	Romania
Russian Nuclear Insurance Pool	Russia
Slovak Nuclear Insurance Pool	Slovakia
Nuclear Insurance and Reinsurance Pool	Slovenia
South-African Pool for the Insurance of Nuclear Risks	South-Africa
Korea Atomic Energy Insurance Pool	South-Korea
Aseguradores de Riesgos Nucleares a.i.e. (ESPANUCLEAR)	Spain
Nordic Nuclear Insurers (composed of the Finnish Atomic Insurance Pool and the Swedish Atomic Insurance Pool)	Sweden
Schweitzer Pool für die Versicherung von Nuklear-risiken	Switzerland
Nuclear Energy Insurance Pool of the Republic of China	Taiwan
Ukrainian Nuclear Insurance Pool	Ukraine
Nuclear Risk Insurers Limited	United Kingdom
American Nuclear Insurers	USA

Source: Nuclear Insurance Pools, International Guidelines for Nuclear Safety • Operations • Third-Party Liability at Nuclear Power Plants, 2010,  
[http://www.nuclearpools.com/downloads/procedures/NSO\\_TPL\\_GUIDELINES.pdf](http://www.nuclearpools.com/downloads/procedures/NSO_TPL_GUIDELINES.pdf)

In March 2011, the Japan's earthquake (9.0 magnitude), tsunami (who took the lives of nearly 20,000 people and destroying over 100,000 buildings, including the cooling system and the back-up power generator of the Fukushima nuclear plant) and nuclear

power plant accident (which required the evacuation of more than 60,000 people (World Economic Forum Global Risk Report, 2012)) caused over US\$210 billion in economic losses (not including nuclear-related damage) and insured losses in the range of US\$35– 40 billion (Munich Re, 2012). This disaster highlighted the interdependencies between natural and technological accidents.

Events at Fukushima revealed well-known and recurring issues: faulty design, insufficient backup systems, human error, inadequate contingency plans, and poor communications.

The Fukushima accident resulted in unprecedented efforts to review the safety of nuclear installations in Europe and worldwide. Initiatives were taken at national, regional and international level.

In the EU, the European Council, in March 2011 concluded that “the safety of all EU nuclear plants should be reviewed, on the basis of a comprehensive and transparent risk and safety assessment ("stress tests"). All fourteen EU Member States that operate nuclear power plants (Belgium, Bulgaria, Czech Republic, Finland, France, Germany, Hungary, Netherlands, Romania, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom) plus Lithuania participated in these assessments on a voluntary basis. This stress tests were performed on the 132 reactors in operation in the EU, 13 EU reactors that were phased out since the stress tests were initiated, 15 reactors in Ukraine, and 5 reactors in the Swiss Confederation.

The stress tests and related activities are a major achievement for the EU and the regulatory authorities in the Member States and have led to tangible results:

- Significant and tangible plant improvements have been identified in all participating countries, and are being implemented or planned.
- Weaknesses in frameworks and procedures, as well as gaps in the legal arrangements, have been identified and proposals to improve these are on the drawing board.

• First bridges have been built between authorities dealing with safety and those dealing with security. Improving the dialogue between them on topics that reside at the

safety/security interface is essential to respond to citizens' concerns.

### 3. Ensuring nuclear power plant in Cernavoda

The two reactors of the Cernavodă nuclear power plant are insured for the total amount of 1.5 billion dollars a year (500 million dollars for Unit 1; and 500 million dollars for Unit 2 and a common limit for the two reactors of 500 million dollars), but there is also a property insurance policy for damages, all risks, including mechanical and electrical destruction, of maximum 1 billion dollars for any loss. Moreover, Nuclearelectrica also concluded a liability policy for nuclear damages created to third parties, and in this case the limit of indemnity is 300 million DST.

The productive assets of the company, more specifically all equipment and buildings defining Units 1 and 2, and also the Nuclear Fuel Plant in Pitești, are covered by this insurance policy.

Nuclear risk insurance policies for Cernavodă nuclear reactors 1 and 2 are concluded with Nuclear Risk Insurance Ltd, the legal representative of the British nuclear risk insurance pool, co-insured with the Romania Atomic Risk Insurance Pool and the European Mutual Association for Nuclear Insurance (EMANI), company officials say.

Keeping this insurance policy valid is a requirement of the provisions of Law no. 703/2001 on civil liability to third parties for nuclear damages. This law sets the limit of the operator's liability to 300 million DST (Special Drawing Rights) – the equivalent of 340 million euros – and the operator's obligation to conclude an insurance policy for this amount.

The insurance policies are renewed annually, by renegotiation, and in relation to the annual insurance premium, this is trade secret information

Nuclearelectrica is one of the most profitable state-owned companies and has approximately 2,100 employees. The company that manages the Cernavodă nuclear power plant gained a net profit of 34.46 million RON last year and business worth 1.65 billion RON. In 2012, the company generated an amount of nuclear power of 11.4 TWh.

### 4. Conclusion

The possible nuclear damage and the probability of such accidents, the insurance amounts are huge. Therefore the nuclear insurance pools might serve as a viable option to provide coverage of high insurance costs as nuclear power plant operators are required to provide financial coverage by international conventions and national domestic laws.

Establishment of insurance pools throughout European Union would serve as an instrument of harmonization, possible subordination with a "central regulatory body" would be needed and the level of competence should be defined or even the amendments to EU primary legislation have to be made.

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# Comparative Analysis Regarding Fixed Assets: IAS/IFRS – Romanian Regulations

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## Abstract

*Within the scientific approach I have undertaken in this paper, I have proposed to analyze the extent to which the new accounting values adopted for the evaluation of fixed assets, in view of their relation to financial statements, may serve the informational needs of all financial information users. The latter are in need of credible and relevant information, which would allow anticipating the future evolution of the entity. For this reason, we are currently witnessing a reappraisal of the evaluation's fundamental principles, by transferring from a historical-cost-based accounting to another type of accounting, based on fair values. In this paper I have analyzed the means by which tangible, intangible and financial assets are evaluated, according to the provisions of the international financial reporting standards and of the national regulations. In the conclusion I have attempted to present the evaluation perspectives in Romania.*

**Key words:** historical cost, fair value, tangible asset, intangible asset, capital assets  
**J.E.L. classification:** M41

## 1. Introduction

At present, we are witnessing a restatement of the accounting model with respect to value, which consists of re-examining the fundamental principles of the evaluation. Accounting evolves from the historical account system to the actual value system. The purpose of searching for alternative values to the historical account is the improvement of the financial statement's quality and attempting to offer credible and relevant information to all users.

The use of the fair value may significantly contribute to improving the accounting information generated by financial statements, by enhancing their use for its users, but may also be highly subjective, by allowing exploitation by those estimating it and distortions in financial statements. The main criticism would be the fact that the use of fair value leads to a highly volatile result. This is due to the fact that a fair value evaluation implies the inclusion of certain "virtual: elements in the result, elements generated by market evolution, namely potential winnings or losses.

If it is easy to identify and highlight the shortcomings of fair value accounting, then it is not as easy finding an alternative method that will better comply with relevance, credibility, comparability and intelligibility characteristics.

The move from historical cost based accounting to an accounting based on fair values was seen as a conceptual revolution in accounting. The objective of fair value accounting is reflecting market values in financial statements and their modifications in the consolidated statement for the results obtained by the entity. This function already raises several practical issues, as the estimation of fair value remains a subjective process, especially as it must be done in the absence of a market, which implies many a professional reasoning and the possibility of control for valuator.

## 2. The evaluation concept

One of the main features of accounting and implicitly of a balance sheet is "expressing everything by pecuniary standards, respectively insuring the generalization of data by finding a common denominator of certain heterogeneous elements, though currency"[1].

The generalization process involves the evaluation of economic means, funds and results reflected by accounting. The evaluation consists of determining and respectively establishing the value or price of various categories of means and economical processes, at a given moment.

The issue of material values' evaluation is of special importance and its means of execution may have implications on the situation reflected by accounting, respectively the balance sheet. In reality, a fair evaluation holds a special importance on the accuracy, honesty and topicality of the information contained in the balance sheet.

In current conditions, the evaluation issue is all the more important as financial statements become a primary informational element. The extension and overlapping of relations between companies enforces a higher accuracy and fairness of informational data comprised in financial statements, because the financial-economical situation and the efficiency of the certain units' economic activity is evaluated based on these information and in line with them the relations between companies may be defined.

### **3. Grounds for evaluation**

Specialty literature mentions a wide array of values used as grounds for evaluation: historical cost, current cost, updated value, value for use.

Two grounds for evaluation are envisioned for future use: historical cost – which is the initial value (receipt) and fair value – which is a subsequent ground for evaluation in relation to the initial one (for financial reporting).

The fair value, as defined in the International Financial Reporting Standards and in comparison to the historical account model, allows for a realistic evaluation of the financial statement. Still, accounting regulations in conformity with European directives, approved by the Order the Minister of Public Finances no. 3.055/2009, accepts the fair value evaluation model only in certain situations, namely optionally, with the purpose of re-evaluating tangible assets, by reflecting the results of the re-evaluation operation in individual financial statements and for financial instruments, the fair value

evaluation is only allowed in consolidated financial statements.

European directives do not command the use of such a model, but rather present it as an alternative evaluation regulation for a relatively limited array of elements, leaving its use at the decision of member states. Thus, in the process of insuring the conformity of national accounting regulations with European directives, Romanian accounting has accepted historical cost evaluation as the main system and the fair value for the above-mentioned elements as alternative regulation, in the context portrayed.

On a national level, according to national accounting regulations applicable to economic entities, in case of presenting the consolidated financial statements of financial instruments using the fair value, these can be determined as follows:

- By reference to the market value, for the financial instruments for which a credible market may easily be identified. If the market value cannot be easily identified for a certain instrument, but it can be identified for its components or a similar instrument, the market value may be derived from that of its components or similar instrument; or
- By reference to a determined value with the help of certain generally approved models and evaluation techniques, for the instruments for which a credible market cannot be easily identified.

Technically, in Romania, entities use the fair value for reflecting the free of charge assets or for those found to spare on inventory, furthermore, national accounting regulations allow entities to perform the re-evaluation of existing tangible assets by the end of the financial year, so as to present them under fair value in accounting, while reflecting the results of this re-evaluation in the financial statements elaborated for that financial year.

### **4. The evaluation of tangible and intangible assets**

The principal issues in accounting for property, plant and equipment are the recognition of the assets, the determination of their carrying amounts and the depreciation

charges and impairment losses to be recognised in relation to them. This information is presented in *IAS 16 - Property, Plant and Equipment* [2].

An item of property, plant and equipment that qualifies for recognition as an asset shall be measured at its cost. The cost of an item of property, plant and equipment is the cash price equivalent at the recognition date. If payment is deferred beyond normal credit terms, the difference between the cash price equivalent and the total payment is recognised as interest over the period of credit unless such interest is capitalised in accordance with IAS 23.

The cost of an item of property, plant and equipment comprises: (a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates; (b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management; and (c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

After recognition, an entity shall choose either the cost model or the revaluation model as its accounting policy and shall apply that policy to an entire class of property, plant and equipment.

- *Cost model*: after recognition as an asset, an item of property, plant and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses;
- *Revaluation model*: after recognition as an asset, an item of property, plant and equipment whose fair value can be measured reliably shall be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period.

*IAS 38 - Intangible Assets* [2] requires an entity to recognise an intangible asset if, and only if, specified criteria are met. The Standard also specifies how to measure the carrying amount of intangible assets and requires specified disclosures about intangible assets.

An intangible asset is an identifiable non-monetary asset without physical substance. The probability recognition criterion is always considered to be satisfied for intangible assets that are acquired separately or in a business combination.

An intangible asset shall be measured initially at cost. The cost of a separately acquired intangible asset comprises: (a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates; and (b) any directly attributable cost of preparing the asset for its intended use.

In accordance with *IFRS 3 Business Combinations* [2], if an intangible asset is acquired in a business combination, the cost of that intangible asset is its fair value at the acquisition date. If an asset acquired in a business combination is separable or arises from contractual or other legal rights, sufficient information exists to measure reliably the fair value of the asset.

In accordance with this Standard and IFRS 3 (as revised in 2008), an acquirer recognises at the acquisition date, separately from goodwill, an intangible asset of the acquiree, irrespective of whether the asset had been recognised by the acquiree before the business combination. This means that the acquirer recognises as an asset separately from goodwill an in-process research and development project of the acquiree if the project meets the definition of an intangible asset.

After recognition an entity shall choose either the cost model or the revaluation model as its accounting policy.

- *Cost model*: after initial recognition, an intangible asset shall be carried at its cost less any accumulated amortisation and any accumulated impairment losses.
- *Revaluation model*: after initial recognition, an intangible asset shall be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated amortisation and any subsequent

accumulated impairment losses. For the purpose of evaluations under this Standard, fair value shall be measured by reference to an active market. Revaluations shall be made with such regularity that at the end of the reporting period the carrying amount of the asset does not differ materially from its fair value.

If an intangible asset is accounted for using the revaluation model, all the other assets in its class shall also be accounted for using the same model, unless there is no active market for those assets. If an intangible asset's carrying amount is increased as a result of a revaluation, the increase shall be recognised in other comprehensive income and accumulated in equity under the heading of revaluation surplus.

However, the increase shall be recognised in profit or loss to the extent that it reverses a revaluation decrease of the same asset previously recognised in profit or loss. If an intangible asset's carrying amount is decreased as a result of a revaluation, the decrease shall be recognised in profit or loss. However, the decrease shall be recognised in other comprehensive income to the extent of any credit balance in the revaluation surplus in respect of that asset.

The evaluation of tangible and intangible assets is done, according to *national regulations*, at inventory value, established based on the use of the asset, its condition and market price. Assets under execution are also subjected to evaluation.

Correcting the value of tangible and intangible assets and bringing them to inventory value is done, based on the type of depreciation in question, either by recording an additional amortization, or by establishing or supplementing adjustments for the depreciation, if said depreciation is said to be reversible.

Independent evaluators or the entity's personnel may also consider other evaluation methods for determining losses from depreciation on tangible and intangible assets (for instance: methods based on cash flow).

External and internal sources of information may be considered in order to determine if there are depreciations of tangible and intangible assets, beside factual findings on inventory.

Decisions regarding restarting depreciations recorded in the adjustment accounts are based on the findings of the inventory committee.

Certain clues may also point to the fact that a loss from the depreciation recorded in the previous periods for a tangible or intangible asset does no longer exist or was reduce. For this evaluation we will also consider external and internal sources of information.

The evaluation of tangible assets on the date of the balance sheet is done on cost, minus the amortization and cumulated adjustments from depreciation or on the re-evaluated value, namely the fair value at the date of the re-evaluation, minus any subsequent cumulated amortization, both methods being mentioned in international standards.

## 5. The evaluation of capital assets

According to *IAS 39 Financial Instruments: Recognition and Measurement* [2] an entity shall assess at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets measured at amortised cost is impaired. If there is objective evidence that an impairment loss on financial assets measured at amortised cost has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate (ie the effective interest rate computed at initial recognition).

The carrying amount of the asset shall be reduced either directly or through use of an allowance account. The amount of the loss shall be recognised in profit or loss.

A hedging relationship qualifies for hedge accounting under paragraphs 89–102. Hedging relationships are of three types: *fair value hedge*, *cash flow hedge* and *hedge of a net investment in a foreign operation* as defined in IAS 21.

If a fair value hedge meets the conditions in paragraph 88 during the period, it shall be accounted for as follows:

- the gain or loss from remeasuring the hedging instrument at fair value (for a

derivative hedging instrument) or the foreign currency component of its carrying amount measured in accordance with IAS 21 (for a non- derivative hedging instrument) shall be recognised in profit or loss; and

- the gain or loss on the hedged item attributable to the hedged risk shall adjust the carrying amount of the hedged item and be recognised in profit or loss. This applies if the hedged item is otherwise measured at cost. Recognition of the gain or loss attributable to the hedged risk in profit or loss applies if the hedged item is an available-for-sale financial asset.

If a cash flow hedge meets the conditions in paragraph 88 during the period, it shall be accounted for as follows:

- the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge (see paragraph 88) shall be recognised in other comprehensive income; and
- the ineffective portion of the gain or loss on the hedging instrument shall be recognised in profit or loss.

Hedges of a net investment in a foreign operation, including a hedge of a monetary item that is accounted for as part of the net investment (see IAS 21), shall be accounted for similarly to cash flow hedges:

- the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge (see paragraph 88) shall be recognised in other comprehensive income; and
- the ineffective portion shall be recognised in profit or loss

Under Romanian regulations, according to OMPF 3055/2009, the value at which capital assets are recognized in a balance sheet on December 31<sup>st</sup> is the entry value based on historical cost, or any fungible value (e.g.: listing value on December 31st) minus the cumulated adjustments for losses in value, as follows:

Securities (equity interests, shares held as capital assets in the securities portfolio, private placement securities, and other securities) are evaluated, for those listed at the stock exchange, at their listing value as of December 31<sup>st</sup> and, for those unlisted, at their estimated sale value. If the estimated inventory value, according to the above-mentioned regulations, is lower than the

value at which they are highlighted in accounting, adjustments will be made for the depreciation of those securities. If the sale value is found to be higher than the accounting value, the accounting value will be listed in the inventory lists.

Long-term receivables are evaluated on inventory at their estimated collection value.

## 6. Evaluation perspectives in Romania

For our country, fair value, as any other adjustment to the accounting system, as of 2001, is a novelty. It is still hard to clarify on a conceptual level and even harder to apply in use. First, the fair value was mentioned in accounting regulations harmonized with international standards in 2001 then again in 2001, when it was decided that Romanian accounting was to be connected to international accounting standards and, subsidiarily, to the European standards (which were not yet updated in the context of convergence on an international level). Currently, by letting go of the above-mentioned standards and adopting others in conformity with European Directives, we keep with the spirit of international accounting standards and, as such, accept the fair value. We must mention, however, that in the current accounting regulations, fair value evaluation is done only in the case of re-evaluating fixed assets for assets exchanges and free of charge assets. Accounting regulations pursuant to European directives involve the use of fair value for financial instruments in consolidated financial statements as well.

Thus, it was opted in favor of a combined system, based on historical cost and fair value, which implies the use of historical cost and, in certain cases, of the fair value, while the elements of the financial statements are, mostly, expressed in historical costs.

Concerning the perspective of using the fair value in Romania, we may say that in the near future we will be using a mixed evaluation system, described by the cohabitation of the historical cost with the fair value. The fair value will be used, mainly, for elaborating consolidated accounts, as they, almost exclusively, serve shareholders and manager.



In the following section I will be listing several of the drawbacks of adopting the fair value:

- theoretical reflection regarding alternative evaluation methods in accounting and the underdeveloped fair value concept;
- the further existence of certain regulations, in Romania, which facilitate legal and fiscal aspects in the detriment of economical ones; the historical account is and will continue to be requested for establishing the band rate through fiscal regulations and establishing two series of financial information, in historical cost as well as fair value, is not always justifiable concerning the cost-benefit report;
- the accountant's mentality, refusing to take over the new concept, does not easily accept the change of a known, easy to work with, evaluation system;
- imperfect economic conditions for obtaining market information;
- the reduced capacity of accounting and professional accountants of applying the fair value evaluation; the market value connection of all or part of the financial statements' elements, is an annual operation or a succession of periodical operations advertising specialized information (either at the entity's level, through a specialized person of compartment, or its consultants), time and money.

## 7. Conclusions

The concept of fair value is a step ahead in the history of accounting and it may bring significant benefits for financial reporting and, implicitly, for the users of the financial statements. Certain issues may occur in the case of the fair value evaluation, concerning its measurement process, the elements that maybe evaluated, the means, or lack thereof, of identifying the differences due to the variation of the fair value and, most likely, the existence of two, extremely important factors, the entity performing the evaluation and the entity confirming it.

The absence of the fair value from the accounting scene is unconceivable. There is a need for a basis for evaluation, which may be used in evaluating known elements in financial statements that are either modern (for instance financial instruments or human

capital), or have important time and value variations.

The purpose of financial statements is no longer that of showing the past, as a picture would, but of offering believable information, based on which the users may make financial decisions. The financial statement of the entity as well as its performances, depend on the values used to quantify it, as well as on their range of values.

The historical cost, with all its advantages, has inevitable limitations. However, that does not mean it will be abandoned, but only that a gap must be supplied, where another value does not comply.

Although the international regulators' wish is to extend the evaluation practice onto the fair value of all the balance sheet elements, fair value evaluation is currently a rather controversial subject. As such, it is considered that the evaluation of the balance sheet assets' fair value evaluation is a risk of manipulating the result, because the fair value is nothing more than an accounting estimate leading to behaviors such as creative accounting.

Talks on the subject of the controversial use of the fair value are far from over and will continue to take place, because the fair value concept is closely connected to the fair view concept, both having continuous mobility and influencing each other.

I consider that future perspectives for raising the quality of accounting information will mostly consist of heading towards finding solutions for improving the accounting evaluation system, on an international as well as a national level, even more so as it is obvious that debates on this controversial subject of using various evaluation bases are far from concluded.

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## Tangible Assets Audit in Construction Entities

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### Abstract

*Revision, respectively auditing tangible assets of construction entities is of significant importance for the auditor's opinion regarding the existence of determined material errors and frauds that may affect the accurate image of annual financial statements.*

*An important stage in applying the substantive procedures is represented by auditing the internal control from the point of view of its efficiency, because the discovery of disparities or errors in the tangible assets accounting may determine the auditor to broaden its research area regarding the amortisation computed by the entity and registered as deductible expenses, which may however affect the financial result or even removal from the inventory of certain tangible assets.*

**Key words:** assets, risk, control, objectives, fraud

**J.E.L. Classification:** M40, M41, M42

### 1. Introduction

Tangible assets may be identified at construction entities as follows:

- a) Land and investments associated with it;
- b) Assets, for example:
  - Buildings;
  - Technical installations and machines;
  - Other installations, machines and furniture;
  - Credits and tangible assets. [2], [3].

In order to meet all the audit-specific requirements from the point of view of professional reasoning, the auditor will focus on the following stages:

1. The auditor will have to establish the significance threshold, since its correct determination will lead to a more efficient

audit work, diminution of necessary period needed for auditing and application of detailed tests. It may be given as an example the case in which the auditor establishes as significance threshold 2500 lei, the minimum set amount by legislation in order to consider a good as asset. The auditor may appreciate that the annual financial statements are not an accurate image due to errors discovered by applying the audit procedures specific to tangible assets amounting 5000 lei.

In this case, it may be that the auditor's opinion is "with reserves", but it needs to be proved with sufficient audit evidence.

The potential risks, in the sense of risks that have the highest odds of occurring if no control is exerted in order to prevent them or to discover and, especially, to correct the errors that might appear, are general for all entities.

The possible risks are potential risks for which the audited entity has no means to eliminate them. When there are no such tangible assets there is a high probability that certain errors occur without being discovered or corrected by the entity.

2. The financial auditor verifies how the accounting policies were applied at entity level, as well as the way they are presented in explanatory notes regarding annual financial statements.

3. In the construction domain the auditor plans they're important landmarks to be verified according to this. An example is that of the financial and operational leasing contracts, leases, reception records for production of tangible assets on own account, build-outs by material/labour costs etc.

4. The risk of control is evaluated and if the following operations are under verification of intern control:

- Acquisition operations, re-evaluation, losses and cassation of tangible assets;
- Insurance of tangible assets;
- Maintenance of tangible assets;

- Expenses with computed amortisation.
- The main objectives taken into account during the revision and audit process
- Acquisitions took place based on a document that contains the approval of the entity's management;
  - Tangible assets are recorded in the entity's patrimony;
  - Both risks, and benefits belong to the audited entity;
  - Cassation and selling operations for tangible assets are approved by the authorized persons;
  - All acquisitions are recorded in the corresponding asset accounts of the second class of accounts;
  - The entrance cost is correctly computed, according to the legislation in force
  - Tangible assets are grouped in the tangible assets register, each of them having attached the inventory number, the asset series, number of tangible asset record, entry document (invoice, purchase contract, reception records), supplier, use value etc.;
  - Expenses on amortisation are correctly computed, refer to assets existing in the entity's patrimony and they are based on useful amortisation methods and life span.

The entities must have a system that is correct and adequate for the economic activity provided regarding the maintenance and repairs expenses, thus the existence of a register is important.

Inherent risk factors that might appear:

- Diminution of the entity's market or the existence of uncertainty regarding the unfulfilment of the budgeted turnover, that may lead to a negative re-evaluation of tangible assets;
- The decrease in notarial transactions with tangible assets is also a negative item that might lead to a negative re-evaluation of tangible assets;
- Technologic progress and aging of some production lines may lead to a moral erosion of tangible assets or a higher energy cost;
- The estimation of useful life span of tangible assets. If they are not correctly estimated there may be an appreciation and a record of amortisation expenses

above or below the legal limits;

- Exceeding the deadlines of constructions questions the date when they may be used or the recovery of money through amortisation;
- The higher values of tangible assets may involve a major risk of theft etc.

Many entities in the construction domain generally develop investment budgets for 1-5 years or, if they want to increase activity or acquire production or industrial halls, the contract duration of loans will be at least equal to that of the budgeted investment. Software may help developing, controlling and implementing investment budgets since their presentation by categories, chapters and subchapters becomes easy to verify and to do.

An example regarding the measure of risks impact on tangible assets is that of the enterprise Grigore SA, which wanted to increase activity and it participated to an auction in order to acquire from an insolvent company a production hall in very good condition, a deposit in an advanced state of decay and the terrain associated with it, on which it wants to build a new office building.

After winning the auction it has been found that the basement of the office building is degraded and the building itself must be demolished.

For such situations the entity must have internal instructions regarding the type of costs that will affect the process of making the buildings and the terrain functional.

The risk factors that might affect tangible assets may be:

- The transaction volume of tangible assets acquisitions, if the production on own expense and sales are high, it thus contributes to the risk of errors in the accounts;
- There are also negative points regarding the evaluation of tangible assets in the sense of identifying, sizing indirect costs, their accounting treatment when they are evaluated at a smaller value than the historical cost etc.;
- Specific scientific procedures are needed in order to determine the quantity or the value of tangible assets, such as having other evaluating experts evaluate the tangibles;

- Most of the times the tangible assets are stored in various locations, thus resulting difficulties in controlling them in order to prevent their theft and decay;
- Also, the tangible assets may constitute the object of return contracts etc.;

## **2. Analytic procedures for the verification of tangible assets**

Applying the initial procedures on balances and entries that will undergo subsequent tests.

- Obtain or prepare analytical balances of tangible assets and compare them with the annual financial statements;
- Analyse tangible assets by component groups and subgroups;
- Prepare a note that explains the composition of tangible assets balance in comparison with previous years and own expectations;
- Examine the significant changes in tangible assets values and levels and compare with previous period.

If tangible assets are significant for the financial statements, the auditor must obtain sufficient adequate audit evidence regarding their existence through:

- Taking part in the physical inventory of tangible assets, except if this is not possible;
- Applying audit procedures in accordance with the final inventory records of the entity in order to determine the extent to which they correctly reflect the results of the real inventory of tangible assets.

In some cases, the participation to physical inventory of tangible assets may not be possible. This may be due to factors like their nature or location.

However, the aspect related to the general inconvenience of the auditor is not sufficient to support their decision, according to which participation is not possible.

The aspect related to difficulty, time or involved costs does represent, per se, a viable reason why the auditor could omit an audit procedure for which there is no alternative or so that they should settle for a less convincing audit evidence.

In some cases in which participation to the inventory is not possible, the alternative audit procedures, such as inspection of documentation, for example future sells of elements of specific tangible assets, acquired or purchased before their physical inventory, may give sufficient adequate audit evidence regarding the existence and state of the tangible assets.

In other cases, nevertheless, it may be that it is not possible to obtain sufficient adequate audit evidence regarding the existence and state of the tangibles through alternative audit procedures. In such cases, ISA 705 stipulates that the auditor modifies the opinion from the auditor report as a result of limitation of scope. [4].

The substantive procedures applied in the case of audit objectives regarding disposing of tangible assets are:

- Verifying the given approvals for disposing of tangible assets in correlation with records in the fixed assets register;
- Verifying the cassation expenses, respectively the income resulted from selling the parts and components resulted from cassation of tangible assets;
- Selecting a sample of approvals and verifying the authorising signatures [1].

Participation to inventory is required to:

- Evaluate the instructions and procedures of the management for listing and controlling the results of physical inventory of the entity's tangible assets;
- Observe the function of the management's inventory procedures;
- Inspect tangible assets;
- Make tests on the inventory.

## **3. Obtaining the inventory documents**

- Obtain a complete list of shipping documents for the tangible assets that were not shipped at the time of the inventory and verify if they were included in the inventory;
- Determine if the items in the deposit are included in the inventory;
- Note the numbers of the inventory lists used for making sure that none is

added or removed at a subsequent date.

Note for using in audit:

- a) Numbers of last sale invoices;
- b) Numbers of last cancelled invoices
- c) Numbers of last entry-reception notes.

Make a note and a comment regarding the inventory and include the obtained information mentioned above.

#### 4. Other procedures

- Select a sample of elements from the final lists of tangible assets and transpose them in the registry of tangible assets to be verified;
- Test the checking method of prices from the final inventory lists, by selecting a sample of purchase invoices of costs registries;
- Test the possible additions from the final inventory lists of tangible assets;
- Verify the period separation tests made on debtors and creditors for the accuracy of separation;
- Verify and record the evaluation basis of current production.

#### 5. Other tests and verifications in stocks audit

- Transactions and events that were recorded took place and are characteristic to the entity.
- Randomly check the purchase documents. Do they belong to the tangible assets of the entity?
- Check the entry documents – NIR/NRCD;
- Check the documents based on which the discharge of management was made

#### 6. Completeness of significant hypotheses retained in tangible assets of construction entities

- All transactions and events that should have been recorded were recorded;
- Check the basis of the inventory lists so that there are no tangible assets in stock that are not registered in accounting (either reception was not made and the selling was not recorded, either the discharge of management

was not registered);

- Verify based on purchase invoices that the acquired stocks were recorded in management;
- Verify the selling invoices at the end of the year/beginning of following year.

#### 7. Conclusions

The tests for audit may be applied as follows:

1. For all component elements of tangible assets;

Example: all purchase invoices for tangible assets are verified. For example within an entity that builds buildings, the auditor will verify document by document all the purchasing invoices for tangible assets, because from the investment budget for 2013 resulted a 23% excess of the needs for tangibles and, moreover, there was no addition in the general assets registry. For this, it is necessary to check each document. Moreover, if this is a small population (tangible assets), this sampling technique may be used since it does not require a big amount of time and the expenses are minimal, for example verifying a third-party that did not respond to the balance confirmation at the end of the financial exercise.

2. For a non-representative sample;

Example: in such cases the professional is acquainted with the specificities of the verified operations and is able to find a sufficient, even small number of probing elements, needed in the auditing process. The tangible assets audit should lead to enhancing and good functioning of the entity's activity in constructions, and not only, the risks should be professionally evaluated so that it leads to a correct and sufficient objective audit, so that the entity, at the end of the audit mission has a clear image on fixed assets in its patrimony.

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## Comparative Study Regarding Financial Communication by Means of Annual Financial Statements – IASB/FASB

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### Abstract

*The accounting information offer is influenced, on the one side, by external factors and their pressure on the accounting system, and on the other side by the way in which the accounting information is regulated and developed. According to economic theory, the demand for accounting information arises from the informational asymmetry and from the way the conflicts between the company's management and external investors are dealt with. The financial statements and the financial reports are among the most important means available provided for the company's management to allow them to communicate with the investors.*

**Key words:** accrual accounting, continuity of exploitation, objective of financial statements, profit and loss account

**JEL Classification:** G3; G32; G34

### Introduction

According to international financial reporting standards IFRS, the financial reports are a distinct informational tool prevailing current and potential investments, fundamental in making economic decisions. In the national accounting systems of most European Union countries, the purpose of financial statements is the correct and fair representation, granting them the role of exposing the patrimonial structure and the economic result for the financial year concerned, on the basis of criteria able to protect the interests of the creditor and of the associates through a prudential assessment of the investments.

USGAAPs assign great dynamism and a capacity for future-oriented representation of the results to the consolidated financial statements, in order to provide investors with information which enables them to estimate the overall capacity of future profiles and to interpret risks related to investments which have been made or which are in progress. Usually there is a significant need to play comparable results to those revealed by the competitors, to allow a showdown between the projections estimated by other competing companies on profitability. So for USGAAPs the financial statements' main recipients are considered to be the investors and the main objective is to ensure the usefulness of the accounting information in making decisions in full knowledge of the economic and financial sphere [3].

### The conceptual framework and the users of financial statements

IASB's objective is to determine the concepts that underlie the preparation and presentation of the financial statements for external users. It does not define the assessment norms or the information that needs to be provided. Its application range is determining the financial statements objective, the qualitative characteristics of financial information, defines and establishes rules to recognize and assess the basic elements of the financial statement, defines the concept of capital and capital maintenance. It applies to all industrial and commercial enterprises, from the public and the private sector. It refers both to the individual financial statements and to consolidated financial statements. IASB includes in the category of users of financial statements both current and potential

investors, staff and representatives, financial creditors, suppliers and other trade creditors, customers, the government and its institutions, the public [1].

Regarding the FASB conceptual framework, this is a coherent system of objectives and fundamental principles, linked to each-other, likely to lead to formulas of strong rules, indicating the nature, role and limits of financial accounting and financial statement. Defined objectives, concepts and principles will not directly contribute to solving accounting problems, but they are useful theoretical foundations in judging these problems. FASB's application range is setting the objectives of financial statements, qualitative characteristics of the financial information, defines elements of the financial statements of commercial companies, sets assessment and recognizing rules for the elements of the financial statements of the commercial companies. Concepts apply to accounting information in all companies. US-GAAPs assign great dynamism and a capacity for future-oriented representation of the results to the consolidated financial statements, in order to provide investors with information which enables them to estimate the overall capacity of future profits and to interpret risks related to investments which have been made or which are in progress. Usually there is a significant need to play comparable results to those revealed by the competitors, to allow a showdown between the projections estimated by other competing companies on profitability. So for USGAAPs the financial statements' main recipients are considered to be the investors and the main objective is to ensure the usefulness of the accounting information in making decisions in full knowledge of the economic and financial sphere [5].

### **Basic assumptions and accounting principles**

In accordance with the accounting referential the IASB financial statements are prepared on the assumption that the company will continue their activity in the foreseeable future and that it has no obligation to liquidate or significantly reduce operations during the future period.

Among the accounting principles evoked by IASB we recall [2]:

- ✓ the principle of materiality;
- ✓ the principle of substance over form;
- ✓ the principle of connecting expenses to incomes;
- ✓ the consistency principle;
- ✓ the matching principle;
- ✓ the prudence principle;
- ✓ the offsetting principle.

According to the FASB accounting referential, the company shall continue its exploitation. The objectives of financial statements are not necessarily modified if the company goes from continuity to liquidation, but this passage is pertinent information that could affect users' decisions.

GAAP operating in the U.S. accounts actually meet objectives, concepts, principles, postulates, conventions and a set of practices and procedures for recording, classifying and reflecting operations and events.

When referring to accounting principles, as they are understood and presented in the other accounting systems, we can mention the following U.S. referential accounting principles [5]:

- ✓ the principle of substance over form;
- ✓ the principle of relative importance;
- ✓ the consistency principle;
- ✓ the principle of acknowledging results;
- ✓ the principle of connecting expenses to incomes;
- ✓ the prudence principle;
- ✓ the matching principle;
- ✓ the principle of monetary nominalism;
- ✓ continuation of exploitation.

### **Financial statements and financial information**

Internationally, the IASC (IASB since 2001) states from the first standard issued in 1975 what the set of financial statements is, and how it's made up of three components: balance sheet, profit and loss account and explanatory notes and from other explanatory statements and material identified as part of the financial statements without nominating them. After two years, with the publication of IAS 7 - Statement of financial position changes, the international body introduces a new explicit component for the overall financial statement. This structure with four components which also be included in the



context of the Framework for the preparation and presentation of financial statements, published by the IASC in 1989 and later in the reformatted version of IAS 1 (in 1994), the situation of changes in financial position occurring under the name of cash flow statement. By revising IAS 1 in 1997 the fifth component is inserted, that is a statement of changes in equity, thus drafting the "classic" set from the point of view of the IASB of the financial statements which has made a career for 12 years, until 2008, in the IAS / IFRS world [3].

With the latest revision, the complete set of financial statements has known significant changes. Thus in its composition we find: a statement of financial situation, a statement of global results, a statement of changes in equity, a cash flow statement, explanatory notes and a statement of financial situation at the beginning of the earliest comparative period, when an entity applies an accounting policy retrospectively or reclassifies items in the financial statements. Clearly, the most important change is the presentation of the entity's performance through the overall results statement. Therefore, the full set of IFRS financial statements can be composed of five, six or seven components and the statement of results can be divided into two statements, and the statement of the financial situation at the beginning of the earliest comparative period is required only in case of retrospective restatements or reclassifications [5].

According to IASB the objective of financial statements is to provide information about the financial position, performance and changes in financial position of the enterprise that is useful to a wide range of users in making decisions. Financial statements also represent the result of how the company is being administered by its management, including the way its resources are managed.

The financial statements prospects provided by the American model coincide with the set international standards, except for the change in equity prospectus which according to the IFRS should be a particular document, different from the other financial statements prospects, while according to US-GAAP the variation of equity may be also exposed in notes to the balance sheet.

The framework balance document provided by " Regulation S-X" issued by the

SEC - which in accordance with the IFRS standards - does not prescribe a specific and analytical structure, but is merely limited to having a balance schema containing a minimum of information, classified in assets and liabilities and equity. There's also a provision for the obligation of adding new jobs, of introducing reclassifications and generally of describing any significant aspect which allows for the "sufficient identification of the significant components" [2].

Regarding the balance sheet structure, US-GAAPs classify balance jobs by using the decreasing eligibility method in confronts of the operational cycle, which is based on the distinction of the assets and liabilities elements, in current and immobile elements. This differentiation is founded on the ability of the value to be transformed in money, to be consumed or transferred during the operational economical cycle. This method essentially corresponds with the criterion of the operational cycle provided by the IFRS norms, with the exception of debts, regarding which the US-GAAPs look for the capacity and intention of the company to liquidate the debt by the end of the exploitation cycle, while the IFRS standards think that the moment when the debt is due is independent of the moment when the payment is due.

Another significant difference between the international standards and the US-GAAPs lies in the possibility of the American norms of compensating the assets and liabilities of the balance, using circumstances such as [1]:

- the parts are holders of the positions of crediting and debiting of the set amounts;
- there is a compensation intention on both parts;
- the compensation operation must be allowed by the law.

The profit and loss account scheme provided by the North American standards at least as regards the minimum content required is of a flexible type, characterized by a highly synthetic precision. All the discipline focuses largely on the principle of consistency in the use of items in the profit and loss account and terminology from year to year. In particular, if it is absolutely necessary to include other items or to interfere with changes to the format used in preparing the financial statements of the

previous year, these need to be updated so as to allow absolute comparability of the two accounting documents [4].

Regarding the layout of the profit and loss account the US-GAAPs provide two different ways of classifying items[2]:

- the "single stop" format, which makes a general distinction between revenue and expenditure, which in turn are classified based on a functional criterion.

- the "multiple step" format, where the operating revenues and costs are separated from non-operating revenues and costs, in order to provide more information about the main activities of the company. There are in particular special reductions of revenues and incomes of the same nature in order to highlight partial results of significant relevance.

Regarding the layout of the profit and loss account under IFRS standards, there are significant differences in the treatment of extraordinary elements related items, for which community accounting rules are not admitted, while US-GAAPs prescribe registration within these items of the results relating to frequent transactions or of an unusual nature. Usually extraordinary elements are being accounted for in these items, those operations that are supposed to not be repeated in the future, since in regards to the type of activity carried out by companies, they are holding a high degree of abnormality [4].

According to the criterion of cost classification, the operational criterion adopted by North American companies corresponding to the classification method based on destinations, provided by the international accounting standards, which, as already stated, they set as alternative for the classification by nature of the income and expenses elements.

Concept Statement defines revenues as being "cash flows within the entity, actually provided, or of their equivalents, which have been verified or will verify as a result of the main ongoing activities of the company".

In general, both systems do not allow accounting of the revenues that has not yet been made and actually levied, paying attention to the time the transaction will be completed. To this end, the criterion used both in the EU and in the U.S. is that of the

moment of the transfer of risk between contractors [3].

However the differences are obvious requiring overall greater attention from U.S. accounting standards to the formal and objective requirements; in this way one can avoid the accounting estimates risk that defies reserved discretionary power, based on inaccurate and unfair assessment. If IFRS rules require only the registration of those values which were "reasonably determined", the US-GAAP standards determine that the sale price of the goods or services must be "fixed or determinable". Regarding the moment when there is a verification of the transferring towards the buyer of risk and benefits associated with ownership of the object traded, US - GAAPs - prescribe annexation of evidence of the existence a transfer and goods delivery contract. Likewise, for services, US-GAAPs do not consider it sufficient to have a transfer of the risk towards the user of services, but also require for the service to already be rendered, otherwise the IFRSs provide no specific criterion, In conclusion, we could say that in the North American accounting system, revenue accounting revolves around the argument that a revenue is recognized based on the existence of exchange transactions, it therefore means that recording the revenue before exchange is in fact performed and therefore finalized is not possible.

Similarities and differences are those already highlighted regarding revenues, in both systems the inclusion of an account does not require for the payment to have already me made, i.e. for the debt to be liquidated. However the practical application of the criterion of competence within the American system is subject to specific, objective criteria, individualised occasionally in every accounting standard, which does nothing if not play the detection of the more passive elements in a more formalist manner than the IASB standards [1].

Some important differences between the North American and the European system refers to the rules established in three cases that are rare, but with relevant effects on company reports, it is about changing the accounting principles, correcting the errors and changes which occurred in accounting estimates.

## Conclusions

The fundamental difference between the two international accounting referentials is the fact that at their underlying base there is a different normalizing logic. Thus, if the IFRSs are based on principles, the American standards are mainly based on rules. The sheer volume of detailed regulations and the many exceptions have led to inconsistent application of the American standards, favouring big scandals and bankruptcies in the U.S., so that the Sarbanes - Oxley Law of 2002 regarding the corporate governance instructed SEC to conduct a study to introduce in the U.S. an accounting system based on principles. In its 2003 report SEC concluded that a principles-based accounting system would considerably improve financial reporting in the U.S., proposing a number of measures in this regard among which also the continuing of the efforts of convergence of the American standards with the IFRS regulations [5].

This convergence between the international IFRS and the American US-GAAP referentials representing the greatest depth in accounting internationalization officially started after the joint meeting of the IASB and FASB members of 18 September 2002, when the two bodies have signed the Convention in Norwalk, USA, whereby each party commits to develop accounting and consistent quality standards that could be used for both national and cross-border financial reporting, vowing to take all possible measures to make their own accounting standards fully compatible as soon as possible and to coordinate future work programs in order to maintain compatibility, once obtained.

The purpose of the IASB - FASB convergence efforts lies in the bringing together as much as possible of the US-GAAP and IFRS standards in different jurisdictions, while improving the overall quality of these standards. The long-term strategic priority declared by the IASB and by the FASB is the development of a common set of high quality global standards.

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## The Dashboard and the Balanced Scorecard – Performance Management Tools

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### Abstract

*In this study we are going to showcase the best known performance management tools. All the tools used in evaluating performance must guarantee a global vision on the activity, as well as providing us with an outline of the synergies, a formalization of the relationships between action and objectives, as well as socio-organizational piloting practices. Enterprises use or could use a variety of performance evaluating models, this diversification being based on cultural differences, company values, IT tools development, as well as on the necessity of adapting the model to the local conditions.*

**Key Words:** dashboard, balanced scorecard, benchmarking, performance prism, business excellence model

**JEL Classification:** G3; G32; G34

### Introduction

Performance is a state of company competitiveness which guarantees it lasting presence on the market. Performance acts as an indicator of a future results potential which appears as a consequence of meeting strategic objectives. Therefore performance doesn't describe a current situation; it always refers to the future. Performance is multiple; it varies according to the evaluator, because each person sees performance from their own point of view. An efficient enterprise is that which meets the expectations of all their partners, offers good humour in the workplace and a clean environment for the collectivity. If a company concentrates on

one single aspect, it risks losing its performance.

An efficient enterprise is the enterprise which creates value for its shareholders, satisfies its clients, it takes into account the opinions of the employers and respects the environment. Thus, the shareholder is satisfied because its enterprise has gained the desired return, the clients are confident in the future of the enterprise and in the quality of its products and services, the employees are proud of the company they work for.

### What is a performance management model?

A model is a scheme which, for a field of questions, is considered an arbitrary representation of a class of phenomena, more or less taken out of their context by an observer, so that they can serve as support for investigation or communication. Its contingent nature implies a relativisation of its stability and universality. Any organization, no matter its type, needs a clear and coherent conceptual framework for measuring and managing performance, which can be understood on all levels of the organization and which can support the strategic objectives and the result analysis.

Performance evaluation system:

- ✓ constitutes a representation of the company's activity;
- ✓ is a means of communication by means of establishing a common vocabulary;
- ✓ helps understand phenomena;
- ✓ has limits, and this is why the important thing is not the result, but the actual building, implementation and evaluation of the model.

The performance management model is coherent with the mission, strategy and organisation structure. Strategy is what directly and indirectly influences both the structure and the management tools. Enterprise performance is conditioned by several factors. These represent the competition advantages which need be declined by structure, so as to allow action to be taken upon them and to later measure the gained progress. Furthermore, management tools are closely linked to both the strategy and the structure of the organization. The essence of formulating a strategy consists of linking the company to its business environment. The strategy is based on the environment, and the competencies and resources must always be adapted to it. The environment is ever-changing, and the strategy taking it into account must act directly on the performance evaluating system [1].

The organisation is perceived in a dynamic manner, being more than a mere division of the tasks by means of the organizational chart: it contributes to a delimitation of power, to the development of the informational system.

Performance implies a mobilisation of resources and of organization in order to satisfy the company's partners. The organizational side of a company includes structure, politics and culture, elements which tend to create dysfunctions in an ever-changing environment.

There is a dialectic link between strategy and structure: the strategy directly influences the structure, and the structure conditions the strategy [2]:

- the structure conditions the introduction and development of planning;
- the structure influences strategic perceptions;
- the structure influences strategic choices.

Piloting and controlling performance must be coherent with the mission, strategy, governing and objectives of the organization, and, furthermore, they must guarantee finding and respecting them within the current action. The management control system shows and guarantees that the daily activity is in concordance with the strategy and leads to fulfilling it.

The following conclusions may be formulated:

- Between the company's objectives and the reality of individual behaviours there must be a spontaneous convergence;
- Convergence is realised by means of communication;
- Management tools must be a dialogue technique which allows for placement in respect to the target (diagnosis) and shows the way to reaching (piloting).

Performance measuring system has the following contingency factors: the environment and especially the competition degree;

- Strategy and structure;
- Technological characteristics.

It must detail the factors that cause performance. In order to do this, an organization must understand the meanings of performance and to define that concept according to the realities of the organization.

### **The dashboard**

The dashboard is the tool for performance measuring used especially in France and in European countries ever since the inter-war period, born from the need to fight deficiencies in the accounting system and to correlate the other management tools. This tool has developed with time and has known mutations generated by the transformations in the managing concepts, supporting various definitions, functions, and thus becoming closer today, in terms of definition and form, to a balanced scorecard. Historically, the dashboard is the first performance management tool.

Normally, the dashboard is defined as a short-term action tool, which comprises a limited number of indicators linked to the important decisions and objectives of the enterprise, having as purpose the highlighting of differences between forecast and achieved. The dashboard may be characterised as:

- An informing and signalling tool - because it compares observable reality of a company from a given time with the previously set objectives. Highlighting deviations for significant indicators and analysing them allows for the identification of mistakes and errors and represents a previous condition to correcting the

company's trajectory and to modifying its projects;

- piloting tools - support tool in making decisions and in forecasting, the dashboard represents an ensemble of indicators, built to allow managers to know the evolution stage of the systems they are piloting and to identify future tendencies;

- dialogue instrument - between the managers of various hierarchic levels and objective appreciation support for performance, because it allows, based on result evolution, to construct conclusions referring to the corrective actions taken and to how opportune they were. At the same time, the dashboard is a working instrument, as it allows for self-correction.

The dashboard may be a perfectly integrated tool within the management control system. Because of its flexibility, it can also become a tool for change. The dashboard can use data from the budgetary system and from general accounting, without becoming one with these, but by sharing a series of common points. It can be built, same as budgets, on the basis of the existing company responsibility structure and applying the same differences analysis principles, while being much simpler, more synthetic and with somewhat approximate data. While the accounting privileges the exactitude and the completeness of the data, the dashboard is built to have quick access to partial and approximate data. We can deduce that in the high frequency dashboards there will be an abundance of extra-accounting data, while in the annual dashboards most indicators will be calculated based on accounting information. This guarantees the coherence of various sources that feed the dashboard by means of a crossover information game which provides a mutual relevance protection [1].

The dashboard is a very informal tool, as the qualities of the used tool vary according to its implementation, which makes it easy to develop and integrate on any of the previously mentioned formalised models.

The dashboard advantages are the following:

- a synthesis tool, guaranteeing a global vision;
- uses multiple databases, relying on more tools: budgets, quality management, commercial management, social

management, technical management, financial accounting, cost calculation system, having an integrating function;

- allows for the existence of functions such as dialogue, communication, piloting, change, flexibility, strategic management, making it able to face changes and challenges of the current environment;

- lack of formalization makes it accessible to all organizational levels and to all company categories.

Limitations of the dashboard [4]:

- the principles of the dashboard don't always guarantee the implementation of an equally efficient tool. Many times, in the practical application we highlight the importance of financial indicators and the comparison with internal rather than dynamic objectives is favoured, while forgetting about the interactive side in favour of exception management and long-distance control;

- does not implicitly involve a correlation with the strategic objectives and with the personnel incentives;

- may become too financial, superimposed on reporting, without favouring action in favour of the strategy.

Piloting allows for a reaction before the observed phenomenon becomes irreversible by placing warning indicators. This type of dashboard contains warning indicators built in the action plan, which removes constraints. If a constraint wasn't or could not be removed, the system risks not achieving its results.

This system is based on the ACE (contributions, constraints, demands) model, with the help of which performance may be managed and measured. This model implies identifying external and internal constraints, by reporting to the environmental exigencies, developing action plans for removing constraints and allocating contributions. Emphasizing the piloting function brings new characteristics to the dashboard: this must be simple, clear, progressive, integrated, finalised by means of the strategy. A piloting indicator forms a triangle with an objective and with a means of action, serving mainly to its self-governing.

## **Balanced Scorecard – strategy-based model**

The Balanced Scorecard is the most famous performance management tools, considered one of the most revolutionary management systems of the past 75 years. The Balanced Scorecard is a set of financial and non-financial indicators which show building up of the company's performance by means of balancing and inter-conditioning of four forces, on the basis of carving the organization according to processes and activities.

There are two principals at the basis of the Balanced Scorecard [3]:

- the modern organization is a relationship network between the company and its partners. These are interested in the company's performance and can act upon it. Any company must work with at least five categories of partners: clients, employees, suppliers, owners and the community;
- the strategy must be acknowledged, followed and applied to all organisational levels.

Balanced Scorecard implies following the performance indicators from four perspectives [5]:

- the efficiency of production processes - is measured by cost indicators calculated on the basis of activity and by production processes quality indicators;
- satisfying shareholders - using financial indicators (margin, result, EVA etc.);
- satisfying clients by following the value perceived by them. This indicator category shows how the organisation treats the clients' expectations;
- the growth and development capacity of the enterprise - indicated firstly by the personnel abilities, innovation degree, opportunity use. This is the structural dimension of the company consisting of people, systems and procedures.

The Balanced Scorecard tries to meet the exigencies of the environment where the company works, proposing a global vision based on the necessity of declining the strategy in order to achieve a balanced development [3].

The companies used performance measuring indicators in the past as well, but the difference between a set of indicators and

the Balanced Scorecard lies in the link and causality between indicators exploited by this latter instrument.

The Balanced Scorecard is destined for the manager of an enterprise or for the director of a strategic activity domain because it supplies characteristic indicators for four different dimensions of the company and can be considered a privileged instrument for performance global steering. Through its informational content, this global performance control tool is oriented towards action and anticipation, being the result of data selection process, so that the data provided to the manager may not be too detailed.

Instrument advantages [2]:

- strategy communication tool;
- performance is expressed in financial and non-financial terms and its causes are searched for;
- the partners' expectations are being taken into account.

## **Conclusions**

We may conclude that the different performance reporting and control systems used within an enterprise are reporting "constructions" which have a historic dimension and have developed in different socio-economical contexts.

The dashboard can be used by companies that don't have a budget system but can coexist with these, as a tool for improving the management control quality. Should the dashboard be functioning alongside a budget system, it will only include the essential indicators of the budget management, especially information regarding its physical volume and its quality, which should be supervised by a budget responsible.

The model which meets the most votes is the Balanced Scorecard because of its applicability to all types of companies, its malleability and its ability to highlight the important elements at the moment of its conception and implementation.

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# Methodological Study on the Calculation of Pilot Indicators and their Role for the Management of an Energy Producing Entity

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## Abstract

*This article brings to the fore the concept of pilot indicators and their role in the management of an entity. After studying the characteristics presented by the pilot indicators and the forms they embody, the paper emphasizes the link between activity based costing method, performance measurement and pilot indicators. However, we considered useful the appeal to a methodological study for calculating these indicators, at the level of an economic agent producing electricity. Pilot indicators, later taken over on dashboards, can be a solid informational support for young managers open to the use of such tools for measuring performance. The objective pursued by this scientific approach was to emphasize, in a theoretical and practical manner, the multiple roles that pilot indicators can play in the life of an entity.*

**Keywords:** pilot indicator, dashboard, cost, activity based costing method, performance.

**Classification J.E.L.:** M40, M41.

## 1. Introduction

Pilotage is indispensable to achieve strategic objectives. Piloting is a technique for conducting the strategy in actions to be fulfilled by the management. Pilot indicators are items of information resulting from observation of states, phenomena and their tangible measurement.

Pilotage is primarily an action on behaviour, in the choice of indicators, orientation of individual or collective behaviour on the strategy direction being essential. Piloting is trying to achieve performance targets whose terms must be clearly defined [1].

## 2. Pilot indicators and their specific features

**Pilot indicator** is an item or group of items of information, representative in relation to a particular objective, resulting in tangible measurement or observation of a state, a phenomenon or an achievement [2].

These indicators are in the form of reports that allow comparison of achievements with the objectives, providing useful information to the effective decisions and having as finality the improvement of the entity performance by competitiveness.

Pilot indicators are distinguished by several **features**:

- they must be simple and in small number (between three and five per activity) to be introduced in the structure of the dashboard;
- they must be clear, concise and perfectly understood by the people involved;
- the selected indicators must follow a certain strategy;
- they must have some evolutionary trend.

To build an approach of pilotage, strategy and organizational structure should be taken into account. One of the first steps is to establish a management plan. Building a management plan means to form a coherent framework for animating the management of the company as a whole, by different forecast horizons and different rhythms to be followed, virtually to assemble the various components of pilotage (pilotage of responsibility centres, of processes and projects, of products and business segments) [3].

Being an effective tool for performance evaluation and monitoring, the dashboard is a way of framing, selection, arrangement and presentation of indicators that allows visualization of overall trends in the

evolution pursued by the company management by the objectives set [4].

It is a source of useful data for all hierarchical levels and it branches out in:

- **pilot indicators of activities** and processes that measure the actions taken within the functional services for achievement of the strategy;
- **strategic pilot indicators** that measure the action in relation to competitors and the competitive environment;
- **outcome pilot indicators** that measure the fulfilment of the operation objectives.

These types of indicators compose the complete manager dashboard. Knowing them permanently helps to improve performance and achieve the objectives set by the entity.

**The pilot indicator** is an item or group of items of information, representative in relation to a specific objective, resulting in tangible measurement or observation of a state, phenomenon or achievement [5].

ABC method distinguishes two broad categories of indicators: **process indicators** and **activity indicators**. It is not rigid, and offers numerous solutions that can be tailored to the needs and constraints of the company [6]. At the level of this method there is no clear boundary between the main and auxiliary activities, even if the auxiliary are considered more representative than the other methods, all have to create value and corresponding costs must be related to products through cost drivers [7].

The activity indicator aims at the performance of that activity, while the process indicator aims at the performance of a set of activities interrelated by an identifiable result.

For the calculation of indicators, measurements must be made to identify the time evolution of trends, graphically represented by tables, curves, graphs, etc. In this regard, ABC method created the dashboard, which can be easily exploited.

Performance improvement objectives are multiple: objectives related to volume, to efficiency and effectiveness, to cost, and therefore the indicators that measure and track the progress of these objectives present a varied **typology**:

a) **Indicators related to cost objectives**, measure the cost and the development of resources consumed by an activity, the general form these indicators can take is:

$$\frac{\text{Cost}}{\text{Cost indicator}} \text{ where:}$$

cost = the cost of an activity;  
cost indicator = specific cost driver.

ABC method proposes to calculate indicators on two levels: activity and product.

$$\frac{\text{Activity cost}}{\text{Activity cost indicator}}$$

b) **Indicators related to volume objectives**, express an activity volume achieved during a defined period or a similar forecast objective, the general form these indicators can take is the following:

$$\frac{\text{Cost indicator}}{N}, \text{ where } N = \text{number of}$$

management periods

The purpose of these indicators is to highlight the activity volume after the contracts with the partners in a defined period of time.

c) **Indicators related to objectives of effectiveness**, reflecting variations of turnover to changes of cost indicators used by an entity. The general form of their presentation is:

$$I_{\text{Effectiveness}} = \frac{\bar{T}_{N+1} - \bar{T}_N}{\bar{T}_N} * 100, \text{ where}$$

$$\bar{T}_N = \frac{\bar{T}_N}{\text{Cost driver}}$$

where  $\bar{T}$  = average turnover; N = management period.

Sub-unitary effectiveness indicators highlight the entity's ability to successfully fulfil the expected objectives (positive deviations), unlike the supra-unitary indicating the entity's inability to achieve the expected objectives (negative deviations).

d) **Indicators related to efficiency objectives** indicate hourly variations to changes in cost drivers used by the entity. According to the ABC method, their determination general formula is the following:

$$I_{\text{Efficiency}} = \frac{\overline{Vh}_{N+1} - \overline{Vh}_N}{\overline{Vh}_N} * 100, \text{ where}$$

$$\overline{Vh}_N = \frac{Vh_N}{\text{Costdriver}}$$

$\overline{Vh}$  = average hour volume; N = management period.

Sub-unitary efficiency indicators indicate the entity's inability to achieve the objectives set in terms of quantity (negative deviations), while supra-unitary efficiency indicators highlight the entity's ability to achieve goals (positive deviations).

e) **Indicators related to quality objectives (or poor quality)**, these indicators measure the level of reliability (or non-reliability) of an activity in relation to the objective of total quality, which serves to calculate the cost of poor quality.

The formula these indicators can take is:

$$\frac{\text{Costdriver}(\text{activity } 1, 2, \dots, n)}{\text{Costdriver}(\text{objective})}, \text{ where:}$$

1, 2, ..., n = activity number  
objective = 100% quality.

The closer this index is to zero, the quality of the products supplied is closer to 100%.

### 3. Activity costing and performance measurement

Modern management of today's entities is dominated by two concepts: value and performance. The new weapons of modern management (total quality, value analysis and activity management) involve managing the overall cost [8]. Nowadays, the term of performance knows a certain imprecision in its use.

To achieve performance in the production of electricity, the management of the entity must take two aspects into account: creating a life cycle of service provision with a minimum level of losses and ensuring security of supply, both with minimum effect on the environment. These aspects imply a flexible and evolutionary organization of the producing entity.

Performance makes sense only in a specific context because it allows interpretation, but the concept of performance should be reserved for the description of result evolution in a period

considered long enough to make the decision [9]. The performance takes the form of a comparison, and to be efficient means to reach or even exceed some proposed objectives.

Therefore, performance is a competitive status of the entity, which ensures sustainable presence in the market, but it is built over time, it is not a situation of the moment, but involves future results arising to meet strategic objectives. An entity is **efficient** if it creates value for shareholders, satisfies customers, takes the employees' opinion into account and respects the natural environment.

Measurement and continuous improvement of cost-value pair, piloting performance and managing change can be traced by using a dynamic information tool, namely the dashboard. This is meant to synthesize all the information related to performance and its management necessary to administration in making decisions and foresight, and this synthesis is made as pilot indicators.

Knowing the specific structure of energy costs makes the identification and exploitation of success factors in the field possible, by pursuing strategic directions for action. Effective management of all cost elements provides the entity a decisive competitive advantage.

Optimal sizing of costs, exercising deviation analysis, identifying the causes and formulating measures to implement, operational monitoring of expenses during the course of production, they can all be achieved through the adoption of **a modern method of cost calculation**.

Calculation of pilot indicators involves initially identifying activities within the analysed entity. Activity is a specific notion for Activity Based Costing method and it is presented as a combination of people, technologies, content and methods that provide a product or determined service [10]. It is a set of tasks of the same kind, grouped together to bring added value of service. The number of activities depends on the complexity of operations. *Identification of the activities is based on Harvat / Nayer model and includes four stages:*

- formulation of hypotheses on the main processes, stage based on company structure, company objectives;

- analysis of activities to determine partial processes;
- allocation of capacity and cost by analytically planning the expenses necessary to partial processes and by planning site expenditure from costs based on data from the previous year or on budget;
- partial concentration of the main processes [11].

**Activity Based Costing** involves identifying the main operational activities, classification of all expenditures on activities, eliminating activities which do not generate value and distribution of expenses using the activity they generate as basis. Through this system, another cutting of the organization is made, gradually eliminating the management vertically and the transition to a **transversal approach** involving decomposition of relevant activities.

This method provides not only full cost calculation Benefit, but it is Also a Means to manage the **performance** of year entity. It allows **cost reduction in two ways**: by identifying opportunities of real cost reduction through cost drivers and by simulating the impact on reducing the cost. The causality of activity costs is established between activity, cost driver and resource consumption, and the cost driver, basic idea of the ABC system, is represented by a distribution basis showing cause and effect, being, practically, determinant of the cost.

Making decisions, in the shortest possible time, by the management of an entity, is often facilitated by the use of pilot indicators.

#### 4.Methodological study on the calculation of the pilot indicators at SC Hidroelectra SA

Conducting a strategy in actions underliethe piloting of an entity, and the strategy is set by the entity's management and will be carried out by the structures and the people involved in their implementation. Starting from the list of activities identified at **SC Hidroelectra SA**, and cost indicators set, **calculating the key performance pilot indicators** is presented in the following form:

- for the calculation of indicators related to cost objectives, the following activities will be used and the amount of expenditures for each activity will be

reported to the indicator volume to determine the cost of each indicator:

*Table 1: Calculation of indicators related to cost objectives at SC Hidroelectra SA*

Activities	Indirect cost value	Indicator volume	Cost drivers
Research service:			
-research	1.927	8	241
Supply service:			
- selection of suppliers	1.229	12	102,42
-launch and reception of supply orders	15.212	16	951
Water storage			
-dam monitoring data	37.828	10	3.783
- dam record data	48.871	12	4.073
-data transmission DHE (Hydropower Dispatch)	11.221	8	1.403
Water transport:			
- water connection from dams to Surge tower	17.192	6	2.865,3
- hydraulic shock takeover from hydro-units onset by the Surge tower	11.716	8	1.465
-monitoring the Surge tower	12.862	8	1.608
Electricity production:			
- triggering hydraulic turbines (converts water hydraulic energy into mechanical energy)	356.822	50	7.316,4
- triggering electric generator (converts mechanical energy into electrical energy)	247.111	30	8.237
Monitoring:			
-monitoring electrical parameters (voltage, current, pressure)	8.993	16	562
-monitoring the state of equipment	4.132	14	295,1
-monitoring temperature	5.710	16	357
Maintenance:			
-round control of equipment	118.322	12	9.860,1
-preventive checks (greasing, oil filling, pump starts, Diesel group starts)	114.326	8	14.291
-other maintenance activities (painting, cleaning)	69.733	4	17.433,2
Staff Training:			
- OSH training	2.119	18	118
-first aid training	1.763	20	88,1

Source: processing after the Thesis, "Improvement of managerial accounting in the energy system by implementing ABC method", RofLeitia Maria

- for the calculation of indicators related to volume objectives, the activity of selecting suppliers will be used to assess the activity volume achieved during a defined period of 5 months:

$$\frac{\text{Costdriver}}{N} = \frac{10}{5} \Rightarrow$$

2 invoices.

As a result of the contracts with the partners in a defined period of time of five months, the volume of contracts with suppliers associated with the indicator is two invoices / supplier.

- for the calculation of the indicators related to effectiveness objectives, variations of turnover to the changes of cost drivers used by entity is determined as follows:

$$T_N = \frac{T_N}{\text{Costdriver}} = \frac{13.118.239^*}{650^{**}} = 20.182lei$$

$$\bar{T}_{N+1} = \frac{T_{N+1}}{\text{Costdriver}} = \frac{14.228.439}{620} = 22.949lei$$

$$I_{\text{Effectiveness}} = \frac{\bar{T}_{N+1} - \bar{T}_N}{\bar{T}_N} * 100 = \frac{22.949 - 20.182}{20.182} * 100 = 13,71\%$$

\*The volume of the turnover taken from the profit and loss account of the company at 31.12.2011.

\*\*The total volume of drivers in year N .

- for calculation of efficiency indicators, the hour variations to changes in cost indicators used by the entity are as follows:

$$\bar{V}h_N = \frac{Vh_N}{\text{Costdriver}} = \frac{2.478.336^*}{650} = 3.813hours$$

\* number of hours for the year N.

\*\* number of hours for the year N+1.

$$I_{\text{Efficiency}} = \frac{\bar{V}h_{N+1} - \bar{V}h_N}{\bar{V}h_N} * 100 = \frac{5.608 - 3.813}{3.813} = 47,08\%$$

These indicators can be further developed in a pilotage dashboard, which has a dual role: on the one hand, the selection of performance indicators necessary for calculation, and on the other hand, it

specifies their development. This would be the fastest way to generate actions to improve the performance of an entity.

## 5. The role of pilot indicators

*The role of pilot indicators* in an entity is multiple: measuring the performance of processes and activities, being linked to declining operational plans; identification and prevention of negative deviations; pursuit of objectives and competitive environment; supporting those responsible to carry out their duties. Fulfilling their mission is inextricably linked to the use of relevant and reliable information. Reliability is related to the three components: verifiability, neutrality and fidelity. Relevance and reliability do not necessarily go together, these two qualities can be conflicting and the accountant may face a dilemma [12] in what they are concerned, but both are essential characteristics of accounting information.

Performance of an entity can be measured by indicators whose levels and trends will be compared with the objectives, with the previous results. At each of these levels, representative activity must be retained and often, when it is useful, there should be an regrouping of activities in processes.

## 6. Conclusions

Measuring the performance of each activity is usually based on 2-3 pilot indicators calculated by using various criteria of analysis. This analysis is performed on various indicators, which cannot be solely financial.

Achieving the finality of pilot dashboard is not only to determine the relevance of resources allocated to an activity or to its performance, based on their cost, but it involves measuring the value created for the customer, the possibility of adopting correction and updating decisions.

The information transmitted through pilot indicators will be used for: operational mobilization; influencing decisions; assessment of objective achievement, allocation of resources, etc.

Based on the results obtained, we consider that it is easy to react to those visible results and more difficult to those unpredictable. The effectiveness of an action results from its

influence on the causes and not the effects of disturbances. As a result of the methodological study performed, we consider that the disturbance cause analysis is not sufficiently discussed in **SC Hidroelectra SA**.

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## The Trends of the Fiscal Information System

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### Abstract

*Everyone, whether they be private individuals or companies, are potential tax payers to the state so long as they receive revenues within its territory, which is why they need to have solid financial knowledge. The multiple legislative transformation within the financial arena, brought about by the necessity harmonization of European systems of taxation, generated fundamental changes in the placement and perception of taxation within our country.*

*At the moment, a complex radiography of the fiscal system on the whole is being required, and that is under the aspect of reevaluating the politics, including an expertise of the legislative and regulator frame, and under the aspect of the functionality of the management of administering taxes and charges. Also, the tax evasion which has great proportions remains an area indulged by the authorities of the state, and the growth of the necessity of financing budgetary commitments is usually solved based on increasing the fiscal charge.*

**Key words:** public finance, fiscal system, efficient of fiscality.

**Classification J.E.L.:** E60, E62.

### 1. Introduction

The present prosperity of the contemporary state is dependent on the history of its own fiscal system, on the way in which it was conceived and how it functioned. We believe that what makes the difference between a country in progress from one in decline is the preference shown to building the future, a preference which is measured by taxes, loans and the rate of

interest.

The public finances represent the most relevant field which, just like a barometer, reflect the state of things in a society and the impact on development and national safety. Fiscality – as an instrument of redistributing the incomes in order to create public finances, but at the same time, as a constitutive part of the public politics – is known as a major factor in investment decisions, because it represents a cost of the business, irrespective of its type, size or geographical location. The efficiency and the certainty of imposing, the stability and the predictability of the fiscal system represent essential principles for a viable economy.

In the last few years, the fiscal systems of the Eastern countries, which adhered the E.U., were reformed by the processes of economic and political transformations. Unlike the changes produces at the beginning of the 1990s and marked by the features of transition, the reforms made in the period before the adhesion aimed at objectives of synchronization and adaptation to the community standards.

The national fiscality is one of the fields which passed through the most important transformations during the transition period. The taxing policies regarding the fiscal reform have always been a concern for the authorities and for the public, and this way they represent a topic of great interest.

### 2. The features of fiscal system

Any natural or legal person is a contributor in a state as long as he obtains incomes on its territory, and for this reason, he needs a large amount of information in the fiscal field.

The multiple legislative transformations in the fiscal field, determined by the

necessity of the harmonisation of the European fiscal systems, generated fundamental changes in the way of setting and collecting taxes and charges. So, the fiscal legislation, applied in the last years, must contain stipulations intended to contribute to its harmonisation with the European Union, but following at the same time the elaboration and the promotion of its fiscal politics according to the conditions and interests from the present stage of development. However, the basic concepts used in the fiscal field (fiscality, fisc, fiscal device and so on) did not modify fundamentally, but in the long run, they refer to setting, following and collecting charges, taxes and other public financial resources, the great majority representing current incomes of the state budget and of the local budgets. [1]

Within the public and economic-financial finances of a country, fiscality is delimited as a system of perception and collection of charges and taxes through a specialized device, as well as a coherent assembly of sources which bring under regulation the imposition of contributors and underlie, from a juridical point of view, taxes and charges. In that direction, the definition of fiscality is interesting, as it is formulated in the Larousse dictionary: "Fiscality represents the totality of taxes and charges, of fiscal regulations, as well as those of the fiscal device, which come to influence in a direct or indirect manner the activity of an economic agent who became a contributor."

Commonly, fiscality represents an integration of the contributor in an economic circuit in which, on the one hand, he contributes to the supplying of the system, and on the other hand, he is the beneficiary of the public policies. Even if this may seem too ostentatious, fiscality, though emanated from the state, must have the shape of a partnership in order to achieve its economic objective. On the surface, fiscality gives birth to exclusive or prevailing obligations from the contributor, but in fact it creates important obligations for the state, as the manager of taxes. [2] Lastly, the efficiency of fiscality is not noticed in the way in which taxes are collected, but in the way in which these come back, under the shape of the quality of public services.

Big or small, unbearable or stimulating,

justified in an objective or subjective manner, taxes must be paid before judging them through the letter of law. We have to comply with them as a proof of civism. But, in order to respect them, first we have to know them – and to decode their mechanism of application. In Romania, the legislative abundance, doubled by the sophisticated manner of applying the fiscal laws, bring to despair the contributor who acts in good-faith. Fiscality was interpreted by the contributors as an aggression, becoming a tension factor in the economic reports. They did not feel, either it was about companies or individual contributors, a relation of partnership. First of all, the state did not turn a great part of the taxes into public services, but it developed a bureaucracy that got to surpass that from the Communist period. It is a supplier of services only if it proves efficiency. This efficiency of administration contains both quantifiable elements and non-quantifiable, non-tangible elements. For example, the credibility of the institutions of the state, the degree of trust that citizens have in these are goods that facilitate the functioning of the society. The public administration is, at present, in a certain measure, an institution by itself, used to ensure the public workers different types of annuity, and it is less an institution which supplies public services.

For a relation of partnership, one which is selective and stimulating, fiscality must generate rights and obligations for both sides. In most cases, the state does not respect its own. Instead of being a guarantor of the well-functioning of markets, the state becomes the greatest lawbreaker of the economic environment.

Under these conditions, fiscality is not seen as a way of integrating the contributor in an open contractual system, but it is seen as a way of aggregating and isolating him. Forced by the proliferation of public administration and by its own clumsiness in managing public money, the government has the tendency to increase the taxes or to introduce some new taxes. According to some evaluations made by patronized associations, in Romania over 200 taxes are paid by the central and local administration, which makes the Romanian economy to record the sad European record of the greatest number of taxes. The taxing shares, especially in



what regards the taxing of working force, are applied to some levels which are much more reduced compared to other countries, and this grows the contributor's difficulties. Therefore, an important number of companies are pushed outside the market.

The state diverts their behaviour towards a dangerous tendency: the optimal behaviour, does not stimulate them to pay their fiscal obligations, but the condition of their survival lies in not honouring their payment obligations to the budget. This attitude goes so far that very often the companies come to obtaining profit not from improving their production through additional investments, but by not paying some obligations, such as the profit tax. This interpretation of fiscality, as an obstacle in the way of the survival or of the development of the economic environment is extremely harmful and it shows how far we are from an open, market economy.

Evaluations show that fiscality is the main cause of the proliferation of the underground economy. A comparison between the levels of taxing working force in different European countries offers some overwhelming conclusions. Compared to the majority of the countries members of the European Union, fiscality of working force is twice more oppressive. This makes that the ways of avoiding the payment of taxes and charges due to the state budget be very various, from not declaring the value added achieved to using undeclared work. [3]

The fiscal policy must base itself on a partnership between the state and the contributor. The fiscal behaviour of the state should no longer be abusive. The rationality of the degree of fiscality will allow a better receptivity of the contributor towards the fiscal task. The correct and stimulative taxing of the global incomes represents an important way of strengthening this partnership.

Even if it was very much improved, the Romanian fiscal system still has a lot of problems:

- It does not ensure enough resources or their assignment is faulty;
- It is inequitable (everybody consumes – a few contribute).

In Romania, a great number of commercial companies function, from the biggest, which recorded only loss (year after year the expenses were bigger than the

incomes), by not paying profit tax, they got extremely rich.

The consequences are shown in the considerable decrease of the incomes to the state budget (by not collecting some giant amounts of money from the tax on value-added, excises, profit tax, dividends), but the measures that are required have not been taken up until now, despite the fact that the aspect is known.

- The initiative of contractors is not implicitly and enough supported;
- Investments are not encouraged directly or attractively (as an indubitable resource of the growth of the taxable basis);
- The legal work, and especially the qualified one are discouraged. [4]

In the internal fiscal competition between the state and the economic agents, the great companies are always the winners. The state is the winner in front of the large amount of honest contributors, who, very often, reduce, until the limit of survival, their means of subsistence, only to pay their taxes.

- The normative package of regulation (the fiscal code and the others) is still thick, interpretable, unstable, mainly contested by the business environment;

Romania bears multiple and severe consequences, both internally and especially externally because of the lacks in the fiscal legislation, which is stifling, full of contradictions in regulating the same problem, with unclear, confused stipulations, that may be interpreted in different manners, even poles apart. However, it has not been completely managed to take the measures that are required, and this in the conditions in which each government promised this thing.

- The existence of some noticeable lacks in the competence and morality of a certain part of the employees.

The fiscal system from Romania should:

- base itself on simple, clear and stable regulations, applied by a high qualified and motivated personnel;
- ensure enough resources for the functioning of a modern, supple and effective State device, through a firm application of an equitable collecting system;
- encourage the capitalization of all resources, the initiative of contractors, investments and innovation.

Essential directions of action would be:

- Reducing the fiscality applied to the companies that have to rely on the growth of economic performance, the increase of the taxing basis, the improvement of the collecting system, the drastic reduction of public expenses, the delimitation of the fiscal system from other types of taxes and rates, the significant reduction of fiscality in economy.
- Focusing all the specific regulations, its revision in spirit and shape.

Fiscality is a major component of the management of resources for each company from Romania. This is greatly due to the higher size of charges, taxes and contributions paid by the public budgets. That is why, it is vital for every owner or manager to manage their fiscal fluxes and their fiscal accountancy, so that the expenses required by these could be the lowest and that the law could not be broken. The knowledge of fiscal legislation can bring along significant cost reduction. [5]

### 3. Conclusions

The dysfunctions of the fiscal system, which becomes more and more inapplicable, are expressed through the frequency of the legislative changes with ambiguous, unclear and conflicting laws, controversial application norms and unstandardized procedures. The scanty administrative capacity, expressed through the inefficacy of the administrative and judicial device, remains the loose link of the national fiscal system.

The Fiscal Code was thought as a kind of Bible of fiscality, of taxes and charges, being designed as a stable, predictable instrument and as a partner for the business environment. The Fiscal Code – a document of constitutional span – was not perceived and understood to its best, as a consequence in the society( in the field of business, among the contributors) a general confusion was spread, inducing a state of discomfort and uncertainty, also maintaining a considerable deficit of predictability.

- The prompt actions are about to be complex, complementary and in accordance with a structured and synchronized programme. And necessarily, coordinated with the

developing partners ( EU, FMI, BM, USAID).[6] We mention at least two reasons: firstly, a span project regarding the reconstruction of fiscality imposes a consistent technique; secondly, the political decisions will be connected to the partnership agenda with the international organisms and, of course correlated with the fiscal budgetary parameters related to the objective of stability and macro-financial sustainability.

- It is important to be convinced that the aggravation of the economic situation must represent an immediate motivation to take the appropriate measures so that the period of the present economic-financial crisis could be used to solve a series of aspects of reorganization and economic development, including those of recovering the economic decline.

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# Global Investments and Strategies of Recovery from Recession

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## Abstract

*The own funds represent the most frequent starting point in case of small and new business. The financial institutions are less opened – especially during periods of economic instability – to the firms that are at the beginning than to those with a “history” already known.*

*A set of rules regarding the execution of profitable strategic projects is difficult to issue. Managers must be creative and fast in detecting new investment opportunities. Virtually, the projects that need to be carried out must refer to the specific competency domains so that they would sustain and improve the competitive advantage.*

*The market niches to be pursued are the ones where there is no competition whereas the ones which are no longer efficient should be dropped.*

**Keywords:** global investment, strategy, recession, macroeconomic factors, GDP

**JEL Classification :** D24; M21

## 1. Introduction

The economic development was always a concern for humanity, remaining an actual theme.

In western literature, the economic development process and the economic growth, was identifies with the economic progress, even if between the first two process the difference is made by the qualitative side of the economic development process, who appears in comparison with the economic growth process.

Identification of the economic and social progress with the growth and the development is obviously also at W.W.Rostow. He said that all the social history has always had, five stages of the economic growth tagged by the level of the

economic development. We can observe that the theory of the economic growth, imagined by Rostow, became synonym with the development and with the economic progress.

Another tendency which appears in the economic literature, represent a global raise in the net profit of the economy, being defined like a increase of the available resources proportional with a increase of the population.

## 2. A macroeconomic perspective regarding the investments and the economic growth

The status of investments as the driving force behind economic growth, is not merely a theory used by economists, but also one which is supported by several empirical studies conducted to that effect.

For example, DeLong and Summers [4] observed that an additional investment of one percent of the GDP in capital assets, leads to an annual increase in the GDP by three percent, this being the mechanism of economic growth.

Other empirically studies, (Barro [3]) emphasized the positive connection between investments and economic growth, and the economic literature is founded on this.

Levine and Renelt [9] show that the share of the GDP destined for investments is one of the few variables significantly related to the economic growth variable.

It is a fact unanimously acknowledged that investments are the driving force of economic growth. All patterns of macroeconomic balance include investments, along with consumption as part of the aggregate demand of the economy.

For instance, Keynes introduces the concept of “investment multiplier” and the Harrod-Domar highlights the role of investments in capital acquisitions as a component of the aggregate demand through their accelerator effect. In case of a balanced

economy, the investments are even the savings, the latter having the role of increasing the demand for investment goods.

The gradual decrease in the industry and in the agriculture, oriented the investments to an increase of investments in services. This development is absolutely natural and is a result of the transformations that have occurred in the Romanian economy throughout this period of time. The aggregate supply has displayed a decrease in agricultural activity, and a decline of the industrial department, while construction and services have boosted.

### **3. Strategies for direct investments in the industry field**

Luenberger indicate that investment is defined as the current commitment of resources in order to achieve later benefits.

Investment analysis is a process of examining alternatives and deciding which alternative is most preferable. In this respect, the investment analysis is similar to the analysis of other decisions, but investment problems differ from other decision problems in an important respect, since most investments are carried out within the framework of a financial market, and these markets provide alternatives which are not found in other situations. This structure makes the investment analysis unique and unusually powerful.

Black F. and Litterman R. [4] indicate that investors with global portfolios of equities and bonds are generally aware that their asset allocation decisions - the proportions of funds they invest in the asset classes of different countries and the degrees of currency hedging - are the most important investment decisions they make. In deciding on the appropriate allocation, they are usually comfortable making the simplifying assumption that their objective is to maximize expected return for a given level of risk.

Richards, C.W. indicate that in a globalising world, the manufacturers are under constant pressure to cut costs, while improving delivery speed, product quality, flexibility and delivery reliability at the same time.

### **4. Methods for global investments on the financial market**

The Science research affects investment on the financial market and investment in the industrial field, there will be used different methods for those investments possibilities.

The methods for researching on the financial market will be software for the investments, statistical and mathematical methods, and methods for market analyses.

Using the mentioned methods on the platforms for global investments will give results for further analysis and making investment solution for investment's on the Global Financial Market.

### **5. Solutions and strategies for investing in the emerging markets**

Most countries have liberalized investment regimes and provide costly investment incentives in the expectation of the multiple benefits that are typically associated with FDI. In a widely-held view, foreign direct investors are believed to increase domestic capital formation to augment host country stocks of technology and managerial know-how, and to improve access to export markets and to a comparatively stable source of external financing.

Castensen K. and Toubal F. [5] indicated that significant number of Foreign Direct Investments (FDI) into Central and Eastern European Countries (CEECs) during their transition towards a market economy.

The last decade has seen a remarkable growth of European but also US outward direct investments in CEECs. This growth is often thought to be driven by the process Of integration of CEECs into the European Union and the associated elimination of the barriers to FDI and by the acceleration of the transitions process in those economies.

However, the CEECs are far from the homogeneous and both the level of growth of FDI differ across countries.

Table 1 shows the evaluation of FDI inflows as a share of GDP in to several Regions of the world. The transition to market economies in Central and Eastern European countries has been accompanied by a surge of FDI inflows.

Table 2: FDI inflows to CEECs, as a share of GDP

Regions	2003	2004	2005	2006	2007	2008	2009
CEEC	1,87	1,68	3,23	2,24	3,17	3,78	4,37
Low income countries	1,32	1,23	2,05	2,48	3,06	3,39	2,98
Lower middle income countries	3,02	3,32	4,65	6,05	3,13	3,81	3,50
Upper middle income countries	2,29	3,28	3,70	3,90	4,94	5,22	6,10
High income OECD countries	1,47	1,62	1,88	1,75	2,16	3,98	5,63

Note: CEEC consists of Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovak Republic and Slovenia.

Source: World development indicators (World Bank, 2002)

Based on the theoretical literature, there can be identified a set of traditional determinants of FDI, namely market size, trade costs, plant and firm specific costs, and relative factor. A second set of explanatory variables introduces transition-specific determinants, namely, the share of private businesses, the method of privatization, and the risk associated with each host country that may influence the decision to invest in CEECs.

However, the CEEC group is not homogeneous, and, as noted by Bevan and Estrin, countries with favorable initial conditions have attracted more FDI than their more risky and poorer performing neighbor countries.

One decade after the period when the mentioned analysis were made, the neighbor countries became very interesting locations for foreign investors.

## 6. Conclusions

Analysing investment trends and possibilities, it can be concluded that investments in Emerging countries should take a significant part of international investment portfolio.

Foreign Direct investments are excellent investment solutions, and strategies of recovery from the recession are mostly oriented on investments in the Emerging countries.

The foreign direct investments in the industry field in emerging countries would

also give positive results on the global financial market and that would be important global strategy of recovery from the recession.

In cases of financial restraints the impact of the macroeconomic factors on the choice of capital structure also varies.

Companies with sufficient internal resources for investment have a leverage that varies by a reverse recurrence in relation to the macroeconomic conditions (managers prefer to issue debt when the profitability of the market securities is low).

Companies relying on external financing sources and are financially restrained have a leverage that varies by a direct recurrence in relation to the macroeconomic conditions (managers prefer to borrow when the value of their assets that can be used as collateral is high, which happens when the profitability of the securities is high).

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## The Influence of Return on Equity Before and After the Restatement Adjustments

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### Abstract

*Profitability remains one of the most important indicators for measuring the overall efficiency of a company. The return on equity is an indicator that helps you see how much profit a company can generate from the net assets available and thus how effective it is.*

*The purpose of this article is to analyze the return on equity and its influence before and after the restatement of the accounting figures and the finality of the article is focused on the achievement of the following objectives: the theoretical presentation of the concepts of rate an restatement; calculating the rate before and after the figures restatement; highlighting the importance of this rate in the management activity of the company.*

*The return on equity plays a decisive role in the decisions taken by the management of the company, but also by investors, putting its mark on the company's financial results.*

**Key words:** profit, equity, permanent capital, total asset, efficiency

**J.E.L. Classification:** D61

### 1.Introduction

The rates of return are very important tools in the economic and financial analysis of the company; this is also deducted from the fact that they form the system of relative indicators of profitability.

Using the rates of return helps the economic and financial analysts to implement plans and strategies that contribute to improve profitability, financial structure, solvency and liquidity, etc.

The rates of return are mainly used as indicators that highlight the results from a period of time, identifying positive and negative trends and developments made by the company. Also these results are used in the comparisons of the results achieved by companies in the same industry.

One of the most important rates of return is the financial rate of return which represents the ratio between profit and capital.

The literature contains many definitions; some of them are presented below.

The return on equity is a measure that reflects the company's ability to achieve gross or net profit by using the owner's equity. [10]

The financial rate of return is one of the major indicators followed by investors and management. With this rate, investors can assess whether their investment is profitable or not. If the financial rate of return is greater than the cost of equity, then through the activity realized, the company creates additional value for shareholders. [12]

Through the financial rate of return we understand the indicator that expresses the ratio of profit and equity in their capacity as sources of financing the business activity. [11]

The financial rate of return is dependent on the funding arrangements of the activity being sensitive to the changes in the financial structure, particularly in the indebtedness. It is also influenced by the regime of calculation of depreciation and provisions, deductible and non-deductible expenditures to determine the base for the income tax computation. [4]

The financial rate of return is influenced, essentially, by the existence of two factors:

a) the use in the capital structure of the borrowed capital;

b) the deductibility of interest expenses, through the possibility of introducing them in the company expenses (as financial expenses) and the existence of the "tax shield". In addition, the rate of return should be higher than the borrowed capital cost; otherwise the use of borrowed capital becomes ineffective. [5]

On October 1, 2012 was approved by the Ministry of Public Finance the Order no. 1286 for approving the Accounting Regulations in accordance with IFRS applicable to companies whose securities are admitted to trading on a regulated market. The Order was published in the Official Gazette no. 687 of 4 October 2012.

By restatement we understand performing and recording in accounting the transactions determined by the transition of the accounting regulations compliant with Directive IV of the European Economic Communities, approved by Order no. 3.055/2009, as amended and supplemented, to the accounting regulations in accordance with international financial reporting standards applicable to companies whose securities are admitted to trading on a regulated market. To record in accounting the restatement results we use the accounts contained in the chart of accounts referred to in section 143 of the Accounting Regulations in accordance with International Financial Reporting Standards applicable to companies whose securities are admitted to trading on a regulated market. [15]

## 2. Theoretical aspects regarding the return on equity

By definition, the return on equity expresses, as relative size, the shareholders remuneration entered as input or net profit left to the company to finance itself. The return on equity reflects the correlation between the net profit, considered as the net income of the shareholders, and the equity of the company. [11]

The synthetic model of the return on equity is the ratio of net profit and equity.

From this model we observe that the financial rate of return has the following meanings: [7]

- it represents the capacity of the company

to develop net profit through the equity employed in production;

- it measures the return on equity, i.e. the financial investment of the shareholders capital;
- it expresses the interests of shareholders as a double issue; on short term by receiving dividends and in the long term by reinvesting the profit which improves the value of the shares and thus creates the potential for greater dividends in the next period.

Through its computation method, the financial rate of return shows also other specific conditions:

- the return on equity is influenced by way of purchasing the capital, so it is sensitive to the financial structure, the leverage of the company;
- the net income computation is influenced by the depreciation and provisions arrangements as well as by the calculation of deductible and non-deductible expenses from the taxable weight;
- the financial rate of return must be higher than the average interest rate to make the company's shares to be more attractive.

Regarding the Order no. 1286 for the approval of the Accounting regulations according to IFRS, it refers to the following main provisions: [16]

- for the fiscal year 2012, the individual annual financial statements based on the IFRS are prepared through the restatement of the information from the accounting held under the accounting regulations compliant with Directive IV of the European Economic Communities, approved by Order no. 3055/2009 (OMFP 3055/2009) for the approval of accounting regulations compliant with European directives and subsequent amendments;
- The trial balance at 31<sup>st</sup> of December 2012 includes the items determined under the provisions of IFRS. Starting with the fiscal year 2013, the entities covered by this Order will held their accounting under the IFRS provisions;
- at 31<sup>st</sup> of December 2012, the entities will prepare their financial statement according to the IFRS 1 provisions "First time adoption of the International Financial Reporting Standards", including comparative information inclusively at the



beginning of the financial year 2011 for the financial position, except for the entities that have declared explicitly and unreservedly that they have previously prepared financial statements under IFRS and falling in cases prescribed by IFRS 1.

- the individual and consolidated annual financial statements (where is the case) prepared according to IFRS are the subject of a statutory audit. The financial statements shall be submitted to the territorial units of the Ministry of Public Finance accompanied by a statement containing the results of the restatement under IFRS, in the format provided in Annex no. 2 of the Order.

### 3. The analysis methodology for the return on equity

The basic model of the return on equity starts from the ratio between net profit and owner's equity in their quality as financing sources of the company's activity.

$$Rf = \frac{Pn}{Kpr} \cdot 100 \quad (1)$$

**where:** Pn – net profit; Kpr – owner's equity;

From the relationship (1) there can be detached also the following multiplicative models:

$$Rf = \left( \frac{CA}{Kpr} \cdot \frac{Pn}{CA} \right) \cdot 100 \quad (2)$$

$$Rf = \left( \frac{Vt}{At} \cdot \frac{At}{Kpr} \cdot \frac{Pn}{At} \right) \cdot 100 \quad (3)$$

$$Rf = \left( \frac{Pn}{At} \cdot \frac{At}{Kpr} \right) \cdot 100 \quad (4)$$

$$Rf = \left( \frac{Pn}{CA} \cdot \frac{CA}{At} \cdot \frac{At}{Kpr} \right) \cdot 100 \quad (5)$$

**where:** Vt – total revenues; At – total assets;  $\frac{Vt}{At}$  - total asset turnover, expressed

in number of turnovers; Kpr – owner's equity;  $\frac{At}{Kpr}$  - the indebtedness degree of the

company; Pn – net profit; Pb – gross profit;  $\frac{Pn}{At}$  - net profit at 1 leu total assets; CA -

turnover  $\frac{Pn}{CA}$  - net margin of profit;  $\frac{CA}{At}$  - assets turnover.

### 4. Case study regarding the analysis of return on equity at S.C. OMV PETROM S.A.

The necessary data for the determination of the return on equity before the restatement of the numbers, are presented in the table below

Table 1 - mil lei

Nr. Crt.	Indicator	2011	2012	Change
1.	Total Assets	36.488	38.145	+1.657
2.	Net Turnover	16.565	19.510	+2.945
3.	Total Revenues	17.814	20.963	+3.149
4.	Net Profit	3.759	3.946	+187
5.	Owner's equity	21.077	23.405	+2.328

Source: The data are extracted from the financial statements and financial reports of S.C. OMV PETROM S.A. from [www.bvb.ro](http://www.bvb.ro), [www.mfinante.ro](http://www.mfinante.ro)

The return on equity records the following values:

$$Rf_{2011} = \frac{Pn_{2011}}{Kpr_{2011}} \cdot 100 = \frac{3.759}{21.077} \cdot 100 = +17,83\% \quad (6)$$

$$Rf_{2012} = \frac{Pn_{2012}}{Kpr_{2012}} \cdot 100 = \frac{3.946}{23.405} \cdot 100 = +16,86\% \quad (7)$$

1. The change of the return on equity:

$$\Delta Rf = Rf_{2012} - Rf_{2011} = 16,86 - 17,83 = -0,97\% \quad (8)$$

2. The influence of the component elements:

2.1. The influence of owner's equity:

$$\Delta_{Kpr}^{Rf} = \left( \frac{Pn_{2011}}{Kpr_{2012}} - \frac{Pn_{2011}}{Kpr_{2011}} \right) \cdot 100 = 16,06 - 17,83 = -1,77\% \quad (9)$$

2.2. The influence of net profit:

$$\Delta_{Pn}^{Rf} = \left( \frac{Pn_{2012}}{Kpr_{2012}} - \frac{Pn_{2011}}{Kpr_{2012}} \right) \cdot 100 = 16,86 - 16,06 = +0,8\% \quad (10)$$

From the above analysis it results that the return on equity has decreased in the year 2012 in comparison with the year 2011 with 0,97%, and this thing has been influenced by:

- the owner's equity which has determined a negative influence of -1,77%;
- the net profit which has determined a positive influence of +0,8%.

The necessary data for the determination of the return on equity after the restatement of number are presented in the table below:

Table 2 – mil lei

Nr. Crt.	Indicator	2011	2012	Change
1.	Total Assets	35.625	37.411	+1.786
2.	Net Turnover	16.184	19.123	+2.939
3.	Total Revenues	17.361	19.865	+2.504
4.	Net Profit	3.730	3.851	+121
5.	Owner's Equity	20.697	22.911	+2.214

Note:

\*Financial data restated according to OMF 1286/2012

\*OMF 1286/2012 is the basis for drawing the financial statements of the years 2011 and 2012

Source: The data are extracted from the financial statements and financial reports of S.C. OMV PETROM S.A. from [www.bvb.ro](http://www.bvb.ro), [www.mfinante.ro](http://www.mfinante.ro)

The main aspects concerning the indicators involved in the determination of the return on equity:

- at the date of 31 December 2012, the total assets were 37.411 million. Lei, with 5% more than the end of the year 2011 (35.625 mil lei), especially due to the investments performed in the year 2012.
- the net turnover of the company has increased with 18% in 2012 in comparison with 2011, summing up 19.123 mil lei, especially due to the high level of prices.
- the net profit has increased with 3% in the year 2012 in comparison with 2011, mainly due to the positive impact of the operating result.
- the owner's equity of the company in amount of 22.911 mil lei at the date of 31 December 2012, has increased with 22.911 mil lei at the data of 31 December 2011, have increased with 11% in comparison with the end of the year 2011 (20.697 mil. lei), as result of the profit generated in the current year (3.851 mil lei), partially diminished by the payment of the dividends afferent to the year 2011 (1.756 mil lei).

The profitability of owner's equity in restated numbers records the following values:

$$Rf_{2011} = \frac{Pn_{2011}}{Kpr_{2011}} \cdot 100 = \frac{3.730}{20.697} \cdot 100 = +18,02\% \quad (11)$$

$$Rf_{2012} = \frac{Pn_{2012}}{Kpr_{2012}} \cdot 100 = \frac{3.851}{22.911} \cdot 100 = +16,81\% \quad (12)$$

1. The change of the return on equity:

$$\Delta Rf = Rf_{2012} - Rf_{2011} = 16,81 - 18,02 = -1,21\% \quad (13)$$

2. The influence of the component elements:

2.1. The influence of owner's equity:

$$\Delta_{Kpr}^{Rf} = \left( \frac{Pn_{2011}}{Kpr_{2012}} - \frac{Pn_{2011}}{Kpr_{2011}} \right) \cdot 100 = 16,28 - 18,02 = -1,74\% \quad (14)$$

2.2. The influence of net profit:

$$\Delta_{Pn}^{Rf} = \left( \frac{Pn_{2012}}{Kpr_{2012}} - \frac{Pn_{2011}}{Kpr_{2012}} \right) \cdot 100 = 16,81 - 16,28 = +0,53\% \quad (15)$$

As in the variant above, the return on equity has decreased in the year 2012 in comparison with the year 2011, but with 1, 21 % and this thing has been influenced by:

- owner's equity which has determined a negative influence of - 1,74%;
- the net profit which has determined a positive influence of +0.53%.

Synthetically the data obtained from the calculus above, are the following:

Table no.3 -%-

Nr. Crt.	Indicator	2011	2012	Change
1.	Return on equity	17,83	16,86	-0,97
2.	Return on equity ( in numbers restated)	18,02	16,81	-1,21

From the calculus of the return on equity in the two variants of values, it can be noticed that the differences are not that big. In 2011 the rate has recorded a value of 17, 83% and respectively of 18, 02, and in 2012 has recorded a value of 16, 86% and respectively of 16, 81%.

For exemplification we can also use the multiplicative model  $Rf = \left( \frac{CA}{Kpr} \cdot \frac{Pn}{CA} \right) \cdot 100$

which can highlight the turnover of the owner's equity through turnover and through the commercial profitability ratio which expresses the net profit at 1 leu turnover.

In the first case we have:

1. The change of the return on equity:

$$\Delta Rf = Rf_{2012} - Rf_{2011} = \left[ \left( \frac{CA_{2012}}{Kpr_{2012}} \cdot \frac{Pn_{2012}}{CA_{2012}} \right) - \left( \frac{CA_{2011}}{Kpr_{2011}} \cdot \frac{Pn_{2011}}{CA_{2011}} \right) \right] \cdot 100 = 16,86 - 17,83 = -0,97\% \quad (16)$$

1.1. The influence of the turnover of owner's equity through turnover:

$$\begin{aligned} \Delta \frac{Rf}{CA} &= \left[ \left( \frac{CA_{2012}}{Kpr_{2012}} - \frac{CA_{2011}}{Kpr_{2011}} \right) \cdot \frac{Pn_{2011}}{CA_{2011}} \right] \cdot 100 = \\ &= \left[ \left( \frac{19.510}{23.405} - \frac{16.565}{21.077} \right) \cdot \frac{3.759}{16.565} \right] \cdot 100 = \\ &= +1,08\% \end{aligned} \quad (17)$$

1.2.The influence of the commercial profitability ratio:

$$\begin{aligned} \Delta \frac{Rf}{CA} &= \left[ \frac{CA_{2012}}{Kpr_{2012}} \cdot \left( \frac{Pn_{2012}}{CA_{2012}} - \frac{Pn_{2011}}{CA_{2011}} \right) \right] \cdot 100 = \\ &= \left[ \frac{19.123}{22.911} \cdot \left( \frac{3.851}{19.123} - \frac{3.730}{16.184} \right) \right] \cdot 100 = \\ &= -2,43\% \end{aligned} \quad (18)$$

From this analysis it results that the turnover of the owner's equity through the turnover has manifested a positive influence (+1,08%), and the commercial profitability rate a negative influence (-2,05%).

In the variant in which the calculi are performed after the restatement of the numbers according to OMF 1286/2012 are recorded the following values:

1.The change of the return on equity:

$$\begin{aligned} \Delta Rf &= Rf_{2012} - Rf_{2011} = \\ &= \left[ \left( \frac{CA_{2012}}{Kpr_{2012}} \cdot \frac{Pn_{2012}}{CA_{2012}} \right) - \left( \frac{CA_{2011}}{Kpr_{2011}} \cdot \frac{Pn_{2011}}{CA_{2011}} \right) \right] \cdot 100 = \\ &= 16,81 - 18,02 = -1,21\% \end{aligned} \quad (19)$$

1.1The influence of the turnover of owner's equity through turnover:

$$\begin{aligned} \Delta \frac{Rf}{CA} &= \left[ \left( \frac{CA_{2012}}{Kpr_{2012}} - \frac{CA_{2011}}{Kpr_{2011}} \right) \cdot \frac{Pn_{2011}}{CA_{2011}} \right] \cdot 100 = \\ &= \left[ \left( \frac{19.123}{22.911} - \frac{16.184}{20.697} \right) \cdot \frac{3.730}{16.184} \right] \cdot 100 = \\ &= +1,21\% \end{aligned} \quad (20)$$

1.2.The influence of the commercial profitability ratio:

$$\begin{aligned} \Delta \frac{Rf}{CA} &= \left[ \frac{CA_{2012}}{Kpr_{2012}} \cdot \left( \frac{Pn_{2012}}{CA_{2012}} - \frac{Pn_{2011}}{CA_{2011}} \right) \right] \cdot 100 = \\ &= \left[ \frac{19.510}{23.405} \cdot \left( \frac{3.946}{19.510} - \frac{3.759}{16.565} \right) \right] \cdot 100 = \\ &= -2,42\% \end{aligned} \quad (21)$$

For both cases, the mechanism of transmission of the action of factors over the return is explains as:

- the modification of the turnover of owner's equity in turnover influences the return directly, in the same sense and proportionally with the level from the base period of the net commercial rate of return;
- the modification of the net commercial rate of return influences the financial rate

of return directly, in the same sense and proportionally with the turnover of owner's equity through turnover from the current period.

In the analysis of the financial position of a company which is based especially on the role and importance of the financial rate of return in the performance of the company, we start from the triad assets- liabilities- owner's equity. The assets represent resources controlled by the company, originating from past events and from which it is expected to obtain future economic advantages under the form of liquidity flows. The liabilities are present obligations coming from past events whose settlement will generate a diminution of the future economic advantages through the reduction of the subsequent cash flows. The owner's equity, also named the net asset or capital invested by shareholders, represent the residual interest of the shareholders in the company in which they have invested after being deducted the liabilities from total assets.

## 5. Conclusions

The IFRS accounting regulations contain provisions relating to the preparation, signing, audit, approval and publication of the individual and consolidated financial statements, provisions related to the accounting operations, the IFRS chart of accounts and the function of the accounts, as well as rules regarding the transposition of the account balances from the trial balance at 31<sup>st</sup> of December 2012 in the new chart of accounts.

The return on equity represents the efficiency of the capital invested by the shareholders of a company and it is the main purpose of any activity because it determines the remuneration of shareholders through dividends and increased reserves. Financial rate of return should exceed the average interest rate.

Although this rate is widely used as a tool of financial analysis, it must be taken into account the methodological drawbacks of determining the net income: the calculation regime of depreciation and provisions, deductible expenses from the taxable weight, leverage etc. The financial return is therefore influenced by the procurement of capital and is therefore sensitive to the financial

structure, namely to the situation of borrowing of the enterprise. [14]

Considering the fact that financial rate of return highlights the efficiency of the equity and the permanent capital used, we can say that it is of particular importance for the shareholders of the company which based on this rate know if their investment is profitable or not and whether in the future they will make new investments.

A single indicator cannot provide a complete picture of a company. But the average return on equity in the past five years, in a sector, can highlight the companies that have a competitive advantage over others. This is a useful tool to identify the leaders in their segments of activity. A high rate may indicate an untapped potential as long as you know where the numbers of the equation come from.

Return on Equity (ROE) is a measure that can help to distinguish between companies that create profit and those that "burn" profit. On the other hand, ROE should be used with care because, however, a single indicator cannot make a complete picture of the company. By measuring how much profit can generate a company through its net assets, ROE thus helps you realize the effectiveness of the company. Companies that can generate profit from their operations have, usually, an advantage over their competitors, advantage that will translate into higher returns for investors. The relationship between a company's profit and the investors return makes this indicator an important one to be analyzed and examined.[17]

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## Highlights of the Strategy for Managing Government Debt in Romania

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### Abstract

*The concept of government public debt is a complex one and it has to be analyzed according to the current context influenced by the global financial and economic crisis.*

*In analyzing the government debt it is important to observe its structure in relation to its origin, categories of instruments, period of contract, interest rate or currency denomination.*

*We selected to analyze the interval 2002-2012 because we thought that this period contained both good times from economic and financial point of view as well as times when the economy and finance had a negative trend.*

**Key words:** public debt, government public debt, local public debt.

**J.E.L. Classification:** H62; H63

### 1. Introduction

Romania is a country that has experienced substantial growth in public debt issue since 1990 (previously, the policy of liquidation of foreign debt has allowed registration of such situations, but the price paid by the Romanian economy was recovered in subsequent developments). But this is characteristic to many economies, additionally affected by the manifestation of the financial crisis.

Our country has experienced a significant deterioration in macroeconomic indicators. After 2008, the increasingly lower level of the budget revenues led to a significant

increase in public debt, due to contract loans from the IMF and the World Bank.

If we add the fact that a large part of it has been focused on pensions and salaries at the expense of investment and more, much of it has entered into the BNR reserve and the fiscal adjustment has been made more quantitatively, we can identify some of the causes that led to an extremely slow economic recovery.

Also, there have been difficulties with the budgetary resources, economic growth and the contracting of debt financing for the purchase of the necessary state resources. We decided to analyze the interval 2002-2012 because we thought that the economy met different situations. In addition, the mechanisms of the market economy were better placed in comparison with the previous period, which allowed avoiding the use of realistic information which was not significantly skewed by any faults or problems inherent in a transition economy.

### 2. The concept of Government debt

Public debt is an indicator that shows the financial obligations assumed by the State from its internal or external creditors. These obligations arise from loans obtained directly or guaranteed by the Government or local authorities and refer both to loan repayment and payment of interest and fees related to it.

In accordance with the Guidelines for public debt management drafted by the IMF, debt management should aim at grounding and executing a strategy to increase funding resources necessary, while maintaining acceptable levels of risk and costs, and achieving other objectives related to the

management of government debt. [1]

The faster increase of public debt than the gross domestic product generates an opportunity cost to equate either with a permanent high tax burden in the future, either with a period of inflation, either with a period during in which the State will reduce costs. [2]

The total public debt has two components: the government debt and the domestic public debt.

The government public debt is the debt component showing the financial obligations of the state arising from the loans contracted or guaranteed by the Government.

The direct government public debt represents the obligations of the state at a time, arising from reimbursements employed on a contractual basis by the Government through the Ministry of Economy and Finance; according to GEO no. 64/2007, including those contracted by the central public administration authorities until the entry into force of the Government Emergency Ordinance. The guaranteed government public debt includes all obligations of the state at a time, from reimbursable funding guaranteed by the Government through the Ministry of Economy and Finance; in accordance with the provisions of this emergency ordinance, except those contracted by the central public administration authorities until the entry into force of this emergency ordinance. Direct local public debt shows all obligations of the territorial administrative units at a time, from reimbursable funding employed by them, on a contractual basis while the guaranteed local public debt represents all obligations of the territorial administrative units at a time, from repayments guaranteed by them, under the provisions of this emergency ordinance and of the Law no. 273/2006 on local public finances, with subsequent amendment. [3]

The Government is authorized to engage in the name and on behalf of the state obligations in the nature of the government public debt only through the Ministry of Finance, for the following purposes:

- financing the state budget deficit, temporary financing of deficits from previous years of the state social insurance budget, up to the money allocation to this destination, temporary financing of the deficit of the state budget

and of state social security budget in the current year;

- refinancing and early repayment of government debt;
- always maintain a proper balance in the Treasury General Account, established by the Ministry of Economy and Finance, in accordance with the methodology developed according to the art. 12 paragraph (1);
- financing based on the law of programs / projects and other priority needs for the Romanian economy [4].

### 3. The government debt during 2002-2012

The analysis of the Government debt starts from the analysis of its structure. Thus, depending on several criteria we distinguish:

- according to its type: direct and guaranteed;
- according to the creditors: multilateral, bilateral, private banks and others;
- depending on the instruments: treasury securities (RON and Euro), bonds, liabilities (RON and Euro), euro liabilities, financial leasing, loans, loans from STA;
- according to currency: RON, USD, EUR, other;
- according to maturity: short, medium and long term;
- depending on the interest rate: variable and fixed.

#### 3.1 Evolution of the Government debt based on its structure

The changes recorded by the government debt in the period 2002-2012 according to the type of government debt and the issued market are presented in Table 1.

*Table 1. Tendency recorded by the share of Government debt in GDP and in connection with the issued market (bill.)*

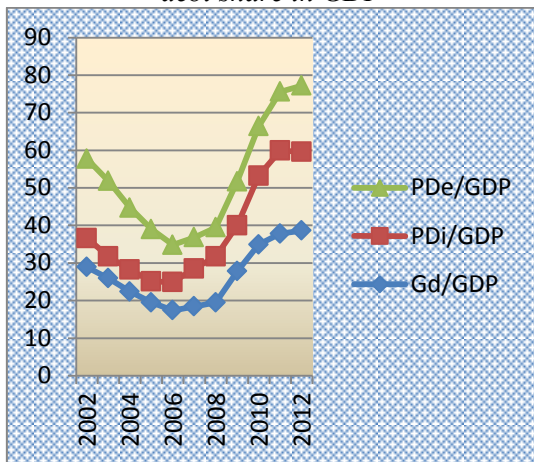
Year	GDd	GDg	GD/PIB %	Int. mk	Ext. mk.
2002	33.97	9.81	28.9	11.62	7.7
2003	41.13	9.98	25.9	11.51	5.8
2004	42.64	12.5	22.4	14.41	5.8
2005	43.19	13.18	19.5	16.12	5.6
2006	50.21	9.66	17.4	25.82	7.5
2007	67.14	9.01	18.4	41.83	10.1

2008	91.94	8.61	19.5	61.52	12.2
2009	126.5	9.92	27.8	75.34	12.2
2010	167.6	14.9	34.9	111.6	18.3
2011	199.3	11.1	37.8	123.1	22.1
2012	213.7	13.1	38.6	123.5	21

Source: data from the Ministry of Public Finance

The data recorded show an upward trend during the analyzed period due to the increased need for resources of the State.

Figure 1 Evolution of the government debt share in GDP



Source: Personal contribution based on table 1

It is observed that most of the debt is directly contracted; the domestic orientation is evident (from 7.7% in 2002 to 21% in 2012). (Figure 1)

If we observe the categories of instruments used by the state to purchase the necessary resources, we can distinguish significant changes. Thus, during 2002 and 2005 there is a tendency of the authorities to call for loans from banks or international financial institutions, reaching a peak of 62.36% of total funding in 2005. Instead, the orientation for temporary financing is obvious during 2006-2008 when the share of these resources lies between 33.14% and 39.38%.

As mentioned previously, this has an impact on the level of deficits financed temporary and thus on the risk of refinancing and liquidity. The period 2009-2012 is characterized by an increase in revenues by issuing bonds, a rate of 32.2% of the total value returns to this category at the end of

this period, and a decrease in temporary funding. (table no.2)

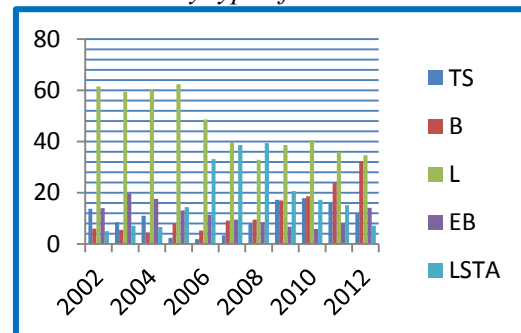
Table 2 Tendencies recorded at the level of the instruments used in contracting the debt (%)

	TS	B	L	EB	LSTA
2002	13.69	6.01	61.39	13.95	4.96
2003	8.45	5.42	59.35	19.7	7.08
2004	10.93	4.52	60.34	17.62	6.59
2005	2.37	7.95	62.36	13.04	14.28
2006	1.81	5.24	48.52	11.29	33.14
2007	3.3	9.04	39.56	9.48	38.62
2008	8.06	9.45	32.78	8.52	39.38
2009	17.16	16.96	38.6	6.66	20.62
2010	17.9	18.6	40.5	5.8	17.2
2011	16	23.8	35.9	8.1	15.1
2012	12	32.2	34.6	14.1	7.1

Source: mfinante.ro

Graphically, the evolution of the Government debt on categories of instruments looks as follows: (figure no. 2)

Figure no.2. Evolution of the Government debt by type of instruments

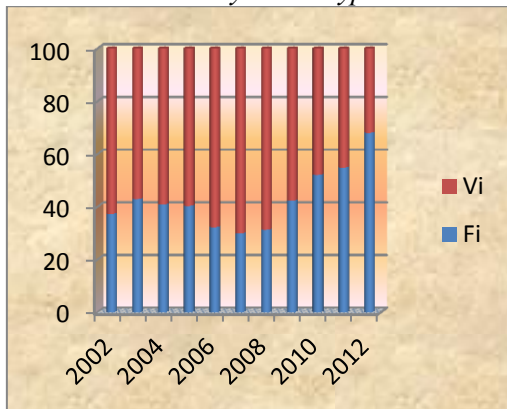


Source: Personal contribution based on table 2

Of particular importance are the analysis of the public debt and the ratio of the cost of financing. Fluctuations of debts by type of interest arise from Figure 3 types of interest debt at the end of the analyzed period, the debt contracted with fixed interest rate reaching 68.1% when during 2002-2008 the trend has been to use borrowed resources with variable rate.

In the category of fixed rate instruments fall bonds and loans contracted from banks and international financial institutions with fixed interest rate. The variable interest rate is used for loans contracted with variable rate, issues of treasury bills and temporary financing. The debt development by type of interest is outlined in Figure no. 3

Figure 3 Trends in the evolution of government debt by interest type



Source: Personal contribution based on the data from the Ministry of Public Finance

In terms of initial maturity, there is a decrease of debts contracted on long term (over 5 years), from 59.63% in 2002 to 46.8% in 2012. Nevertheless, the level is still significant (about half of the debt is due for repayment over 5 years). A significant reduction is found in short-term debt, which, after a period six years came close to the value from in 2002. (Table 3)

Table 3 Government debt structure in relation with the initial period of the loan

<1an	1-5	>5
20,78	19,59	59,63
15,53	18,3	66,17
17,55	19,79	62,66
16,64	18,44	64,92
34,99	9,77	55,24
41,93	11,63	46,44
49,3	10,6	40,1

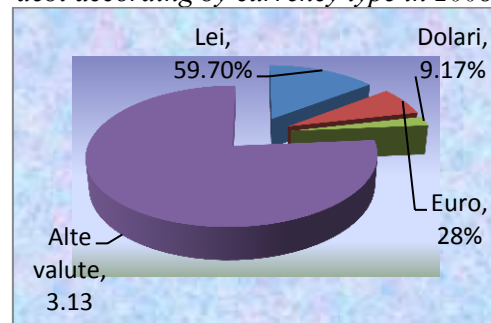
37,8	19,9	42,3
35,1	23,4	41,4
35,2	26,2	41,6
19,1	34,1	46,8

Source: www.mfinante.ro

This development is due to the policy of the ministry in the strategy to reduce the risks of public debt, in the case of currency risk (the analysis show a higher volatility of the Leu against the dollar).

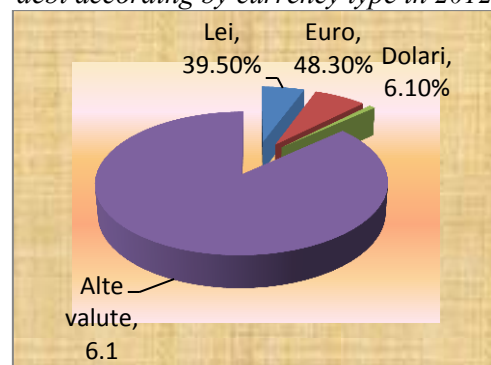
A comparison between 2008 and 2012 shows the structural changes in the currency in which the loan operations were performed (Figure 4 and 5).

Figure 4 The structure of the Government debt according by currency type in 2008



Source: Personal contribution based on the data from the Ministry of Public Finance

Figure 5 The structure of the Government debt according by currency type in 2012



Source: personal contribution based on the data from the Ministry of Public Finances

From the data above, it appears that Romania is positioned in the "yellow" area, with a level of the share of debt ratio of 37.9% in 2012. Basically, it occupies the



fourth position if it is considered an ascending order of the amount of public debt (after Estonia - 9.8%, Bulgaria - 18.5% and Luxembourg - 21.7%). This should reflect a favorable situation. However, we cannot omit the growth rate between 2008 and 2012 where we position the first in EU by 2.83 times. To this problem is added the inefficient use of borrowed resources and the capacity to ensure the payment of public debt service.

#### 4. Conclusions

The analysis of government debt in Romania in the period 2002-2012, in line with Government decisions, highlighted both the good times economically and financially and times when the economy and finance had a negative trend; over different segments within this range have been changes in government options on the purchase of the necessary resources with different instruments, resulting in an overall reduction of loans from banks and international financial institutions and funding amid temporary increase in income on account of issuance of government securities.

The structure of public debt in relation to the cost of financing reveals an optical change of the monetary authorities on the use [5]

of a fixed-rate loan (68.1%) in 2012 compared with the ones paid with a variable interest rate, the period 2002-2008 noted a reverse situation (e.g., in 2007 debts contracted with variable interest account for 70.04% in total).

The analysis of the structure of government debt by currency type analysis shows an increasing trend between 2002-2008 of the share of loans in the national currency (from 21.08% to 59.7%) and a significant decrease of those expressed in dollars (from 39.22% to 9.17%);

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# The Transition to European Standards Harmonized by Accounting for the Public Sector – Necessity and Perspectives

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## Abstract

*In the current sensitive context of the economic crisis, the European Union wishes to adopt a harmonized accounting and reporting frame integrated at a European level – European Public Sector Accounting Standards (EPSAS). The main objective of implementing EPSAS at EU’s level is to reduce the complexity of the methods and procedures used for transforming accounting information on a quasi-harmonized base, minimizing, at the same time, the risks concerning the reliability of the data notified by the member states and published by Eurostat. In the following we will assess the necessity and the implementation possibilities of these standards within the community space.*

**Key words:** European accounting standards, accrual accounting, public sector, governance

**J.E.L. classification:** M41

## 1. Introduction

As a consequence of the effort sustained during the years by the international institutions within the domain, the public sector’s accounting experienced a spectacular leap in the last period of time. The International Public Sector Accounting Standards (IPSAS) could constitute a frame of reference for a future development of the *European public sector accounting standards*, called EPSAS. In the current context of the economic crisis, the European Union wishes to implement some adequate accounting standards which would harmonize the accounting of the member states, capable to allow:

- drawing up some qualitatively superior financial situations;

- advisory and control bodies that are efficient and independent;
- taking correct decisions in the public space;
- rendering the faithful image of the economic reality.

Since the accounting based on accruals is the only generally accepted information system which offers a complete and reliable image of the financial and economic situation, as well as of the performance of a public administration, implementing a unique set of accounting standards based on accruals on all the levels of public administration on the entire European Union’s territory would bring unquestionable benefits for managing the public sector since it would improve transparency, responsibility and the comparability of the financial reports. The process initiated by the European Commission of establishing [1] harmonized micro accounting systems for all the entities in the public sector (namely the public administration) in all member states of the European Union, combined with the internal control and external audit, seems to be the only effective method of establishing data regarding duty and accrual based deficit, which meet the highest quality standards in accordance with the current juridical requirements. Additionally, the perspective of a larger European integration on a fiscal and budgetary level outline the necessity of some accounting harmonized standards for the public sector so that the budgetary decisions applicable at a national level can be assessed at the European Union’s level.

## 2. Europe needs harmonized public sector accounts

At a European level, starting with 2005, the European Commission alongside IFAC promoted the implementation of accrual

accounting within the public sector, implicitly the passing from cash accounting to accrual accounting, as well as drawing up financial situations based upon the Accounting International Standards for the Public Sector. The European Commission strives for a better handling of information and a higher transparency. Along with the accounting reform from 2005, the European Union firmly engaged itself on the path of a financial reporting system of a global level by passing from the traditional accounting to cash accounting to accrual accounting, which is more precise and more efficient.

According to cash accounting, transactions are only registered when the money is cashed or paid, therefore there is no difference between acquiring a good, for example, and paying for an expense, since both are simply considered *payments*. On the other hand, in accrual accounting, transactions are recognized at the moment when they are made.

Benefits associated with the move from cash to accrual are [2]:

- the possibility to prepare consolidated accounts,
- ensuring intergenerational equity by focusing on revenues and expenses rather than cash flows;
- improved information relevance;
- improved transparency about the financial position and performance of a public sector entity;
- benchmarking/comparability, at least with other local authorities within the same state;
- improved management through performance measures.

Accounting systems that are based upon accrual accounting allow a higher level of transparency offering an adequate basis for exerting decisions regarding the public funds. A complete and credible reporting regarding the performance and financial position of the entities within the public sector better promotes an efficient administration of resources, essential in resolving the issues generated by the financial crisis.

Adopting a unique set of standards for accounting based on accruals on all public administration levels on the entire territory of the European Union would bring

unquestionable benefits for handling the public sector and for governance, such as [3]:

- improving the statistic information for the internal decisional factors as well as for the international bodies (FMI, OECD);
- providing a responsibility system available to the Parliament for assessing the performance under the Government's responsibility;
- improving the efficiency and the speed of the internal investments as a consequence of establishing the accounting procedures and of the relevant results for European Union financing;
- improving the public sector entities' ability to look for financing in the private sector;
- the decisions' quality will improve, as a consequence of the relevant and comparable information.

Europe needs the harmonization of the accounting practices in the public sector, since it is common knowledge that at the level of the member states there are many obstacles to overcome. The most important obstacle in the path of harmonization is the dimension of the actual differences regarding the national accounting practices. These differences reach the root of the problem found both at a local and national level: *the way of producing accounting information*. Research shows that the variety of accounting systems is also mirrored by the typology of accrual and cash accounting, respectively in their hybrid forms, such as: accrual accounting (integral), modified accrual accounting, cash accounting (integral), modified cash accounting. At a European [4] level, a comparative study regarding the accounting systems in the European Union outlines that 27% of the countries implement an integral cash accounting, 31% a modified cash accounting, 21% an integral accrual accounting and 21% a modified accrual accounting.

The existence of a *common European market* for which there will need to be drawn up accounting financial situation of European Union which would allow providing a faithful image and facilitating the process of decision making at a European level, justifies the necessity of harmonizing the public accounting systems of the European Union member countries.

Another obstacle regards the *national/nationalism*. At a national level there can be reluctances regarding the acceptance of compromises connected to the changing of national practices for resembling the ones from other countries. The reluctances manifest from the level of individual firms to the dimension of a country, which fear that they would otherwise lose their *sovereignty*. Moreover, national bodies fear that they will not be capable to respond to the changes of circumstances or attitude regarding the conversion of the financial situations in accordance with IPSAS.

In the specialists' opinion, the necessity of harmonizing the public accounting systems at the level of the European Union can be justified through the similar arguments found in the case of the commercial sector:

- the member countries and the multinational organizations, especially the European ones, need comparable and veridical information about the financial situation of the states integrated in the Union;
- the European Commission must consolidate the financial situations of the member states in order to be able to obtain general information about the global financial situation of the European Union;
- the audit process of the European Court of Auditors, as well as the control activities of the Commission would be highly facilitated.

The harmonization of public sector accounting standards within the EU is long overdue. At the same time, harmonized accrual accounting rules are only a necessary requirement to achieve improved financial management within the member states as improving efficiency and effectiveness of financial management is largely dependent on the context in which reforms are implemented. One lesson that can be learned from the EU for the process of approving IPSASs is that it is important when approving accounting regulations to always have in mind that there should be a balance between the benefit and cost: the benefit derived from producing accounting information should in all circumstances at least equal or exceed the costs associated with producing this information.

### 3. Is Europe ready for EPSAS?

IPSAS is currently the only internationally recognized set of standards. It is founded on the international financial reporting standards (IFRS), widely applied by the private sector, and at present comprises 32 accrual-based accounting standards, plus one cash-based standard. A recent report [5] by the European Commission assesses the suitability of IPSAS for the Member States. The report notes that 15 out of 27 EU Member States already make some link to IPSAS. Of these countries, nine have national standards based on or in line with IPSAS, five make some references to it, and one country uses IPSAS in accounting at the local government level. However, despite recognition of the high value of IPSAS, no Member State has implemented the standards in full. Fully harmonized accrual-based public-sector accounting would provide a firmer basis for evaluating the financial position and performance of government activities at all levels.

The report [6] concludes that:

*“On the one hand, it seems clear that IPSAS cannot easily be implemented in EU Member States as it stands currently. On the other hand, the IPSAS standards represent an indisputable reference point for potential EU harmonized public sector accounts. The following concerns will need to be addressed:*

- *Currently, the IPSAS standards do not describe sufficiently precisely the accounting practices to be followed, taking into account that some of them offer the possibility of choosing between alternative accounting treatments, which would limit harmonization in practice;*
- *At its current state of development, the suite of standards is not complete in terms of coverage or its practical applicability to some important types of government flows, such as taxes and social benefits, and does not take sufficient account of the specific needs, characteristics and interests of public-sector reporting. A major issue is the capacity of IPSAS to resolve the problem of consolidating accounts on the basis of the definition used for general government, which is*

now a core concept of fiscal monitoring in the EU;

- At present, IPSAS can also be regarded as insufficiently stable, since it is expected that some standards will need to be updated once work is completed on the current project of completing the IPSAS conceptual framework, expected in 2014; and
- At present, the governance of IPSAS suffers from insufficient participation of EU public-sector accounting authorities..... Any reform [of governance arrangements] should ensure that the independence of the standard-setting process is strengthened, while public-sector-specific needs are effectively addressed. In addition, the IPSAS Board currently seems to have insufficient resources to ensure that it can meet, with the necessary speed and flexibility, the demand for new standards and guidance on emerging issues in the evolving fiscal climate, particularly in the wake of the crisis.

On the other hand, most stakeholders agree that IPSAS would be suitable as a reference framework for the future development of a set of European Public Sector Accounting Standards (EPSAS)."

The formal decision to move towards European Public Sector Accounting Standards (EPSAS) is not yet taken and the report recognizes that many conditions would have to be met and many issues would arise in the process. The report also recognizes that it would be important not to create unnecessary divergence between EPSAS and IPSAS, and between EPSAS and IFRS, given that government-controlled entities may already be required to report on an IFRS basis or according to national commercial accounting standards.

While there may be risks in creating specific regional public sector accounting standards, Andreas Bergmann, chair of the IPSAS Board, nevertheless welcomed the report:

*"The adoption of accrual accounting by EU Member States would represent a historic step in the direction of achieving governmental transparency and serving the public interest ..... Developing high-quality accounting standards like the IPSASs will require a rigorous process to ensure the*

*EPSASs are of the same caliber. The Board offers the EU's public sector accounting authorities its full cooperation and resources in producing, adopting, and implementing EPSASs."*

#### **4. What are EPSAS? Tendencies in switching from IPSAS to EPSAS**

EPSAS are:

- a suite of accruals based European standards;
- for public sector accounting and GPFR;
- grounded and legislated on the basis of the EU Treaties;
- common to all public entities belonging to General Government;
- for all EU Member States;
- based on strong EU governance;
- subject to internal control and independent audit.

The EPSAS standards' development could be based upon a key principle ensemble borrowed from the IPSAS standards. EPSAS could likewise use the IPSAS standards which were established by agreement by the member states. It would be important not to create useless divergences between EPSAS and IPSAS and between EPSAS and IFRS, bearing in mind that the entities controlled by the stat can already have the requirement of presenting reports based upon IFRS or in accordance with the national commercial accounting standards. However, drawing up an European accounting ensemble standards for the public sector cannot itself guarantee, obtaining in due time public accounting data of high quality. Supplementary conditions should be met, such as [7]:

- the existence of a powerful political assistance and a common property of the project;
- public administrations capable to handle an accounting system more complex in each individual public entity;
- integrated informatics systems for the budget, payments, contracts handling, double entry accounting, bills handling and statistical reporting;
- timely reporting (for example monthly) of all economic events in the integrated accounting system of the public entities;

- the availability of human resources and of modern informatics systems;
- an efficient internal control and an external financial audit for the public accounting.

Drafting the EPSAS standards, the responsible body could reclassify the 32 IPSAS standards based on accruals in 3 categories:

- standards that could be implemented without adaptation or with minor adaptations;
- standards that must be adapted or which would require a selective approach;
- standards which are considered to need modification in order to be implemented.

The responsible body must ensure assistance through organizing the formation and expertize change, so that the public administrations of the member states can receive clarifications regarding the essential aspects – conceptual and technical, towards a common accounting for the public sector in the European Union. The member states could therefore be invited to establish a plan of implementation for all of the public administration's sub-sectors. For example, the main EPSAS set should be implemented to all public entities and, taking into account the relative importance, it should cover the biggest part of the expenses from the public sector in the member states.

The development and implementation process of the standards could follow the stages:

- the first preparatory stage for obtaining more information and points of view and for developing a draft to go through. This stage started in the middle of 2013 and it should end in the middle of the current year and it includes supplementary consultations, a conference at a high level, as well as the preparation of more detailed supplementary proposals. In this sense, in May and October 2013 in Bruxelles respectively in Luxembourg took place the conference entitled "Towards the implementation of the European Public Sector Accounting Standards", and the meeting with the theme "The governance of the European Public Sector Accounting Standards" where the European Commission's officials together with decisional factors from the public sector

accounting, audit and statistics presented the necessity of uniform, comparable and transparent reporting of the public sector information, emphasizing the future development of the European accounting standards for the public sector, harmonized in Europe (EPSAS). From November 25, 2013 until February 17, 2014 EUROSTAT launched a public consultation regarding the future EPSAS standards;

- the second stage (from the middle of 2014 until the end of 2015) is consecrated to the development and implementation of the practical methods, approaching subjects like finances, governance, possible synergies, as well as the public smaller entities' preoccupations. This step should result in the publishing of a proposal of Framework regulation which should include: the accrual accounting's principles, IPSAS references, the definition of governance methods, establishing the adopting process of each EPSAS standard, content standards, identification of the current limits of the IPSAS standards, defining the main characteristics for establishing some simplified standards for the small entities, establishing the basic principles of EPSAS standards, dividing the standards in two or three groups for their progressive implementation, as well as offering unique interpretations for implementing EPSAS. In this second stage, for a sample of member states, there will be carried out studies for the potential costs of implementing EPSAS;
- the third stage (2016 – 2020): the progressive approval and implementation of EPSAS standards. The approval of the first EPSAS standards and the implementing measures by the accounting authorities which will trigger the launch of their interpretation process within the established structures and procedures and with respecting the basic principles for public accounting.

Under these circumstances, EUROSTAT must conceive and put into practice the necessary mechanisms in order to control the future EPSAS standards from the point of view of conformity and implementation.

## 5. Conclusions

The harmonization of international accounting, establishing a common language at a global level, attracts important benefits for the entire economic world. At the level of the European Union, the harmonizing process has to overcome at least three obstacles:

- the differences between the way of accounting regulation in each member state;
- the different interpretation that each country gives to the concept of faithful image;
- the connections between the fiscal-budgetary system and the accounting of each country.

Despite all these difficulties and the particularities specific to each country, the member states of the European Union set out on the path to accounting harmonization bearing in mind its advantages. For the newly admitted states in the European Union, the harmonization of the accounting regulations constitutes, likewise, an objective that should be fulfilled in order to be able to successfully deal with the European common market's requirements.

In our view, harmonized accruals-based public sector accounting standards at all government levels through the EU should be the way forward. The Commission's Report from March 2013 and the Conference in Brussels in May 2013 both show strong support for the development of accruals-based EPSAS.

As outlined in the Commission's Report, IPSAS is considered an "indisputable reference framework" for EPSAS. However, although it is clear that there will be a strong link between EPSAS and IPSAS, the exact role of IPSAS in the standardsetting process and its relationship to EPSAS still needs to be defined more clearly.

Finally, the different starting points for the reforms of the Member States, ranging from pure cash accounting to full accrual accounting, will have an impact on the EPSAS framework as well as on the EPSAS implementation roadmap.

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## The Evolution of the Nongovernmental Credit in Romania, during 2004-2013. Lending Trends in 2014

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### Abstract

*This paper aims to analyze the dimensions of the nongovernmental credit in Romania, during 2004-2013, its positive implications and the generated risks, as well as the management of this phenomenon by the banking supervisory authority, in order to preserve financial stability.*

**Keywords:** nongovernmental credit, loans for economic agents, credits in foreign currency, loans for the population, consumer loans.

**JEL Classification:** G21, G23

### 1. Introduction

The credit is an essential component, playing an important part in the functioning of the economy and it is also the cornerstone of the general economic equilibrium, which gives the impression of wealth. The credit is a means of interconnecting the funding opportunities within the society with the production and consumption needs.

The mobilization of the temporarily available resources within the economy and the distribution (allocation), i.e. lending by credit institutions from the funds established by non-banking economic entities, are the essential functions of the credit. The pursuit of structural changes requires funding and, given the role of the banking sector in the Romanian financial system, this funding will be provided predominantly by all credit institutions.

Credit demand and supply analysis showed that these two factors act in the same sense, i.e. towards the nongovernmental credit. Thus, regarding the demand for credits, the restructuring of the economy towards a functional market, able to cope with competitive forces, in particular from the European Union, and population behaviour change as a result of income growth and consumer preferences adjustment for durable goods and services entail an increased need for financial resources, for both consumership and investment. Regarding the credit supply, the restructuring and privatization of the banking sector, the increasing competition, in the context of the compliance with the European practices, entail the expansion of the supply.

Given this context, this paper aims to analyze the dynamics and structure of the main types of nongovernmental credits, during 2004-2013, the conclusions of this paper drafting the lending trends for 2014.

The study, which covered both foreign currency loans and loans in RON, used the general hierarchy taking into account the following structure [2]:

- loans for economic agents; the economic agents are debtors through the temporary loans for the carrying out and development of their activities.
- loans for the population; as debtors, people borrow resources for specific needs: real estate investment, commodities, durable goods, payment of certain services (education, health).



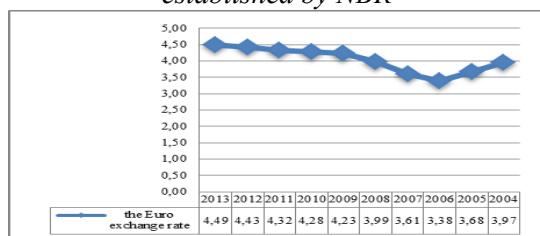
## 2. Methodology and database

This paper is based on processing and analyzing the statistical data sets provided by the National Bank of Romania (NBR). They are a quick way of finding information relevant to the research conducted. [3,4,5]

From the methodological standpoint, the research was done by specific methods of analysis and by the interpretation of data, in dynamics and structure. The research was conducted by analyzing each separate nongovernmental loan structure and, finally, we tried to correlate the important aspects encountered within our approach.

Given the existence of the inflationary process in Romania, the expression of the nongovernmental credit developments in actual value does not entail relevant research results; therefore, we chose to report the data to the Euro exchange rate of 31 December of each year, set by the NBR. We considered that it was necessary to express the data in Euros, as a reference currency, given its dynamics within the analyzed timeframe, thus ensuring the comparability of results over time.

Figure 1. The graphical representation of the Euro exchange rate at 31 December, established by NBR



Source: The author's processing of the data provided by the website <http://www.bnr.ro>

## 3. The evolution of the nongovernmental credit

The analysis of the statistical data on the evolution of the nongovernmental credit in Romania, during 2004 - 2013, reveals that there are two periods of antagonistic dynamics. The first period was between 2004 and 2008, characterized by an increase in the amount of this funding and followed by a second regression trend, temporally located between 2009 and 2013. We should also note that the two periods are not homogeneous in terms of evolution. Thus, the growth period

experienced a reversal trend from 57.14% in 2005 and even 67.39% in 2006 to 20.84% in 2008; in what regards the second period, we notice a regression by 4.76% in 2009, followed by a slight growth rate between 2011 and 2010, returning to a decrease by 4.82% in the last year of the analyzed period.

The high dynamics of the nongovernmental credit, in the period 2004-2008, were entailed by the restructuring of the banking system, by the diversification of the portfolio of products offered by banks and by the increase in the purchasing power of the population. The regression period bears the imprint of the financial crisis and of its consequences that led to a major shift in thinking, i.e. the habitualness of the accelerated credit growth has been replaced by its accelerated decline and also by the decline in the confidence in the banking system.

Table 1. The annual evolution of the nongovernmental credit during 2004-2013 (million Euros)

Years	TOTAL credits	Annual variation (Δ)	Annual variation %
2013	49.077,49	-2.484,45	-4,82
2012	51.561,93	-563,28	-1,08
2011	52.125,21	2.917,15	5,93
2010	49.208,07	1.624,42	3,41
2009	47.583,64	-2.377,91	-4,76
2008	49.961,56	8.617,13	20,84
2007	41.344,43	13.878,99	50,53
2006	27.465,44	11.057,63	67,39
2005	16.407,81	5.966,55	57,14
2004	10.441,26		

Source: The author's processing of the data provided by the website <http://www.bnr.ro>

Table 2. The annual evolution of the nongovernmental credit in RON during 2004-2013 (million Euros)

Years	Credits in RON	Annual variation (Δ)	Annual variation %	% of TOTAL credits
2013	19.050,45	-160,53	-0,84	38,82
2012	19.210,99	268,70	1,42	37,26
2011	18.942,29	865,47	4,79	36,34
2010	18.076,81	-793,71	-4,21	36,74
2009	18.870,53	-2.143,76	-10,20	39,66
2008	21.014,29	2.234,11	11,90	42,06
2007	18.780,18	4.266,01	29,39	45,42
2006	14.514,17	7.016,09	93,57	52,85
2005	7.498,08	3.421,75	83,94	45,70
2004	4.076,33			39,04

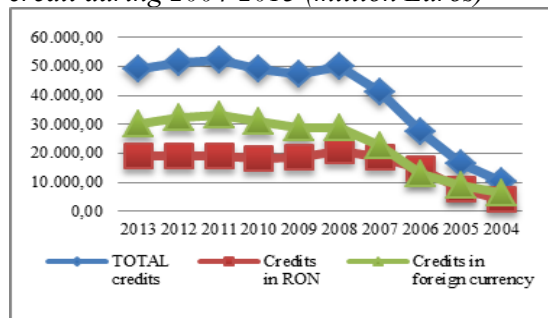
Source: The author's processing of the data provided by the website <http://www.bnr.ro>

*Table 3. The annual evolution of the nongovernmental credit in foreign currency during 2004-2013 (million Euros)*

Years	Credits in foreign currency	Annual variation (Δ)	Annual variation %	% of TOTAL credits
2013	30.027,03	-2.323,92	-7,18	61,18
2012	32.350,95	-831,98	-2,51	62,74
2011	33.182,93	2.051,67	6,59	63,66
2010	31.131,25	2.418,14	8,42	63,26
2009	28.713,12	-234,15	-0,81	60,34
2008	28.947,27	6.383,02	28,29	57,94
2007	22.564,25	9.612,98	74,22	54,58
2006	12.951,27	4.041,54	45,36	47,15
2005	8.909,73	2.544,80	39,98	54,30
2004	6.364,93			60,96

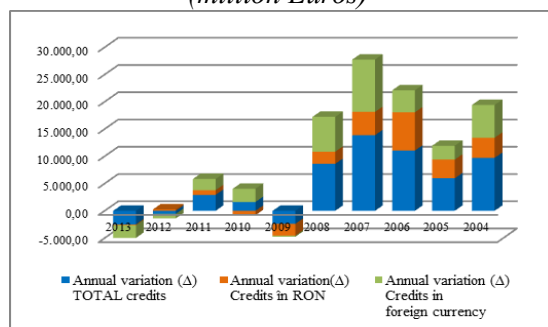
Source: The author's processing of the data provided by the website <http://www.bnr.ro>

*Figure 2. The graphical representation of the annual evolution of the nongovernmental credit during 2004-2013 (million Euros)*



Source: The data from Table 1,2,3

*Figure 3. The graphical representation of the annual nominal variation in the nongovernmental credit during 2004-2013 (million Euros)*



Source: The data from Table 1,2,3

The analysis of the dynamics and structure of the nongovernmental credit and of its components highlight the following features in the studied period:

- the economic growth and the rising living standards are reflected in Romania, in the 2004-2013 timeframe, by the increase of the nongovernmental credit, from 10441.26 mil Euros in 2004 to the maximum value of 52125.21 mil Euros in 2011 and 49077.49

mil Euros in 2013;

- the upward trend of the nongovernmental credit during 2004-2008 originated both in the increase of the credit supply - banking privatization, increased competition - and in the increased demand for credit - income growth, changes in the population's behaviour, consumer preferences thereof;
- in addition to the positive aspects of the nongovernmental credit dynamics, influencing the increase of demand, we notice a number of negative aspects materialized in the rising prices, in the inflationary pressure and in the increase in imports, entailing the balance of payments deficit;
- the year 2009 marks the beginning of the decline in the amount of the nongovernmental credits granted by the commercial banks in Romania, the largest decrease being recorded on the loans in the RON segment, with 10.20% in relation to 2008, compared with a decrease of 0.81% in relation to 2008, recorded on the segment of foreign currency loans;
- the structure RON-foreign currency of the nongovernmental credit was relatively constant, i.e. around 40% and around 60% during 2007-2013;
- due to the prudent policies imposed by the central bank, there was registered a success in decreasing the share of foreign currency loans from 60.96% of the total amount of nongovernmental credits in December 2004 to 54.30% in December 2005 and to 47.15% in December 2006;
- the accelerated pace of the nongovernmental credit growth in foreign currency, registered since 2007 to the present, is less favourable in terms of the risks associated to the lack of correlation of the currency structure of the assets and liabilities of banks.

*Table 4. The annual evolution and structure of the nongovernmental credits for economic agents during 2004-2013 (million Euros)*

Year	Economic agents TOTAL credits	Economic agents Credits in RON	Economic agents Credits in foreign currency	% of TOTAL credits
2013	25990,01	11336,57	14653,43	52,96
2012	27915,32	11461,44	16453,88	54,14
2011	27926,44	10831,52	17094,93	53,58
2010	25318,95	9694,13	15624,82	51,45

2009	23804,56	9689,95	14114,60	50,03
2008	24989,76	10741,25	14248,51	50,02
2007	21484,04	9480,51	12003,53	51,96
2006	16109,57	7819,48	8290,09	58,65
2005	10715,56	4356,73	6358,84	65,31
2004	7617,44	2587,33	5030,11	72,96

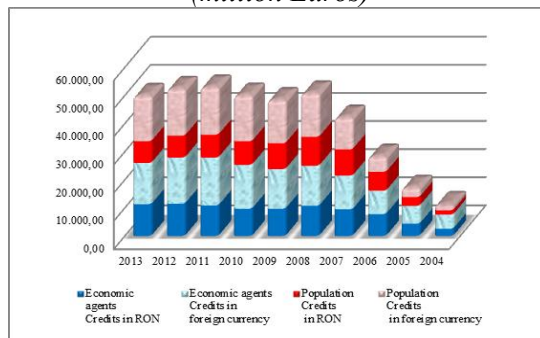
Source: The author's processing of the data provided by the website <http://www.bnr.ro>

*Table 5. The annual evolution and structure of the nongovernmental credits for the population during 2004-2013 (million Euros)*

Year	Population TOTAL credits	Population Credits in RON	Population Credits in foreign currency	% of TOTAL credits
2013	23087,48	7713,88	15373,60	47,04
2012	23646,61	7749,55	15897,06	45,86
2011	24198,77	8110,77	16088,00	46,42
2010	23889,12	8382,69	15506,43	48,55
2009	23779,09	9180,57	14598,52	49,97
2008	24971,80	10273,04	14698,76	49,98
2007	19860,39	9299,67	10560,73	48,04
2006	11355,86	6694,69	4661,18	41,35
2005	5692,24	3141,35	2550,90	34,69
2004	2823,82	1489,00	1334,82	27,04

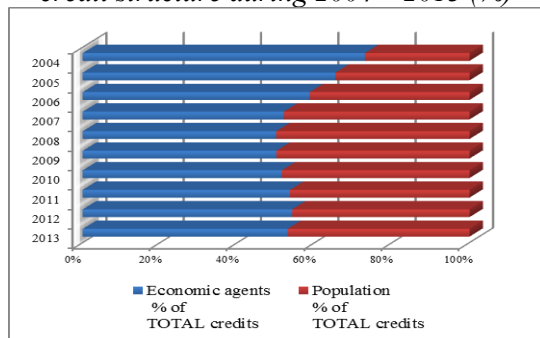
Source: The author's processing of the data provided by the website <http://www.bnr.ro>

*Figure 4. The graphical representation of the evolution of the nongovernmental credit structure during 2004 – 2013 (million Euros)*



Source: The data from Table 4,5

*Figure 5. The graphical representation of the evolution of the nongovernmental credit structure during 2004 – 2013 (%)*



Source: The data from Table 4,5

- during 2004-2006, the loans for the economic agents recorded significant increases, from 72.96% of the total loans in 2004 to 58.65% in 2006, and with a relatively constant share around 51%; in the period following the analyzed timeframe, it retains its majority position;
- regarding the currency of the loans granted to the economic agents, we should note their preference for the foreign currency, encouraged by the lower interest rates for the loans in foreign currency compared to the loans in domestic currency.

#### 4. The evolution and structure of the nongovernmental credits for the population

Regarding the credits granted to the population, by processing and analyzing the statistical data published by the National Bank of Romania, according to the financial behaviour of the population, we can synthesize certain characteristics for the period studied.

*Table 6. The annual evolution of the nongovernmental credits granted to the population during 2004-2013 (million Euros)*

Years	TOTAL credits	Annual variation (Δ)	Annual variation %
2013	23.087,48	-559,13	-2,36
2012	23.646,61	-552,16	-2,28
2011	24.198,77	309,65	1,30
2010	23.889,12	110,03	0,46
2009	23.779,09	-1.192,71	-4,78
2008	24.971,80	5.111,41	25,74
2007	19.860,39	8.504,53	74,89
2006	11.355,86	5.663,62	99,50
2005	5.692,24	2.868,43	101,58
2004	2.823,82		

Source: The author's processing of the data provided by the website <http://www.bnr.ro>

*Table 7. The annual evolution of the nongovernmental credits in RON, granted to the population during 2004-2013 (million Euros)*

Years	Credits in RON	Annual variation (Δ)	Annual variation %	% of TOTAL credits
2013	7.713,88	-35,66	-0,46	33,41
2012	7.749,55	-361,22	-4,45	32,77
2011	8.110,77	-271,92	-3,24	33,52
2010	8.382,69	-797,89	-8,69	35,09
2009	9.180,57	-1.092,46	-10,63	38,61
2008	10.273,04	973,37	10,47	41,14
2007	9.299,67	2.604,98	38,91	46,83

2006	6.694,69	3.553,34	113,12	58,95
2005	3.141,35	1.652,35	110,97	55,19
2004	1.489,00			52,73

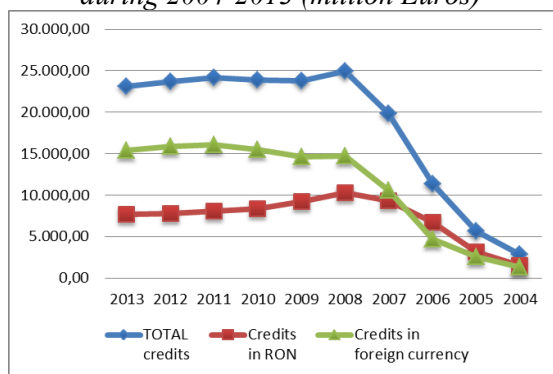
Source: The author's processing of the data provided by the website <http://www.bnr.ro>

Table 8. The annual evolution of the nongovernmental credits in foreign currency granted to the population, during 2004-2013 (million Euros)

Years	Credits in foreign currency	Annual variation ( $\Delta$ )	Annual variation %	% of TOTAL credits
2013	15.373,60	-523,47	-3,29	66,59
2012	15.897,06	-190,94	-1,19	67,23
2011	16.088,00	581,57	3,75	66,48
2010	15.506,43	907,91	6,22	64,91
2009	14.598,52	-100,24	-0,68	61,39
2008	14.698,76	4.138,04	39,18	58,86
2007	10.560,73	5.899,55	126,57	53,17
2006	4.661,18	2.110,28	82,73	41,05
2005	2.550,90	1.216,08	91,10	44,81
2004	1.334,82			47,27

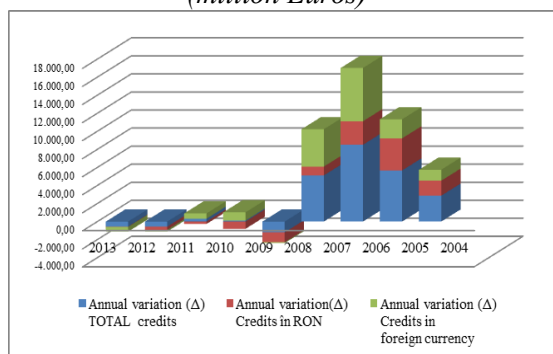
Source: The author's processing of the data provided by the website <http://www.bnr.ro>

Figure 6. The graphical representation of the annual evolution of the nongovernmental credit granted to the population, during 2004-2013 (million Euros)



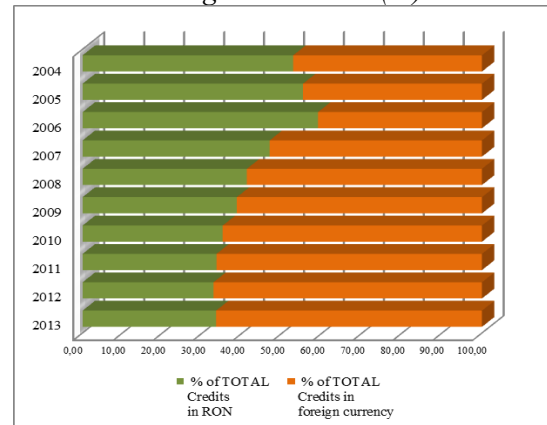
Source: The data from Table 6,7,8

Figure 7. The graphical representation of the annual nominal variation in the nongovernmental credit granted to the population, during 2004-2013 (million Euros)



Source: The data from Table 6,7,8

Figure 8. The graphical representation of the evolution of the nongovernmental credit structure granted to the population, during 2004 – 2013 (%)



Source: The data from Table 7,8

Table 9. The annual structure of the nongovernmental credits in RON granted to the population, during 2004-2013 (million Euro, %)

	Population-consumership	Population-household	Population-other purposes
2013	5.152,98	773,81	1.599,80
2013/2012	-5,61	87,92	-5,65
2012	5.459,02	411,77	1.695,62
2012/2011	-8,36	17,38	1,43
2011	5.957,24	350,81	1.671,78
2011/2010	-3,82	-5,67	-0,81
2010	6.193,65	371,90	1.685,48
2010/2009	-27,35	-7,79	1.753,19
2009	8.525,29	403,30	90,95
2009/2008	-10,35	-2,47	-47,06
2008	9.509,52	413,53	171,80
2008/2007	9,74	1,98	90,01
2007	8.665,41	405,51	90,41
2007/2006	36,98	10,05	
2006	6.326,22	368,46	
2006/2005	112,06	133,09	
2005	2.983,27	158,08	
2005/2004	113,34	74,42	
2004	1.398,36	90,63	

Source: The author's processing of the data provided by the website <http://www.bnr.ro>

Table 10. The annual structure of the nongovernmental credits in foreign currency granted to the population, during 2004-2013 (million Euro, %)

	Population-consumership	Population-household	Population-other purposes
2013	6.800,69	8.358,13	147,09
2013/2012	-11,36	4,73	-15,35
2012	7.671,99	7.980,80	173,76
2012/2011	-8,92	7,82	-4,30
2011	8.423,71	7.401,93	181,56

2011/2010	-4,64	15,58	-9,28
2010	8.833,32	6.403,89	200,14
2010/2009	1,00	19,69	-50,94
2009	8.745,60	5.350,46	407,93
2009/2008	-3,13	10,24	-43,79
2008	9.027,85	4.853,64	725,73
2008/2007	36,06	37,08	119,97
2007	6.635,41	3.540,70	329,93
2007/2006	149,81	76,59	
2006	2.656,15	2.005,03	
2006/2005	107,14	58,05	
2005	1.282,33	1.268,57	
2005/2004	119,24	69,16	
2004	584,89	749,93	

Source: The author's processing of the data provided by the website <http://www.bnr.ro>

- the dynamics of the nongovernmental credits during 2004-2008 was supported largely by the sharp expansion of the credits granted to the population by the credit institutions, creating concerns for the banking supervisory authority;
- the change in the banking strategy towards retail, the decrease of interest rates, the increase in the net income are the factors that led to the increase in the share of the nongovernmental credits granted to the natural persons, particularly of the consumer credit;
- in 2008, the economic landscape was complicated by the parliamentary elections in November, which occasioned an unprecedented relaxation of fiscal revenue policies. The excess of demand, fuelled by the loose fiscal and wage policies, was amplified by the excessively rapid growth of bank credits in the first three quarters, followed by a sudden deceleration in the last months of 2008. However, we should also note the worrisome large share of the loans in foreign currency which has increased from 47.27% in 2004 to 33.59% in 2013.

## 5. Conclusions

The role of the credit in the economy is to ensure the economic growth by transforming savings into investments; the credits diminish the unprofitable, disadvantageous economic initiatives and stimulate competition. Also, they contribute to the raise of the living standards because they stimulate the sale of goods, the increase of consumership.

The analyses regarding the credits granted to the population have revealed the fact that the long-term loans, the loans in foreign

currency and the consumer credits are the predominant ones.

The analysis performed on the statistical data series in the recent years has revealed that, being bogged down by bad loans, banks have not granted more credits in 2013 and that the customers, natural persons or economic agents, reaching the limits of indebtedness, did not forward a strong demand for the access to new loans.

In 2014, the nongovernmental loans granted by credit institutions fell in March to 0.2% from February, according to provisional data published by the National Bank of Romania [1].

The credits in RON increased by 2.3%, while the credits in foreign currency decreased by 0.9%.

On March 31, 2014, the nongovernment credit reduction of 2.7% from March 31, 2013, on account of the 4.7% growth in RON and a decrease of 8% growth in currency expressed in Euros.

Although the year 2014 is seen as the third consecutive year of economic growth, it is still likely to be a more difficult year than 2013. Theoretically, the unfolding of the political events, such as the elections for the European parliament and the presidential elections, should not produce macroeconomic imbalances; however, the historical reality has shown us otherwise. Their improvement will be due to the preservation of a strict control of the budget by the IMF.

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## A Standardised Accounting Model Of Intellectual Capital To Firms

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### Abstract

*We develop a tool used on a sample of firms that makes possible to estimate, forecast and manage Intellectual Capital from an accounting information system.*

*We started with a disaggregated model of intellectual capital and used subjective and objective indicators to measure its components. Then, for valuation purposes, we considered this capital to be obtained from the difference between market and book value. We built a tool with qualitative and quantitative information that provides new indicators and measures of intangible control. The results provided a prototype model that facilitates dynamic strategic analysis, making it possible to perform strategic simulations with little information required..*

**Keywords:** Intangible, intellectual capital report, management, measurement, strategic planning.

**J.E.L. classification:** M150, M410.

### 1. Introduction

We will consider intellectual capital as hidden assets that either do not appear on traditional balance sheets or, if they do appear, do not display their true value and which are responsible for the present and future results of organisations. As a result, different studies have shown the importance of intangibles as determinants of the competitiveness and growth of firms. They are differentiating factors that are difficult and slow to accumulate. Moreover, few are

transparent and they are difficult to imitate and replace, are hardly transferrable on the market and have alternative uses without losing value. They also appreciate with use, generate increasing yields and produce significant externalities and synergies. See, for instance, researches by Fernández et al. [4], Navas [7], Nomen [9], Camison et al. [2], Salas [10], and Lev [5].

Really, the development of new strategies for knowledge management is a complementary tool for long-term decision making based on a resource that generates a benefit: knowledge. This element is vital and companies try to define, measure, value, control and manage it properly. However, the majority of management models or systems are confined to the descriptive analysis of indicators. In some cases they can also describe a process of relationships that supports a recursive and static strategy.

On the other hand, the specialised literature shows clear evidence of organisations needing their survival to be based on aspects other than short term benefits, investing in factors that will generate future worth being a must. The first link in the chain, in this sense, is captured by models such as the Skandia Navigator [3], conceived to estimate market value, rather than book value and based on hidden intellectual capital.

For this reason, this paper presents a tool conceived to use the hidden factors in an organisation to manage knowledge that is random, but at the same time motivates and standardises an information system, beyond accounting data, to solve the strategy using the indicators and their synergies that feed back into the system. This article provides a standard decisional support information system (Integral Analysis) that could be

applied to SMEs for strategic control at low cost.

## **2. Integral Analysis Method: Model and Information System**

We thus create a navigation panel for organisations that is not only descriptive, but also managerial. This enables us to simulate scenarios in order to control the strategy and estimate the real market value of organisations and, therefore, their intellectual capital.

The system considers that market value can be calculated by adding book value and that generated by the hidden assets stemming from human resources and the structure of the organisation (clients, processes, innovation and image). In fact, we depart from the idea in Edvinsson and Malone [3]: intellectual capital is the difference between market value and book value. The proposed tool is valid for any other small and medium-sized enterprise (SME) by making some adjustments to the indicators for the management purposes of each organisation. This was confirmed by a survey of 325 companies in the Spanish autonomous region of Castilla-La Mancha as part of a research project aimed at estimating Local Income, Baños et al. [1].

The management system depends on the information system in order to make decisions. Within this information system, the accounting system will receive the data regarding operative subsystems (commercial, financial, etc...) as input, will process them in greater or lesser detail and will finally produce analytical documents (annual accounts and other statements) as outputs. The accounting information system receives and issues information not only from outside the organisation, but also from within. For these reasons, the accounting system can be initially considered to represent the economic information aimed to improve communication among the different economic stakeholders involved. It is vital for firm development to provide the data necessary to make decisions and to plan strategies that are more suited to management control. However, there are other elements or variables that exert a direct or indirect influence on accounting information, such as the structure of existing relationships in the

company, management policy and individual interests. For this reason, it is necessary to have instruments that are capable of integrating financial and management data in order to facilitate the decision making process.

For this reason, this paper focuses on establishing an instrument or method called 'Integral Analysis', which analyses whether the organisation is heading in the right direction so that both short term and long term decisions are effective. Integral Analysis is based on various company information systems (the accounting system figures prominently) in order to create a new management system through the incorporation of a simulator. It focuses on a group of measures selected deliberately and applied to attain and communicate a shared view of the organisation's strategy for the future that has been previously confirmed by the management team. In order to do so, the method incorporates, in addition to the traditional economic and financial approach, structural, management and strategic analysis of intangibles, simulators and tools to quantify the relationships among the various perspectives.

Below, we propose a method for measuring intellectual capital. It comprises all the future benefits that an organisation will generate. These benefits will be the result of aspects related to human capital and structural capital, such as: innovation capacity, client relations, process quality, products and services, enterprise culture and communication and image (marketing), which allow a firm to make the most of its opportunities.

Therefore, intellectual capital can be measured by establishing different components and presenting suitable indicators that can be applied and compared to other companies. The framework used must be able to combine the past, present and future of the organisation, meaningfully capturing the capacity of the company to produce sustainable benefits and enabling the management to achieve different strategies in balanced fashion, without placing more emphasis on any one strategy with respect to others. Table 1 presents a standard model applicable to companies in general with special emphasis on a sample of companies (SMEs), the type of company to which the

model has been applied. With this information you could measure Intellectual Capital components (human and structural). Processing and quantifying these factors becomes a fundamental tool for control that we can strengthen by making it dynamic, analysing how indicators have evolved. In this sense, we have advanced towards determining each of these factors or

components in monetary terms, by presenting the computation of generic indicators to measure these capitals. These indicators could be added to and adapted by each company, on the basis of the activities characterised by the sector the company belongs to (open and flexible model).

Table 1. Basic components of Intellectual Capital Model for SMEs

Components		Intangibles	Indicators
Human capital		Remuneration systems Hiring systems Social climate Labour formation Motivation Organisational flexibility	Remunerations Temporality Social benefits Labour dysfunctions Training Satisfaction and motivation Productivity External rotation (abandon) Internal rotation (promotion)
Structural capital	Internal process capital	Quality evaluation system: processes, products and services	Prevention and evaluation costs Non-quality costs External and international quality systems
	Relational or commercial capital	Customer portfolio Customer satisfaction and fidelity Supplier portfolio	Market share Customer satisfaction Supplier quality
	Marketing capital	Enterprise marketing: (public advertising, promotion, relations, personal selling) Contracted media potential	Advertising expenses by product Distribution Media potential
	Research, development and innovation capital	Investment in: new technologies, new products and services Investment in and improvement of the enterprise information system Skills or competences	Research and development Productivity Internal rotation (promotion) Potential mobility Connectivity
Non explicit capital (error)		Intangible assets not considered by the above capitals	Indicators not included in the above groups

Source: Adapted from López and Nevado [6].

Table 2 displays the indicators for each of the components of intellectual capital, differentiating Absolute (in monetary terms) and Efficiency Indicators (in percentage terms). Also, this table shows the accounting information system to develop the management tool with absolute and relative indicators. Once quantified, they will be selected and summed into one or several

absolute values (C) with their corresponding filters or efficiency indicators (i) for each intangible. Thus, the product will determine the final value of the component or intangible asset (I) of intellectual capital:  $I = \sum C \cdot i$ . Method of measurement used in the Skandia Navigator by Edvinsson and Malone [3] and in the Integral Analysis by Nevado and López [8].



Table 2. Specified Indicators of Intellectual Capital and other basic data for Integral Analysis

Component		Indicators
Absolute Indicators (C)		Efficiency Indicators (i)
Human capital $I_H = (C_H \cdot i_H)$	<b>Investment in training</b>  <b>Qualified wage mass</b> (only qualified workers)	<i>Percentage of fixed workers</i> <i>Motivation index</i> <i>Promotion index</i> <i>Absenteeism index</i> <i>Training index (utility and assimilation)</i> <i>System of Remuneration index</i> <i>Labour Climate index</i>
Internal process capital $I_P = (C_P \cdot i_P)$	<i>Quality, Prevention and Evaluation Costs</i> (from labour cost hours dedicated)	<i>Customer satisfaction index</i> <i>Workflow index</i> <i>Implementation of Norms of International Organisation for Standardisation (ISO)</i>
Relational or commercial capital $I_C = (C_C \cdot i_C)$	<b>Work carried out by companies (Outsourcing).</b>  <i>Targeting and Customer Cost</i>	<i>Volatility index</i> (percentage of portfolio of the first customers) <i>Customer satisfaction index</i> <i>Quota of market</i> <i>E-commerce index</i> <i>Competing gain index</i> (if open competition)
Marketing capital $I_M = (C_M \cdot i_M)$	<b>Expenses of communication and marketing</b>	<i>Company image index</i> <i>Quota of market</i>
Research, development and innovation capital $I_{RDi} = (C_{RDi} \cdot i_{RDi})$	<b>Investment in computer science equipment.</b> <b>Investment in R&amp;D&amp;I</b> <i>Indicator of development</i> (from labour cost hours dedicated)	<i>Technological index</i> <i>Connectivity index</i> <i>Knowledge Management (KM) index</i> <i>Call-center (customers) index</i> <i>E-commerce index</i>
<b>OTHER GENERAL DATA</b>		
<b>Net Value of Company (AV)</b>		
<i>Market Value of Company (MV) - Price of Sale</i>		
<i>Cost of Labour Hour or Ratio = Costs / Labor Hours – (Prefer by Departments)</i>		

Note: **In Bold**: available from annual financial statements. *In italic*: available from survey or internal accounts.

These measurements offer the possibility of performing a descriptive and evolutionary analysis of the company's intellectual capital. As a result, we can obtain the variations of the different indicators by sector or for different periods of time.

### 3. Results: Integral Analysis as management instrument

Strategic reorientation and control is an optimum and possible result of Integral Analysis for decision making. This instrument is also capable of control and

accurately determines fulfilment of tasks set by the management.

It is advisable to ascertain that the mathematical lineal relationship (1) can provide quantitative answers for different strategic scenarios anticipated by the management team, that is to say, policy evaluation or conditioned forecasts as an econometric model or equation. In short, it is a control tool that makes it possible to address issues such as: how much intellectual capital would increase following a 2% rise in process capital in a year? but which also explains, how process capital should be increased? That is to say, what indicators

should be improved and to what extent?

$$MV-AV = f(IH, IP, IC, IM, IRDi) \quad (1)$$

The main advantage of this tool is its permanence over time (maintenance), which makes it possible to determine the position and evolution of intellectual capital, which is undoubtedly a competitive advantage in management with respect to the competition. Therefore, the scope of this tool (Integral Analysis) essentially lies in making enterprise strategic maps dynamic. These maps advance from a resource-based approach to a simultaneous approach, which aims to optimise the future value of the organisation. Thus, it allows for dynamic management, that is to say, involving the real participation of time and reorientation with the aim of optimising value for all the stakeholders.

In addition, the tool makes it possible to verify whether or not the strategies that have been established are the correct ones, by way of an evaluation that we could call a 'strategy audit': indicating whether the strategy is the right one or whether it should be changed. Furthermore, it illustrates the road map towards achieving it (strategic planning).

#### 4. Conclusions

The importance of intangibles and measuring them to determine the real value of companies has become one of the objectives of accounting. In order to respond to this need, we present a standard model that estimates the structure of intellectual capital in a company and determines the importance of the different intangibles, making it possible, among other things, to establish different policies to increase intellectual capital in order to achieve greater market value.

This tool therefore provides a response to the main question posed by business management: Are we growing well? Hence, the firms have a tool in sync with its real situation and which makes it possible to consider different scenarios with few information requirements. As a result, it provides guidance regarding future behaviour and perhaps more importantly, it expresses the structure of intellectual capital in order to be able to consider equilibrium strategies.

The instrument can also perform simulations to aid decision making. In doing so, we will determine whether or not the strategies adopted were the right ones or, more importantly, a commitment for the future or strategic design can be introduced by a business executive who can control its benefits step by step and even determine whether or not it is worthwhile in regard to the status quo before this commitment is made.

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## Taxation, between Positive and Negative Effects

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### Abstract

*Efficiency of the tax system components is one of the basic conditions that ensure the formation of public funds to finance the estimated public expenditure and ensure a budget balance, in direct relation to the possibilities of taxpayers' tax expression.*

*The efficiency of the tax system is analyzed by the effects taxation produces on taxpayers and how the tax principles are respected at the establishment of a tax. Fiscal or taxation principles were promoted by the classical economic school representatives, developed by the specialized literature but also covered by specific legislation (the Tax Code).*

*In this context, the establishment of the super-excise on fuel and the tax on special constructions are relevant case studies to provide some relevant conclusions on the efficiency of the tax system in Romania and on the way in which the fiscal budgetary principles are respected.*

**Keywords:** budget balance, supraacciza tax, special construction tax, principles of taxation, differentiated excise.

**JEL Classification:** F65, E62

### 1. Introduction

First fiscal principles were formulated by Adam Smith [1] [2] as a representative of classical political economy and refer to: *the justice of taxation, certainty of taxation, tax collection efficiency and tax convenience*. They present today a proof for

the accuracy of the formulation and by their synthesis they are taken by the tax doctrine and developed by various researchers.

Corresponding to modern economic realities and related to the tax system functions, the tax principles developed and recognized by the literature are [3]:

- *The principle of efficiency* - high budget effect and as low administration costs;
- *The principle of simplicity* - clear language and simple rules, easily understood by taxpayers and the tax control body;
- *Flexibility* - easy adaptation to cyclical policies;
- *The principle of stability* - "a good tax is an old tax" [4];
- *The equivalence principle* - tax obligation payment to provide benefits to payers through access to public "quality" goods and services offered by the state;
- *Neutrality* - uniform rules for payers, no direct or indirect discrimination;
- *The principle of equity* - contribution to covering public expenses is made according to the ability to pay of each payer;
- *The principle of legality* - the state's right to levy taxes is enshrined in the Constitution and is governed by special laws.

In the Romanian fiscal system, specific legislation is governing the following fiscal principles [5]:

- *Tax neutrality measures* in relation to various categories of investors, capital and ownership, to ensure equal conditions to investors, Romanian and foreign capital;

- *Certainty of taxation*, which is achieved by clear legal norms without arbitrary interpretations and by payment terms specifically set out to positively influence financial and fiscal management decisions;
- *Tax equity*, by taxing income according to size (contradicted in the case of progressive rates versus flat tax);
- *Taxation efficiency*, through long-term stability of the Tax Code provisions that does not lead to adverse effects for individuals and businesses, making investment decisions.

To the effects they produce, tax principles [6] [7] can be grouped as follows:

- *Principles of tax fairness*, which results in the achievement of social justice with regard to taxes, by fulfilling conditions as: setting the minimum taxable income, the tax burden in relation to the taxpayers' contributory power or the equivalence between taxable income and the tax burden.
- *Principles of financial policy*, which aims at a high tax efficiency, stability and elasticity of taxes.
- *Economic policy principles*, that recognize the use of taxes as a tool to boost the development of sectors, to stimulate or reduce production or consumption of goods or the restriction of export or import growth for certain products and so on, pursuing not only the financial aspect to obtain revenues to the general consolidated budget [8].
- *Socio-political principles*, that take into account the fact that the tax levies change the distribution of income in society and that taxes can be deliberately used to fulfill social objectives of ethical nature when it is working to ensure social justice, admitting that the these objectives can be achieved through the allocation of public expenditure or other legal instruments (minimum wages, social transfers etc.) [9].

## 2. Taxation, between Causes and Effects

Given the low level of revenue collection to the budget in 2013 and not just positive forecasts for 2014 given by the high tax evasion and low level of accessing European funds, the executive, in order to fund the state

budget, held unpredictable tax legislative changes that, among other things, targeted the super-excise tax on fuel and the special construction tax [10].

Tax changes abusively taken before one month of submission to the state budget and the start of the fiscal year brought a number of criticisms and created discomfort that negatively influenced the business plans of companies [11].

Critics have referred to the fact that the executive has approved the amendment of tax laws already established in an authoritarian manner by emergency ordinance, the exception turning the Tax Code [12] into right, without impact study and without prior consultation with the business environment as a "partner" in the formation of state income.

## 3. The Mode of Setting, Collecting and "Refunding" the Super-Excise

The establishment of the super-excise, scheduled to enter into force in early 2014 (delayed by political negotiation until 1 April), sparked controversy by the faulty estimate and basis, by not respecting the tax principles and regulated cumbersome administration.

Arguments supporting the above statements are given by the fact that:

- by the new tax, the initial estimate was that there will be collected a sum of 2.4 billion lei to the budget, which does not take into account that the super-excise will lead to a decrease in consumption (between 1% and 3%) or that the proceeds will be reduced by 353 million lei as a result of subsequent settlement of the differentiated excise;
- the overcharge comes on a fuel price increase by 9 bani / liter at the beginning of this year, due to the change mode in the excise [13] calculation, given that Romania's obligations arising from the treaty with the EU regarding the duty was fulfilled;
- the incorrect and contrary to the principle of budgetary universality justification regarding the collection of additional budget revenues to finance investment in road infrastructure projects that will produce side effects in reducing travel time in traffic, fuel consumption,

maintenance costs of the means of road transport and road safety by reducing accidents;

- it proves instability in that the provisions relating to overtax were amended [14] even before the application, in the deferral period, by the heavy and discriminatory regulation of the excise differentiated refund with 40 euros / 1,000 liters diesel used in transport of goods with a gross weight of at least 7.5 tones permissible for a passenger vehicle of category M2 or M3 [15], to the economic operators licensed in the European Union and with specific procedures covering in the state aid field. Super-excise criticisms are summarized as follows:

- *the setting moment was wrong* (in the same time the cost of gas and energy increased);
- *administration costs are high;*
- *it has a negative influence on the evolution of prices and hence inflation;*
- *it is discriminatory* as a result of refunding only to a part of the duty differential carriers, excluding activities: taxi, courier, transport of food in small tonnage vehicles and population;
- *competitiveness of Romanian operators decreases*, compared to those in other countries;
- *it leads to subjective interpretations of the budgetary process* by suspicions launched in the public space compared to the fiscal space achieved in this way and the excess of financial resources in some areas like development ministry, social work, public debt to finance the political campaign;
- *it encourages tax evasion*, by the fact that the procedure is not well-defined, categories of included vehicles are not clearly specified, and the tax system is unprepared [16], inadequate and could be overwhelmed by the volume of requests.

#### 4. Special Construction Tax

The special construction tax calculation [17] by broadening the tax base of the tax on buildings [18], highlights its negative effects. Therefore, investments in special buildings, infrastructure, equipment or facilities, instead of producing profit, turns

through an unexpected tax change taken into a source of cost affecting business plans of companies and hence, dissatisfaction of companies in the affected industries. To this, it is added the fact that before the first payment of tax, companies only have summary regulations at their disposal, approved, in the already established authoritarian manner, and the implementing rules are to be adopted only after the approval of the ordinance in the Parliament.

The negative effects of the tax on special constructions are found in:

- *the stagnation of investment*, given that a construction of normal length of up to 60 years of functioning, will be "paid" in this period once more to the state (90% ) until the end of its life and thus any investor who is planning a major investment will take into account the investment justification for this additional cost;
- *discouraging investment in agriculture, energy and telecommunications* that need infrastructure to counter this dependence on weather conditions and the effect of monopoly imposed by a small group of exporters of agricultural products;
- *the lead to higher prices and thus inflation [19]* and will adversely affect consumption by decreasing the purchasing power;
- *the tax level is excessive*, if the calculation takes into account its influence into the budget, estimated at only 400 million lei, given that public information shows that only the top 20 companies in Romania in the areas affected will have paid to the budget much larger amounts;
- *there are no clear regulations for the taxation of improvements* and upgrades made to fixed assets taken rented, leased or subject to lease;
- *the tax imposed* will affect the national strategy for infrastructure development, given that, for example, motorways that need to be built in public-private partnership will be seriously affected by this tax.

#### 5. Conclusions

The analysis of positive and negative effects of taxation through the tax system

efficiency, based on the manner in which the fiscal principles are respected highlights that tax changes in Romania are unpredictable and unfairly grounded. The regulatory framework for tax analyzed in the paper as case studies do not comply with tax principles across role, regardless of how they are addressed, historically, as scientific research or regulated by law and they produce more negative effect on economic operators and the general public.

If we admit the reason of taxes and tax purposes, ensuring financial resources to finance public spending, we could detach the positive effects of taxation, subject to the fairness and efficiency with which they are used in the budget process. Nevertheless, from this perspective, criticism of analyzed taxes, having the effect of increasing taxation is justified in view of the excess of public financial resources allocated in some areas, in the 2014 budget, in order to ensure the fiscal budgetary space required to finance certain categories of public spending on political criteria.

Under practical applications due to the cumbersome and costly procedure to a refund of a differentiated excise by a part of duty payers, the super-excise becomes discriminatory, results in tax inequity by requiring three times the same tax base (depending on the leu / euro in the previous year, inflation and super-excise), to a tax yield decreased due to the high costs of administration and leads to increased risk by inciting tax evasion. Regarding the tax on special constructions, there are many negative aspects and they will negatively impact the economy.

The moment of establishing these taxes was wrong because in Romania, economic growth versus economic development must be encouraged involving the reduction of public spending through more efficient taxation.

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- [13] Following these changes, in Romania, starting with April 1, by introducing the additional duty of 7 cents per liter of petrol and diesel, Romania with 1.346 euro / liter is ranked 10 in the price of petrol in the EU, surpassing countries like Poland 1.267, 1.27 Estonia, Bulgaria 1.283, 1.293 Luxembourg, Czech Republic 1.302, Hungary 1.312, Latvia 1.322, 1.330 Lithuania and Austria 1.337, being surpassed by Croatia 1.352, Spain 1.392, Cyprus 1.417, Slovakia 1.428, Malta 1.440, Slovenia 1.451, France 1.498, the EU 28 1.518, Ireland 1.520, Germany 1.521, Belgium 1.522, UK 1.53, Portugal 1.544, Sweden 1.596, Finland 1.598, Greece 1.660, Denmark 1.661, see capital.ro, accessed on 01.04 2014 .
- [14] Art. 176 from Law no. 571/2003 regarding the Fiscal Code, with subsequent amendments and supplementations.
- [15] Defined in the Directive no. 70/156/CEE of the Council in February 6, 1970 regarding the harmonization of member states legislations about the approval of their motor vehicles and trailers.
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of the previous year in Group I of the Catalogue on the classification and normal operation of the fixed assets.

- [18] The special construction tax is charged for: hydroelectric stations and transformer stations, ports, power plants and nuclear power plants, oil wells, gas and salt loading and unloading ramps, chimneys and cooling towers, settling ponds for tailings ponds, ponds, basins, locks, dams, rail infrastructure, road infrastructure with necessary accessories, overhead telecommunication lines, mobile facilities, radio, tv, storage reservoirs, construction, electricity transmission, channel irrigation, etc.
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## Ensuring a Balance in Conducting the Tax Inspection

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### Abstract

*The low values of public finances, due to the low level of collecting revenues, the high level of tax evasion and the low level of accessing European funds, makes the executive power to make frequent and unpredictable changes to the tax system, designed to streamline it in order to collect additional revenues to the budget. Thus, since 2014, the special tax levy, the special super-excise duty for fuel, changes in fees and so on are charged, which means they are inconsistent with relaxation and fiscal predictability.*

*In the effective tax system, an important role is played by the tax audit where the balance of power in most cases is unbalanced, the tax system is that to which the law gives the necessary tools to make a fiscal decision that it considers proper. From this perspective, the desire of taxpayers to find ways to improve this balance becomes natural.*

**Keywords:** tax decision, financial predictability, tax audit

**JEL Classification:** F65, E62

### 1. Introduction

The Romanian tax system is based on self-assessment and is declarative, and the main taxpayer obligations are the statement and registration, followed by taxes and contributions to the general consolidated budget. The check about how taxpayers

fulfill this obligation rests in the tax audit, whose object is to verify the compliance of taxpayers with the provisions of the tax and accounting law.

In this respect, tax control machine checks fairness of determining the tax base, the accuracy and compliance of tax statements, the fulfillment of current payment obligations, payment disparities and accessories afferent to these, as applicable. In pursuit of a tax audit, an important role is played by the Fiscal Procedure Code provisions [1] and the implementing rules and the taxpayers' charter of rights and obligations during the tax audit [2].

#### *Stages in Performing the Tax Audit*

To ensure the effectiveness of the fiscal inspection, there is a need to go through the following steps [3]:

- *To establish the competent institution that can exercise the fiscal inspection:* The National Agency for Financial Administration by central or territorial structures, local authorities and other authorities under the law competent to manage taxes, contributions and other amounts owed to the general consolidated budget.
- *The selection of taxpayers for the tax audit* by the competent fiscal institution, using different sources of information or the personal database; the taxpayer has no right or opportunity to object to the used selection procedure.
- *Communication of the inspection permit before beginning the tax audit* to the taxpayer, in writing, before the tax



inspection, 30 days ahead, for large taxpayers and 15 days for the others. As a document preliminary to inspection, the tax audit notice is compulsory to be communicated and includes: the legal basis for the tax audit, the tax audit start date, tax obligations and periods subject to tax the audit and the opportunity to request the postponement of the tax audit [4].

- *Identification of the fiscal inspection place*, usually in the premises of the taxpayer or if there is adequate work space at the headquarters of the tax institution or any other place agreed with the taxpayer.
- *Specifications regarding the inspection period* that cannot be more than 3-6 months to not adversely affect the activity of the checked taxpayer [5].
- *Consideration of facts and legal relations relevant for taxation*, in which specialized inspectors check: the compliance of the taxpayer with tax and financial and accounting provisions, the modality of recording within the financial accounting documents all economic and financial operations, the setting and declaring compulsory levies to the general consolidated budget, the compilation of reporting and summary documents, if the documents reflect reality if compulsory tax levies have been calculated, declared and paid according to the terms established by law.
- *Recording the tax audit result* in a written report (control protocol), showing the inspection findings, analyzed in terms of factually and legally taken measures. This report must be endorsed by the taxpayer or his representative with any objections, as appropriate [6].

## **2. Rights, Obligations and Rules of the Factors Involved in the Tax Inspection**

To ensure stability in conducting the tax inspection the financial rights and obligations have matched the obligations on taxpayers subject to tax audit, which covers [7]:

- *The taxpayers' obligation to cooperate with those who exercise the tax audit*, facilitated by the fact that throughout the tax audit exercise, taxpayers have the

right to receive assistance, financial or legal, as appropriate, and in finding tax states, the taxpayer is obliged to give the information requested and submit to the venue of the tax audit the requested documents, and any other data necessary to clarify which situations are relevant to the finding of financial facts that may have pecuniary effects if improperly grounded and can lead to complaints regarding the control activity [8].

- *The taxpayer's right to be informed about the interim and final findings in the performance audit*. In this regard, during and especially at the end of the fiscal inspection, the financial inspection device will timely submit findings and especially tax consequences to the taxpayer, giving him the opportunity to express his views. An exception to this requirement is the case when the tax base does not support any changes as a result of the tax audit or if the taxpayer waives this right and notifies the audit.
- *Partnership between Taxpayers and the Responsible Tax Inspection Unit [9]*

A partnership relationship between the taxpayer and the responsible tax inspection unit is justified by the fact that the activity of the two entities are interrelated to each other, the first offering manifestation forms to tax audit exercised in the interests of the state [10].

Another reason to support this partnership is that most criticisms brought to the tax system in Romania concern its unpredictable character, by changing tax laws [11], at short intervals, which often creates confusion and discomfort to taxpayers. Thus, sometimes, even though the effects are positive, they give field of interpretation and negatively affect the revenue producing activities due to their unpredictability and regulatory overlaps.

As expressed, relevant are, as a case study, the latest amendments to the Tax Code in 2014, the Fiscal Procedure Code and other regulations with tax incidence[12], which refer to:

- the reduction of late payment interests to 0.3% for each day of delay from 0.4%;
- waiving the certification required for annual tax returns filed by the taxpayer at NAFA, this becoming optional, thus

- recognizing that certifying statements is a right and not an obligation;
- the increase in the amount of 45000 lei VAT reimbursement, which is approved without background check, subject to further verification and is not applicable for the taxpayers that have a written record with fiscal acts having the nature of an offense if fiscal authorities detain elements that the reimbursement is unwarranted;
  - the modification of the procedure on access to the profession of tax consultant;
  - the change in the procedure of installment payment of budgetary debts and other similar provisions;
  - the modification of permit conditions as fiscal warehouse [13], excise goods circulation for operators who are in bankruptcy proceedings where an operator authorization tax warehouse was revoked etc.
  - Introducing the excise for platinum jewelry or platinum combined with gold and the exemption from excise duty for wedding rings.
  - Regulating the possibility that the tax authorities to prove the facts of a taxpayer by data stored on servers in the on-line environment and through audio-video recordings.
  - Amendments to the law on cadastre, being regulated as such charges are exempt from VAT, which is not a find in the tax code, but is listed in general.
  - The regulation of refresher statements on income tax for non-residents while the payers of income subject to income tax, payable by non-residents, will submit, by the last day of February, a statement regarding the income paid by residents of the Community. This provision is taken in the Fiscal Procedure Code, even if there is a similar provision in Art. 119 of the Tax Code.
  - Regulation of resident taxpayers' taxation in other Member States, who derive income from Real Estate property in Romania, which will submit, until May 25, a statement of income realized in Romania, even if there are other regulations established by art. 13 and art. 115 of the Tax Code and that have procedures already applicable to such categories of taxpayers.

- Regulating the conditions of bank accounts execution seizure for taxpayers who do not pay on time budget obligations through a new procedure, which involves a period of 30 days from the issuance of the summons to the effective retain to avoid controversial situations where first accounts are locked and then the summons are issued.
- The unpredictable and groundless nature of tax legislation stands out from the analysis of adverse effects related to special construction tax payment within May 25, or establishing the super-excise on fuel.

### 3. Possibilities Balancing the Tax Audit

In exercising the tax audit, the forces report is unbalanced, tax inspectors are those which the law gives the tools needed in order that, in most cases, they impose their views. Such is the natural desire of taxpayers to find ways to counter this imbalance.

A first method is about the taxpayer's *communication and negotiation skills* with the control body and a second one is technical, given by the level of knowledge of tax law and procedure. Among these, the second is more important and provides field of action to the former, but they should be used in combination to achieve the desired effects. Regarding communication skills, it is important to establish from the beginning a ratio of equality with the inspection team, in an attitude of firm principles, which should establish from the beginning where the communication space starts and where it ends for each party involved.

The second method, technical, provides the opportunity to show the inspection team that at the verified firm level, the key personnel has sound fiscal knowledge and masters financial legislation.

This option is an approach to inspection favored by the fact that the financial institution is obliged before the inspection, to notify the taxpayer by an inspection protocol, who thus has the time needed to update the tax issue with the possibility to postpone the inspection for fundamental reasons.

Another advantage is the possibility to receive specialized assistance, financial or legal, throughout the inspection. Note that there may be situations where the presence of

a neutral expert irritates the inspection team or makes it ask more questions than necessary. To avoid such situations, the taxpayer is preferable not to confront the consultant with the surveyors, being preferred to talk to him and only the taxpayer to communicate with the inspection team.

An important role in the success of the inspection is played by the team which will be the interface with the financial control body. In this sense, it is indicated that as few persons as possible should be designated, but those designated, to be well prepared professionally in order to give explanations and to give relevant and to the point clarifications. The aim is to prevent spilling of unsolicited information that may become further investigation plans.

As part of a technical nature, there should be noted that the fiscal control team must complete the Single Control Register with the information required and this should be asked for when the control starts.

To avoid running out of time and taking unsubstantiated fiscal measures due to the limited time the inspection is scrolled, it is important to provide information requested in a timely manner and the request for regular information about how the inspection stems, in order to clarify operationally any identified issues so that corrective action is taken while still being in operative control.

Regarding the analyzed issues, it is to be noted that a tax control does not end in all cases at the time of signing the tax audit report, or upon receiving the taxation decision. To interpret aspects that the tax audit team did not take into account, the controlled entity has the right of appeal to the institution initially ordering the inspection and later in court, with the right to request suspension of enforcement [14].

#### 4. Conclusions

Ensuring a balance in conducting the tax audit can be provided by a "partnership" relationship between taxpayers and the responsible tax inspection unit justified by the fact that the activity of the two entities is interrelated to each other, the first providing manifestation forms to tax audit in the interest of the state, to attract additional revenue to the budget. This balance is influenced by a number of factors mentioned

in the paper, among which determining are the ones that concern:

- *the quality, consistency, clarity, predictability and justification of tax law changes;*
- *communication skills of checked taxpayers, how they choose the level of training for their tax advisors or other designated people;*
- *the preparedness of personnel providing fiscal management at the level of controlled company;*
- *the training and education of staff exercising the fiscal inspection.*

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or addition to the tax code "enters into force from the first day of the year following the year in which it was adopted by law". Unfortunately, this "as a rule" leaves field of interpretation in favor of the executive power which often turns the exception into right. Thus, if the initial Tax Code ended in Article 298, in 2013, it has 411 articles as a result of over 100 modifying normative acts, new articles being inserted with the same number to which indices were added, according to the French model. The most important changes were the introduction of the flat

[12] The Fiscal Code, art. 206<sup>22</sup>, line (1) the tax warehouse is the place under the control of the competent tax authority where excisable products are produced or processed and held, received or dispatched under suspension by the authorized warehouse, according to the requirements of existing tax regulations - C. Comaniciu et al., Taxation: Basic Ideas and Fundamental Concepts to the Purposes of All, ULBSibiu Publishing House, 2010, p 325.

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## Financial Accounting and Transparency of Information

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### Abstract

*A common theme in current corporate governance is to increase managers' accountability. In contrast, this paper emphasizes the need for less accountability in certain situations and consequently introduces the concept of "allowance for failure". This concept refers to the style in which the decision maker's environment—such as capital market, corporate governance, and management control system—deals with potential failures (e.g., project or investment failures). The argument that allowance for failure is important is illustrated by the example of failing projects, drawing on the escalation of commitment literature. It is hypothesized that allowance for failure indirectly reduces project escalation. The relationship is mediated by managers' perceived threat in case of project failure. We propose an accountability framework with two dimensions: rewards versus penalties and processes versus outcomes. We show that auditors' current regulatory accountabilities generally are in the form of penalties.*

**Keywords:** financial accounting, transparency of information, financial reporting.

**JEL:** M42, M48

### 1. Introduction

A common theme in current corporate governance is to increase manager's accountability. It seems en vogue to hold managers personally responsible for failures, to increase pressure, and to tighten controls. In this paper, we begin by characterizing the financial statement audit context as one in which the auditor regularly must apply professional judgment to assess the reasonableness of many complex financial

statement estimates that are future orientated. We also characterize it as one where there is uncertainty about what is expected of the auditor because it is difficult to conclude on the appropriateness of judgments made. We propose a two- dimensional accountability framework with one dimension being rewards versus penalties and the other being processes versus outcomes (which together form four quadrants). We categorize existing sources of auditor accountability and find that presently most accountabilities are in the penalties-outcomes quadrant and that accountabilities in the rewards-processes quadrant are noticeably missing.

We then discuss research from accounting and economics to describe currently forgone advantages of accountabilities that would hinge predominantly on auditors' judgment processes and/or that would reward higher audit quality. Research from the above disciplines suggests that auditors' current accountabilities are unlikely to motivate them to target high quality financial statement audits or to invest in research and development activities that would improve longer-term audit quality. Instead, these accountabilities likely motivate shorter-term, compliance-focused behaviors, with auditors operating at or slightly above the threshold of noncompliance to avoid sanctions. Importantly, audit firms should have incentives to go beyond the floor and compete on the basis of quality. This occurs when, for example, audit quality carries a premium and clients are willing to pay more for higher quality services.

We address two overarching questions [10]: What kind of accountability framework could regulators use to motivate auditors to improve audit quality? What accountability framework could regulators use to evaluate how well auditors have carried out their duties? The research questions address possible effects of the potential changes on the judgments of auditors, inspectors and

potential users of audit reports. Future research addressing these research questions will allow refinement of our accountability framework and provide evidence aimed at improving audit quality.

## **2. Audit fees and accounting quality**

The accounting literature includes numerous studies examining different aspects of accounting quality [8]. Although there is no agreed upon definition of accounting quality, different dimensions of this construct have been operationalized. These studies typically develop measures of quality using reported earnings and earnings components and define the construct as "earnings quality" or "accruals quality." Examples of past definitions of earnings quality include high earnings persistence in a time-series; earnings that accurately represent the economic implications of underlying transactions; the proportion of earnings relative to operating cash flows; or how well working capital accruals map into past, current, and future cash flows.

I begin by defining accounting quality for the purpose of this study. I acknowledge that accounting quality is a difficult concept to define and to measure [9]. Despite the ambiguous nature of accounting quality, evidence suggests auditors do think in terms of the quality and not just the acceptability of their client's financial information. For example, the 1999 Blue Ribbon Committee on improving the effectiveness of corporate audit committees audit in USA makes the following recommendation [2] : a company's outside auditor should discuss with the audit committee the auditor's judgments about the quality, not just the acceptability, of the company's accounting principles as applied in its financial reporting; the discussion should include such issues as the clarity of the company's financial disclosures and degree of aggressiveness or conservatism of the company's accounting policies and underlying estimates and other significant decisions made by management in preparing the financial disclosure .

The committee's recommendation discusses elements of accounting quality that are commonly referenced in academic research such as the clarity of disclosures and the degree of conservatism or aggressiveness

of the company's accounting policies. Following this logic, we adopt a broad definition of accounting quality which is similar to the following definition [2]: accounting quality is the extent to which accounting information accurately reflects the company's current operating performance, is useful in predicting future financial performance and helps assess firm value.

## **3. The context of financial statement auditing versus financial auditors independence**

When auditing financial statement estimates, 'reasonableness is the construct that auditors must use in assessing whether or not a misstatement exists (e.g. ISA 540 from IFAC 2013) and auditors' conclusions pertaining to an estimate's reasonableness are matters of professional judgment . ISA 200 now defines professional judgment as : "the application of relevant training, knowledge, and experience, within the context provided by auditing, accounting and ethical standards, in making informed decisions about courses of action that are appropriate in the circumstances of the audit engagement" [7].

In addition, similar kinds of estimates that appear in management's discussion and analyses instead of in the financial statements receive further, safe harbor protection as a result of being legislatively construed as forward-looking. A related issue is whether auditors' professional judgments are accorded similar latitude as is accorded to management in preparing and reporting complex estimates in financial statements. It is possible that new regulatory inspections only increase the likelihood that auditors will face penalties despite reaching conclusions that were reasonable at the time of the audit. To the degree auditors' judgments are held to a higher standard than reasonable judgment at the that time their judgments were made, there appears to be an anomaly in historical financial statement auditors' accountabilities compared to preparers' accountabilities.

With the auditing context in mind, we provide a two-dimensional accountability framework. One dimension is the degree to which auditors are accountable for their conclusions versus accountable for their professional judgment processes. The second

dimension is the degree to which auditors' accountabilities manifest in the form of penalties versus rewards.

Financial auditors' accountabilities predominantly have been in the form of penalties. In litigation contexts, the best outcome is avoidance of damages and settlements. Auditors' new regulators have generated a range of new penalties, but so far no new rewards. While there is some anecdotal evidence, there is limited empirical evidence that auditors are rewarded for particularly good judgment processes or innovative audit procedures. The limited empirical evidence comes from studies on auditor expertise and audit markets. The expertise studies indicate that, as auditors gain industry experience, their technical knowledge of accounting and auditing, procedural knowledge about how to gather and interpret audit evidence, and their tacit knowledge about how to manage interpersonal relationships all tend to improve.

Nevertheless, we do not know the degree to which these rewards motivate auditors to improve audit quality (e.g. adjust audit programs or staff audit teams differently to address unusual risk factors). It also is unclear whether these rewards are intended to motivate auditors to supply audits that just meet a statutory minimal-quality threshold, or superior audits that easily exceed such thresholds. Interestingly, nearly all archival and experimental studies examining auditor judgments either presume that especially good auditor performance is sufficiently rewarded or, more commonly, are silent about the degree to which better performance by auditors is rewarded.

#### **4. Auditor accountability framework**

Historically, auditors have been held accountable when adverse financial statement outcomes (e.g. client bankruptcies, material misstatements due to fraud, or large decreases in market capitalization) follow after particular audit conclusions (e.g., an unqualified opinion or the absence of a going-concern modification). These two in combination trigger attempts by regulators and third parties to extract penalties from auditors through fines, compensatory or punitive damages, and removal of license.

Outcome-triggered accountabilities usually entail retrospective assessments of auditors' judgment processes, and both the salience of and uncertainty surrounding various risk factors can widely change during versus after the audit, especially in volatile economic times.

In the last decade, audit regulators began conducting inspections of audits and audit firms' quality control policies. These inspectors have a complex task—one of assessing the quality of an auditor's judgments about management's financial statement judgments.

Regulators use a risk-based approach, based on an undisclosed set of cues, to select audits for inspection. Still, there ordinarily is some time lag between auditors' risk assessments and audit testing versus regulators' inspections and reports. Regulators who retrospectively believe a different approach to audit testing would have been better may well be drawing reasonable conclusions, but auditors also may have used a different approach to audit testing, if they had knowledge of changing conditions. Consequently, regulators' assessment of auditors' judgment processes may be biased (perhaps unconsciously) by intervening outcomes (e.g., changed economic conditions or large decreases in stock price).

There are five dimensions used to compare and contrast judgment rules for auditors: (1) the role of risk taking, (2) fear of liability, (3) lack of accepted methodologies, (4) proliferation of complex judgments and (5) reliance on market effectiveness [2].

When belief revision following adverse outcomes is normatively too large, outcome bias is said to occur. Outcome bias could occur in auditing, for example, if the revelation of a material misstatement or of a material weakness in internal controls causes jurors or regulators to overestimate the degree to which high- versus low-quality audit judgment processes actually alter the likelihood of that a material misstatement later will be revealed. Hindsight evaluators similarly may overestimate outcome controllability or even misremember their own prior beliefs.

The Advisory Committee on Improving Financial Reporting (ACIFR, 2008) in the

USA asserts that when evaluating preparer and auditor judgments, it is appropriate to use information that was obtainable at the time the judgment was made but inappropriate to use information not obtainable at the time the judgment was made [9]. The latter seems inconsistent with Bayes' Rule. In particular, if unable to determine what information was obtainable at the time of judgment, Bayesians would purposely use information not obtainable at the time the judgment if they believed it to be correlated with obtainable information at the time of judgment.

While accountability for outcomes can help improve judgment performance under some circumstances, and while outcomes often are easier to observe than judgment processes, research to date indicates that process accountability holds as much or more promise than outcome accountability for improving judgments. In addition, such research provides reason to conjecture that adding process accountability to a setting dominated by outcome accountability will enhance judgment quality.

**Example**

A client of the investment firm sells a number of 30,000 shares at market price the day of 890 lei / share , the gross value of the transaction is 26.7 million lei ( 890 x 30.000 ) and the fee charged is lei 667.500 . The customer has purchased shares prior to the sale , as follows: First version - 10,000 shares x 700 lei / share , 12,500 shares x 600 lei / share , and 11,500 shares x 340 lei / share , and the second option when he bought only once 30,000 shares at a price of 900 lei / share.

B. A client of an investment firm to sell shares received for free, as follows:

- The first transaction :
- number of shares sold 311
- Day Sale price of lei 1960
- Gross value of transaction lei 609.560
- Transaction fees 48 765 lei
- In the second transaction :
- Number of shares sold 553
- Sale price of the day lei 560
- Gross value of transaction lei 309.680
- Transaction fees 24 774 lei

We changed the number of shares purchased so that we have a number of shares purchased exceeds the number of shares sold. Moreover, assume that the number of 11.500

shares were purchased at 340 lei / share , not the 34.000 lei / share , so the sale of 30.000 shares to obtain a gain .The gain from the transfer of securities other than equity securities open investment funds and shares , means the positive difference between the sale price and the purchase price of securities types , less commissions payable to intermediaries. The tax is calculated by applying a rate of 1% on gains from the transfer of securities and final .

*Table 1 Estimated effect of transactions in shares*

Type transaction	Number of shares	Price sell / Buying	Gross Transaction	Value Net	Value transaction fees
Buy	10.000	700		7 mill	
Buy	12.500	600		7,5 mil	
Buy	11.500	340		3.91 mil	
Total shares	34.000		18.41 million		
Sale	30.000	890	26,7 mill	667.500	26.032.000

*Source: This table presents the results of simulating of an hypothetical case by the author*

WAC / share 541  
Gross earnings 9.788.382  
Tax (1% ) ( 97 884 )  
Net 9.690.498

We calculated the gain from the transfer of ownership of shares with the weighted average cost method ( " WAC " ) . Based on our information, investment firms use this method to calculate tax on gains from the transfer of securities , but note that the current legislation does not provide this method as mandatory or recommended . It is therefore possible to use the methods FIFO ( "First In First Out" ) or LIFO ( "Last In First Out" ) , as appropriate.

**5. Conclusions**

Questions arise as to how the adoption of an auditor judgment rule would influence the financial statement preparation and auditing process, including management's accounting choices, auditors' judgments, audit committee members' execution of their fiduciary duties, and regulatory inspectors' assessments of auditors' professional judgments. In this paper, however, we concentrate on auditor judgments.



In contrast to studies using realized earnings to make inferences about accounting quality, we use fees charged by auditors to infer the auditor's ex ante assessment of the quality of the accounting system. Our approach builds from the premise that lower quality accounting systems increase the risk exposure for auditors and therefore will be priced in equilibrium. Moreover, auditors are arguably in the best position to estimate the quality of the accounting system because of their proprietary information and access to management.

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# The Accounting for Intangible Assets and Impact of Assets Impairment

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## Abstract

*The intangible assets are increasingly considered the ultimate roots of company's performance. The recent global financial crisis has awakened everyone associated with the field of management and accountancy. The importance and attractiveness of accounting numbers (earnings, dividends, and cash flows), which play a significant role in business valuation, is increasing day by day. The paper investigates the impact of IAS 36 "Assets impairment" on analysts' choice and selection of different valuation models. Fair value accounting is used when reliable fair value estimates are available and when they convey information about operating performance. In some cases, although some assets contribute to the estimation of future cash flows, they can not be allocated to that cash-generating unit on a reasonable and consistent. This could be the case of goodwill or a corporate asset, such as those belonging to the corporate headquarters.*

**Key words:** intangible assets, assets impairment, fair value.

**JEL:** M41, G32

## 1. Introduction

Many intangibles consist of knowledge-intensive services [2]. Thus, it is possible to argue that investment in services have been important for economic and productivity growth during the last decades in many industrialized countries. However, since most studies so far have focused on the impact of intangibles at the country or business sector level, it has not been investigated thoroughly how important intangible investments are for specific industries.

Economic growth in high-wage economies such as Europe and the United States stems in good part from investments in knowledge creation—areas where these countries arguably have their greatest comparative advantage. Investments in knowledge creation include expenditures for human capital, in the form of education and training, public and private scientific research, and business expenditures for product research and development, market development, and organizational and management efficiency. Such expenditures—collectively called intangibles—are strategic investments in the long-run growth of individual companies and of the economy as a whole.

IAS 36 does allow the reversal of previously recorded impairment losses which can trigger earnings management [9]. On the part of analysts, it is hard to forecast the times and amount of such unanticipated reversals. In order to avoid such issue, it was recommended that reporting entity must appropriately disclose the possibility of impairment at the time of initial expensing. Doing this, it will result into timely and value relevant information's for analysts and users of financial statements.

Under the surface of the crisis started in 2007, deep structural developments affecting the international economy are occurring. Demography, capital accumulation, organizational change and innovation are shaping a new landscape for the global economy beyond 2015, when the current slowdown will be hopefully overcome.

In particular, investments in innovation are at the core of the Europe 2020 strategy for growth because of their central role in boosting globally sustained competitive advantages. A fundamental part of the innovation process is undoubtedly related to Research and development (R&D). Moreover, recent studies have found that

intangible capital, corresponding to a broader definition of innovation investment, has been the major driver of US business sector growth since the 60's and 70's. [1]

## 2. Fair-value accounting and intangible assets

Fair-value accounting is a way to measure assets and liabilities that appear on a company's balance sheet. IFRS 13 "Fair Value Measurement" defines fair value as [8] : *"the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date"* - that is, an *exit price* . When quoted prices in active markets for identical assets or liabilities are available, they have to be used as the measurement for fair value (Level 1 inputs). If not, Level 2 or Level 3 inputs should be used. Level 2 applies to cases for which there are observable inputs, which includes quoted prices for similar assets or liabilities in active markets, quoted prices from identical or similar assets in inactive markets, and other relevant market data. Level 3 inputs are unobservable inputs (e.g., model assumptions). They should be used to derive a fair value if observable inputs are not available, which is commonly referred to as a mark-to-model approach. [4]

Standard IAS 38 "Intangible assets" applies to, among other things, expenses associated with the activities of advertising, training, start-up, research and development [9]. For example, research and development can generate a physical asset (eg a prototype), but the physical element of the asset is secondary to its intangible component consists of the knowledge embodied in it, so applying this standard. In the case of a finance lease, the underlying asset may be either tangible or intangible. After initial recognition, a lessee accounts for an intangible asset held under a finance lease in accordance with this standard. Rights arising from the granting of licenses for items such as film production, video recordings, plays, manuscripts, patents and copyrights are excluded from the scope of IAS 17 "Leasing" and fall under standard IAS 38.

Measuring intangible assets performance has always posed many problems. This can

be related to the nature of the firm's activity: first, the degree of uncertainty of an research and development activity is very high; second, once completed the research and development output is itself often highly fuzzy and not definable and, thus, not measurable; finally, the ultimate result of research and development activity can be viewed after years, once an innovation has been brought to the market, but, at this time, the outcome is the result of the efforts of both the research and development unit and the other company's functions.

As far as individual research and development projects are concerned, the evaluation of the impact on the economics of the firm can be conducted using three major categories of techniques: discounted cash flow (DCF) techniques (Net Present Value, Profitability Index); option-based techniques ; non-financial techniques (including profile methods, checklists and scoring methods). Under IAS 36, there are three situations or three rules for determining the recoverable amount of an individual asset [3]:

1. If fair value less costs to sell or value in use of the asset is higher than the carrying amount, the asset is not impaired and there is no point calculating or estimating the recoverable amount. [7]

2. If fair value less costs to sell can not be reasonably estimated because there is no basis for making a reliable estimate of the amount obtainable from the sale of assets voluntarily between parties informed, in a transaction the price is determined objectively, then the asset's recoverable amount can be considered as value in use.

3. Especially if the asset is held to be sold, the recoverable amount of the asset can be considered equal to its fair value less costs to sell.

## 3. The process of identifying of an asset that may be impaired

An entity must determine at each balance sheet date whether there is any indication that an asset may be impaired [5]. If any such indication exists, the enterprise should estimate the recoverable amount of the asset. In addition to analyzing prudential principle at least once a year book value of assets of the estate, and apply the concept of

materiality to identify if the recoverable amount of an asset needs to be estimated. For example, if market interest rates or other market rates of return on investments have increased during the period, a business is not required to make a formal estimate of recoverable amount of an asset when:

- If the discount rate used in calculating the asset's value in use is unlikely to be affected by the increase in these market rates. For example, increases in short-term interest rates may not have a significant effect on the discount rate used for an asset that has a long remaining useful life; or

If the discount rate used in calculating the asset's value in use is likely to be affected by the increase in these market rates but previous analyzes detailed in relation to the recoverable amount shows that:

Unlikely to be a significant decrease in recoverable amount because future cash flows is likely to increase. For example, in some cases, an enterprise may be able to demonstrate that it adjusts its revenues to compensate for any increase in market rates; or

It is unlikely that the decrease in recoverable amount is the result of a significant impairment losses.

#### **4. Measurement of recoverable amount**

An impairment occurs when the carrying amount of an asset exceeds the recoverable amount. The recoverable amount of the asset is given by the greater of the following values: The fair value of the asset less costs to sell and value in use. There will always be necessary to calculate both figures above. When one of them seems to be higher than the carrying amount, the asset is not impaired, and therefore do not need to calculate another number. Under IAS 36, there are three situations or three rules for determining the recoverable amount of an individual asset [10]:

1. If fair value less costs to sell or value in use of the asset is higher than the carrying amount, the asset is not impaired and there is no point calculating or estimating the recoverable amount.

2. If fair value less costs to sell can not be reasonably estimated because there is no basis for making a reliable estimate of the amount obtainable from the sale of assets

voluntarily between parties informed, in a transaction the price is determined objectively, then the asset's recoverable amount can be considered as value in use.

3. Especially if the asset is held to be sold, the recoverable amount of the asset can be considered equal to its fair value less costs to sell.

#### **5. Recoverability of the carrying amount - impairment losses**

IAS 36 should be applied in order to determine whether appeared or an impairment loss [5]. In addition to the requests contained in IAS 36 "Impairment of Assets", an enterprise should estimate the recoverable amount of the following intangible assets at least at each financial year end, even if there is no indication that the asset is impaired: an intangible asset not yet available for use; and an intangible asset that is amortized over a period exceeding twenty years from the date the asset is available for use.

The calculation of value in use of the asset test must reflect the following [3]:

Estimating future cash flows that the company expects to derive from the asset;

Expectations about possible variations in the amounts or periods related to these cash flows;

Time value of money, represented by the risk-free interest rate in the market;

Price level of uncertainty inherent in the asset; and

Other factors, such as illiquidity, that market participants will reflect in valuing future cash flows that the company expects to derive from the asset.

This model involves two important factors:

Future cash flows (cash inflows and outflows arising from the continued use of the asset and from its disposal at the end); and

Appropriate discount rate to those future cash flows. The company can tailor both future cash flows and the discount rate used. Whatever the approach adopted by the company to reflect expectations about possible variations in the amounts or periods relating to future cash flows, the result will be to reflect the expected present value of

those cash flows, ie the weighted average of all possible outcomes.

As basic principles for determining value in use:

Cash flow projections should be based on reasonable assumptions and admissible represents management's best estimate on the set of economic conditions that will exist during the remaining useful life of the asset. A greater emphasis should be given to external evidence;

Cash flow projections should be based on the most recent projections and financial forecasts approved by management, but shall exclude any estimated future cash flows resulting from improvements or performance enhancements asset. Projections based on these projections and forecasts shall cover a period of five years, unless it can be justified for a longer period;and

Cash-flow projections, outside the period covered by the most recent projections and forecasts, projections must be estimated by extrapolation based on projections and forecasts using a steady or decreasing growth rate for subsequent years, unless an increasing rate can be justified. This growth rate does not exceed the average long-term growth for the products, sectors or country or countries in which the company operates, or the market in which the asset is used, unless a higher rate can be justified. Estimates of future cash flows shall include:

Projections of cash inflows from continuing use of the asset;

Projections of cash outflows that are necessary to generate cash inflows from continuing use of the asset (including cash outflows to prepare the asset for use) and can be directly attributed or allocated to the asset, on a reasonable and consistent; and

Net cash flows, if any, to be received (or paid) for the disposal of the asset at the end of its useful life.

Future cash flows shall be estimated for the asset in its current condition. IAS 36 is based on the fact that management's estimates about future cash flows are based on the most recent projections and forecasts five years, these in turn are analyzed for consistency and correct the causes of differences between past projections cash flows and actual flows obtained.

## **6. The recoverable amount and the carrying amount of a cash-generating unit**

The recoverable amount of a cash-generating unit is the greater of fair value less costs of disposal unit and value in use. The carrying amount of a cash-generating unit shall be determined consistent with how it determines the recoverable amount of the cash-generating unit [10]:.Thus, it:

Include the carrying amount of only those assets that can be attributed directly, or allocated on a reasonable and logical unit cash-generating assets that will generate future cash inflows expected to determine the value in use of the cash-generating unit; and

Does not include the carrying amount of any recognized liability, unless the recoverable amount of the cash-generating unit can not be determined without taking into account the debt.

Where assets are grouped to estimate recoverability is important to include in the cash-generating unit all assets that generate the relevant stream of cash inflows from continuing use. Otherwise, the cash-generating unit may appear to be fully recoverable when in fact an impairment loss has occurred.

In some cases, although some assets contribute to the estimation of future cash flows, they can not be allocated to that cash-generating unit on a reasonable and consistent. This could be the case of goodwill or a corporate asset, such as those belonging to the corporate headquarters.In determining the recoverable amount of a cash-generating units may need to be taken into account certain liabilities recognized. This can happen if the disposal of a cash-generating unit would require the buyer to take over the debt. In this case, the fair value less costs to sell (or the estimated cash flow from ultimate disposal) of the cash-generating unit is the estimated selling price for the assets of the cash-generating unit and also to debt, less the costs of disposal. In order to perform a successful comparison of the carrying amount of the cash-generating unit and its recoverable amount, the carrying amount of the liability is deducted when determining both the carrying amount of the cash generating unit and its recoverable amount.

### Example

A company operates a mine in a country where legislation requires the owner to buy a license to restore the site at the end of mining. The cost of license for restoration includes relocation of equipment to be moved after the commencement of mining activities. A provision for the costs of relocating of equipment was recognized as soon as of equipment was moved. The amount provided was recognized as part of the cost of mining and amortized over its useful life. The carrying amount of the provision for license for restoration is CU 500 millions value that is equal to the present value of the restoration costs. Undertaking impairment testing operation. Cash-generating unit for the mine is the mine itself, taken as a whole. The company has received various offers to buy the mine at a price around CU 800 millions. This price includes the assumption of the obligation to restore the terrain by the buyer. Selling the mine are negligible. Its use value is approximately CU 1.200 millions, excluding restoration costs. The carrying amount of the mine is CU 1.000 millions. The fair value less costs to sell for the cash-generating unit is CU 800 millions. This assessment considers restoration costs have been estimated. As a result, the usefulness of the cash-generating unit is determined after consideration of the restoration costs and is estimated at CU 700 millions (1200-500). The carrying amount of the cash-generating unit is CU 500 millions, which is actually carrying amount of the mine (1000) less the carrying amount of the provision for restoration costs (500). Therefore, the recoverable amount of the cash-generating unit exceeds its carrying amount. For practical reasons, the recoverable amount of the cash-generating unit is sometimes determined after taking into account assets that are not part of the cash-generating unit (for example, receivables or other financial assets) or liabilities that have been recognized financial statements (for example, payables, pensions and other provisions). In such cases, the carrying amount of the cash-generating unit is increased by the carrying amount of those assets and decreased by the carrying amount of those liabilities.

The choice between historical cost and fair value must be stated in the accounting

policy section of the annual report following the IFRS adoption and must be applied consistently going forward (analogous to revenue recognition or inventory valuation methods).

## 7. Conclusions

Whether fair value accounting dominates historical cost accounting in a free market for accounting policies is an important question that has been subject to much controversy among academics and regulators [10]. We study the choice between fair value and historical cost for non-financial assets when market forces, rather than regulators, determine the outcome of this choice. In light of the long-standing debate over fair value accounting, understanding this choice is useful from both regulatory and academic perspectives. Under the assumption of free market discipline, the choices by management should be informative as to whether the net firm-specific economic benefits associated with fair value accounting outweigh those of historical cost [10]. The key advantage of our setting is that IFRS, which provides a choice between historical cost and fair value accounting for non-financial assets, requires pre-commitment to either practice.

Our findings suggest that, for non-financial asset, the market solution for the choice between the two alternative valuation methods lies with historical cost accounting: firms' managers, who represent outside stakeholders, generally reveal preferences for historical cost accounting for a broad range of non-financial assets. The limited cross-sectional variation in the choice between fair value and historical cost indicates that market forces determine this managerial choice. The evidence broadly suggests that managers' resistance to the use of fair value is likely to be driven by the costs of establishing reliable fair value estimates rather than a disagreement with standard setters on the potential benefits of fair value accounting – firm managers appear to view fair value accounting for non-financial assets as costly.

When markets are only imperfectly liquid in the sense that sales or purchases affect the short term price dynamics, the illiquidity of the secondary market causes another type of inefficiency. A bad outcome for the asset will

depress fundamental values somewhat, but the more pernicious effect comes from the negative externalities generated by other firms selling. Under a fair value regime, the value of my assets depends on the prices at which others have managed to sell their assets.

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# A Comparative Analysis of the Romanian and Swedish Public Health Systems

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## Abstract

*This paper proposes a theoretical analysis of the overall health system in Romania and Sweden. Through a comparative approach of the two systems, the purpose of this article is to highlight the benefits of health services provided by the public health sector institutions correlated with spending levels allocated by the two governments. The main results point to the fact that Romania, by allocating a small percentage of Gross Domestic Product for the financing of the health system, faces problems like migration of health personnel, lack of medicines, facilities and medical equipment, with inadequate funding of prevention programs, etc. These results indicate the need for in-depth reform of the public health.*

**Keywords:** Government Expenditures, Public Health, Government Policy.

**J.E.L Classification:** I18, H51

## 1. Introduction

A good health is a key factor in ensuring socio-economic development of a country. The demand for health services is increasing in terms of people aging under national and European level. Currently, European countries are increasingly concerned with models of policies that should be implemented in health care, based on the demographic, technological innovations, and given the current financial statements [1].

Investments in health and education were not considered national priorities in Romania, even renowned authors have shown through their research that they should be classified as productive expenditures, and in long term, they directly contribute to economic growth [2]. In all European Union governments are involved in the financing of health care; most Member States use a combined system between social security contributions and direct government funding of health. As for private insurance, it represents a supplement rather than a substitute for primary health care system [3].

A common feature of all health systems from emerging economies is the shortage of financial resources. This fact is currently exacerbated by the economic crisis that has led many governments to reconsider the level of public spending in the health sector [4].

## 2. Characteristics for healthcare in Romania versus Sweden

In most European countries, 'health' was the second largest function in public expenditure after social protection. As a ratio to GDP, the highest levels of government expenditure were found in Croatia (9.2 % of GDP or 20 % of total public expenditure), the Netherlands (8.9 %), Denmark (8.6 %), France (8.3 %) and Finland (8.2 %) [5].

Health insurance is the means by which the state protects the health of the population.

In Romania, the institution that deals directly with these insurances is the National Health Insurance House (NHIH). The unic national fund of health insurance builds on



the contributions of individuals and businesses, grants from the state budget and on donations, sponsorships, interest, income derived from exploitation of NHIH heritage and other income, including amounts from revenues of the Ministry of Public Health [6].

In 2013, under Law no. 571/2003 updated, health social insurance contributions in Romania are 5.5% for the employee and 5.2% for the employer. In employee case, those contributions applies on gross salary under an employment contract if it does not exceed 5 times the average gross earning used in underlying the state social insurances budget [7].

In employers case, the contribution is applied on the gross earnings of resident and non-resident individuals deriving income from wages.

The law 95/2006 on healthcare reform, with subsequent modifications, (GEO no.107/2010) provides that retirees with pensions exceeding 740 RON are required to contribute to the National Social Health

Insurance Fund a share of 5.5% of monthly pension. The same law provides that, after the payment of the contribution, the pension must not fall below 740 lei [8].

In Sweden, however, social health insurance is part of the Social Insurance Agency (Forsäkringskassan). The fund through which health care is provided by those who live and / or work in Sweden is funded through taxes and dues. The responsibility for health and medical care is held both by the central government and by county councils and municipalities.

On average, Swedes pay 31.73% of income for taxes, and if monthly earnings exceed 4200 euros, the percentage is applied gradually to the size of income.

In tables 1 and 2 we can observe the evolution of the share of GDP spent on health in Romania and Sweden in the period 2006-2012.

*Table no. 1 Total health expenditures as % of GDP, Romania*

	2006	2007	2008	2009	2010	2011	2012
TOTAL GOVERNMENT EXPENDITURE (% OF GDP)	35.5	38.2	39.3	41.1	40.1	39.4	36.6
HEALTH (% OF GDP)	2.7	3.1	3.2	3.8	3.6	3.4	3.1

Source: European Commission

*Table no. 2 Total health expenditures as % of GD, Sweden*

	2006	2007	2008	2009	2010	2011	2012
TOTAL GOVERNMENT EXPENDITURE (% OF GDP)	52.7	51	51.7	54.9	52.3	51.2	52
HEALTH (% OF GDP)	6.6	6.6	6.9	7.4	7.0	7.0	7.1

Source: European Commission

Public expenditure on health (% of GDP) of 3.1% in Romania in 2012 is well below the EU average of 7.3% of GDP [9]. In this respect, Sweden is very close to the EU average as it can be seen from the table 2.

Health situation of the population can be analyzed in the light of demographic factors such as life expectancy or the evolution of population.

For example, for 2006-2010, National Institute of Statistics provided data on the life expectancy of the population, on which we can find that in Romania, people live on average less than 80 years [10].

*Table no. 3 The life expectancy in Romania*

	2006	2007	2008	2009	2010
The life expectancy	72.22	72.61	73.03	73.33	73.47

Source: [www.insse.org](http://www.insse.org), statistical yearbook, 2011

In table 3 it can be seen that this indicator has shown a slight increase over the years exemplified (from 72.22 years in 2006 to 73.47 years in 2010), but without reaching the threshold of 75. The situation is not much different in 2012, when the average lifespan was calculated to be 74.22 years, in fact being among the lowest life expectancy in the EU (after Estonia, Bulgaria and Latvia).

In 2012 Sweden ranked 4th in the EU in terms of life expectancy (81.18 years). In the past, Sweden has been among the countries

with the highest life expectancy, its value exceeding the threshold of 80 years.

A real problem facing our country is the demography. In Romania, the population number in the period 2005 - 2010 presented an accelerated decrease and for Sweden, a significant increase. The population of Romania decreased by 0.89% in 2010 compared to 2005, while in Sweden the

population grew by 3.85% in 2010 compared to 2005.

An example regarding how investments in health can affect the benefits enjoyed by taxpayers, are the health care facilities. In table no. 4 is presented the number of beds available in hospitals in Romania and Sweden in the period 2005 – 2010.

*Table no. 4 - The number of the hospital beds for 1000 inhabitants Romania vs. Sweden*

Measures	2005	2006	2007	2008	2009	2010
Romania total population (thousands)	21,624	21,584	21,537	21,504	21,470	21,431
Sweden total population (thousands)	9,030	9,081	9,148	9,220	9,299	9,378
Beds no./1000 inhabitants. Romania	6.6	6.6	6.4	6.4	6.5	6.2
Beds no./1000 inhabitants. Sweden	2.9	2.9	2.9	2.8	2.8	2.7
Total no. of beds in health care facilities. Romania	142,718	142,454	137,837	137,626	139,555	132,872
Total no. of beds in health care facilities. Sweden	26,187	26,335	26,529	25,816	26,037	25,321

Source: [www.insse.org](http://www.insse.org), Statistical yearbook 2011 - Period series from 1990 to 2010, Health; [www.oecd-library.org](http://www.oecd-library.org), Country statistical profile Sweden

It can be seen in the data presented in Table. 4 that in Romania the number of beds in health facilities in 2005-2010 decreased in an accelerated manner (from 142 718 beds in 2005 to 132 872 beds in 2010), while in Sweden, the number of 26.187 bed decreased from 2005 to 25 321 by 2010.

There is a noticeable difference between the number of beds in health facilities per 1000 people in Romania and in Sweden. While in Romania in 2010 it is estimated to be 6.2 beds per 1,000 people, in Sweden during the same period there were only 2.7 beds per 1,000 people. Hence, it can be concluded that Sweden invests more in preventive treatment of population. Thus, decreasing the number of people who require hospitalization, so decreases the need for a large number of beds. In Romania the emphasis is not, unfortunately, on the preventive treatment, people getting sick more easily, thus increasing the need for a large number of beds in hospitals.

Table no. 5 present the medical staff in Romania in 2006-2010.

*Table no. 5 The medical staff in Romania*

Medical personnel per 10,000 people	2006	2007	2008	2009	2010
Physicians	21.7	22.4	23.4	23.5	24.4
medical staff	2.7	2.8	2.6	2.6	2.4
Support staff	5.9	6.2	6.6	6.5	6.3

Source: [www.insse.org](http://www.insse.org), Statistical yearbook 2011, period series from 1990 to 2010

In the analysed period it can be seen a slight increase in the number of doctors per 10,000 inhabitants (from 21.7 in 2006 to 24.4 in 2010) and support staff (from 5.9 to 6.3) and a decrease in medical staff. After 2010, according to the data provided by the College of Physicians of Romania, the situation changes. More and more doctors leave the country, seeking better working conditions and a salary commensurate with their work. In 2012, the number of doctors in Romania fell to 38.813, thus affecting the Romanian healthcare system.

In Sweden, the evolution of the number of doctors who professed, in 2005-2009, was positive (increased with population), bringing more confidence to the people seeking medical care and paying taxes for the funding of medical staff (see table no. 6).

Table no. 6 Physicians per 1,000 people in Sweden, 2005-2009

	2005	2006	2007	2008	2009
Physicians per 1,000 people	3.5	3.6	3.7	3.7	3.8

Source: [www.oecd-library.org](http://www.oecd-library.org), Country statistical profile Sweden

### 3. Medical services in the public health system in Romania vs. Sweden

Being two different systems of health insurance, the benefits offered to policyholders are also different for Romania and Sweden.

In Romania, by signing the contract with those who are registered in NHIH or with employers, policyholders are offered a package of basic health services in case of illness or accident, a package of optional services following the contribution payment to National Social Health Insurance Fund and allowances for sick leave. [11] Medical services offered varies depending on the position of the individual: a package of basic health services for those who are unemployed, do not pay contributions and do not fall into the category of insured persons, a package of services for insured persons with or without contribution and a set of optional services.

Medical services that uninsured benefit are: emergency medical services, surgical, supervision, consultation to monitor pregnancy and the postpartum period, immunizations and issues of death certificates (services provided by the family), emergency care and detecting potentially endemic-epidermal disease (services provided by the practitioner) and solving for dental emergencies. In addition to these basic services provided to the uninsured, those who are insured enjoy optional and curative health services provided by the family and specialist doctors. Insured persons in the records of NHIH, in addition, benefit from: preventive

health care services, health promotion, health monitoring for patients with chronic conditions, consultations at home, medical laboratory (ultrasound) and sick leave certificate issuing, low reference tickets, medical exemptions for children, medical prescriptions, death certificate, etc. (services provided by the family physician), the physician consultations on a referral from the family doctor, blood tests fully or partially discounted by NHIH and dental services.

In Sweden, all citizens are insured regardless of their quality, employed or unemployed, and emergency services are also guaranteed for those of the EU Member States and other countries with which Sweden has concluded bilateral agreements. There is not a package of defined basic health services, Swedish health system is organized so that the individuals receive primary, preventive, specialty, emergency care, compensated or free medicine, care for mental illness, recovery services, medical services for the disabled, home care, free dental services for children and young, compensated adult dental services. Funding this system is made in a 21 counties and its operation differs depending on the region the citizens belong to. The three basic principles that applies regardless of the region those requiring care live in are: equal health rights, solidarity between people and fair ratio between the costs of healthcare and the benefits received [12].

In Sweden, health insurance is universal and it covers the entire population, the patients are protected by the state, the costs covered by them are limited so as to not affect too much the standard of living.

In the following we give some examples of medical services the Swedes enjoy, and their costs for 2011 [13]:

- Consultation on a general practitioner: 100-200 SEK;
- Consultation to a specialist: 230-320 SEK;
- A day of hospitalization: 80 SEK / day for the first 10 days, and for the next days 60 SEK / day;
- For young people aged up to 20 years old, free preventive controls;
- For retirees and people with disabilities, co-payments for medical services can not exceed 1712 SEK / day;

- Persons under 20 years old receive free dental care, and those aged over 20 years old receive state subsidies worth 150-300 SEK/year, only valid for preventive dental care. For other dental services required by people over 20 years old, the costs are borne entirely by them if the value does not exceed SEK 3,000/year; the costs with values between 3000-15000 SEK/year are borne 50% by patients and the values above 15,000 SEK/year are borne by the people in proportion of at least 85%;
- No Swedish pays more than 1.100 SEK/year for medical advice. If this limit is exceeded, medical appointments for the next year (from the first necessary appointment) are free. Adults do not pay more than 2.200 SEK/year for prescription drugs. For children within a family, the maximum expenditure on medicines, incurred in a year by their descent, is 2.200 SEK.

In Romania, policyholders receive free medical consultations on a referral from the family doctor they are enrolled. Without this reference ticket, costs are not reimbursed by NHIH and they are fully paid by patients. A major problem the insured are facing, is that only certain medical services are reimbursed by NHIH, so that their advantages compared with the uninsured are not very high. For example, in Brasov County Hospital, there is a list of medical services unsettled by CJAS Brasov, for which the patients bear the full cost. For a better understanding we have selected some examples of medical services unsettled and their costs (see table no. 7).

*Table no. 7 Examples of healthcare unsettled by CJAS Brasov*

Consult by a specialist	50 RON
Skull CT without contrast agent	100 RON
Native cranio-cerebral MRI	350 RON
Abdomen ultrasound	30 RON
Limbs radiography	20 RON
Upper gastrointestinal endoscopy	100 RON

Source: hospbv.ro, Integrated Ambulatory section, healthcare rates unsettled by CJAS Brasov.

As it can be seen, the Romanian insurance status does not offer any advantage for complex medical services. However, there

are situations in which people can feel the benefits of the monthly contribution to the fund. For example, based on a referral from a family doctor or specialist, the policyholders can benefit from a range of free common analysis in medical laboratories contracted by NHIH: calcium, glucose, blood counts, etc. A common point in benefits through the social insurance system in the two analyzed countries are the compensated or free drugs the insured persons enjoy.

In Romania, the insured people benefit from drugs with or without own contribution, based on the prescriptions issued by a GP or a specialist. Prescriptions for medications may contain 1-3 drugs for each condition (except for children under 12 months and patients included in health programs). Drugs are compensated at a rate of 50%, 90% and 100%, those without personal contribution is accessible to children aged under 18, young people aged up to 26 years old if attending an educational form, childbed and pregnant women and persons included in special laws or people diagnosed with diseases free of charge.

In Sweden, for drugs needed in a year whose value does not exceed 1.100 SEK are entirely out of pocket costs for the ones who require them. Above this threshold, the drugs are compensated progressively to 100% [14].

The Swedish health care system provides some of the best outcomes when compared with other developed nations that maintain universal approaches to health care insurance [15].

However, the Swedish health care system is also not perfect. Larson (2008) points out the existing problems in the system, and the shortage of doctors and hospital beds which has led to real drama. [16] Public health bureaucracy led to the migration of highly skilled personnel to the private sector [17].

#### 4. Conclusions

Small budgets allocated to public health can not lead to first-class medical services. Financing the health system in Romania is realised primarily on account of contributions, and completing, on transfers from the state budget. Assigning a rate of approximately 3% of GDP (among the lowest in the EU) public health system determines the quality, sometimes inadequate, of health

services, migration of qualified medical personnel to the private sector or abroad, and under-funding of prevention programs.. All these lead to the need of reforming the public health system in Romania in order to improve it and to provide quality health services. It also requires the government to consider health and education as national priorities and to allocate appropriate budgets for these areas.

The health system in Sweden is financed primarily from general taxes. Swedish central government is responsible for overall health policy and it offer grants for the regional and municipal governments in order to support health care services. Swedish public health system is in a continuous reform for improving the quality of health care and the access to the system by careful monitoring of costs.

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## Accounting Outsourcing

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### Abstract

*The choice made by an organization in terms of outsourcing must give answer to the following question: what is the structural succession allowing a better strategy of the company regarding cost control, flexibility, decision support, quality of information and production of knowledge?*

**Keywords:** outsourcing, cost, efficiency, strategy

**J.E.L. classification:** M41

### 1. Introduction

Outsourcing is an important and endless source of debates, creating a strong connection between the fields and actors of economic and social life, between territorial and regional levels or political and public responsibilities. Hardly a week goes by without the international media not to report cases of transfer of business activities to a provider, often even with some of its own personnel or not to highlight, among other effects and consequences, the confusion and uncertainties grinding those employees regarding the future, especially in terms of job, their social status or working conditions.

Outsourcing is considered a major component of the new strategies and movements of reorganization of enterprises forced to constantly seek means of increasing skills. This move is part of the globalization of trade, competitors exacerbation and volatility of demand, all combined with the need for segmented offer.

Regardless of the situation, outsourcing should be seen not as a fashion phenomenon, even if some are engaging in this approach only with the desire to imitate, having as example the model of enterprises that have succeeded in this field, but rather as a strategy that is part of a much deeper trend of

the mutation of organizational models within the company. It is actually one of the mobilizing tools of competitiveness, especially for reasons of flexibility, responsiveness and cost reduction, along with the responsibilities of local policies on the movement of workers and the effects over the active population in the region concerned.

It raises, moreover, both for employees and for their relatives, a number of questions and concerns regarding their professional future, both for those who remain in their job and those who are transferred, in terms of employment, status, qualification, career development and professional mobility.

The opening of borders as well as phenomena related to globalization of trade involve both in industry and especially in services, defining new strategies and building new organizational forms in order to meet the challenges of globalization. This is the context in which outsourcing has grown and multiplied in the past decade and a half. This transformation of processes regards almost all sectors, from industry to distribution, passing on to service providers and extending recently also to the public sector.

### 2. Outsourcing – from cost reduction to strategic initiative

Peter Drucker believes that there is outsourcing when “a company, a hospital or an administration entrusts a whole activity to an independent company specialized in this type of tasks”. He continues saying that “in 10-15 years, companies will probably outsource all activities of “support” that do not participate directly in turnover as well as all activities that do not offer career opportunities.

In other words, most people who work in companies or administrations probably will no longer be considered employees, but rather will be part of the staff of an enterprise “subcontractor” [1].

In order to correctly place outsourcing in a theoretical framework of analysis we believe it is useful to present the following definition: "outsourcing can be seen as a purchase of a good or service that was previously provided inside. It represents a significant transfer of assets, goods and personnel to a seller that is responsible for loss and profit" [2]. This definition allows us to distinguish outsourcing from lots of practices and at the same time to broaden the theoretical framework of application of this phenomenon.

Outsourcing is distinguished from enterprise to the extent that it is about entrusting to a provider an activity or function which was provided inside. This statement has two implications. We cannot talk about outsourcing a process or production if by that time they were not provided inside. In case of outsourcing prior investments are to be redeployed to an external provider. This redistribution is not just an assignment, it is about a transfer that causes a very close relationship between the company proceeded to outsourcing and the external provider.

American Management Association offers the following definition: "outsourcing consists of resort to using an external body to provide a service... It requires a long-term investment in the relationship with a third party and must be mutually agreed" [3].

In general, bodies tend to trust others the execution of their secondary activities or those that they consider to be unessential. Thus, outsourcing allows the body to focus its own resources to key areas that provide added value or can focus on core competencies rather than disperse resources and to overload.

In our view outsourcing is best illustrated by the advertising slogan of an American computer service company, Martin Marietta Information Systems Group [4]: "You do not have factories to produce electricity... Why have a data center for your computer system?"

The word outsourcing is the subject of heated debate when pronounced. The set of examples, highly publicized in the media, made public to see this practice as a way by which a company can obtain more profits or even as a way to prevent bankruptcy. It is true that outsourcing comes with massive

dismissals, traumatic for families, cities or regions.

Designing and implementing an outsourcing is alchemy. If the ingredients are known, competence is crucial. Engaging in such a process requires a clear strategy and serious means.

Outsourcing involves identifying specific operations, but limited, that a company can perform internally (such as research, billing and call centers) and finding other companies to do the same kind of operations and then integrate these into the overall operations of the company.

Also known as facilities management, outsourcing is in fact a strategy by which a company entrusts major functionalities to external providers specialized in certain services, thus becoming value added business partners. Outsourcing is most often accompanied by the transfer of personnel and equipment to the undertaken activity provider. Outsourcing does not require the activity disposal but only serves the good of the company.

Companies will thus be able to increase the efficiency by appealing to those suppliers having the ability to provide complex outsourcing services for activities not related to the main activity.

Efficiency and specialization are the two reasons that have generated the outsourcing. It has been proven and verified that it is more practical to entrust other companies those specialized activities that are not the main focus of the company. We consider a good example illustrating the mentioned above, an article in the journal *Careers for big men* from September 2005, article we present hereinafter: "We have a milk processing company. Suitable equipment, suppliers in the field and specialized people. Company grows, business develops in the country and is increasingly difficult to have full control. I wonder about a computer system. I can then set up a new department, IT, populate it with specialists, create them a work space, buy computers, install network cables and finally waking up that I have to manage also this new service. Or I may not do all this and appeal to a company providing such services and to pay it. And I, in the meantime, can think to produce a new yogurt or late autumn tasting cheese" [5].

### 3. Accounting services outsourcing

Starting from this inter-organizational chaining, the company is facing a double choice: the "to do" (inside) or the "doing to be made" by resorting to outsourcing.

The analysis that the institutional environment has on organizations enables a deeper understanding of outsourcing the accounting function. It is about the way to achieve a particular legitimacy, to comply with the rules. Three types of isomorphism were identified, which are not always easily separated [6]:

- coercive isomorphism: legislation texts and regulations aiming the accounting activity;

- normative isomorphism: related to professional training, professional employment or professional networks (for example: the Body of Expert and Licensed Accountants in Romania);

- mimetic isomorphism: induced by standard responses to uncertainties. When the environment is uncertain and objectives are unclear, the organization tends to imitate the model of other organizations that it perceives as successful.

Also from the analysis of institutional environment are detaching two types of constraints [7]:

- "pre-conscious" constraints: factors that actors do not perceive because they seem to be obvious to them; for example, social rules or of conduct;

- "post-conscious" constraints: in this case actors are aware of the need for change and the factors that determine their solution. Sometimes environmental pressures prevent the entire change. For example, we speak of "post-conscious" constraint if an organization does not use outsourcing because of the lack of references related to solutions already applied and very effective.

Efficiency-based competition determines the organization to make a diagnosis of the current state. Further solutions identified are evaluated in order to choose the most effective. The efficiency criterion is present in all stages throughout the entire process the organizational election being influenced by multiple constraints: cognitive, "pre-conscious", "post-conscious".

Chartered management accountants are

among the first interested in outsourcing the accounting function; the service provider in this case is required to be chartered management accountant.

Currently, the increasing complexity of accounting rules, on the one hand and constraints in terms of cost and performance of the enterprise, on the other hand, causes increasingly more managers to consider outsourcing their accounting. More and more entrepreneurs have discovered that outsourcing bookkeeping to an accounting firm frees them from the responsibility stress.

Due to increased force of management informatics, financial flows in an enterprise are identified and quantified much better than before. Today, any company, whatever its size, has computer tools that allows it, based on sales, purchases, stocks or even manufacturing to value in an "accounting" firm events that occur, same thing as in the case of more complex events such as, for example, the transfer of property or commissioning of industrial plants.

Accounting flows today are more complex, but at the same time they are also much more standardized and automated than in the past. Such reflections, made some time ago within companies, made that accounting flows to become "industrialized", that is standardized in order to be repeated with much more consistency and quality and at a much lower price. The industrialization of services is underway, using much the same techniques as in industrial optimization namely, identifying unnecessary steps, using information as upstream as possible, a permanent control and maximum automation.

Paraphrasing Shakespeare we could ask the following question: To outsource or not to outsource? This is the question. Among the reasons to be considered in the decision making to outsource accounting include:

- reducing costs. Depending on the rates negotiated savings are achieved by eliminating the costs involved in hiring with labour contract people who would have to work in accounting: net salary of the accountant; taxes and contributions for health, social and unemployment due by employee and employer; costs for a new job (space, furniture, computer, printer, supplies, payroll, accounting software); expenses for professional maintaining and improving (professional books and journals, training



courses); expenses by working overtime hours, bonuses and annual leave.

➤ time saving. There will be trust in the professional capacity of accounting company and there will be a release of stress caused by the supervision of an accountant employed, and the time thus saved can be used to focus on profit generating activities and business development (increase the number of customers or improve the product/service).

➤ gaining access to the experience and competence of chartered management accountants. Practical experience of accountants from an accounting firm that has a stable customer in various fields of business is in the service of the person who decides to outsource accounting services.

➤ ensuring continuity. In each working day there will be an accountant to handle the documents and answer questions, unlike keeping their own accounting, where there is a risk of accountant absence (annual legal leave or sick leave, temporary incapacity to work).

➤ reducing professional risk. By working with an accounting firm, the operator is relieved of the responsibility of drawing up the accounts, this being taken by the provider in accordance with the legal provisions governing the accounting activity. The accounting firm carrying on the activities is required to have a professional insurance to cover damages of the company's fault.

➤ preserving freedom of choice. The contract with accounting firms may be terminated when the desired results are not obtained, this after having been announced the intention to terminate, according to the contractual terms.

#### 4. Conclusion

We conclude that outsourcing of accounting functions is an option for SMEs in order to maintain a competitive advantage in the business world environment as outsourcing could lessen the burden borne by SMEs. Accounting functions play an important role in today's business. As a result, SMEs need to be aware and convinced of the usefulness of accounting information for better management control and decision-making purposes in order to access new markets and maximize their profits in the corporate world.

For the accounting sector, one of the keys with any outsourcing deal will be to continue to handle relationships with clients. While accountants deal heavily with numbers, it is client advice that separates their service. Most firms that are embracing outsourcing are handing out only a small portion of their work to take some of the pressure off in the busy season.

The use of finance and accounting outsourcing is increasing throughout the world. Finance and accounting outsourcing arrangements offer companies opportunities to significantly reduce costs, access better skills and technologies, and achieve other benefits. These include sharpening the organization's focus on core competencies, or moving finance and accounting professionals away from transactional duties and toward more strategic responsibilities.

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## Use of Internal Control by the Management for the Evaluation of Information Contained in Annual Financial Statements

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### Abstract

*The internal control system is a permanent integrated process of the economic entity, conducted by senior managers, from managers of departments to employees. Its correlation with the accounting information should ensure the objectives proposed by the top management regarding analysis of the economic entity's activity and communication with the decision makers of hierarchical structures. For this purpose, it is necessary to evaluate the risks in the area that generates and reports accounting information, and correct the deficiencies that may affect the design and operation of the internal control system. In practice, managers should pay attention to the pattern of exercising internal control on financial and accounting activity so to gather from the information presented in the annual financial statements the foundation for decision making process. Improvement of the internal financial control system leads to gathering accounting information that meets all the criteria of quality and a continuous adaptation and development that is consistent with the interests of the organization.*

**Key words:** internal control, concept of risk, financial-accounting activity, annual financial statements, reliability of the information.

**J.E.L. classification:** M40,M41.

### 1. Introduction

Entity's financial and economic transactions are processed through the

accounting system which is able to identify, correlate, calculate, analyze and record all information on transactions and events developed in a period of time. It is actually a set of principles, norms and rules of evaluation applied to the economic entity.

On the other hand, management's objectives of ensuring efficiency and business continuity, protection of assets, prevention and detection of errors and frauds, reality and reliability of the information handled by the accounting are achieved by help of the internal control system.

The correlation between internal control and accounting information brings to the fore the importance that internal financial control has for management. As an indispensable instrument in the regular monitoring of the activities and the risk assessment by analyzing accounting information of the economic entity, internal financial control has two main objectives:

- ✓ to analyze the entity's activity from the financial-accounting point of view by checking the quality of accounting information;
- ✓ to communicate the accounting information to managers and decision makers.

Considering these goals, the people who are part of top management must be informed of any deficiencies in the internal control system, which may lead to impaired quality of accounting information and the other elements that make up the internal control.

At the same time, it must be borne in mind that the internal control system includes a continuous process integrated to the economic entity, conducted by senior managers, managers of departments and every employee through a permanent activity

of evaluation of risks that may affect the entity.

## **2. The internal control system and risk assessment**

Risk assessment in the area of generating and reporting accounting information covers, in a large extent, the need to assess the financial and accounting activities. A definition of risk is developed by the Institute of Internal Audit (IIA) saying that "risk is a future event, action or inaction that prevents organization to achieve its goals; it is measured in terms of impact and probability."

The concept of risk, in the form of the effects of likely events that may impact on the entity's objectives, has emphasized meanings when it is manifested in the perimeter of accounting information. Hence, the need for a proper management of the identification and evaluation of risk process in the financial and accounting activities.

The deficiencies of internal control increase the possibility of risk and are altering the quality of accounting information (more or less significantly), at least in two ways[4]:

*a.* by allowing random, unintentional distortions. They can be caused by lack of adequate policies, insufficient training of employees of the entity or lack of concern;

*b.* by non detecting misrepresentation of data, caused by employees or managers' omissions, to underestimate the current period's profits, or anticipate poor performances in future periods.

Given these issues, IFAC has developed International Auditing Standard 265 "Communicating deficiencies in internal control to those charged with governance and management" applicable since 2010. The standard defines the auditor's responsibilities to communicate deficiencies in internal control that he has identified and considers to be relevant to the entity's management and those responsible for corporate governance. At the same time, it does not require managers to publish the relevant findings or other elements able to remedy these deficiencies in the set of annual financial statements.

The internal control of financial reports may show deficiencies, when the elaboration

or operation of control procedures does not allow managers or those responsible, in the exercise of their functions, to prevent or identify distortions of information in due time.

A deficiency in internal control's design is considered when[2]:

- an existing internal control is incorrectly designed, so that its appropriate application does not meet its objective;
- a control necessary to achieve an objective is missing.

Deficiency in functioning is considered the situation where a properly designed internal control is not applied correctly, or there are discrepancies between the person responsible for the activity of control and the authority or competence to solve this task.

Given the need of top management to monitor the performances of the entity, through an effective internal and external communication and a correct, credible and clear informing, the process of designing and managing the internal control system must take into account its limitations:

**A.** In order to determine objectively the facts, compliance with rules, policies and regulations in force, those responsible for the internal control should not have contributed in any way to the preparation of documents, records that reflect them, that are summarized in the annual financial statements.

**B.** Verification of an activity necessarily means a genuine and real source of information accessible to internal control. If the books and records are not in order and completed to date, the results of internal control are inconclusive or can not be obtained.

**C.** The results of the financial and accounting internal control are communicated to managers and the decisions on the direction of future activities of economic structures belong to those. Internal control follows a specific manner to propose measures and make decisions in the context of clearly defined responsibilities.

## **3. The quality of accounting information used by the internal control**

In practice, an internal control well adapted to financial-accounting activity, projected in concordance with interests of the

organization, requires attention from the managerial team in the following areas[6]:

1. identifying the persons who are responsible for the financial and accounting information disclosed or participate in the preparation of annual financial statements;

2. giving access to each employee involved in the development of financial-accounting information to the information necessary for the internal control;

3. establishing verification procedures of prior internal controls, with identification of deviations from the rules and ways to remedy them, if any;

4. adapting the personnel and its competences to the complexity of operations, their dimensions, but also to the changing needs and constraints of accounting information system;

5. increasing responsibilities of managers in terms of organization of internal control and implementation of its findings.

The way in which the internal control is exercised does influence the quality of accounting information used in the management process, especially in terms of the elaboration of information in accordance with the law, the reliability of financial information, prevention and control of financial risks. The information presented in the annual financial statements that are used by the managerial team should be available within a reasonable time and be able to meet certain criteria for being a foundation in management decisions[1]:

◇ reliable and controllable, so as to allow verification of their accuracy. Internal control has access to accounting information thanks to archiving and document preservation;

◇ exhaustive, which is how the documents should be for internal control process, meaning complete and fully processed without omissions or repetitions;

◇ real, because the information recorded in the accounts and synthesized in the annual financial statements must be justifiable and verifiable based on supporting documents. Internal control focuses on the correlation between factual reality, established by inventory, and reflection of property in accounting, and between revenue and expenses of a period, which must be real (justifiable

and verifiable) and concerned with the right period and the entity;

◇ relevant and available, so that a stream of information relevant to the user, accessible and timely elaborated, should be available. One objective of the internal control is correcting the excess of information and the identification of those data who does not belong to any system, but has relevance to management;

◇ accurate, in terms of their registration in accounting. Fair reflection and fair presentation of information in accounting can be checked under several aspects:

▪ *the correct period*. Operations and transactions are recorded in the period in which they took place, according to the independence principle in the accounting year. Internal control analyzes how this principle is applied, and how rectification and accounting regulation (delimitation in time of revenues and expenses, the creation and reversal of provisions and value adjustments, the distribution of price and exchange rate differences etc.) are carried out. The control of these accounting exercises' independence is achieved by several methods, for example the analysis of the first and last documents of a financial year, in order to identify some false or unlawful "reports" during the reporting period.

▪ *correct evaluations*, based on the principle of monetary quantification and the accounting regulations compliant with European directives on rules of evaluation. The aspects considered by internal control are referring to the historical cost used to record entries in patrimony, rules on depreciation and provisions that are referring to replacement value and fair value and so on, and the moments when properties are evaluated.

▪ *proper imputation*, meaning the internal control is checking the record of operations in the corresponding accounts, knowing that failure to respect correlation between accounts may mask fraud or any errors or distortion of economic indicators.

▪ *correct elaboration of annual financial statements*. Internal control must monitor the correctness of accounting records based on synthetic and analytical verification balances, confrontations between accounting

and operational records, inventories, chronological and systematic records. Following these verifications, internal control assesses the proper centralization and information retrieval in the annual financial statements.

#### 4. Conclusions

Policies and procedures used by the control internal to verify the accounting and financial system that refer to the annual financial statements, have some relevant aspects related to:

a) *the existence of an asset or liability in the financial reporting period.* Internal control compares the assets of the entity with the existing assets at specified intervals of time and any difference is analyzed and reported for appropriate decision making. Liabilities are confronted with the entity's economic documents and data provided by third parties.

b) *the rights and obligations contained in the annual financial statements are belonging to the reporting period.* Internal control checks all operations in terms of correct registration of the amount, in the right accounts and appropriate accounting period so that the annual financial statements comply with the identified financial reporting framework.

c) *completeness*, referring to the content of annual financial statements, in which are highlighted all of the assets, liabilities or events. Internal control checks information sources, data logging, and their correlation with other information in the system, from accounts to balance sheets.

d) *evaluation* of any asset or liability at the fair book value, reflected in the financial statements. The role of internal control is to verify and analyze the activities of accounting regulation and rectification, before the elaboration of financial reporting.

e) *presentation of annual financial statements*, in which the patrimonial elements are classified and described in accordance with the appropriate financial reporting framework. Internal control provides authorization of all economic transactions and annual financial statements by the management of the entity, and ensures compliance with procedures of elaboration, in conformity with the law.

It should be noted that the internal control system is operating in continuously changing environment, which requires constant adaptation, evolution and improvement, from the control exercised by the management to that applied by each employee in charge of an activity. Internal control of financial-accounting activity must take into account the entity's organizational structure, management style and managers' information needs, influence of environmental factors and the risks to which it is subject the activity.

An improvement of the internal control system would require more effort in this direction, but a better performance in risk management, and lat but not least, less effort applied in the audit of this system.

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# Sustainable Development of Tourism in Romania and its Transmission Mechanism in GDP

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## Abstract

*This article aims to analyze the sustainable development of tourism in Romania, given its cyclical movements generated by using seasonal resources. For this we used output gap indicator, defined as the difference between real GDP and potential GDP. Output gap indicates disparity in the real economy. Other words, we wanted to answer the question: How large reserve capacity of the economy is tourism? How close is an economy to function at its potential productive?*

*In our case the output gap is the difference between the real level of domestic production and the estimated tourism potential. Identify the transmission mechanism of cyclical components of GDP for Romanian tourism was analyzed using VAR econometric model.*

*We pursued by this paper to analyze the reality of the Romanian tourism potential related to both the type of contribution to GDP.*

**Keywords:** Tourism, Output Gap, GDP, Transmission Mechanism, VAR Model

**JEL Classification:** M21, E32

## 1. Introduction

Potential output and output gap are useful to identify the scope for sustainable noninflationary growth and to allow an assessment of the stance of macroeconomic policies. In this paper we present estimates of the output gap in the Romanian economy in 1961- 2011. The output gap in this paper is used in assessing the degree of demand-pull real wage-inflationary pressure in the economy at a particular time. In recent years,

macroeconomic policy has placed increasing emphasis on output gap even though cannot be observed directly. Even though the concept output gap is based on the definition of unobserved potential output. In this paper the production function approach is used in estimating the output gap as an unobserved variable. The estimated GDP potential using the production function reflects the supply-side of the economy, i.e. the GDP level stemming from long- term inputs of production factors. In the first part of this paper, the OLS and co-integration analysis is used to estimate the Cobb-Douglas production functions of aggregate output from 1961-2011 and the Vector Error-Correction model is developed to analyze the relationships between output and production factors. The output gap is obtained with the correct utilization of the NAWRU rate.[1]

We study the transmission mechanism of stochastic shocks to the cyclical components of following macro-variables: actual output, tourism output, and deduced output gap, which is by nature cycle variable per excellence due to its fluctuations around the zero-mean that presents intersection among long-run output trend and actual output.

For identifying the transmission mechanism, we used two different approaches: a propagation mechanism in a single-equation framework (by means of an autoregressive model) and a multi-equation frame work by means of a VAR model.[2] This is the first time in Romania when it has been used such a study. By this paper we would like to contribute to those issues by examining the statistical properties of the cyclical components of Romanian tourism, actual GDP and potential GDP in terms of cycles duration and persistence, and the transmission mechanism of these two macroeconomic variables with output gap.

This paper is organized as follows: in

Section 1, introduction, in Section 2 we present literature review, in Section 3 we describe the data and briefly present the statistical framework to be employed in the analysis of the production function and preliminary unit root tests. Section 4 presents the estimation of the unobserved potential output and gap. The section 5 discusses the empirical findings from the statistical analysis of the transmission impacts and the paper concludes in Section 6.

## 2. Literature review

In the economic literature, we met numerous GDP calculations, but those regarding the output gap estimation are rare.

The alternative methods of estimating the output gap using co integration long-run relationships are based on the production function of and the hypothesis of permanent income decomposition of GDP, their results differ with regard to the concept and method of calculation.[3]

In a study we used a non-parametric method proposed to date tourism growth cycles in Portugal. They found on the basis of cycle indicator function that there is a greater degree of cycle synchronization of tourism demand among the countries under examination (UK, Germany, Netherlands, Portugal) than observed at the economic cycle level and, using a recursive correlation coefficient, concluded that this degree of cycle synchronization has increased over the years. On the other hand, by surprise, they find negatively synchronized two cycles in case of Nederland and almost miss synchronized both cycles in case of Germany), are underwent the study of the transmission mechanism of the cyclical components of Greek GDP and international tourism income for Greece for the period 1976-2004.[4] If constant economies of scale are assumed, it can be represented as follows.

## 3. Estimating the production function

### 3.1. About the Data

The information contains a real GDP time series of the Romania (based on USA \$ in 1990) from 1961-2011, and fixed capital

assets from 1961-1990. The remaining uncovered data-sets until 2004 as well as data about number of employment, unemployment rata and tourism income was extracted from Romanian National Institute of Statistics, various issues by the authors.

### 3.2. Production Function (Cobb-Douglas)

By estimating the potential GDP of the Romanian economy, the dynamic Cobb-Douglas function was selected as the production function beside the occasionally Cobb - Douglas function specified in intensive form which the constant returns to scale assumption, as well as the unrestricted C/D function [5]. In this function, production can be expressed as a combination of labor and capital inputs taking into account technical development as understood [6].

$$Y_t = A(a_t L_t^\alpha)(b_t K^{1-\alpha}) \quad (1)$$

Where  $Y_t$  is the production (GDP in this case),  $L_t$  and  $K_t$  are the inputs of labor and capital, respectively, while  $a_t$  and  $b_t$  are technical development functions in the meaning of Harrod and Solow, respectively. As it is difficult to separate labor productivity growth from capital productivity growth, the production function is often presented as follows:

$$Y_t = TFPL_t^\alpha K^{1-\alpha} \quad (2)$$

where  $TFPL_t$  means the total factor productivity and reflects technical development increasing the productivity of both labor - due to the improved qualifications of employees, and capital - due to the introduction of advanced technologies. By having this structure, the  $TFPL_t$  (or otherwise saying the Solow residual) variable makes it possible to introduce variations in the  $A$  factor, and thus take into account factors which cannot be explained by technical development.

### 4.Potential output and output gap

Mainly, the potential output is derived by inserting potential labor stock into the equation, using capital (input) as a constant

due to fixed capital assumption in the short run and retaining the technology development trajectory path according to detrended Solow residual approximated by trended variable obtained by HP-filter. The smoothing parameter of 100 was adopted in nesting trended TFP variable, as is usually done when time series are in annually frequencies.

The function is as follows:

$$Y_t^{pot} = TFP_t^{pot} (L_t^{pot})^{1-\alpha} K^{\alpha} \quad (3)$$

where  $TFP_t^{pot}$  is the series of residuals after smoothing with the HP filter, otherwise  $pot$  denotes the potential value.

Using the methods according to OECD the potential labor input used to calculate the potential production is obtained from the following formula:

$$LP_t^{pot} = LF_t (1 - NAWRU_t) \quad (4)$$

where  $LF$  is the labor force,  $NAWRU$  is the non-accelerating wage rate unemployment. Hence  $LP_t^{pot}$  corresponds to the number of employed persons at the natural unemployment rate.

$NAWRU$  has an unemployment rate at which wage inflation (or increase) is constant. Studies show (5) that the equilibrium unemployment rate changes over time, i.e. it is not a constant, but generally follows the actual unemployment rate (due to hysteresis and labor market inelasticity). To measure a  $NAWRU$  varying in time, this study uses J. Elmeskov's method (8). It is based on a simple identity that assumes that the rate of change of wage inflation is proportional to the gap between actual unemployment and the  $NAWRU$ , hence:

$$\Delta^2 \log(W) = -a(UR - NAWRU), a > 0 \quad (5)$$

Furthermore, an increase in the unemployment rate leads to a decrease of the acceleration rate of inflation.  $W$  is wage and  $UR$  is unemployment rate,  $\Delta$  is the first difference operator. An estimate of  $a$  is obtained assuming that the  $NAWRU$  to be constant between any two consecutive time periods, as:

$$a = -\Delta^3 \log(W / \Delta UR) \quad (6)$$

That is used to calculate the  $NAWRU$  as:

$$NAWRU = UR - (\Delta UR / \Delta^3 \log W) * \Delta^2 \log W \quad (7)$$

As we see from Figure 2  $NAWRU$  approximated by dashed line show much more volatility pattern than actual unemployment rate. Therefore, this  $NAWRU$  series is smoothed out by the smoothing parameter of 100 to eliminate erratic movements, and in potential labor input we utilize long-run trended  $NAWRU$  series.

Before proceeding we shall say something about the real wage. Or, how we estimated variable  $W$  in (6)?

According to neoclassical theory, if the factor markets are competitive, then the marginal product of each input equals its factor price, so  $\partial Y / \partial L = w$  and  $\partial Y / \partial K = r$ , where  $Y$  is output,  $L$  and  $K$  labor and capital inputs,  $w$  and  $r$  are the wage rate and the rental rate of capital respectively. For the Cobb-Douglas production function,  $\partial Y / \partial L = (1 - \alpha)Y / L = w$ .

Under the assumption of constant returns to scale in capital and labor,  $rK + wL = Y$  and the capital share  $\alpha = rK / Y$  equals the complement to one of the labor share  $1 - \alpha = wL / Y$ . Hence, we calculate the empirical value of parameter  $w$  (or unit wage value) as the average over the analyzed period by term:  $(1 - \alpha)Y / L = w$ . The last term is ratio of fraction of total labor costs in gross value added (i.e. GDP), and average employment per person [7].

The potential of substituting estimates for actual data and the technological variable for the estimated residual variable, the potential output can be calculated using the formula below:

$$Y_t^{pot} = TFP_t^{pot} (L_t^{pot})^{0.42} K_t^{0.58} \quad (8)$$

After the potential GDP has been estimated, it is possible to calculate the output gap as the difference between output and HP-trend potential output divided by HP-trend potential output [8].

The chart above represents the estimated output gap for the Romanian economy. The results of output gap estimation using a method based on the production function



show that from 1961-2011 output gaps fluctuate with no more of 5% ups-and-downs; and when this gap was negative, according to our calculation, economy was in the recession. The deep recession of the 1990s left the Romanian economy with a substantial amount of spare capacity. The extremely negative spike from 1991-98 indicate that deep recession in the 1990s when economy operate very deep below its potential capacity; the first of all due to war and privatization shocks, current capacity were in very huge amount underutilized even disuse capacity due to gigantic failure of self-management socialist economy transition toward the healthy market economy. By contrast, in the very few years of 1980s gap was negative indicating recession phase of the economy. Those where years of the so cold the long-run economic crises, stagnation and so on, but the output gap was, it is no wonder, positive, thereafter due to hyperinflation tendency and pro-cyclical behavior of inflator economics, actual GDP rise above potential GDP peaking in 1986. The strength of the consumer boom in the late 1980s created a substantial positive output gap - leading to an acceleration and even hyperinflation of consumer price inflation in second half of 1980s. The volatility of output gap GDP was not the same over the entire period. It seems to us that the volatility worsening in second half of observed period. Or, by contrary, changes in actual GDP are much closer to the level of potential GDP, in the first half of the observation (living 1952-1954 out of span). From the beginning of 1982, the output gap was positive indicating expansion phase of the economy, around 1999 the output gap is nil and in afterward with the massive unemployment rate in 2002 (it was around 24% recession becoming worse. Once again in the near past actual GDP was some distance behind potential GDP. We will leave laborious analysis of the output gap for our future research, and now we proceed with transmission analysis.

## 5. The transmission mechanism

In this part of our paper we study the transmission mechanism of stochastic shocks to the cyclical components of chosen macro-variables. Given the fact that the HP filter has

been applied in the variables' logs, then the difference Actual data - Estimated trend expresses, approximately, the percentage change of each observation at time  $t$  from the estimated trend at the same time. The cyclical components of the variables are denoted as  $Y_C$  for actual output, a  $PY_C$  for previous calculated potential output and  $T_C$  for tourism output.

Beginning with 1982, we observe that for both series a cycle starts with duration of about 6 years and 11 years for  $T_C$  and,  $PY_C$  respectively. The first cycle for  $T_C$  ends in 1961 and for potential output it ends in 1965. Actual output duration cycle measured from peak to peak time span stands in between and lasted from 1961 to 1970 about 9 years. The same pattern is observed until the end of the period under examination, i.e. 2004.

We proceed now to the length of the cycles which are estimated formally using spectral analysis but only for actual output, because of the lack of space in this article. The period gram's maximum value corresponds to the estimated dominant length of the cycle. The dominant length of the GDP cycle is 13 years. This is slightly in relative accordance with earlier evidence because we have estimated a dominant cycle for GDP in Romania of 11 years. [12]

However, their amplitude is significantly different i.e.  $T_C$  has a slightly higher amplitude compared to the amplitude of output and potential output cycle component. This is expected as tourism output exhibits somewhat greater volatility (standard deviation is used as a proxy of amplitude of the oscillation) compared to the volatility of other two variables (Table 4). Indeed, cycle component for GDP is 6.6%, for potential output 4.6%, whereas for tourism is 7.2%, i.e. more than 1.1 (or 1.56) times higher. This can constitute evidence of the volatile nature of the tourist sector.

We are now examining the possible co-movements of our two series by means of the cross- correlation coefficient. The figures do not reveal a strong correlation at the same time but, they show a rather remarkable correlation at lags 2 [8]. That is,  $\text{corr}(y_t, x_t) = 0.27$ , and  $(\text{corr}(y_t, x_{t-2}) = 0.59$ , and where are the cyclical components of GDP and tourism output, respectively. The positive sign means that tourism output is mainly pro-

cyclical and acts as a leading indicator for GDP.

Stationary being important for both descriptive statistics (shown above) and parameters estimation purposes, we present below a series of formal tests for  $Y_C$ ,  $T_C$ ,  $G$  (the last variable stands for output gap) [9]. Normally, we expect our variables be stationary with zero mean since any long run trend has been removed by the HP filter. We test for stationary using the ADF unit root test (Dickey and Fuller, 1979). All three series are stationary at 1% and 5% significance levels.

We estimated a VAR (1). The optimal lag is by HQ and SC criteria given by 1. We checked our VAR (1) stability, because of the characteristic polynomial of the VAR model, presents an additional indication of the series' stationary. Since our VAR model contains 3 variables, we expect to obtain 3 roots in its characteristic polynomial. The module of the eigenvalues of the companion matrix are less than one (0.90, 0.71, 0.71), and we conclude that the system is stable, e.g. stationary.

In the end, we use the model with intercept and no trend there is possibility of one cointegration relation tested by trace type (there is no wonder because at least cycle variables move in same direction, and we are early find that their movement is pro-cyclical. Cointegration needs to be found between two or more of the  $I(1)$  variables. Variable  $Y_C$  could be best depicted by the deterministic trend with stationary AR (1) component, there is no doubt hence - its is stationary,  $I(0)$  due to conclusion at 1% of significances; but nevertheless, variables  $g$  and  $T_C$  are non-stationary [10]. In short to resume, including the gap and  $T_C$  in vector autoregressive space we have at disposition at least two non-stationary variables in three-variable VAR, and one stationary variable; although stationary variables are also allowed, we should have in mind that in the Johansen VECM approach, each  $I(0)$  variables creates an additional cointegration equation, so we will neglect possibility of two cointegration relations, and focus our attention only on last evidence. But, those technicalities are not so important: we are looking only for impuls transmission of one variable to other, and not for long and short run regression estimation. If there was dilemma between VAR (1) and VECM (1), in any case, we opted for last model and projected impulse response

function in that framework (which has one handicap in regard VAR because confidence level of significances is omitted).

## 6. Conclusions

In other words, Romania has a latent potential in tourism contribution for the GDP growth.

The estimated potential GDP using the production function reflects the supply-side of the economy, i.e. the GDP level stemming from long-term inputs of production factors. The elasticities of capital in regard to output obtained via VECM approach is about 0.58 and the returns to labor in production of one unit of output is remaining 0.48. The analysis undergone by restricted OLS method indicate that there is about 0.8% decrease in efficiency per year in the long run – time span 1961 – 2011; it is very plausible that the overall TFP growth was about to decrease over time and that finding is underline by the both approach although the OLS procedure weighted more the contribution of the labor instead of capital input which is reasonable truer economic fact, but due to unit root presents in the log of output, labor and capital, and possibility of spurious regression obtained by OLS we choose a long-run cointgration regression to be the benchmark model in deducing the potential output.

After the NAWRU being estimated, the output gap is estimated [11]. The output gaps fluctuate with no more of 5% ups-and-downs; till first half d time span e.g. till 1980s. The find evidence of an wide recession of the 1990s underlie that in those time economy operate very deep below its potential capacity; the first of all due to war and privatization shocks. In the economics historian terms the onset of the so cold the long-run economic crises, which began at the start of 1980s, is interesting. The output gap was, than negative, but after overheating of the economy after due to hyperinflation, actual GDP rise very soon above potential GDP. Through this paper we attempted to identify the transmission mechanism between the cyclical components of GDP, tourism and output gap with data covering the period 1961- 2011. Spectral analysis indicates that GDP has a cycle of 13 years.[12] Starting from 1964, we observe that for tourism and

potential output cycles spans with duration of about 6 years and 11 years. Actual output duration cycle measured from peak to peak time span stands in between and lasted about 9 years. Further, the volatility of the tourism output cycle is slightly more than one time the volatility of the GDP and potential cycle.

By means of the VAR analysis, the influence of tourism cycle on GDP cycle is negative that mean that expansion phase of tourism cycle do not transmit its strength in favor to enhance the expansion phase of output. In reverse, that is, the influence of GDP expansion to tourism expansion is positive and might be attributed to the fact that higher GDP improves tourist infrastructure (a highway-buildings as an non-excludable public good for example) and attracts more tourists. Romania is an atypical case, generated and the lack of strategy in the tourism field, another cause being the EU integration, without a structural politics in the field. Tourism development remains just an ideal which was never implemented before 1990.

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# Environmental Economy - Integrated Assessment of Environmental Costs and Investments

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## Abstract

*The common goal of methods for calculating the environmental costs is to highlight the extent of change of the resource potential and hence the property owner's welfare in monetary terms, which allows assessment of the costs, or comparing alternatives.*

*Integrated assessment of costs shall apply in particular to study the impact of various activities on the environment, but due to the accuracy in achieving high fidelity evaluations, it applies to local government and decision making for the allocation of public funds or resources.*

*To achieve a cost-environmental investment model requires a review of all economic activity in terms of efficiency, coupled with environmental problems.*

**Key words:** environmental economy, costs, investments, efficiency, model

**J.E.L. classification:** Q56

## 1. Introduction

Given that it is more and more often that the quality aspects of environmental factors are emphasized, a thorough approach of the issue on the basis of reality facts is imposed.

By critically generalizing and deriving the essential from the regional reality, a better underlying of the environmental protection politics can be reached.

In order to achieve this, one must allow for the maximum exploitation of the region's potential in consonance with the processes related to environmental protection, to eradicating (attenuating or diminishing) and tracking those elements that prevent or delay the growth process, to tracking those external

factors (national or international) that can contribute to the development of a region [7].

This paper aims to identify sectorial interdependencies in terms of pollution, in terms of cost and environmental investments and the development of a mathematical model in which all links to be established and statistically expected.

## 2. Model of cost-investments for the environment

The common goal of methods for calculating the environmental costs is to highlight the extent of change of the resource potential and hence the property owner's welfare in monetary terms, which allows assessment of the costs, or comparing alternatives.[9]

Integrated assessment of costs shall apply in particular to study the impact of various activities on the environment, but due to the accuracy in achieving high fidelity evaluations, it applies to local government and decision making for the allocation of public funds or resources.

To achieve a cost-benefit - environmental investment model requires a review of all economic activity in terms of efficiency, coupled with environmental problems [12].

In order to make this type of model, we need to re-evaluate the whole economic activity from the point of view of its efficiency, correlated with the problems of environmental protection.

Each economic unit will receive an ecological degree  $G_e$  calculated according to its economic capitalization and its degree of direct and indirect pollution [5].

$G_e = R$  (rentability = capitalization)/  $P$  (pollution indicator)

In which:  $R$  is calculated according to the present schemas, and  $P = K + \sum C_i$ ,  $i = 1, \dots, n$

$K$  = own pollution indicator  
 $\sum C_i$  indirect pollution indicator.

The development of the equation regarding the ecological degree of the company leads to the following equation:

$$Ge = R / (K + \sum C_i)$$

The best solution is that the proportion  $R/P$  is to be as big as possible and  $P$  as small as possible.

The achievement of a large capitalization is the problem of the economic management, and the achievement of a less pollution indicator is the problem of the ecological management [14].

Therefore,  $Ge$  creates the harmonization of the two interests, economic and ecological.

### 3. Determining one's own pollution indicator

We will establish a number of five levels of own pollution indicators in such a manner that the qualitative improvement of the company to be as big as possible when passing from one level to another.

Based on the percentage of emissions resulted from the process of manufacture, each type of pollutant will receive a  $K_i$  coefficient [1].

For own pollution indicator  $K$ , it will be taken the maximum  $K_i$  coefficient, just to determine the companies to take the necessary measures to reduce the most polluting agents.

By determining all direct pollution coefficients and by taking into account the greatest value of  $K_i$ , there has been made a clear identification of the most polluting agents and there has been established the order in which they should be approached in order to be eliminated [15].

These identifications will be made by each company, by its compartment of environmental protection.

### 4. Determining the indirect pollution indicator

The indirect pollution indicator is defined as being the pollution side made by the companies, internalized by each company. The calculation formula is:

$$C_i = n \times K_i$$

In which:

$n$  = using coefficient (for materials  $n$  = the quantity of finite products/ the quantity of raw material, for power resources,  $n$  = the value of the consumed energy/ the value of the necessary energy, for technological material  $n$  = the consumed quantity/ the quantity established through norms)

$R_i$  = the provider's own pollution indicator

The values of  $Ge$  which result from calculations are between 0 and a certain value. The bigger the value of the  $Ge$  is, the more efficient is the activity of the company in conditions of minimum pollution.

To stimulate the company we can diminish the profit tax according to the ecological degree of the company, just to stimulate the passing from a degree to the next, superior one [8].

From the relation  $P = K + \sum nK_i$  we can deduce that in order to make an efficient activity from all points of view, it is imposed:

- The own pollution indicator to be as small as possible, this thing depends on the financial resources available to each company.

- Making the pollution indicator of taking over from other economic agents to be at a lower value.

This is easier to achieve because it involves only a reorientation in what regards the providers of raw material and energy, as well as a raise of the efficiency of the production activity, this meaning to use the power resources, the technological materials in a wise manner and to reduce as much as possible the scraps resulted from the fabrication process [3].

### 5. Matrix calculation

From the calculation relation of the using coefficient  $n$  we can observe that the product  $n \times K$  may be smaller only if there are established relationships with companies which have lower own pollution indicators and if the proportion which defines  $n$  is very close to 1.

The basis of this model is made of the fluxes and transfers from one sector to another between the productive branches (the endogenous side of the model) and the final request (the exogenous side which brings together the consumption, the investments and the exports) [17].

The fluxes are measured in monetary terms, even if they are interpreted in physical units and it is supposed a disintegration degree which is enough to allow us to consider as homogenous the production from each industry [2].

Defining the technical coefficients as proportionality factors (considered as parameters of the model) of the fluxes from the productive sectors, which are described through the following relation:

$$X_{ij} = A_{ij} X_i$$

Using the matrix notation, the relation  $X = AX$  may be expressed:  $X = AX + Y$

In which:

- X: the volume of the financing resources ,
- A: the matrix of the technical coefficients,
- Y: the vector of final costs.

The reduced form will be written:  $X = [I - A]^{-1} \cdot Y$ , where I = unit matrix.

Given the formula  $P = K + \sum n \times K_{ij}$  and taking into account that n = the using coefficient may be used for materials, energetical resources or for technological materials, we will mark the product  $n \times K_{ij} = k_{ij}$  and we can express the pollution indicator (direct + indirect) for a certain polluting activity sector (i) in this manner:

$$P_i = K_i + \sum k_{ij}$$

Taking into account five polluting sectors: industry, agriculture, transport, menage and utilities, we will mark with

$X_i$  = the environmental investment for sector i,

$Y_i$  = the cost of the direct pollution of sector i,

$y_{ij}$  the cost of the indirect pollution of sector i and sector j.

In this case we can express the environmental investment made for the polluting sector through the following formula:

$$X_i = Y_i + \sum y_{ij}$$

In that direction, we can delimitate five financing sources: state budget, local budgets, private funds and bank loans, post-adhesion funds – non-refundable funds, other external funds – refundable funds, external loans – refundable funds and other sources (subventions, contributions, participations) [10].

The delimitation of the financing sources for ecological investments represents an essential problem of those who decide in their financing policies [4].

The matrix costs-investments is defined as following (Table 1).

Table 1. Matrix costs-investments

Env. inv. Poll costs	Env. inv. for ind.	Env. inv. For agr.	Env. inv. for tr.	Env. inv. for men.	Env. Inv. for ut.
Poll costs from IND	X <sub>11</sub>	X <sub>12</sub>	X <sub>13</sub>	X <sub>14</sub>	X <sub>15</sub>
Poll costs from AGR	X <sub>21</sub>	X <sub>22</sub>	X <sub>23</sub>	X <sub>24</sub>	X <sub>25</sub>
Poll costs from TR	X <sub>31</sub>	X <sub>32</sub>	X <sub>33</sub>	X <sub>34</sub>	X <sub>35</sub>
Poll costs from MEN	X <sub>41</sub>	X <sub>42</sub>	X <sub>43</sub>	X <sub>44</sub>	X <sub>45</sub>
Poll costs from UT	X <sub>51</sub>	X <sub>52</sub>	X <sub>53</sub>	X <sub>54</sub>	X <sub>55</sub>

Source: data processed by the author

This way, we can calculate the environmental costs generated by the productive sector:

$Y_i = AX$ , A the matrix of the technical coefficients where  $a_{ij} = y_{ij}/Y_j$

## 6. Results

Dynamic matrix illustrates the evolving relationships, while providing the opportunity econometric treatment of correlations and interdependencies between factors, sources of risk and funding sources of these risks [16].

The utility of the model is limited, because it is only for the polluting systems without taking into consideration any other polluting factors.

Considering a unique time reference, the model is solved leading to a solution of balance for the exogenous variables [18].

With a static model, there can be established different assemblies of values to the exogenous variables which, for instance,

can be: future projections of these very variables ; however, even if this way we can obtain a certain temporal dimension, the analysis would be only static comparative [13].

## 7. Conclusion

To In the present research work, we demonstrated that the integrated costs evaluation mainly applies to the study of different activities' impact on the environment, but, due to its precision in obtaining a high fidelity evaluation, it is also applied to some governmental or local decision making in allocating public funds or natural resources.

Decision making when applying this method involves three main steps: - identifying the alternatives; - determining the opportunity costs, respectively the value of the opportunities discarded when a decision is made to exploit a limited resource for a certain purpose; - analyzing the impact of each option on the interest groups.

Generally, the opportunity cost is measured in terms of direct and indirect modifications brought to the market values, but also to the extra-market values, which are not reflected in market transactions [11].

The input – output models are probable those which fit best the making of the analysis of different possible incidents between the environment and the economic system.

With their linear relations, these model facilitate the introduction of hypotheses of any type, allowing the procurement of results for an assembly or variables reported, for example, on different terms, different hypotheses regarding the dynamics of the ecological costs, different conditions and prices on the national and international markets, ways of financing etc.

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## Balance Scorecard in Hospital Units

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### Abstract:

*Balance Scorecard (BSC) is a tool for measuring the performance, used mainly in the private sector. Social and economic changes of recent years have given rise to a number of objective needs, particularly in the management of "public money".*

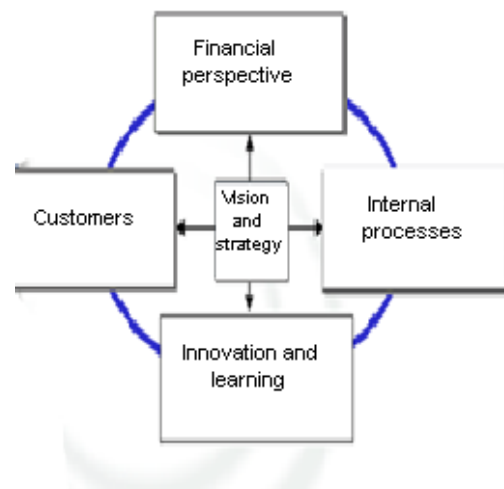
**Key words:** balanced scorecard, Hospital units, strategy.

**JEL Codes :** I10, M41

### 1. Introduction

Many entities use performance objectives for the strategy. In traditional entities that rely on financial control, first occupied budgetary targets. After the 90s, Balanced Scorecard has got to know a large development, more and more entities are using balance scorecard as it provides a framework for selecting multiple strategic objectives both financial and nonfinancial performance measures for customers, internal processes, learning perspective and development. Kaplan and Norton argue that the BSC is used for alignment, communication and connecting the entity's strategic objectives but also to assess the performance. [1]

Figure no.1 Balanced Scorecard



Source: Kaplan & Norton, 2006.

### 2. Balanced Scorecard – a modern tool of management control

Balance Scorecard allows an entity to allocate equal importance on performance measures, both financial and non-financial measures in between the four perspectives in order to develop and implement corporate strategy and performance evaluation. However, the literature provides minimal information about how goal setting, decision-making method in the evaluation of management measures and how to resolve the conflicts that arise in the process of BSC.

Ittner, Larcker and Randall argue that only a small number of entities are aware of the potential benefits of using nonfinancial measures. It identifies a common mistake that is: not setting proper performance objectives. Efficacy balance scorecard is based equally on setting goals and weight measures. Managers' opinions about the availability of objectives, viability and the likelihood for success remain considerations



in setting goals in the BSC process but also to establish their weight.

In designing and implementing a BSC model, the literature raises an important issue about prejudice against common measures (non-financial ones). Lately, it seems to minimize this bias, as it was found to be the result of disagreement between top management and middle management.

Ittner, Larcker and Meyer refer to subjectivity and the weight related performance measures. In entities studied by them, the managers were dissatisfied under the share bonus for non-financial measures as it is not considered fair, and as such, the entities have stopped bonus award system, along with the implementation of the BSC.

Another practical problem that is rising with the implementation of BSC is pointing the management towards the use of extended targets related to improving performance. Stretch goals can be used for organizational change, and attention directed towards change is expressed through performance evaluation. The real problem with goal setting is that they are often the result of a segmented approach against the whole, in consequence trying to establish goals for individual actions without adequate supply to employees the knowledge, tools and means of achieving these objectives.

Recently in the literature, it is considered that the interested parties (stakeholders) should get actively involved in the entire process of development and implementation of the BSC model. The learning process and the feed-back is an important component within the BSC strategy. Kaplan and Norton argue that instead of a single strands of feedback (report and inspection), companies' strategies should be focused towards two directions of feedback that promotes a culture of teamwork and problem-solving strategy around.

For the public sector, the BSC structure changes, so the emphasis is placed on the "customers"; customers that are direct beneficiaries of goods and services, simplifying the citizens. Stakeholders are represented by the entire population into Kaplan & Norton are among those who argue that public institutions were hit often difficult to define and establish a clear strategy. [2] As such, in a public institution will find a list of programs and initiatives very well defined,

but not be mentioned anywhere who wants to be the result obtained. rested in the products and services provided by public institutions such as the press, vendors, regulators, etc..

The strategy involves the fulfillment of the vision and goals, such as: developing a business partnership with the community, reducing taxes, etc.

Both in Romania and in most countries, the public sector the focus is on performance, but not strategic performance as it should. In the table below you can see a parallel between what was and what is meant to be.

*Table no. 1. Performace in traditional vision and the modern one*

<b>Traditional approach</b>	<b>Performance orientated approach</b>
Government and council imposed oriented performance measurement control top level of the hierarchy to the lower.	Collaborative Strategic Development of an performance management system which involves all stakeholders
Impose the Universal indicators at the industry level, with lower validity for specific organisms such as councils	Internal development of valid indicators, specific to a board that can be used to improve organizational and benchmarking with other councils
Periodical reporting to satisfy the requirements control of its top management, advisers and representatives of the government	Performance information in real time, updated so that all stakeholders can monitor progress, take responsibility and manage results
Fragmented approach, with a focus on the detailed measurement	An integrated Performance Management system across the entire organization focused on the value of services and organizational improvement
Orientation only on financial indicators	Orientation in relation to financial and non-financial indicators: an approach to outcomes and determinant factors

Source: Kloot & Martin (2000) from Kaplan & Norton [3]

Kaplan & Norton are among those who argue that public institutions were often found difficult to define and establish a clear strategy. As such, in a public institution one can find a list of programs and initiatives

very well defined, but unfortunately one cannot find the presumed results mentioned.[4]

Rohm outlines a number of arguments in favor of the introduction of the Balanced Scorecard in the public sector [5]:

- Provides alignment between mission, strategy, processes and personal performance level;
- Align priorities of local government to national government priorities;
- Demonstrate the value of programs for the citizens;
- Develops performance indicators consistent with the purpose of determining the results of the programs;
- Correlates mission and vision to the budget request;
- Establish resources, and contract cost for each initiative;
- Improve coordination in order to eliminate waste and duplication[6].

Table no. 2 BSC –Shakespearean “to be or not to be”

What is it?	What is not?
A strategic performance management system of the entire organization	A performance measurement tool for controlling individual productivity
A communication tool for a clear and unambiguous strategy for everyone	A manner to situate existing performance in one of the four categories
A way to balance the financial perspective to that of non-financial of performance of the organization	A projet
A commitment to change	It is not easy
One way to align the organization's vision to the capital and human resources but also to daily operations	A <i>status quo</i>
A system for increasing accounting	

Source: Own Processing

Balanced Scorecard brings a number of challenges in terms of performance management system, as follows:

- sear of novelty, new systems and new measures, lack of common terms and definitions,
- "Inputs" of material, information etc. inconsistent or weak and their lack of

understanding,

- Visions and strategies that are poorly defined or misunderstood, and thus not connected to individual actions,
- Separate budgets treatment strategy development
- Measures are taken independently from the context of performance
- Lack objectives involving performance or goals that are set too high or too low actual level of achievement possible.
- Non-existent or poorly developed strategic Feedback
- Minimal involvement from staff.

To meet these challenges mentioned above there were found solutions that could later be called best practices. These include limiting the number of steps taken, establishing measures for all prospects and strategies, developing a solid database, the development of measures for past, present and future, setting goals interrelated, etc.

As his public sector in Romania is regarded, we can identify present concerns for the development and implementation of Balanced Scorecard tool. The Ministry of Finance launched the project "Development and implementation of performance assessment instrument in the central apparatus of the Ministry of Public Finance: Balanced Scorecard - Scoreboard" [7], and the Ministry of Interior started the project "Modern Mechanisms for efficient administration " [8], both projects being co-financed by external funds, namely the European Social Fund Operational Programme Administrative Capacity Development 2007-2013.

Although the costs are high and the lack of specialists constitutes to be a real obstacle in implementing this instrument in public institutions, Balanced Scorecard can be the best of all the management tools for the public sector. Implementation of BSC in a public hospital could lead to very valuable results. Currently hospitals operate in an environment characterized by increasing need for transparency, cost control, simplify and streamline the organization.

### 3. BSC in hospital units

Public institutions have had difficulty with the classic structure of Balanced Scorecard that places financial perspective

first, followed by prospects Customers, Internal Processes and Learning, Growth & Innovation.

Achieving the financial success is not the main objective, not even the primary one for public sector institutions. Instead, citizens or taxpayers' perspective is more important and is the main concern in the performance of a tool for measuring the performance of global viewpoint. The perspectives of the Balanced Scorecard can be adapted, in a structure that best serves the strategic interests of public organizations.

Kaplan and Norton propose in the last decade a Balanced Scorecard model for

public sector institutions. In Romania, this performance measurement tool has been implemented in public institutions such as PS2 Bucharest Municipality Botosani, Gorj County Council, etc.

Our proposal for achieving and implementing a Balanced Scorecard model is aimed towards hospitals in categories III and IV, hospitals that were the subject of our study to present the particularities of the other two instruments to achieve an efficient management and cost centers that ABC method, illustrated in Figure no. 2.

Figure no.2 Proposal for implementing a BSC model in hospital units

Perspective	Strategic objectives	Measures	Type
Clients/pacients	Maximising the satisfaction of people / patients	Pursuing patient satisfaction Pursuing public satisfaction	weakness weakness
	Extending the mass of citizens whom it is addressed	Attraction of patients to a variety of quality health services	weakness
	Increasing the degree of knowledge of services provided by public hospital	Public information campaigns Expenditure on publicity campaigns	strength weakness
Financial	Maintaining financial stability	Attract new funds through European programs	strength
	efficient management of costs	Resource consumption does not exceed more than 5% budgetary provisions	weakness
Internal processes	Improving internal programs of organizing of work	Acquisition of software for internal planning activity.	Weakness
	Development of a program for tracking the quality of services provided	Implement a system of measuring the quality of medical services.	strength
	Optimization of achievement process of a performance management	Establishing the system of performance indicators to be achieved.	strength
Innovation and learning	Human resources management	Estimated personnel costs does not exceed 60% of the budget.	Weakness
	Promoting labor flexibility	Promoting interdisciplinary courses in the hospital unit	strength
	Promotion continuing education employment	Over 70% of medical staff to attend yearly continuing training.	strength

Source: own processing

Our proposal to implement a Balanced Scorecard model, aims to strategic objectives applicable in hospital units; they were determined by identifying strengths and weaknesses, the non-participating observation.

*Customer perspective*

Public hospital units direct their activities towards the needs of the population; whole activity of the hospital is to provide quality

medical services designed to meet the needs of patients.

We propose as strategic objectives:  
- maximize the satisfaction of citizens/patients  
- expanding the mass of citizens whom it is addressed,  
- increase awareness of services provided by the public hospital.

We consider that the objectives set can be achieved through measures such as:

- establishing an efficient system of tracking patient satisfaction, based on the coordinates of the current situation in public hospital units;
- implementation of programs that include free population in diagnosis;
- organization of information campaigns and public education on certain illnesses and diseases.

*Financial Perspective:*

The data showed interest ever finance management of hospitals; activity based on the history of hospital units receive funding from the Health Insurance Fund.

Strategic objectives concerns:

- maintaining financial stability;
- cost effective management.

We appreciate positively the necessity to include financial data, information on risk assessment and cost-benefit relationship. Measures proposed to achieve the objectives set are:

- attract new funds by accessing European programs;
- Effective management of resources in order not to exceed the budgetary provisions.

*Internal Processes Perspective*

Activities under this perspective help managers to estimate the achievement of objectives at the institution; based on information provided by internal activities, we can determine those locations in which you can excel.

We propose as strategic objectives:

- Improve internal programs work organization: making guards work in teams; and so on

-Development of a program for tracking the quality of services provided

-Optimization of achieving a performance management

In order to achieve the strategic objectives proposed, we consider the following measures:

→ Purchase of software modern internal planning activity.

→ creating a system of tracking and quality health services; such as ISO 9001:2008 Certificate of Registration for the industry "Activities of hospital care, outpatient and dental and other human health activities".

→ The level you need to achieve the performance indicators established by the Ministry of Health.

*Learning and Growth Perspective*

This perspective includes employee training and corporate cultural attitudes both individual and institutional level. The main resource within a public institution is the human resource. In the current climate of rapid technological change, there is need for continuous training of medical staff. Strategic objectives proposed in this perspective are:

- Human Resources Management;
- Promoting labor flexibility;
- Promote continuous employment.

Measures taken to achieve the objectives aimed at are:

- Dimensioning personal expenses, the total funds allocated because the analysis in time and space of this type of expenditure, we observed an increasing trend thereof; propose their thorough analysis and identify the causes of increase of these costs, the adoption of relevant decisions.

- An alternative to reduce staff costs, specialization is the medical staff, especially the auxiliary ones.

- Organization of training courses / training/ expertise to bring added value to their operations; specialized medical personnel is a lever to improve the process of providing medical services.

#### 4. Conclusions

Implementing a Balanced Scorecard in the public hospital units have the following *advantages*:

- The traditional performance measurement focuses on the financial side of the hospital unit; Balanced Scorecard is a tool that provides management performed an overview of the whole, by identifying the overall strategic objectives, and the measures to achieve them

- Ensure consistency between all the activities of the unit, allowing the identification of new courses of action, and the strengths and weaknesses of the business.  
-Allows monitoring of the objectives.

However, implementation of Balanced Scorecard meet a number of *limitations*:

-high costs of implementation;

-difficulty in setting goals and measures followed globally because of the large number of variable followed  
-restricts individual performance by establishing measures involving the entire medical staff

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## Funding Romanian Medical Services

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### Abstract:

*European Health Services is in a full process of reform; under the latest economic and social transformations, European Union is seeking the reform of all health systems of the Member States to ensure the highest quality services.*

*Romanian health system is a difficult sector of the national economy; deficient funding, poor health of the population, the situation of medical doctors working simultaneously in the public and private sectors, the worrying for the costs of drugs, fight against corruption intra-system, and not the latest, quality of care are the main problems of this system.*

*The main objective of this paper is to highlight the current state of financing health service systems, both at European and national level.*

**Key words:** uniform system, funding

**JEL Codes:** I10, M41.

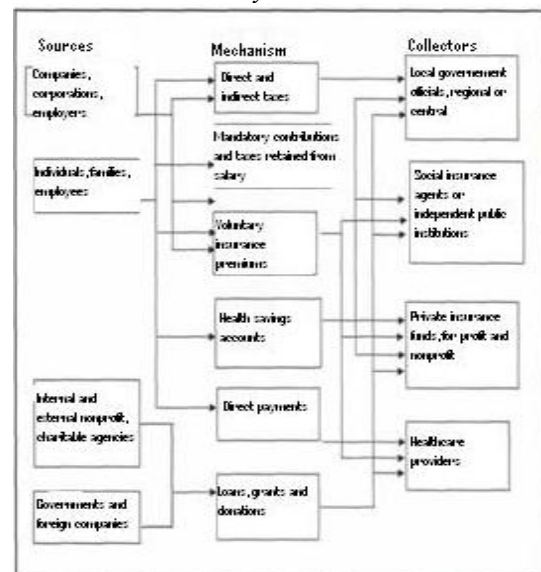
### 1. Introduction

Lately, health care systems show a growing need for resources due to factors such as the degree of aging of the population, the development of new technologies and drugs, population growth from one period to another.

To finance health care services there is a need to ensure consistent funding. The endogenous components of the system for financing these services are: grant funds, mechanisms and collection agent. Sources of financing health care services may come from economic, corporate employers, individuals, domestic and foreign NGOs,

governments, etc. Fundraising mechanisms consist of taxes, contributions of population, health insurance premiums, paying "out of pocket", loans, donations, etc. Collectors are represented by government agencies, public officials or private providers of health services.

Figure no.1 Structure of funding health care system



Source: Elias Mosialos, Anna Dixon, Joseph Figueras, Joe Kutzin, 2002, *Funding health care: options for Europe*, Buckingham, Open University Press, pg. 5.[1]

### 2. Financing schemes at EU level

European health care systems, depending on the existing socio-economic characteristics, have undergone a series of transformations aimed at providing quality care, efficient use of material resources, human and financial. Within the European Union, were found along time three health care systems: national health system - type

Beveridge; Bismarck health insurance system; centralized health insurance Semashko.

National Health care System type Beveridge is based on the existence of an increased social equity through access for all people to health services; financing of these services is through taxes, national budget. The health care system is found in countries like England, Denmark, Finland, Norway, Sweden, Greece, Italy, Spain. In these countries, the state finance free medical services provided to the entire population; population only duty is to enroll in one of the family doctors who have completed service contract with the national system.

We identify the following advantages of this system: providing medical services the entire population; population contribute indirectly through taxes to finance these services, a significant proportion of which are funded by the state; health indicators have improved steadily. However, there are difficulties in systems application; too long waiting list of patients for complicated interventions and issues the failure to pay certain drugs by the state. These shortcomings entail patient dissatisfaction due to bureaucracy too large and the system.

Bismarck health care insurance system is the most widespread health care system, which is financed from contributions made by the working population; this type of system is found in countries like Austria, France, Holland, Germany, Belgium and Romania. This system works on the following principle: people pay contributions based on income, the so-called Health Homes that contracts with health care providers, whereby they are paid from fees collected. We can mention the existence of private health insurance who participates in the financing of health services.

Strengths of the adoption of this health system consists of: supporting workers' rights, the efficient delivery of health services, health houses are independent of Government, unlike Beveridge system where everything is centralized medical services are allocated according to the needs of patients. Also, we identify the weaknesses of this system include: high cost of administration, potential for problems related to unconditional assurance of health services where demand exceeds supply.

The centralized system of health insurance is system Semashko extra medical personnel, hospitals, the amount is above quality. This system was present before the 1990s in the countries of Central and Eastern Europe, which had a centralized system and now in countries like Cuba, China, and North Korea. Financing of health services is provided by the state monopoly in connection therewith; no private insurance system. The entire population has access to health care; it seemed to be the only advantage of this system. However, identify a number of disadvantages, such being a single supplier and a single service provider, there is competition which leads to lack of initiative, and the existence of a low performance level; quality of care is affected because as I said the focus is on quantity and the allocated funds are insufficient to ensure quality health services.

Another type of health care system is based on private health insurance system that is functioning in the U.S. and 20% of Europe. Private insurance is a voluntary system of health care that complements the mandatory covering health care of the insured under the law. This system offers freedom of choice for patients and providing effective and quality health care, while the medical performance are some of the highest. Despite these positive aspects, the system presents the disadvantage of high cost of part of medical services.

Nowadays, all health systems have undergone transformations due to reform in time and space, of economic and social aging population, technological progress, economic growth, the development of society as a whole. In most cases, identify increased demand for medical services compared with more limited resources; This requires the search for viable solutions to increase efficiency of health care services to ensure the reorganization of health systems. Some reforms have failed, others have positive results; in Romania, slowly progressive reform, which entails the need for new health program objectives.

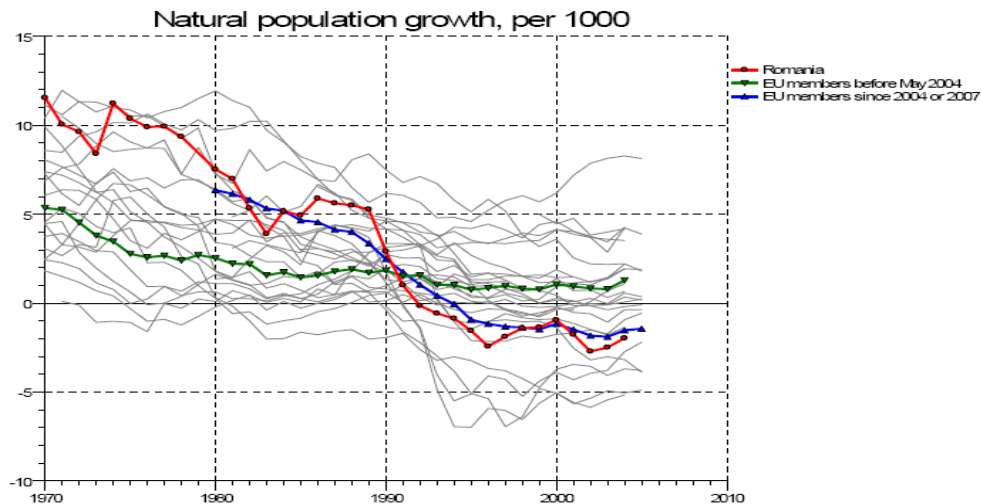
### **3. Funding Romanian health care system**

Romanian health sector is "poor" compared to the European average. The costs of providing medical services are at a very

low level because the health sector is considered one unproductive therefore a low priority in budget allocations. Medical staffing deficit produced changes in the sector expenditure. Note that in Romania, the medical staff is numerically lower, below average compared to the need of the population. Health budgets have increased in recent years from about 90 Euro / capita at over 200 Euro / capita in recent years and as

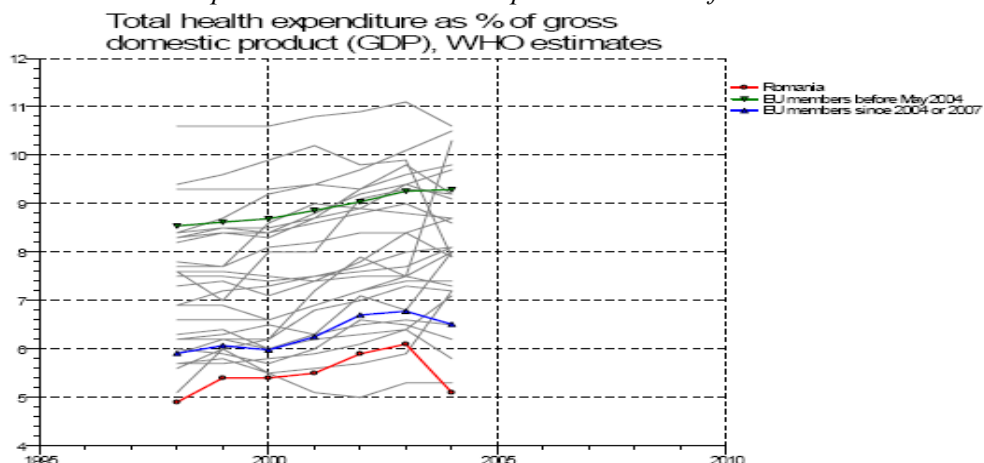
a share of approx. 3% to 4% over the same period of time. However, Romania is among the last ranked relative to resources allocated to health. It is believed that the future would be appropriate increase in health spending per capita as the population ages and rates of morbidity and mortality are rising; health in Europe is precarious.

Graphic no.1 Natural population growth



Source: Report of the Presidential Commission for review and public health policy in Romania - Natural growth in Europe, available online on [http://www.presidency.ro/static/ordine/COMISIASANATATE/UN\\_SISTEM\\_SANITAR\\_CENTRAT\\_PE\\_NEVOILE\\_CETATEANULUI.pdf](http://www.presidency.ro/static/ordine/COMISIASANATATE/UN_SISTEM_SANITAR_CENTRAT_PE_NEVOILE_CETATEANULUI.pdf) 12.03.2012 [2]

Graphic no. 2 Total health expenditure as % of GDP



Source: Report of the Presidential Commission for review and public health policy in Romania – Expenditure on health system, available online on [http://www.presidency.ro/static/ordine/COMISIASANATATE/UN\\_SISTEM\\_SANITAR\\_CENTRAT\\_PE\\_NEVOILE\\_CETATEANULUI.pdf](http://www.presidency.ro/static/ordine/COMISIASANATATE/UN_SISTEM_SANITAR_CENTRAT_PE_NEVOILE_CETATEANULUI.pdf), 12.03.2012[2]

Sources of funding public health budget are: budget, budget of the National Social Health Insurance (FNUAS), local budgets,

their own income, foreign loans, external grants, donations and sponsorships. In total financing sources, the National Health



Insurance Single (FNUAS) holds a share of 75%. FNUAS is currently funded by employee contributions (5.5% of their income) and employers (5.2% of payroll).

Contributions to FNUAS decreased progressively from a total percentage of 14% in 2001 to 10.7% in 2011. Notice that the number of direct taxpayers significantly decreased by about 4 million people in 2007

compared to 2000, reaching that about 5 million people to help finance a system that should benefit equally 22 million citizens. Since 2006, an important source of health budget is the vice tax imposed on tobacco products and alcohol. The following table highlights the expenditure provided in the Convergence Programme 2009-2012:

Tabel no. 1 Expenses of public money

% of GDP	2000	2007	2020	2030	2040	2060
Total expenses	33,6	35	39	43,5	42,5	42
<b>Expenses related to aging</b>						
Pension expenditures	6,7	6,6	8,5	9,8	11,7	14,1
Health care	3,5	3,3	3,8	4,1	4,4	4,9
Education expenses	3,4	2,8	2,3	2,2	2,1	2,3
Total revenues	32,1	33,2	34,5	40,5	29,5	39
<b>Growth of average productivity</b>						
Growth of average productivity	2,5	5,9	3,4	2,7	2,7	2,7
<b>Real growth of GDP</b>						
Real growth of GDP	2,4	6,3	3,2	2,1	1,6	1,2
<b>Participation rate among males</b>						
Participation rate among males	75,4	70,1	70,9	68	66,1	66,3
<b>Participation rate among women</b>						
Participation rate among women	61,8	56	58,8	56,6	55,5	56,1
Total rate of participation	68,7	63	64,8	62,4	60,8	61,3
<b>Unemployment rate – BM</b>						
Unemployment rate – BM	6,9	6,4	6,0	6,0	6,0	6,0
<b>Population aged 65 and over / total population</b>						
Population aged 65 and over / total population	13,6	14,9	17,4	20,3	25,5	35

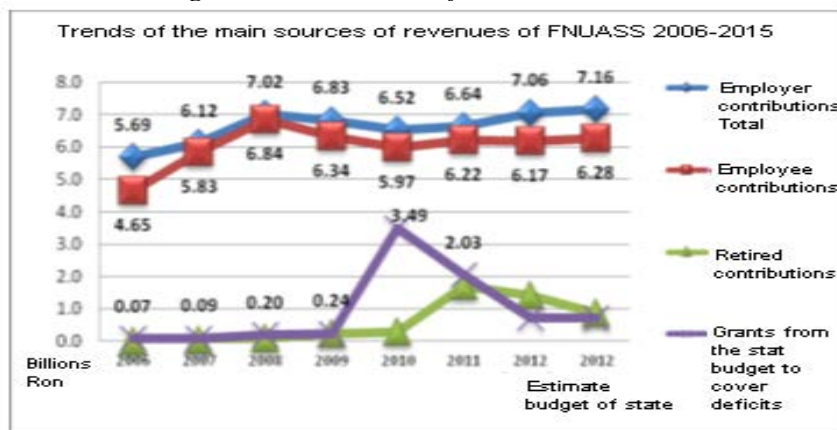
Participation rates refer to the population aged 15 to 64 years

Source: Convergence Programme 2009-2012 - Long-term sustainability of public finances, available online on [http://discutii.mfinante.ro/static/10/Mfp/pdc/Programconvergenta\\_ro.pdf](http://discutii.mfinante.ro/static/10/Mfp/pdc/Programconvergenta_ro.pdf), 12.05.2012[3]

As can be seen, health care costs are a percentage in continuous decline in GDP. Another category of funds from the state budget are funds allocated by ministries and agencies with their own health network, such

as the Ministry of Defense, Ministry of Interior and Administrative Reform, Intelligence, Ministry of Transports, with amounts far below those of FNUAS and MS.

Figure no. 2 Evolution of FNUASS revenues

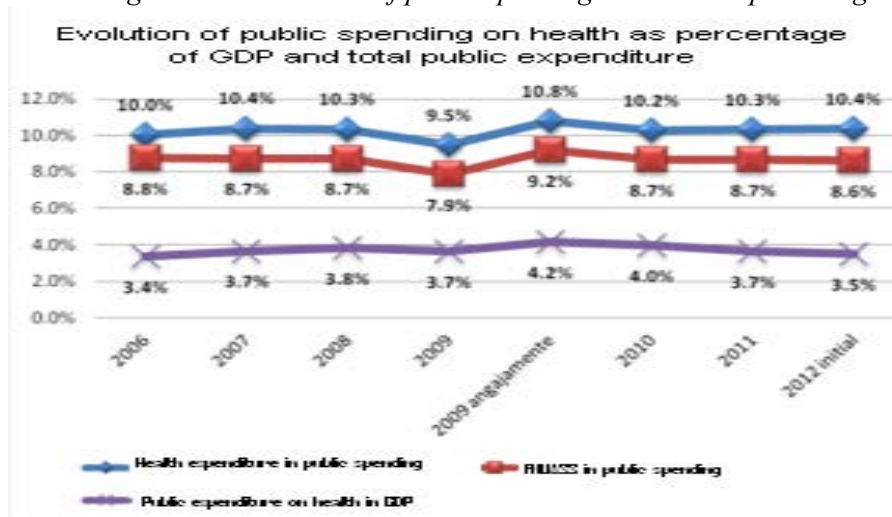


Source: CNAS, MIND Research & Rating [4]

National Fund of Health Insurance (FNUASS) had revenues in 2011 of 18 billion [1]; noted that in 2009, revenues decreased by 7% since been an increase in expenditure due to the unrestricted use of drugs compensated. Revenue from contributions of the active population increased in 2011 because they were subjected contribution and retired, to 2008, when the economic crisis started when contributions were reduced from 12.5 % to 11 %, and 10, 7% in 2009. In the budgets of local authorities, health spending is among the lowest budget categories, because the current structure of the health system is such that local

authorities have a responsibility very low. Another important source of revenue is the private household spending. These expenses go from population private health insurance and direct payment of health services. Romania now in private health insurance has a small percentage of total private spending. But with the March 1, 2012, the situation will change. The allocation of funds in the health system is based on a number of criteria of differentiation, such as the types of health services provided (primary care vs. Hospital or curative care vs. Promote health), different areas of the country (counties, municipalities) various health institutions.

Figure no. 3 Evolution of public spending on health as percentage



Source: CNAS, MIND Research & Rating [4]

However, there are no published criteria for resource allocation transparent and evidence-based. Allocation is a subjective, which leads to a situation where the resources are available, but insufficient, is used in an inefficient manner that shows directly on the health of the population. Resource allocation to wards and departments becomes one unpredictable and inefficient. Many cases are known where they were purchased expensive equipment then not used, due to lack of staff or lack of funds for installation or supplies.[5]

Lack of clear procedures and criteria for allocation leads to inefficient spending while the decision process take place, but also long term. An example is the investment announced by the Ministry of Public Health for the construction of 28 new hospitals

without being given explicit criteria were the basis for decisions about the location, structure, size, etc.. of those units. Consequences of this decision are materialized in need of additional funding on the one hand, and the closure of existing hospitals.

#### 4. Conclusions

Sources of funding allocated health expenditure FNUASS are not enough; so we have the necessity of accessing European programs as well, why not accessing private funds from private insurance. Thus, new directions for action, countries such as Romania continues the series of reforms proposed by the EU, and also trying to attract new funds from the private sector and

removing barriers to competition between public and private sector.

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# Dimensioning and Allocation of the Financial Funds of the Company by Using Dynamic Programming

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## Abstract

*Dynamic Programming is a general algorithm design technique for solving problems defined by or formulated as recurrences with overlapping sub-instances. Dynamic programming is regarded as a particular approach to optimization problems in which a considerable number of decision variables and the objective function and functions that define the restrictions of the problem may have various shapes and properties.[1]*

*Dynamic programming is a very powerful algorithmic paradigm in which a problem is solved by identifying a collection of sub-problems and tackling them one by one, smallest first, using the answers to small problems to help figure out larger ones, until the whole lot of them is solved. In dynamic programming we are not given a dag; the dag is implicit*

**Keywords:** Dynamic Programming, Mathematical Models, Programming Model, Financial, Quantitative Methods.

**JEL Classification:** C61

## 1. Introduction

The literature presents numerous applications of mathematical and economic modelling analysis on resource efficiency in a production system. Since this category includes models for the evaluation of investment projects, their execution programming models for determining the amortization of fixed capital, etc. This paper mainly discusses the main aspects of the logic of quantitative economic analysis and

use of solutions in decision making and the use of fixed capital investment of the company.

## 2. Using dynamic programming allocation of funds according to the possible economic effects

First of all, we will start with the rationale of sequential optimality that was formulated by Bellman, namely that „any policy extracted from the optimal policy is optimal itself within its definition.” The basic idea in solving such problems is to decompose the problem into phases (sub-problems with a single variable) and applying Bellman's principle.

Dynamic Programming Model:

The structure of a dynamic programming model largely depends on the characteristics and technical – economic system represented. Thus, if they are to study the optimal variants to invest in production equipment, then the variable status / decision ( $d_n$ ), can designate the number of devices purchased in (period)  $n$ , when the system is in the state of  $s \in S_n$ . The field of definition of the variable  $d_n$  is  $D_n(s)$ , corresponding economic effect is  $R_n(s, d_n)$  and  $T_n[s, d_n]$  is transformed as system status in the phase  $n - 1$ .

Using the notation introduced, resulting in the following relationship known to dynamic programming recursion:

$$f_n(s) = \underset{d_n \in D_n(s)}{\text{optimum}} \left\{ R_n(s, d_n) + f_{n-1}[T_n(s, d_n)] \right\}; s \in S_n \quad (1)$$

Optimisation is done sequential, prospective and retrospective in phases

(periods) and determining the optimal variant does not require the establishment in the phase „n” decision variables that produce the  $f_{n-1}[T_n(s, d_n)]$ . At each stage is chosen the optimal solution based on a limited number of decision variables and is retained for future calculations only the values of the objective function.

The optimization can be done by a graph chart sequentially with no cycles in which the nodes are marked state variable  $s$ , and the phase  $n, [s, n]$ . Each decision variable  $d_n \in D_n(s)$  it identifies on the arc connecting the node  $[s, n]$  with  $[T(s, d), n-1]$  and its cost is  $R_n(s, d_n)$ .

The status „s” of the system in the final stage is specified; therefore this node is terminal for the graph and  $f_n(s)$  is the most effective route to the node  $[s, n]$ . In the terminology which is used in linear programming,  $f_n(s)$  can be interpreted as the dual variable value, corresponding node attached equation  $[s, n]$ . For applying these modelling techniques to the problem of optimizing the process for replacement - maintenance of production equipment should first identified its problems.[2]

### 3. The method

At the beginning of the first year the company considered buying a machine and keeps it until the beginning of the year  $j \leq n$ . In case when  $j < n$  the company replaces the machine at the beginning of the year  $j$  with a new one you keep until the beginning of the year  $k \leq n$ . The cost  $c_{ij} (1 \leq i \leq j \leq n)$  shall be composed from the costs of acquisition, installation and operation of new equipment purchased, minus the remaining value at the beginning of the year  $j$ , when is replaced. Using the notations introduced above, resulting the following recurrence relation for the retrospective algorithm:

$$f_n \min_{k=n+1, \dots, N} im [c_{nk} + f_k] \text{ for } \quad (2)$$

$$n = N - 1, N - 2, \dots, 1$$

$$f_N = 0, \quad (3)$$

Where  $f_n$  is the minimum cost of replacement policy for the periods  $n, n+1, \dots, N-1$  on the assumption that new equipment is purchased at the beginning of  $n$  period

The same problem can be written in a form that shows the two possible actions: maintenance or replacement. For this purpose I will introduce the following notations:

- $p_{in}$  The net cost of the sale (scrapping and recovery of remaining amount) for a  $i$  years old machine in the phase  $n$  and replace it with a new one.
- $k_{ni}$  Operating costs in the phase  $n$  for a machine which at the end of stage is aged  $i$  years.
- $f_n(i)$  The minimum cost of replacement policy in phases  $n, n+1, \dots, N-1$  when in phase  $n$  operate a machine aged  $i$ .

Should be emphasized that the  $n$  index it refers to the phase  $n$  and after it, until the end of the programming horizon.

If it is optimal to keep the machine at the beginning of  $n$  period, then:  
 $f_n(i) = k_{n,i+1} + f_{n+1}(i+1)$

If it is optimal to replace the machine then:  
 $f_n(i) = p_{in} + k_{n1} + f_{n+1}(1)$

Illustration of the sequences decision can be made with a graph, in which every node  $(i, n)$  where  $i$  is the age of the machine and  $n$  is the number of phases, an incident arch is attached to the inside and two arcs incident to the outside (one of these relates to the maintenance of the machine and the other one to replace it). Recurrence relationship that allows the evaluation of each decision is:

$$f_n(i) = \min im \left[ \begin{matrix} k_{n,i+1} + f_{n+1}(i+1), \\ p_{in} + k_{n1} + f_{n+1}(1) \end{matrix} \right] \quad (4)$$

$$for, n = 1, 2, \dots, N-1; i = 1, 2, \dots, n-1$$

$$f_N(i) = 0, for \_i = 1, 2, \dots, N-1 \quad (5)$$

In the first stage of solving, the calculations are made for the two phases together, and then in the second stage adds another phase, continuing with the fourth phase, etc. until fully through the graph from the final node to the initial node (in

retrospective algorithm) or from the initial to the final node (for the prospective algorithm).

The proposed model determines the value  $f_1(i_0)$  where  $i_0$  is the „age” of the machine at the beginning of horizon of the programming. If there is no equipment at the moment, then  $p_{i_01}$  is the cost of purchasing a new machine, and the decision to keep it does not apply to  $n = 1$ .

I consider in the following  $N - 1 = 4$

By applying the relation (4) for  $n = 4$  we obtain the following solutions for retrospective algorithm.

$$f_4(1) = \min[k_{42} + f_5(2); p_{14} + k_{41} + f_5(1)] \quad (6)$$

$$f_4(2) = \min[k_{43} + f_5(3); p_{24} + k_{41} + f_5(1)] \quad (7)$$

$$f_4(3) = \min[k_{44} + f_5(5); p_{34} + k_{41} + f_5(1)] \quad (8)$$

These results are input data for the next stage it is considered stages 3 and 4 together.

#### 4. Case study: Using dynamic programming to determine minimize costs for acquisition and maintenance of equipment

Given the characteristics of machinery and equipment in a company belonging to the construction industry, their need for intensive and extensive as effective technical complexity of maintenance and repair. [3]

The need to modernize their structural changes needed maintenance and repair work and the rational organization of labour. Efficient and rational organization of maintenance and repair work is to provide physical and moral wear reduction of machines. A company has a machine and in what follows I intend to analyze the management of this equipment in a year. Every four months, the machine has been examined by experts and has established estimate it's reconditioning to be able to operate at optimum capacity and normal parameters. I will formulate the optimal solution of the problem if it requires the purchase of a new machine or to repair the existing equipment. The distribution low indicative estimate of the amount of maintenance is:

$$L(x/y) = \begin{cases} 0, & \text{if } x < 1 \\ 0,3 & \text{if } 1 \leq x < y + 1 \\ 1 & \text{if } x \geq y + 1 \end{cases} \quad (9)$$

The distribution low is given by the age  $y$  of the equipment. In what follows I will use the following notations:

$Y_n$  - The machine age at beginning of period  $n$  after renewal or repair;

$X_{n+1}$  - The amount of maintenance to be raised at the end;

$g_n(y)$  - The average of total value for the three periods;

$y$  - The starting age;

$g_3(y) = 0$ ;

$y^*$  - Optimal decision.

If at the beginning of period  $n+1$  it is known the sum of  $X_{n+1}$  then there are two situations which will be considered:

- If we have to make a repair, the age of the machine it will be:  
 $y_{n+1} = y_n + 1$ ;
- If the machine needs to be replaced its age in period  $n+1$  it will be:  
 $y_{n+1} = 0$ .

Immediate value corresponding to a period is given by:

$$u(y_n, x_{n+1}, y_{n+1}) = \begin{cases} p, & \text{if } y_{n+1} = 0 \\ x_{n+1}, & \text{if } y_{n+1} = y_n + 1 \end{cases} \quad (10)$$

The program to be solved is a stationary dynamic one, the system of equations by recurrence is:

$$g_{n,N}(y_n) = \int_{x_{n+1}}^{\infty} \min[P + g_{n+1,N}(0), x_{n+1,N}(y_n + 1)] dL\left(\frac{x_{n+1}}{y_n}\right), 0 \leq n < N \quad (11)$$

With:  $g_{N,N}(y_n) = 0$

Based on the relations (9), (10) and (11) we will determine the optimal policy starting from the last period.

**Third period:**

$$g_2(y) = 0,3 \min[P + g_3(0); 1 + g_3(y+1)] + 0,7 \min[P + g_4(0); y+1 + g_3(y+1)] = 0,3 \min(20,1) + 0,7 \min(20, y+1)$$

If the amount is  $x = 1$ , than  $\min(20;1) = 1$  therefore the machine will be repaired:  $y^* = y+1$ .

If the amount is:

$$y = y+1 \Rightarrow \begin{cases} \min \left( \begin{array}{l} 20; y+1 = y+1, \\ \text{for, } y \leq 19; y^* = y+1 \end{array} \right) \\ \min(20; y+1 = 20, \\ \text{for, } y > 19; y^* = 0 \end{cases}$$

$$\text{So, } g_2(y) = \begin{cases} 0,3 + 0,7(y+1) \text{ for, } y \leq 19 \\ 0,3 + 0,7 \cdot 20 \text{ for, } y > 19 \end{cases}$$

**Second and first period:**

The average expenditure for the two periods will be:

$$g_1(y) = 0,3 \min[20 + g_2(0); 1 + g_2(y+1)] + 0,7 \min[20 + g_2(0); y+1 + g_2(y+1)]$$

The function  $g_2(y)$  depends on  $g_1(0)$  and  $g_1(y+1)$ . But the function  $g_1(y)$  is defined on intervals, for  $g_2(y)$  we will have two cases:

**Case 1:**  $y+1 \leq 19 \Rightarrow y \leq 18$

$$g_1(y) = 0,3 \min \left[ \begin{array}{l} 20 + (1 + 0,7 \cdot 0); 1 + \\ (0,7(y+1)) \end{array} \right] + 0,7 \min \left[ \begin{array}{l} 20 + (1 + 0,7 \cdot 0); \\ y+1 + (1 + 0,7(y+1)) \end{array} \right] = 0,3 \min(21; 2,7 + 0,7 \cdot y) + 0,7 \min(21; 1,7 \cdot y + 2,7)$$

Because  $y \leq 18$ , for the first term we will have  $\min(21; 2,7 + 0,7y) = 2,7 + 0,7y$  for  $x = 1$  is preference that the equipment to be repaired and  $y^* = y+1$ .

For the second term, there are two situations:

- $1,7y + 2,7 < 21$  Or  $y < 10,8$  we obtain  $\min(21; 1,7y + 2,7) = 1,7y + 2,7$

And for  $x = y+1$  the equipment must be repaired if  $y \leq 10,7$ , so  $y^* = y+1$ .

- $y \geq 10,8$  And  $y \leq 18$ , so  $10,8 \leq y \leq 18 \Rightarrow \min(21; 1,7y + 2,7) = 21$  we obtain for  $x = y+1$ , the equipment will be replaced if  $10,8 \leq y \leq 18$ , so,  $y^* = 0$ .

Systematizing:

$$g_1(y) = \begin{cases} 0,3(2,7 + 0,7y) + 0,7(1,7y + 2,7) & \text{for } y \leq 10,8 \\ 0,3(2,7 + 0,7y) + 21 \cdot 0,7 & \text{for } 10,8 \leq y \leq 18 \end{cases}$$

**Case 2:**  $y \geq 18$

$$g_1(y) = 0,3 \min \left[ \begin{array}{l} 20 + (1 + 0,7 \cdot 0); 1 + \\ + g_1(y+1) \end{array} \right] + 0,7 \min \left[ \begin{array}{l} 20 + (1 + 0,7 \cdot 0); \\ y+1 + 14,3 \end{array} \right] = 0,3 \min(21; 15,3) + \min(21; y + 15,3) = 0,3 \cdot 15,3 + 0,7 \min(21; y + 15,3)$$

If take into consideration that  $y \geq 18$ , result that we will have:  $\min(21; y + 15,3)$  so,  $y^* = y+1$ ;

$$g_1(y) = 0,3 \cdot 15,3 + 0,7 \cdot 21 = 19,29$$

By systematizing the results obtained with the two cases, we will obtain:

$$g_1(y) = \begin{cases} 2,7 + 1,4y, & \text{for } y < 10,8 \\ 15,51 + 0,21y, & \text{for } 10,8 \leq y \leq 18 \\ 19,29, & \text{for } y > 18 \end{cases}$$

The recurrence function is given by the following expression:

$$g_0(y) = 0,3 \min[20 + g_1(0); 1 + g_1(y+1)] + 0,7 \min[20 + g_1(0); y+1 + g_1(y+1)]$$

**Case 1:**  $y \leq 9,7$

$$g_0(y) = 0,3 \min \left[ \begin{array}{l} 20 + (2,6 + 1,4 \cdot 0); 1 + \\ + (2,6 + 1,4(y+1)) \end{array} \right] + 0,7 \min \left[ \begin{array}{l} 20 + (2,6 + 1,4 \cdot 0); y+1 + \\ + (2,6 + 1,4(y+1)) \end{array} \right]$$

For  $x = 1$  we will always have the following equality:  $\min(22,6; 5 + 1,4y) = 5 + 1,4y$ , because  $y$  cannot take a value greater than 9,7. In this case decision to be taken is that the equipment will be repaired.

For  $x = y + 1$ , we will have the following situations:

1.  $2,4y + 5 \leq 22,6$  Or  $y \leq 7,3$ ;  
 $\min(22,6; 2,4y + 5) = 2,4y + 5$ ,

So  $y^* = y + 1$

2.  $2,4y + 5 \geq 22,6$  Or  $y \geq 7,3$ ;  
 $\min(22,6; 2,4y + 5) = 22,6$ , so  $y^* = 0$ .

In the first case, analytical expression for  $g_0(y)$  is:

$$g_0(y) = \begin{cases} 0,3(5 + 1,4y) + 0,7(2,4y + 5) = \\ = 5 + 2,1y, \text{ for } y \leq 7,3 \\ 0,3(5 + 1,4y) + 0,7 \cdot 22,6 = \\ = 0,42 + 17,32, \text{ for } y \geq 7,3 \end{cases}$$

**Case 2:**  $9,7 \leq y \leq 17$

$$g_0(y) = 0,3 \min \left[ \begin{matrix} 20 + (2,6 + 1,4 \cdot 0); 1 + \\ + 15,51 + 0,21 + 0,21y \end{matrix} \right] + \\ + 0,7 \min \left[ \begin{matrix} 20 + (2,6 + 1,4 \cdot 0); y + 1 + \\ + (15,51 + 0,21 + 0,21y) \end{matrix} \right] = \\ = 0,3 \min(22,6; 0,21y + 16,71) + \\ + 0,7 \min(22,6; 1,21y + 16,71) = \\ = 0,3(0,21y + 16,71) + 0,7 \cdot 22,6 = 0,063y + 19,833$$

$$\begin{cases} \min(22,6; 0,71y + 16,71) = \\ = 0,21y + 16,71, \text{ for } 9,7 \leq y \leq 17; y^* = y + 1 \\ \min(22,6; 21y + 16,71y) = \\ = 22,6, \text{ for } 9,7 \leq y \leq 17; y^* = 0 \end{cases}$$

**Case 3:**

$$g_0(y) = 0,3 \min[20 + (2,6 + 1,4 \cdot 0); 1 + 20,49] + \\ + 0,7 \min[20 + (2,6 + 1,4 \cdot 0); y + 1 + 20,49] = \\ = 0,3 \min(22,6; 21,49) + \\ + 0,7 \min(22,6; y + 21,49)$$

For  $x = 1$  we will have:  
 $\min(22,6; 21,49) = 21,49$  so:  $y^* = y + 1$ .

For  $x = y + 1$  we will have:  
 $\min(22,6; y + 21,49) = 22,6$  so:  $y^* = 0$

It follows that:  
 $g_0(y) = 0,3 \cdot 21,49 + 0,7 \cdot 22,6 = 22,267$

By systematizing the results, we will obtain:

$$g_0(y) = \begin{cases} 5 + 2,1y \text{ for } y \leq 7,3 \\ 0,42y + 17,32 \text{ for } 7,3 \leq y \leq 9,7 \\ 0,063y + 19,833 \text{ for } 9,7 \leq y \leq 17 \\ 22,267 \text{ for } y \geq 17 \end{cases}$$

After analysing these results, we recommend optimal decisions for the three periods:

- The first period: the machine will be repaired if:  $(x = 1)$  or  $(x = y + 1 \text{ si } y \leq 7,3)$  and it will be replaced if:  $x = y + 1$  and  $y \geq 7,3$ ;
- The second period: the machine will be repaired if:  $(x = 1)$  or  $(x = y + 1 \text{ si } y \leq 10,7)$  and it will be replaced if:  $x = y + 1$  and  $y \geq 10,7$ ;
- The third period: the machine will be repaired if:  $(x = 1)$  or  $(x = y + 1 \text{ si } y \leq 19)$  and it will be replaced if:  $x = y + 1$  and  $y \geq 19$ .

## 5. Conclusions

The presented solution provides for this company a better technical analysis and it can be used for increase the efficiency of production. The presented model can be extended for the company that has a large number of machines and different types. In conclusion, we can say that a dynamic programming model is characterized by:

- Decision variables are their corresponding restrictions which are divided into phases and the optimization process is sequentially;
- The only information on the previous phase is relevant for choosing optimal current decision;
- Current decision, given the present state determines the state of the system in the next phase;
- The optimality of the current decision is assessed taking into account the projected economic impact of the current phase and the next.

It should be added that the functions used in dynamic programming are both linear and nonlinear.



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## Budget Balance: Fiscal Policy Target or Tool

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### Abstract

*International economic and financial crisis triggered in 2008 showed, on the one hand that for policy makers, the system of current statistics (national accounts) suffers from some fundamental structural weaknesses due to lack of relevant information and quality of existing data and, on the other hand emphasized the need to identify and bring in operational state a set of models that allow the improvement of macroeconomic forecasting methods that can issue warnings, not being easy to transpose figures in explanations and signals. Therefore, the statistical standards review was imminent, which also urges the reorganization of macroeconomic models and detection of correlations between indicators, in order to provide information on the economy dynamic that allows better decisions regarding economic development strategy, that has to be one of the objectives of fiscal strategy.*

**Key words:** strategy, budget deficit, gross domestic product, national accounts, ESA95.

**J.E.L. Classification:** H62, E62.

### Introduction: What about strategy?

I would like to address my special thanks for their comments to professors Florin Georgescu and Liviu Voinea and to assistant professor Bogdan Cozmâncă.

The first treaty on strategy entitled "Art of War" comes from VI-V B.C. when Zhou Dynasty was in China and is currently used in introductory courses on strategies in any field, concentrating a possible definition of strategy in intuition quality in changing environment. "Strategy without tactics is the slowest route to victory, but tactics without strategy is the noise before defeat" (Sun Tzu). Strategy is the overall plan, while tactics are the best concrete solutions today.

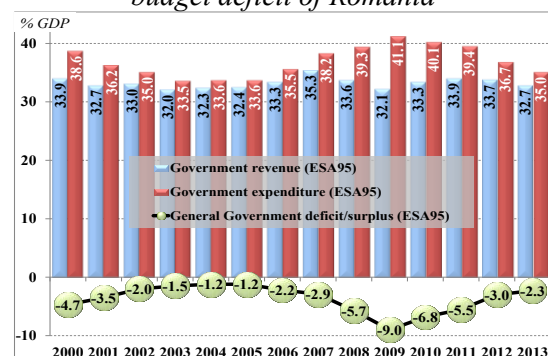
In macroeconomics, the Government defines its fiscal policy under the medium and long term budgetary fiscal strategy, using revenues and expenditures to influence the course of the economy, directly by managing the allocation of resources between public and private sector acting on consumption behavior, savings and investments and indirectly, by stimulating the production and by interventions on the economic cycle.

At European level, the Stability and Growth Pact for the euro area countries, namely the Convergence Programme for emerging countries, comes to support the role of fiscal policy as a priority tool to adjust the macroeconomic imbalances, each Member State committing on a medium term, in about three years, to maintain a budgetary position close to equilibrium or even in surplus, thus outlining the stability objective of public finance.

### Chapter I: Fiscal policy ad-hoc target

In Romania, fiscal policy has proved to be pro-cyclical in the last years, public finance not being properly a tool. During the boom there were large budget deficits and in the recession, a fiscal stimulus dose was not possible in the absence of fiscal space that would have had to be created in the boom, then expenditures were cut when economy went into recession.

Chart no. 1: Revenue, expenditure and budget deficit of Romania



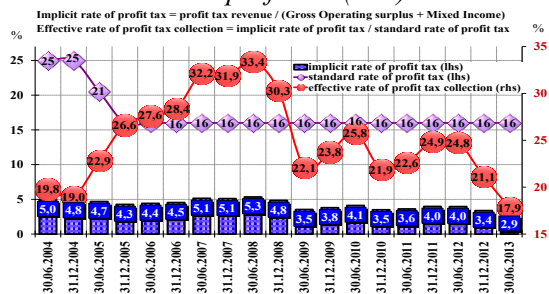
Data source: Eurostat database

The yearly increases of fiscal deficit were exponential before the crisis, reaching in 2009 its maximum level of -9.0% of GDP (ESA95 methodology).

The main policy instruments used to tackle this imbalances during the crisis were based on tax increases (VAT, from 19% to 24%) and an austerity packet of measures, generally directed on cutting public spending, including investment and social expenditures (25% reduction of salaries in the public sector, 15% reduction of social transfers).

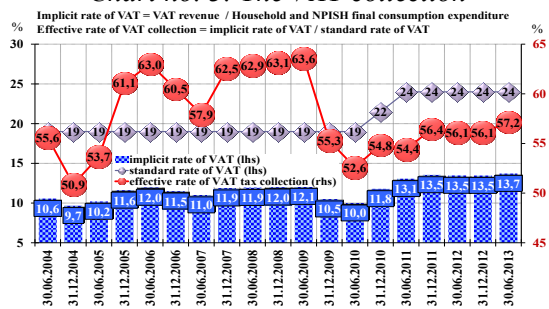
The result of this set of policy measures deepened the inequalities between income groups, increased fiscal evasion and generated an implicit tax collection at minimum levels, for value added tax (VAT), corporate income tax (CIT), salaries (PIT) and social security contribution (SSC), as it is shown in the following Charts illustrating their dynamic of the annual implicit tax rate and of the collection efficiency rate in Romania (using two semester moving average):

Chart no. 2: The profit tax (CIT) collection



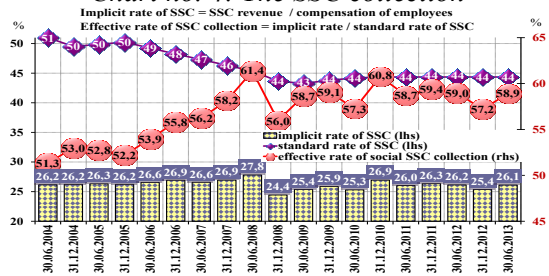
Data sources: Eurostat database, MoF

Chart no. 3: The VAT collection



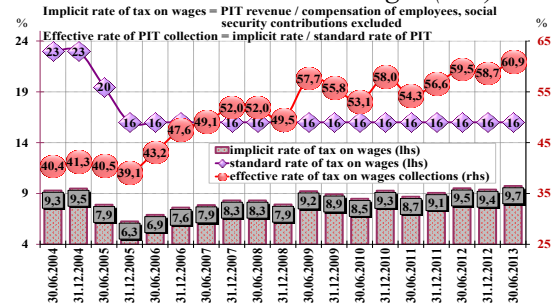
Data sources: Eurostat database, MoF

Chart no. 4: The SSC collection



Data sources: Eurostat database, MoF

Chart no. 5: The tax on wages (PIT)



Data sources: Eurostat database, MoF

The highest rate of collection efficiency was for salaries, social contribution and VAT and the lowest, for corporate profits, the fiscal rules according to which the financial statements are compiled giving the possibility to determine low results than actually, even negative, in order to pay less taxes to Government. In all the cases, there is a decrease in the rate of collection efficiency in 2008 and 2009. This decrease is drastic for corporate profits, from 33.4% (2008 first semester) to 22.1% (2009 first semester) and also for VAT, from 63.6% (2009 first semester) to 52.6% (2010 first semester).

In Romania, income tax (corporate/personal), value added tax and social contributions do not fulfill their role of automatic stabilizers [4], either in recession or in boom, because of the domestic policy. The political influence has impacted negatively the normal economic cycle. In 2005, the politics decided to shift to flat tax, but it turned out to be a pro-cyclical measure, in booming time to reduce the level of taxation. The consequences were not as expected, but rather increased evasion, tax regulations being not applied correctly. The non-financial corporations increasingly reported more losses in the absence of controls by the authorities and amid the financial crisis. One of the obvious problems of budget revenues is the low tax revenue collection.

## Chapter II: Decomposing the deficit...

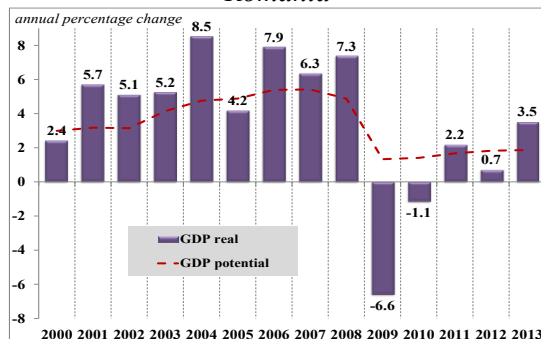
One of the indicators most commonly used in analyzing the effectiveness of fiscal and budgetary policy measures adopted is represented by the structural budget balance, the balance recorded for the potential GDP, which provides a picture of public finances unaffected by the economic cycle. The budget component is decomposed into two

parts, one structural and one cyclical, the first as a result of the fiscal measures adopted (changes in the legal and institutional framework in order to increase the level of tax collection) and the second due to the economic fluctuations [1][2]. Cyclical adjustment of budget deficits is a standard procedure in macroeconomic analysis, currently applied by institutions such as the European Commission (EC), OECD, IMF, national central banks and finance ministries in the context of the Convergence Program annually updated.

Blanchard considers economic growth, interest rates and inflation, as the most important indicators for fiscal correction in relation to the economy dynamics [1], but the cyclical adjustment of fiscal variables is not a standard for assessing the fiscal policy character, the effectiveness and efficiency of measures, due to the fact that it has not too much informative volume for long term sustainability of public finance.

Seeing that the economic activity calculated by gross domestic product is the most common way of determining the position in the business cycle, most of the methodologies determine its equilibrium level. The methods to calculate the potential GDP are generally based on production function (method used by the European Commission and by the Ministries of Finance of the European Member States), on statistical filters (Hodrick – Prescott (HP) filter is used by the ECB), on a combination of these (IMF) or a mix between the autoregressive vector (VAR structural) and the statistical filters (OECD).

Chart no. 6: Real GDP and potential GDP in Romania



Data source: AMECO – the EC database

The growth rate of real GDP has increase annually, from 2.4% in 2000, to 7.3% in 2008, reaching its pick of 8.5% in 2004. The main factor of the economic growth in the

nine year period was household consumption, also stimulated by the introduction of the flat tax of 16% in 2005 and by the large increases of public wages and of the public pension (by 50% in 2007 and 2008) without an oriented gradual implementation on different categories of civil servants, respectively of pensioners. The stimulation of aggregated demand has caused real GDP to surpass constantly potential output and to turn the economy into a recession in 2009.

The estimation of the structural and the cyclical components of budgetary balance involve determining the elasticity of fiscal variables to macroeconomic indicators changes, for which there are different methods [3]. The structural budget balance is the fiscal position when the economy inputs are at their equilibrium, when the economy is at midway between boom and recession. The impact of the economic cycle on the budget deficit cycle is determined by the output gap and the elasticity of revenue and expenditures to changes in the volume of economic activity. The decomposition of the budget balance in structural and cyclical parts, may indicate fiscal policy character by calculating the dynamic of structural variable. The fiscal impulse is such indicator. It is the change in the structural balance between the previews and the current year. A positive value indicates a deterioration of the fiscal policy due to a lax policy promoted in order to stimulate economic environment, but with inflationary effects, even when actual deficits are declining, while negative values indicate a contraction or a consolidation of fiscal policy. A positive fiscal impulse in the context of an economy characterized by excess of aggregate demand in the period under review could lead to the conclusion of a pro-cyclical fiscal policy, fiscal policy does not fulfill its role of stabilizing the business cycle, but rather is a factor contributing to amplification of the cyclical fluctuations and of the inflationary pressures due to the positive output gap.

The following is a comparison between the results of the European Commission for the structural deficit, using the production function [5], the method that provides the best measure of potential GDP, and own calculations for Romania by applying various filtering statistical methods to obtain the cyclically component.

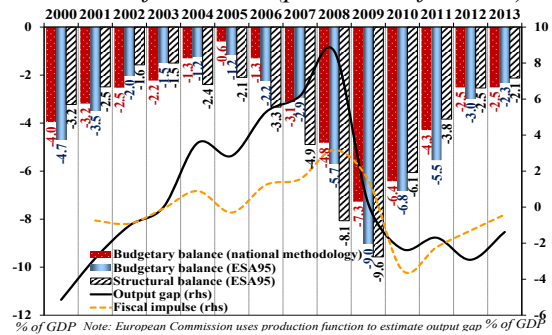
The European Commission uses a transparent method for determining the structural deficit, a common framework for quantifying the cyclically-adjusted budget balance for all EU Member States. In the first stage - estimating potential output and the output gap determination, European Commission uses the production function. Output gap is calculated as the difference between actual GDP and potential GDP. In the second stage - determination of revenue and expenditures sensitivity to the economic cycle, it is determined the cyclical component of the budget balance by quantifying the sensitivity of revenues and expenditures to GDP change. There were identified four categories of revenue influenced by the economic cycle: PIT, SSC, CIT and VAT. The model considers that the only expenditure class affected by the economic cycle is the unemployment benefits. In the third stage - determination of the cyclically-adjusted balance, the indicator is achieved by removing the cyclical component of the budget from the actual budget balance.

Production function method is preferable to the statistics method, because it presents a consistent theoretical approach linking potential GDP to inputs and productivity. But due to data non available, often are used filtering techniques. The HP filter, introduced by Hodrick and Prescott (1997) is the most common method of this class. HP method determines the cyclical position of the economy purely on statistical basis.

In determining the trend of GDP and the output gap, the real GDP series of Romanian economy was filtered by Hodrik - Prescott (HP) and Christiano Fitzgerald (CF) methods. Two different values were used for the coefficient of HP filter, the standard 100 and the value of 30 proposed by Bouthevillain [3], the arguments for changing the value consisting of greater viability of estimated variables in case of structural breaks in the data used. Elasticity used to determine the cyclical and structural components of budget deficit has an average value of 0.34 for Romania, close to the values obtained in many EU countries [3].

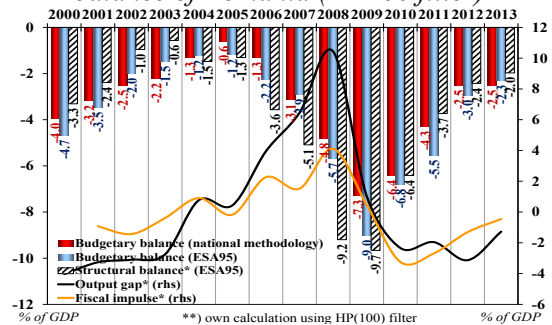
The next four charts highlight the increase in the structural budget deficit when the real GDP growth exceeds the potential GDP growth and Government acts pro-cyclically.

Chart no. 7: Budgetary and structural balance of Romania (production function)



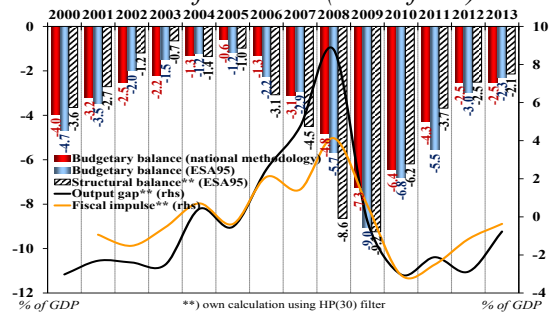
Data sources: AMECO, MoF

Chart no. 8: Budgetary and structural balance of Romania (HP100 filter)



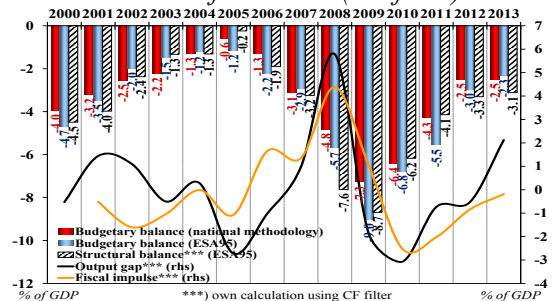
Data sources: AMECO, MoF

Chart no. 9: Budgetary and structural balance of Romania (HP30 filter)



Data sources: AMECO, MoF

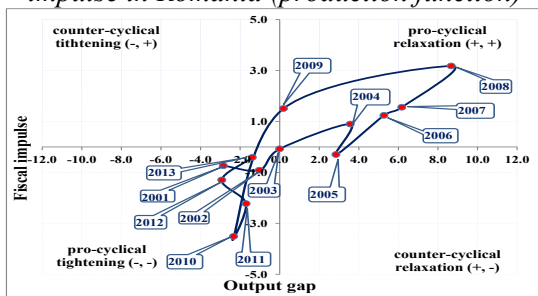
Chart no. 10: Budgetary and structural balance of Romania (CF filter)



Data sources: AMECO, MoF

Analyzing the results, illustrated in the next charts, it can be concluded that fiscal policy was generally pro-cyclical during 2000 – 2013 period, exclusively pro-cyclical if the method of determining structural budget is based on production function.

Chart no. 11: Output gap and fiscal impulse in Romania (production function)



Data source: European Commission approach

Chart no. 12: Output gap and fiscal impulse in Romania (HP100 filter)

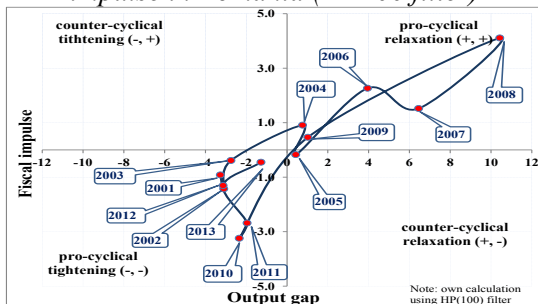


Chart no. 13: Output gap and fiscal impulse in Romania (HP30 filter)

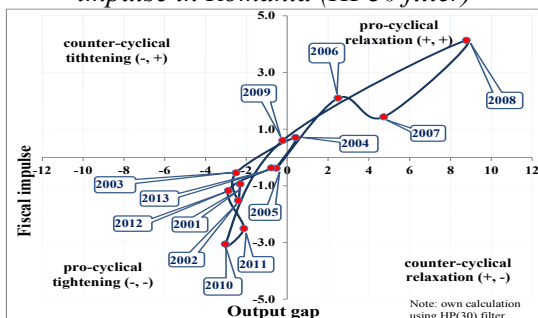
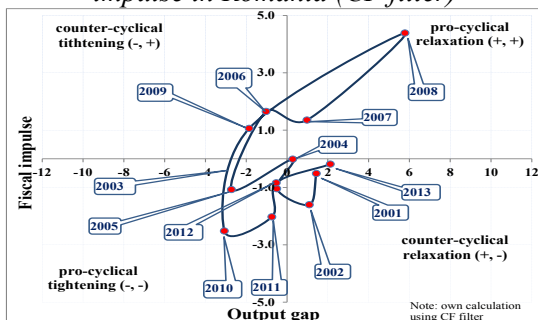


Chart no. 14: Output gap and fiscal impulse in Romania (CF filter)



Fiscal policy applied did not help to stabilize the economy, it was restrictive when output was below potential (2000-2005), and when output was above potential (2006-2008), the economy being overheated, fiscal space was quickly exhausted. As a result, the crisis start found Romania unable to provide fiscal stimulus, the budget measures were implemented targeting large fiscal adjustments in full recession.

Fiscal deficits are result of both, discretionary decisions of authorities and the influence of factors outside their direct control, of which the most important are fluctuations in economic activity. Adjusting the budget balance with the influence of cyclical factors enables better analysis of budget policies. Therefore projections of revenues, expenditures and budget balances need to be accompanied by determination of their structural components.

### Chapter III: New frame of EU statistics

The sovereign debt crisis has amplified the requirements of statistics on public finance, the legislative package concerning strengthening economic governance adopted in 2011 in the European Union, called the Fiscal Compact ("six pack") provides periodic reports on the state of health of public finance. Collection and dissemination of these data come to reorganize the current system [6]. Also, with the "scoreboard of the macroeconomic indicators", the EC wanted to implement a mechanism for early warning of macroeconomic imbalances by monitoring representative indicators from all the relevant dimensions of internal and external imbalances.

For comparability at European level, Eurostat has formulated a common methodology for all Member States for compiling statistics for each sector of national economy, in the "European System of national and regional accounts" [7], first time printed in 1979, taking into account the specificities of the EU and internationally SNA concepts. The ESA 2010 edition will enter into force starting from September 2014. Romania participates in the transmission of national accounts data to the European Commission and National Institute of Statistics (NIS), Ministry of Finance (MoF) and National Bank of Romania are the institutions responsible for elaboration of the national non-financial and financial accounts, GDP, balance of trade and balance of payments and also fiscal notification, by which Romania and the other Member States present its government deficit and debt, Maastricht convergence criteria.

Currently, national fiscal policy weaknesses are related to the limited usefulness of the budget deficit, which is an

annual indicator built on cash basis, using an internal methodology. The conclusion of this paper can be the need of a new national fiscal strategy, which takes into account the new European Statistics Regulations.

### **Conclusion: Building future by smart managing the actual budgetary balance**

A new fiscal strategy can be based on sectorial structure of the economy as shown in the national accounts. Aiming at the contribution of each sector to GDP and thus to economic growth, through fiscal policy can be formulated smart developments on each specific sector [7], as classified by ESA95 (the non-financial corporations, financial institutions, government sector, the households). Actions taken in the government sector have effects in all other sectors sooner or later.

Budget balance was a target in fiscal policy in the recent years, the target for the annual cash budget program, fiscal strategy target, budgetary target under the excessive deficit procedure, target in the funding agreements with international financial institutions (IMF, WB, EC), which denote the character of the fiscal measures adopted ("tactics without strategy"), and certain measures with immediate effect in the balance of the government sector, but with negative impact in longer term on the results of other sectors and then indirectly also to the government sector due to correlations between sectors of the economy and of the lack of overall vision.

SWOT analysis of budget information in conjunction with data from the non- financial and financial accounts sector in the last 10 years could releases weaknesses that can be turned into growth ramps through fiscal policies. The budget balance becomes a tool in the new model, directed to achieve efficient and effective results for other sectors, developing will bring more revenue to the state budget and also will require less support, the positive feedback thus benefiting on both side of the budget, the increase in future receipts and the decrease of the future public expenditure to support those areas, indirectly decreasing the budget balance.

The new model must take into account both the quantitative aspects, like calculations of the impact of any measure,

EU fund and the internal resources, as well as qualitative aspects related to public administration modernization, computerization of all reporting information, training courses for civil servants and providing support to persons directly involved in preparing the financial statements.

Alexander Lamfalussy, former president of the European Monetary Institute characterizing the importance of statistics to the success of monetary policy said that "nothing is more important for monetary policy than good statistics", as well it can be said that quality statistics are most important also to draw guidelines for fiscal policy and, timely access to data, forecasts and analysis achieving fiscal consolidation objective and financial stability.

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# Internal Audit Function, Organizational Culture and Their Influence on Corporate Governance

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## Abstract

*Through this paper the authors are trying to highlight the strategic role that internal audit function holds in increasing the efficiency of corporate governance.*

*The research starts with a comprehensive approach to internal audit and internal control, our intention being to identify synergies between the internal audit function and its impact on the quality of corporate governance. The present study aims to help auditors and companies in general, on the development and implementation of organizational strategies in order to make internal auditing a vital factor for the future success of companies, especially through effective action in reducing risks and costs.*

**Key words:** internal audit, organizational culture, corporate governance.

**J.E.L. Clasification:** G30, G34, M40, M42.

## 1. Introduction

This study reflects the first results of an extensive research undertaken in order to develop a doctoral thesis. We have tried to emphasize the relationship between organizational culture, corporate governance and internal audit.

The internal audit helps an organization achieve its goals by addressing in a systematic and methodical evaluation process. In the same time, internal audit increases the effectiveness of risk management, control and governance, having an important role in improving corporate governance.

Thus, without a good job, transparent and

accountable internal audit cannot ensure good corporate governance. However developing and implementing corporate governance particularly influenced the nature and evolution of internal audit. Moreover, the technologies have a crucial impact on the development of internal audit. With technological optimization means, we can look at Internal Audit from another perspective.

## 2. Internal audit

We developed a conceptual model that we can use to analyse the effectiveness of internal audit.

Internal audit is a source of information for a lot of receptors: shareholders, managers, stakeholders, institutions, etc. [1] Thus, it becomes extremely important that audit and accounting systems to meet current expectations required by providing real and relevant data and avoid unnecessary errors.

Corporate governance weaknesses have led to increased risk taking and certain committees tend to value immediate benefits to the detriment of long-term sustained performance. Nowadays, corporate governance has a great importance for economic growth.

Internal audit is seen as "a systemic process, independent and documented process for obtaining evidence and evaluating objectivity to determine the extent to which audit criteria are fulfilled". [2] The audit is considered effective when carrying out purposes. For greater efficiency, the internal audit function must achieve their goals and also processes and resources.

Over the years, the auditors will begin to use a variety of technologies, such as



CAATS method, monitoring control, reporting, auditing, and more that will help in adding elements to audit looking to improve audit results.

This research will prove that these are tools for monitoring significant risks.

Furthermore, internal auditors should be trained to retrieve data on risk assessment. To have this ability, one needs a solid background in audit and analysis, good understanding of the organizational culture and also a deep knowledge of fraud detection measures.

The present study aims to help auditors and companies in general, the development and implementation of organizational strategies to make internal auditing a vital factor for the future success of companies, especially through effective action in reducing risks and costs.

### **3. Centralization of the internal audit function to determine the effective coordination of the activities of the audit procedures and risk management approach.**

The internal audit function has a high contribution to corporate governance can be considered just a component of it. [3]

Its role can be seen in the:

- provide information,
- to give insurance advice and expertise;
- advises managers establish prevention,
- establishes control plans,
- measuring performance and
- business risks.

Auditors are the pioneers of change. By audit activity, one may suggest ways to improve the corporate governance process.

Internal audit assists the company in achieving its objectives, adding value and transparency, while giving support for managers to enable it, driving to more efficiently managing projects.

Auditors should be interested in acquiring specialized skills and abilities, developing relationships based on trust, the development of clear perspectives that lead to increased efficiency of its functions.

Audit plays a primary role in monitoring

the significant risks of the organization. Therefore, auditors should develop the skills and knowledge to become able to step up their role in contributing to company-wide risk management.

Communication is imperative in effective audit. This is made through a simple reporting, clarity and transparency to enhance audit effectiveness.

It is time for the internal auditors to identify and provide an important focus on risks such as collateral management, fraudulent transactions, checking prices. They should also be prepared for flexibility, adaptability because the risks are changing constantly. Furthermore, internal auditors should acquire new skills and capabilities in innovative areas.

This context has become more complex, particularly because of the development of new technologies and, therefore, the auditors would have to obtain the right to proper operation of these instruments.

Research confirms that auditors are required now to show that they have a good understanding of the organizational culture.

They should be able to identify goals and initiatives of the company and to face challenges. They are responsible for assessing strategic risks, operational and financial. Internal audit should provide practical advice and counsel on corporate governance.

Auditors are required their help in solving problems and identifying solutions without compromising transparency and objectivity [4].

The conclusion is that internal audit function determines the efficiency of the activities coordination in audit procedures and risk management approach.

In the current situation, globalization leads companies to rethink their business models and reinvent traditional organizational structure more efficient.

There will be such expectations over audit function to adopt risk-centric procedures.

Our proposal is a strategy focused on the risk of the future model of internal audit to ensure effective risk management.

### **4. Effectiveness of internal audit**

Internal audit, as well as internal control is associated with quality of governance.

Internal audit and control effectiveness are those that can determine the value added for corporate governance.

Corporate governance represents the system by which a company is directed and controlled. The Board of Directors is responsible for governance. Companies must have managers and auditors performing as the government determines firm performance.

The amount and quality of internal audit directly impacts the value of corporate governance.

Therefore, it is considered crucial in the context of studying their culture. An important criterion in the evaluation of internal auditors is the observation of how they understand the organizational culture of the business.

If one cannot understand the company's operations, procedures and processes, the quality of one's work cannot be good.

Companies should encourage high quality on internal audit and internal control value. It is necessary to have competent auditors, with a high educational level, certification, objectivity and high quality work experience.

Internal auditors should be considered, in the future, an important resource of corporate governance, and they should achieve an appropriate level of quality necessary skills, the capability, expertise and even technical skills.

##### **5. Information technology support in increasing the efficiency of internal audit, utility and cost reduction**

The internal audit function has become of utmost importance for companies. The legislation requires that the financial statements and internal controls to be audited periodically to ensure that reports are accurate and submitted correctly.

Audit function has become even more challenging as many companies opt to use sophisticated accounting information systems (Enterprise Resource Planning & Electronic Data Interchange).

Computerized audit involves some new technologies that allow IT services to operate effectively and efficiently.

Here, one can discuss about CAATTs: Computer-Assisted Auditing Techniques, and Tools. (Techniques and computer-assisted

audit tools) However, these technologies are less used in public institutions in Romania, and even in individual companies due to certain reasons, such as:

- budget
- technical problems
- lack of information
- mentality
- social impact, etc..

Also, other factors affect investment decisions in CAATTs:

- Technology;
- organizational environment of external firms.

Accepting or ignoring the CAATTs does not even depend on the perception of the firms, but rather on technological features designed to integrate with the audit tasks [7].

When choose to adopt the software packages, companies should pay attention to important issues such as price, the cost effective use of technology and risk.

Organizational culture is critical in the development of information technology.

It is very beneficial for auditors to understand the vital role in the end audit activities. An auditor may intend to adopt a technology if he believes that this technology will help complete the task with ease.

Automated accounting causes a more effective analysis of auditors than for manual reporting.

Internal auditors play an imperative role in providing data security safety and discretion of controls and practices [4].

Implementation of new technologies arise particular risks on privacy, data protection and information security policy. It is clear that IT infrastructure sometimes proves to be relatively uncertain. Even by its nature, constantly evolving security risks and, therefore, the internal audit function must come before this threat [5].

The outcome is that CAATTs will be able in the future to ensure the evolution and development of internal audit in general, especially in response to the 2020 European vision on growth.

By the adoption of IT in audit practices, companies will be able to reduce audit costs and increase efficiency and usefulness.

## 6. The conceptual model and related discussions

Establishing a conceptual model that highlights the strategic role of internal audit based on the interaction of its functions is an initiative of high interest.

A new approach generated by this research is the fact that the internal audit demonstrates an integrated flow using a wide range of assets, being influenced by organizational culture.

In corporate governance, both internal audit and internal control risks focus on generating value and support organizations. Ideas demonstrate established synergistic links between internal audit and internal control.

Just as shareholders' expectations are continually growing, and the internal auditors are expected to develop skills, surpassing its traditional technical skills.

It is very important that the internal audit and internal control make appropriate choices, based primarily on the organizational culture.

An effective internal audit and internal control, improve efficiency and quality of corporate governance.



Internal audit seen as an integrated flux.

Source [6]

In the centre sits the internal audit conceptual model that makes interconnections with all its functions.

On the other hand, between these functions there is a series of bilateral relationships, so they stimulate, reinforce, leading to a synergistic effect directly influences the efficiency of internal audit close.

We proposed this model to analyse the efficiency of internal audit by means of adopting information technology in audit.

The authors think that is an opportunity for companies to get evolutionary / progressive.

Investing in IT, both companies and auditors have the opportunity to enhance the level of cooperation in internal audit and efficiency. Thus, we can build appropriate strategies to reduce risks.

By adopting IT, internal audit resources will be supported more efficiently and help increase the efficiency and quality of corporate governance.

## 7. Conclusions

Overall, this conceptual model is based on three assumptions, as demonstrated throughout this work.

The conclusion is that the internal audit, internal control and corporate governance should not be considered or held independently.

This integrated system operating in circumstances of organizational culture.

In the light of Vision 2020, it is believed that the adoption of information technology in the internal audit will advance support the progress and audit development in general.

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## Using the Methods of Data Analysis Scoring for Estimating the Risk of Bankruptcy of Firms

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### Abstract

*The analysis by scoring methods is usually carried out by banks in the analysis of creditworthiness, when a company asks for a bank loan. Each bank has its own analysis, including a feature-score calculated internally based on indicators defined in its credit manual. To have a national comparability, however, a scoring system should be based on more data in the situation of "public data" or available to all stakeholders. In this article, in order to achieve bankruptcy risk prediction model is used Robu-Mironiuc on which benchmarking is performed in the pre-crisis (2004-2008) vs. crisis (2009-2013). The source of information is the profit and loss account and balance sheet of the company Dorna Turism (listed on the Stock Exchange, Bucharest). The results of the analysis are interpreted while trying to formulate solutions to the economic and financial viability of the entity.*

**Keywords:** risk; bankruptcy; Z score; evaluation and forecasting; viability.

**JEL classification:** G33, M41.

### 1. Introduction

Risk analysis methods (*static, functional, strategic, non-financial*) to measure past performance of the company, informing small extent its future. Financial results can degrade very quickly in time and therefore appears more obvious need for more accurate information about the future, the risk of bankruptcy. As a reaction to these practical requirements, risk analysis has experienced significant growth failure due to the use of

statistical methods for the analysis of financial condition from a group of rates.

### 2. Scoring methods for prediction of risk of bankruptcy

Method of *scoring* is to provide predictive models for assessing the risk of bankruptcy of an enterprise. Predictability, according to Howard H. Stevenson, in his work *Do lunch or be lunch. The power of predictability in creating your future "is the possibility that things happen as we expect to happen: how safe can it be that a certain action will have some results?"* [9]. The concept of the same author, the word "*prediction*" literally means *an anticipation of something that will happen, anticipation based on observation, experience and reasoning*. Electronic version of the Romanian language explanatory dictionary defines the word prediction as *a rational operation anticipation of an event or phenomenon; prediction*.

This method is based on statistical techniques of *discriminating analysis*. Its application involves observing a group of companies consists of two distinct groups: a group of companies in financial difficulties and a group of healthy businesses. For each of the two groups establishes a series of installments, and then determine the best linear combination of the rates to distinguish the two groups of companies.

For characterization and classification in the category of businesses in difficulty and those with financial problems have been developed a number of studies, particularly in the U.S. and France, based on surveys, based on samples of firms in difficulty, thus establishing indicators with high predictive power [2].

Studies in France and the U.S. showed that in order to forecast a business bankruptcy can be used *accounting methods* (quantitative and analytical-use in comparative analyzes in time to estimate the future development of the company) and *banking methods* (which suggests early detection of vulnerability and bankruptcy risk through synthetic risk grades obtained on the basis of statistical methods of discriminating analysis for the determination of a function score).

The calculation of the score function requires knowledge of certain rates that allow detection of a business bankruptcy risk and to take timely corrective action. A note (Z) called the score is assigned to the company, being a linear combination of rates, and the value score, firms are classified as vulnerable, bankrupt and healthy.

Most score functions constructed to detect the likely state of bankruptcy of enterprises used the statistical technique *discriminating analysis*, which is especially good when you want to extract from the multitude of financial ratios calculated on the explaining to a very large extent the risk bankruptcy of the enterprise [4].

Several researchers and financial organizations were preoccupied with developing a method to predict the bankruptcy risk, based on a group rate linked with health or to the weakness of enterprises. The method used is the statistical technique of discriminating analysis of the financial characteristics (calculated using rates) businesses to normal operation and management of the economic and financial difficulties. The methods of analysis of bankruptcy risk, based on the score function which is used to determine approximately where a company will go bankrupt or will have bad economic results in the next review period (two years).

Thus, the methods of risk assessment-scoring known internationally bankruptcy (school Anglo-Saxon and Continental school) can be mentioned: the Altman, Fulmer, Koh, Shire, Argenti, Conan-Holder etc. Romanian school of financial analysis also has an important contribution to the development of discriminating analysis models with models: Măneucă and Nicolae, Băileșteanu, Ivonciu, Anghel, Cămășoiu/Negoescu, Robu-Mironiuc etc. [3].

### 3. Functions-score bankruptcy prediction developed by the Romanian school of financial analysis

Concerning the development of discriminating analysis, models for bankruptcy risk existed in our country, although they occurred with a small offset global developments as the information necessary for the calculation are not time periods (10-15 years) or if they are not relevant, given the specific transitional period, compared to countries where there is a stable market economy.

Romanian specialists and practitioners have expressed a particular interest (especially as a result of research and studies from the university), based on the structure of the Romanian economy and especially that of the industry.

Based on the prediction model developed by two professors from renowned universities in Romania (professor PhD Vasile Robu and professor PhD Marilena Mironiuc) have conducted a comparative analysis of default risk in the pre-crisis (2004-2008) vs. crisis (2009-2013) based on information released by the profit and loss account and balance sheet company Dorna Turism.

*The Robu-Mironiuc model* was developed from a study based on a sample of 60 industrial companies from different sectors, which are quoted on the Stock Exchange, Bucharest [6]. The score function that determines the risk of bankruptcy is presented as follows:

$$Z = -0,002 \times R_1 - 0,028 \times R_2 - 0,0570 \times R_3 + 1,034 \times R_4 + 4,629 \times R_5 + 0,096 \times R_6 + 0,170 \times R_7 - 0,106 \times R_8 - 0,024 \times R_9 + 0,524$$
, wherein:

R1 - Current assets/Current debts

R2 - Total assets/Current debts

R3 - Total debts/Total liabilities

R4 - Gross result/Equity

R5 - Net result/Total assets

R6 - Operating gross surplus/Turnover

R7 - Total Debt/Equity

R8 - Financial expenses/Turnover

R9 - Turnover/Stocks

Based on this model, the vulnerability of the company to the value function-score is estimated as follows:

Table no. 1. Vulnerability businesses  
bankruptcy risk model Robu-Mironiuc

Probability of bankruptcy	Z score value
Low	$1 \leq Z < 4$
Medium	$0 \leq Z < 1$
Very high	$-4 < Z < 0$

The Robu-Mironiuc bankruptcy risk analysis in Dorna Turism company in the

pre-crisis period (2004-2008) determines the following values of the score function Z.

Table no. 2. Determining the function Z-score in the pre-crisis period (2004-2008)

Indicators	Financial year				
	2004	2005	2006	2007	2008
Current assets	1.006.618	873.268	779.077	755.929	973.639
Development indices (%)	-	86,75	89,21	97,03	128,80
Current debts	3.767.779	3.263.430	3.030.253	4.692.243	3.311.165
Development indices (%)	-	86,61	92,85	154,85	70,57
Total assets	14.741.056	18.618.239	23.186.407	24.373.072	23.143.525
Development indices (%)	-	126,30	124,54	105,12	94,96
Total debts	6.642.556	9.778.591	11.553.018	12.958.970	11.654.923
Development indices (%)	-	147,21	118,15	112,17	89,94
Total liabilities	14.741.056	18.618.239	23.186.407	24.373.072	23.143.525
Development indices (%)	-	126,30	124,54	105,12	94,96
Gross result	789.171	1.021.697	703.703	142.025	244.189
Development indices (%)	-	129,46	68,88	20,18	171,93
Equity	7.818.403	8.467.854	10.893.832	10.852.363	11.056.887
Development indices (%)	-	108,31	128,65	99,62	101,88
Net result	594.197	819.368	553.141	100.902	204.524
Development indices (%)	-	137,90	67,51	18,24	202,70
Operating gross surplus	1.740.834	780016	1755292	2339845	3693038
Development indices (%)	-	44,81	225,03	133,30	157,83
Turnover	8.321.115	8.886.228	10.949.660	11.707.210	14.234.613
Development indices (%)	-	106,79	123,22	106,92	121,59
Financial expenses	812.940	823.015	976.446	1.640.501	2.147.907
Development indices (%)	-	101,24	118,64	168,01	130,93
Stocks	453.423	406.756	369.942	424.756	497.017
Development indices (%)	-	89,71	90,95	114,82	117,01
R <sub>1</sub>	0,2671648	0,2675921	0,2570997	0,1611018	0,29404726
R <sub>2</sub>	3,9123993	5,7051136	7,6516406	5,1943329	6,98954145
R <sub>3</sub>	0,450616	0,5252157	0,4982669	0,5316921	0,50359325
R <sub>4</sub>	0,1009376	0,120656	0,0645965	0,013087	0,02208479
R <sub>5</sub>	0,040309	0,0440089	0,0238563	0,0041399	0,0088372
R <sub>6</sub>	0,1180943	0,0418953	0,0757035	0,0960012	0,15957111
R <sub>7</sub>	0,8496052	1,1547897	1,06051	1,1941151	1,05408719
R <sub>8</sub>	0,097696	0,0926169	0,0891759	0,1401274	0,15089325
R <sub>9</sub>	18,351771	21,846581	29,598315	27,5622	28,6400928
<b>Function Score Z</b>	<b>0,384165</b>	<b>0,328461</b>	<b>-0,0742</b>	<b>-0,08351</b>	<b>-0,1461</b>

Source: Own after the annual financial statements of DORNA TURISM company

The Robu-Mironiuc bankruptcy risk analysis in Dorna Turism company during the current crisis (2009-2013) determines the following values of the score function Z.

Table no. 3. Determining the function Z-score during the current crisis (2009-2013)

Indicators	Financial year				
	2009	2010	2011	2012	2013
Current assets	989.615	453.589	571.003	345.183	338.110
Development indices (%)	-	45,83	125,89	60,45	97,95
Current debts	5.202.426	4.797.053	3.550.570	4.518.295	4.734.152
Development indices (%)	-	92,21	74,02	127,26	104,78
Total assets	21.759.421	21.256.782	20.212.395	22.342.474	21.963.276
Development indices (%)	-	97,69	95,09	110,54	98,30
Total debts	12.182.242	10.594.494	8.253.909	12.221.227	11.463.794
Development indices (%)	-	86,97	77,91	148,07	93,80
Total liabilities	21.759.421	21.256.782	20.212.395	22.342.474	21.963.276
Development indices (%)	-	97,69	95,09	110,54	98,30
Gross result	-1.700.999	112.520	1.324.319	1.336.980	958.936
Development indices (%)	-	-6,61	1176,96	100,96	71,72
Equity	9.184.849	10.283.082	11.509.727	9.249.428	10.049.341
Development indices (%)	-	111,96	111,93	80,36	108,65
Net result	-1.729.666	104.270	1.226.645	1.123.683	799.913
Development indices (%)	-	-6,03	1176,41	91,61	71,19
Operating gross surplus	1.825.662	2.841.649	3.322.404	3.599.334	3.325.738
Development indices (%)	-	155,65	116,92	108,34	92,40
Turnover	11.932.423	12.594.615	13.154.634	14.418.659	14.080.520
Development indices (%)	-	105,55	104,45	109,61	97,65
Financial expenses	2.348.405	1.866.587	1.322.961	1.420.841	1.243.103
Development indices (%)	-	79,48	70,88	107,40	87,49
Stocks	351.242	327.581	210.918	221.024	185.855
Development indices (%)	-	93,26	64,39	104,79	84,09
R <sub>1</sub>	0,1902218	0,0945558	0,1608201	0,0763967	0,0714193
R <sub>2</sub>	4,1825527	4,4312168	5,6927184	4,9448905	4,6393263
R <sub>3</sub>	0,5598606	0,4984054	0,4083588	0,5469952	0,5219528
R <sub>4</sub>	-0,1851962	0,0109422	0,1150609	0,1445473	0,0954228
R <sub>5</sub>	-0,0794904	0,0049053	0,0606878	0,0502936	0,0364205
R <sub>6</sub>	0,0839021	0,133682	0,1643746	0,1610983	0,1514227
R <sub>7</sub>	1,326341	1,0302839	0,7171247	1,3212954	1,1407508
R <sub>8</sub>	0,1968087	0,1482052	0,10057	0,0985418	0,0882853
R <sub>9</sub>	33,972085	38,447331	62,368475	65,235716	75,760781
<b>Function Score Z</b>	<b>-0,78752</b>	<b>-0,34512</b>	<b>-0,62891</b>	<b>-0,59953</b>	<b>-0,98769</b>

Source: Own after the annual financial statements of DORNA TURISM company

Analyzed society function score values are below the minimum (zero) both before the crisis (except 2004 and 2005) and in the next period, which places the entity in a precarious financial situation, the probability that the company will enter bankruptcy is quite high. In this case urgent action to redress the economic and financial situation, taking into account the fact that in addition to

net cash deterioration is found and a decrease in turnover (in 2013) of current assets, equity, results available funds in conjunction with an increase in current debts.

Evolution of risk of bankruptcy during 2004-2013 and its proximity to the minimum are shown in the figure below:



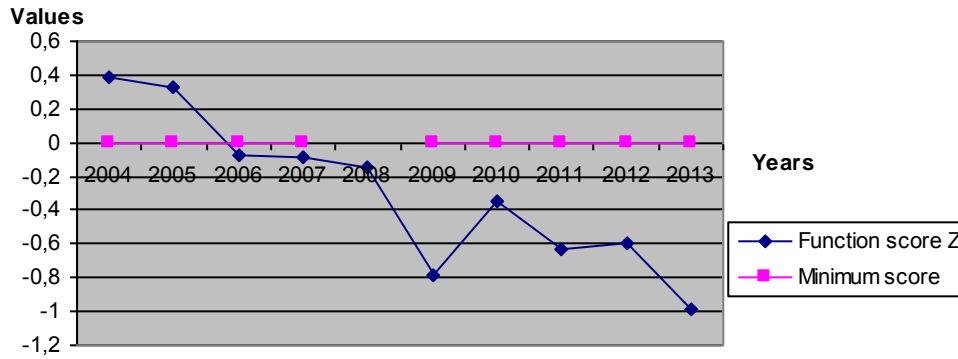


Figure no. 1. Evolution bankruptcy risk and its proximity to the minimum level

Source: Developed by author

#### 4. Conclusions

The conclusion of this analysis shows that the company can not get loans, is insolvent, particularly due to increased short-term bank loans due to lower cash and cash equivalents (in 2013 recorded the lowest value of 6249 RON); in this regard the banks should continuously monitor the enterprise.

The risk analysis approach bankruptcy confirms the unfavorable situation in which the company values results demonstrating that it can not have recourse to loans and at risk of bankruptcy. Oscillating values for main economic and financial indicators, both before and after the crisis year (2008), does not allow us to formulate comments on the impact of the crisis on development firm.

In the absence of information on company activities, conclusions are limited, in other situations as possible to determine weaknesses and strengths, threats and opportunities in the operating environment.

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## Particularities of the Expenses' Accounting within the Nonprofit Organizations

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### Abstract

*This research focuses to highlight the particular aspects of the expenses within a nonprofit organization, as well as the possible challenges regarding their accounting.*

*The costs are differently reflected in accounting not only by their nature but also by their generating activities. There could be some issues in what regards the distribution of the expenses over their own activities. Therefore this paper work also presents some solutions towards this purpose.*

**Keywords:** nonprofit organizations, expenses classification, expenses accounting

**J.E.L. Classification:** M 41

### 1. Introduction:

The present research has as primary objective the emphasize over the specific properties of the accounting in what regards the expenses' management within an organization which is not oriented on profit. Moreover it is also an important objective to analysis the possible issues and make suggestions in order to find some solutions.

To achieve the mentioned objectives, we have chosen to study the current literature, but also the actual running law within the field of the nonprofit organizations. Practically, we have gained some important insights by addressing some nonprofit accounting specialists, and so asking for the specific particularities of the nonprofit bodies' expenses.

The structure of this research is based on the continuous presentation of the particularities of the nonprofit entities; definition, and classification of the expenses, as well as the way that accounting is treating these costs, the typical known issues and in the end followed by conclusions together with some recommendations.

### 2. Romanian nonprofit organizations

The name "nonprofit organization" generally refers to those entities that do not aim to make a profit. These organizations, in legal terms, in Romania take the form of associations and foundations as defined in Law no. 246/2005 approving Government Ordinance no. 26/2000 on associations and foundations as presented in the following table:

*Table no. 1. Definitions of types of nonprofit organizations in Romania*

THE NONPROFIT ORGANIZATION TYPES		
ASSOCIATION	FOUNDATION	FEDERATION
The legal entity formed by three or more persons who, according to an agreement, are pooling and not subject to refund material contribution, knowledge or contribution in labor with the purpose of carrying out activities in the general interest of some communities or, where appropriate, in their private prerogatives.	The legal entity established by one or more persons based on a legal act between living or upon death and constitutes a patrimony permanently and irrevocably affected to achieve a goal of general interest or, as the case of some communities.	The body established by the association of two or more associations / foundations for specific purposes.

*Source: author's construction based on law [5] and literature [1]*

The main difference between the association and foundation relates to the role of patrimony. While the foundation achieves its purpose based on patrimony, association generally meets its objectives through voluntary work. [1]

A nonprofit organization is funded mainly through donations and is dealing both with employees and volunteers.

In Romania, these entities can organize three types of activity, as following:

- Non-Patrimonial activity – which represents the primary activity of the entity itself, implied by its mission, purpose and objectives;
- Special activity – such as the activity of copyrights protection within certain cultural fields;
- Economic activity – especially the trade activity, and sometimes also the production, as complementary activities along with the primary one; realized for the purpose of funding the nonprofit activity.

In what concerns the expenses within a nonprofit organization, the underlined particularities are of high importance.

### 3. The concept of „expenses”

The Conceptual Framework for Financial Reporting, prepared by the IASB [4] defines the expenses as „the activities of reducing the economic benefits recorded during the financial exercise, under the forme of exits or reductions of the assets’ value or as augmentation of the existent liabilities; which finally trigger the cutting offs from equity, other than jus regular distribution toward stakeholders”.

This general accounting framework places a clear distinction between the real expenses, on one side – as followed from accomplishing the primary objective of an entity – and the real loses on the other side. Specifically when the last ones appear as reductions of the economic benefits and they could or could not be visible within current activities.

According to OMFP 1969/2007 [6], the expenses of a nonprofit organization represent the costs that have been paid or need to be paid, for covering the non-patrimonial activities, the special and economic activities as well, such as:

- Consumption of stocks, of performed work and services from which the entity benefits;
- Provided work to its own interest;
- Honoring some of the legal and contractual liabilities;
- Other exceptional situations.

Loses reffer to the reduction of the economic benefits and they can or cannot be the result of the ongoing activity of the organization. These are not different by nature from other types of expenses.

### 4. Expenses: classification and types within the nonprofit organizations

Within the nonprofit bodies, the costs are classified through the nature of the consumed resources, their own generating activity and the moment of employment. [2]

Accounting is organizing the expenses in cause, on those three types of the existent activities, and namely on their nature too. Therefore the costs are also splitted into three categories, as well as for the related economic agents:

*Operating expenses* are including the raw materials and consumables, the cost of sold goods and packages, the cost of inventory items and the unstocked materials, the equivalent consumption of energy, water and fuel, and if the case the cost of livestock and poultry.

These expenses include also the costs of work expenses and third party services, made payments, rents; insurance premiums; costs of studies and research; commissions and fees; entertainment expenses, advertising and publicity; the costs with transport of goods and personnel; with travel, detachments and transfers; postal and telecommunications fees, banking costs and any other similar. Staff costs are also part of this group.

*Financial expenses* include losses from claims related to participation, expenditures on disposal of financial assets, unfavorable foreign exchange differences, interest on the current financial year. They are also including losses from the customers discounts, losses of financial claims and moreover.

*Extraordinary expenses* are those costs generated by exceptional events, which are not related at any point with the main objective of the entity, nor they can be

controlled by the organization; such as the natural disasters, accidental events, so on.

According to these three main groups of expenses, there are the equivalent classes of expenses accounts. From the legal perspective, as mentioned before, the mandatory accounting treatment to apply for expenses, targets the opening of some analytical accounts interrelated to the costs accounts, for each type of ongoing activity (non-patrimonial, special and economic), so the expenses could be classified by the generating activity. This procedure represents a particular aspect of the accounting treatment applied to the expenses within a nonprofit organization, eventhough these are also grouped by their nature, as in the case of the economic agents. The use of the analytical accounts for each of those three types of activities, becomes relevant within the context of the Patrimonial Result Account, where the costs are organized under the activity type. A second reason why we should reflect separately all the costs, is that the equivalent revenues have limited destinations, guided by some certain conditions of the special activities and many times by the non-patrimonial activities. Moreover, the type of activity is essential, but each one can trigger any of the regular expenses: operating, financial or extraordinary. Maintaining the three groups of costs into accounting, relates somehow the nonprofit organization to classic economic agents and provides national accounting harmony for the current activity sectors.

Hence, there are some operating expenses specific to the nonprofit entities and for which there have been created special accounts, for their separately reflection:

*Fees and contributions owed by the nonprofit organization* to its affiliated bodies, being they domestic or foreign. These costs have corresponding revenues accounts, reflected as well through some particular accounts of nonprofit organizations.

*Expenses with the shares owed* under the organization statute of operation include expenses incurred by members and / or other natural and legal persons for their ongoing activities as specified in the Statute. Their reflection in accounting is realized through accounts that have been created specifically for them. And these expenses have

corresponding revenues' accounts into accounting by some related accounts.

*Expenses from unreimbursable credit and loans transferred to other nonprofit organizations.* Entities may decide to direct material aid to other non-profit organizations as well as and / or unreimbursable loans from country or abroad. This can be achieved only if the use of aid or grants is not a subject to certain terms by the person who granted them.

*Expenses with donations and subventions,* although are also encountered at the economic agent level, these are mainly represented as specific expenses for the non-patrimonial activity within the nonprofit organizations, especially within those who are carrying on their activity in the field of social assistance.

## **5. Acknowledge the expenses into accounting and possible issues**

In the context of accrual accounting, expenses are recognized and carried at their employment at the time of payment. For certain types of expenses, the two points coincide. Recognition of expenses, but also of revenues is not achieved independently but simultaneously with the recognition or non-recognition of assets and liabilities reflected in the changes of the equity. The conditions under which we recognize the costs are arising from their definition in the conceptual framework. Thus, through the accrual accounting, expenses are recognized at the time that a reduction of the economic benefits arised from the non-recognition of an asset or a liability recognition.

Romanian accounting practice reckons expenses to be recognised in the moment of consumption, as shown through the previous deinition of expenses from the law: OMEF 1969/2007 [6]. The consumption moment is usually different from the one of gaining access to the good and almost always from that of selling it. The consumption and use time reflects the effort submitted for gaining future benefits, therefore this is the most relevant and credible moment to admit that the expenses are an expression of the economic benefits reduction.

The recognition of assets and liabilities is tied up to the existence of some patrimonial elements, and the recognition of revenues

and expenses is related to the actions that modify those elements during two moments in time.

Furthermore, the recognition of revenues and expenses is not necessarily connected to a specific moment in time, but definitely to a larger period of time. The role of the accrual accounting is precisely to tie up expenses with revenues, through employment, by the period of time when the events have occurred over the modified patrimonial elements, even though the expense or the revenue did not generate cash flow in that specific period of time.

The general frame settled by IASB [4] accepts the recognition of an expense within the following conditions and situations:

- When it can be established a direct connection between the sales revenues (obtained goods sales)).
- When the connection with the revenues is indirect, but it's expected to gain benefits within some future periods of time – the expenses are recognized by systemic and rational allocation.
- When there is a non-recognition of an asset which no longer generates future benefits, in which case there will be no connection expense-revenue.
- When a liability appears and this does not refer to finance an asset, no connection is required.

The first two cases will be identified particularly related to the economic activity, as the non-profit work is not intended to gain future benefits, but achieving the objectives set by statute or by their running their programs. The expenses which can be recognized as part of the first two cases in the non-profit activity are the expenses resulted from some occasional fundraising activities. If we generalize these two cases both for non-profit activity, as well as for the economic one we might rephrase this as following:

- When you can make a direct connection with the revenues resulted from an event (the goods sales, the occasional fundraising activities, new contracts of sponsorship).
- When the connection is an indirect bond, but is expected to achieve great benefits and/or reaching some objectives through the next future periods of time, the expenses are recognized by systemic and rational allocation.

Expenses recognition must be considered interrelated with each type of activity that a nonprofit organization can achieve.

Generally speaking, the operations regarding the accounting treatment applied for expenses can be summarized in the following table:

Table no. 2 . Accounting Operations regarding the expenses

No	OPERATIONS	FORMULA
I.	Entailing expenses	
a.	Employment of expenses (i.e. supplies)	$\begin{matrix} 60 & = & 401 \\ \text{Stocks' expenses} & & \text{Suppliers} \end{matrix}$
b.	Own consumptions made in order to achieve the main object of activity	$\begin{matrix} \text{Class 6} & = & \text{Class 3} \\ \text{Expenses accounts} & & \text{Inventories and ongoing production} \end{matrix}$
	<i>Exception: pluses recorded to the inventory items and the materials obtained from downgrading inventory items</i>	$\begin{matrix} \text{Class 3} & = & \text{Class 6} \\ \text{Inventories and ongoing production} & & \text{Expenses accounts} \end{matrix}$
c.	Payments shown on two different aspects:	
	• As equivalent with the form of provided services	$\begin{matrix} \text{Class 6} & = & 40 \\ \text{Expenses Accounts} & & \text{Third party accounts} \end{matrix}$

No	OPERATIONS	FORMULA
	<ul style="list-style-type: none"> <li>no equivalent, such as tax liabilities or liabilities toward other organizations</li> </ul>	<p>645 = 43 Expenses with insurances and social protection Social insurances, social protection and similar accounts</p> <p>635 = 44 Expenses with other taxes, fees and similar payments The state budget, special funds and similar accounts</p> <p>655 = 451 Owed fees and contributions... Settlement between affiliates</p> <p>462 Various creditors</p>
II.	Imputation - reimbursement of expenses over the results	<p>120 = Class 6 Financiar year result Expenses accounts</p>

Source: author's construction based on the field literature review [2]

Within the nonprofit organization, the limit of expenses is restrained by the own budget frame. When talking about the budget, the set of expenses and its quantum must be established by taking into account clauses of the organization state and function, the running programs within the entity and the ongoing contracts together with the possible new negotiated contracts.

As reflected into the books both by nature and by the activity that generated them, certain expenses might experience some problems. For example, a fix asset which is used for both non-profit activity (and / or special) and economic activity, how should be allocated its expenses with depreciation, maintenance and the utility costs as well (concerning an immobile for instance)? This problem occurs mainly in small and medium sized organizations that cannot afford to purchase specifically designed assets for certain activities.

In what follows we will try to offer solutions to the previous rised problem above. Thus, for a building that is used for all activities of the organization, there are two options to allocate the related expenses over the activities that can be applied as appropriate. The first one refers to the used area in the activity out of the total floor space. Related area translates into percentages which are to be applied to the allocated expenses. For instance, a building with an area of 150 m<sup>2</sup> is used by an entity as following: for economic activity, two rooms with an area of 60 m<sup>2</sup> and the other space is used into non-profit activities. Translated into percentages, 60 m<sup>2</sup> represents 40% of the total area of the building. The expenses with the utilities, maintenance and repair, depreciation, with the owed tax to the local

budget will be distributed 40% to the economic activity and 60% to the non-profit activities.

Another key distribution that can be used is the amount of time within a month in which a particular type of activity is conducted

In the case of vehicles used for several activities, we recommend as a key distribution to be used, the amount of traveled kilometres for each activity out of the total traveled kilometers within a month frame. Just as in the example above with the surface, the number of kilometers can be translated into a percentage rate that can be used as a distribution key. The distributed costs are related to the used fuel, the necessary insurances, service and inspections, the spare parts, the costs of maintenance and monthly amortization.

In some cases, it can even be used as a distribution key the percentage of the revenues generated by a specific activity, reported to the total amount of revenues. However we do not recommend the use of the last technique mentioned, as regularly the effort to achieve incomes varies from one activity to another. The non-profit activities can generate a greater amount of income with less effort compared to the economic activities (with great effort for the same amount of income) or vice versa.

The legal framework [6] recommends the use of some distribution keys without imposing certain techniques or procedures. Here is where the professional reasoning interferes regarding the way of sharing the expenses on types of activites. The used techniques are very important because they represent the decisive factor in the expenses distribution process.

## 6. Conclusions

Nonprofit organizations represented by associations, foundations and federations are generally entities which are not following to gain profit, and their mission and purpose are of great importance for public.

They can develop any of the activities as following: non-patrimonial, special or economic.

The expenses of these organisms are generated by those three types of activities and are classified both by their nature and by their generating activity.

Taking into account the classification on activities, the accounting specialist is responsible to choose the correct representation keys, in such a way that it will play as faithful representation of reality.

Only through this method, the relevance of information regarding the related expenses, will grow according to each activity. We can add also that it is imperative to consider this situation carefully, as into the Patrimonial Result Account the expenses and revenues are splitted on each developed activity.

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# The Role of International Accounting Systems in Economic Development

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## Abstract

*The research area of work is the accounting systems addressed both globally and at national and European level, in terms of characteristics and internal events in order to highlight their differences.*

*This paper aims to carry out a comparison between the two accounting systems, international accounting, the continental and the Anglo-Saxon from the global context in which it manifests two systems, aiming at both global perspective and national and European aspects that define them. During its work addressed a number of different concepts, regulations and practices in an interpretive manner, adopting a neutral point of view, and critique through a particular and personal perspective.*

*The methodology is based on the research aspect descriptive research - conceptual, analyzing the views of various researchers, foreign novel, in terms of scientific knowledge in the field, observing the coordinates on which addressed accounting systems, international and national.*

**Key words:** continental system, anglo-saxon system, accounting practices, accounting policies, accounting regulations.

**JEL Classification.:** M41, M48

## 1. Introduction

The research literature on the international

classification of accounting systems were grouped into two models: the model extrinsic and intrinsic. The rational model of extrinsic or environmental factors relevant are identified, and their coherence in national accounting practices proposed international groups or patterns of development. The intrinsic or empirical model are analyzed individual accounting practices, and identified groups or patterns of development and finally proposed explanations about a variety of economic, social, political and cultural.

## 2. Extrinsic model

In the late 1960s, Professor Gerhard Mueller is the originator of the international accounting classifications [14] and business environment [15]. Classification in accounting systems in four development models is a simple group which is not accompanied by an explanation of the method used to obtain them. Mueller points out that the types of existing accounting rules used in a country are produced by the economic, political and otherwise, and they have determined the nature cotabil system. This suggests that the rules of some countries would not be appropriate in other countries and that the rules should be chosen to suit the needs and specific concrete country. In this respect it is necessary to harmonize accounting systems.

Mueller identified four distinct patterns in the development of accounting, as follows:



- Macroeconomic approach. According to this model, developed as an adjunct accounting of national economic policies and this will lead to targeting goals entities. This group includes countries such as Sweden, France and Germany.
- Microeconomic approach. This approach can thrive in a market-oriented economy. This means that the accounting rules to be sophisticated, yet flexible. Developments such as replacing or upgrading accounting systems will be easier in such systems. The illustration of this is the Dutch model.
- Accounting approach as an independent discipline. Systems of this type have been developed independently of governments and economic theories. Accounting has developed and modernized with the business, and when faced or had problems when it adopted and implemented accounting solutions required. Expressions such as "GAAP" are typical and are addressed in Anglo-Saxon countries, notably the United States and Britain.
- The approach of "Accounting uniform". These systems were developed in the countries that use accounting as a part of administrative control in the business. Accounting can be used for performance measurement, allocation, assessment of the size and resources industries, price controls, taxes, handling, etc. sectors of the economy. It is found in France, Germany, Switzerland and Sweden.

Mueller has classified financial reporting systems directly based on differences in practice, but indirectly, by taking economic factors, government and business and their influence in the development of specific systems. However, it would be expected that the systems that were developed in a similar way and should develop similar accounting practices. Thus we can sense that Britain and the U.S. have similar accounting practices.

In the literature there have been some classifications "subjective" based on "zones of influence", so Seidler [27] suggested three groups: British, American and Continental

Europe.

Moreover, the AAA (American Accounting Association) produced a subjective classification of five "areas of influence" on accounting systems, namely:

- the British;
- the French - Spanish - Portuguese;
- Dutch-German area;
- the USA;
- the communist.

This classification is probably the most useful in the context of developing countries, where cultural or other influences can be overwhelming.

### 3. Intrinsic model

Some researchers have tried to classify accounting system using data collected from others, or were concerned in their research field. In most of these cases, the data refers to the accounting rules, but not accounting practices. A more recent national accounting systems are different intrinsic background of modern classification. There is evidence for a classification into three groups Britain, U.S. and Continental, being used by the early twentieth century. Other descriptions and analyzes, such as those of Zeff [28], Price Waterhouse [22] [23] [24], AICPA [2] [3], Coopers & Lybrand [7], provide the raw material for intrinsic classification.

In contrast to studies made by Mueller and Nobes, inductive approach starts with identifying individual analysis accounting systems accounting practices. It is considered that the greatest contribution of this type belongs to Nair and Frank [16]. The study by these authors achieved a separation of practice measuring / evaluation of accounting disclosure practices. Based on 1973 data from the authors identified four groups of accounting systems on accounting practice measurement / evaluation: Commonwealth's accounting system; Latin American accounting system; continental European accounting system and accounting system of the United States played in Table no.1:

*Systems based accounting measurement practices*

Table no.1

Commonwealth's accounting system	Latin American accounting system	Continental European accounting system	Accounting system of the United States
Australia	Argentina	Belgium	Canada
Bahamas	Bolivia	France	Japan
Eire	Brazil	Germany	Mexico
Fiji	Chile	Italy	Panama
Jamaica	Colombia	Spain	Philippines
Kenya	Ethiopia	Sweden	United States
Netherlands	India	Switzerland	
New Zealand	Paraguay	Venezuela	
Pakistan	Peru		
Rhodesia	Uruguay		
Singapore			
South Africa			
Trinidad and Tobago			
United Kingdom			

Source: Processing by Nair, R.D. and Frank, W.G. (1980) 'The impact of disclosure and measurement practices on international accounting classifications', Accounting Review, Vol. 55, No. 3, p. 429.

Based on data from 1975 through analysis of disclosure practices, a classification into five groups:

- Commonwealth system: Australia, Bahamas, Fiji, Iran, Ireland, Jamaica, Malaysia, New Zealand, Nicaragua, Netherlands, Rhodesia, United Kingdom, Republic of South Africa, Singapore, Trinidad.
- The Latin American and Southern Europe: Argentina, Bolivia, Brazil, Colombia, Ethiopia, Greece, India, Italy, Pakistan, Panama, Paraguay, Peru, Spain, Uruguay.
- The north and central Europe: Belgium, Denmark, France, Germany, Norway, Sweden, Switzerland, Zaire.

- U.S. system: the United States, Bermuda, Canada, the Philippines, Japan, Mexico, Venezuela.
- Chile.

**4. Parallel between Continental and Anglo-Saxon accounting system**

Internationally there is a group of countries on two model - accounting systems, as follows: Continental accounting system, represented by countries such as France, Germany and the Anglo-Saxon accounting system represented by England and the USA. Characteristics are presented in Table no.2 "Comparison between Continental accounting system and Anglo-Saxon accounting system".

**Comparison between Continental accounting system and Anglo-Saxon accounting system**

Tabela no.2

Criteria	Continental accounting system	Anglo-Saxon accounting system
<b><i>ECONOMIC AND SOCIAL SYSTEM</i></b>		
<i>Origin financing</i>	Banking sector - mainly	Financial markets
<i>Culture</i>	State guidance	Individualism
<i>Legal system</i>	Dominance law	Dominance jurisprudence
<i>Fiscal system</i>	Cooperation between accounting and taxation	Accounting is independent of the tax
<b><i>ACCOUNTING OBJECTIVES</i></b>		
<i>The primary users of financial statements</i>	Creditors, tax authorities, investors	Mainly investors
<i>Accounting Principles</i>	Prudence principle Negative influence of taxation on decision usefulness of accounting information	Presentation honest, true and fair
<i>Publication of information</i>	The trend of limited publication	The trend of detailed publication
<i>Relationship Accounting - Taxation</i>	The interplay between accounting and taxation	Independence Accounting - Taxation
<i>States that have adopted these models</i>	Belgium, Germany, France, Italy, Portugal, Sweden, Japan	Australia, UK, Ireland, New Zealand, Netherlands, Singapore, USA.

Source: Processing by Berheci, M. Valorificarea raportărilor financiare, Ed. CECCAR, București, 2010, pg.46-47

From the analysis of these features is observed that the two systems differ due to differences between the two cultures accounting differences between accounting rules and practices, resulting in the need for internationalization of accounting. Ineffective communication and sometimes even lack of communication can lead to the emergence of obstacles to the development of transnational companies.

## 5. Conclusions

Accounting systems are ways of obtaining financial information to external users. They are influenced, in terms of production and presentation of accounting information, many factors that determine the objectives of accounting. The most important accounting systems are: Continental Europe accounting system and accounting system of the Anglo-Saxon countries.

Entities using the continental system

funds its operations primarily through bank loans and the process of normalization is public origin, having a written law and accounting rules set by detailed legislation. Financial information is dominated by the principle of prudence, resulting in limited publication of accounting information. The main countries in which it operates such a system of accounting are: France, Germany, Switzerland, Belgium, Italy, Portugal, Greece, Japan, etc.

Entities using the Anglo-Saxon accounting system achieves its funding primarily through equity (capital financial markets) and accounting culture is individualistic nature. Accounting rules are developed by professional bodies (private) which are dominated by law. This has made the disconnection of tax accounting, as are the main beneficiaries of financial information to investors. The main countries using this accounting system are: the United Kingdom of Great Britain and Northern

Ireland, USA, Australia, New Zealand, Singapore etc.

Accounting classifications presented in the research report are merely suggest how various regulations and accounting practices can be. Despite the differences between national accounting systems, there are still many cultural conditioning, social, political, and other, allowing us their classification, worldwide, in two main accounts, which are nothing but two models application of accounting information, accounting collectively, continental European model, on the one hand and, on the other hand, the Anglo-Saxon accounting model. We believe that the differences between them will be reduced and more and more attenuated.

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# Profitability - Vector Sustainable Development, Progress and Viable Accounting Normalization Requirements - Going Statutory Audit and Regulations

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## Abstract

*In a market economy, profitability is a sine qua non for the very existence of businesses [3] and entrepreneurs professionalism correlation result, the material and technical and financial resources invested, the motivation of employees and social dialogue amid scientific and technical progress and development requirements ensuring sustainable.*

*Managers must obtain return entities considering the requirements of accounting policy, that should take into account the conventions of prudence, independence period and consistent methods with the basis of accounting logic continuity rule.*

*Moreover, the return must be the result of combining rational interests stockholders, observing continuity requirements in terms of quality standards and accounting standards, under the rule of statutory audit criteria. Quality audit firm comes to sustainability by giving the results of conformity assessment processes and outcomes of these processes (products, services) with a specific standard or other normative document; assessment of the quality management system compliance with specified requirements.*

**Keywords:** profitability, economic efficiency, business continuity, accounting normalization statutory, regulatory audit, audit quality management system, quality strategies

**J.E.L Classification:** M41, M42. P47

## 1. External Environmental Risk - Return Business - General Progress of Society

The economy is the whole system of activities involving and fall, through their duties, all the units of production, consumption, banking intermediation,

Efficiency and effectiveness of a company depends on the quality of the leader. Peter Drucker believes that "management is equivalent to driving people". The managerial ability plays a major role in terms of size results and, moreover, the performance achieved by the company.

Capacity management is a component that requires a set of knowledge, techniques aimed at learning to organize scientific work force and the ability to efficiently use human, material and financial resources in order to achieve high and sustainable results in terms of profitability, risk-taking amid the global environment.

"Environmental risk" for an enterprise is the probability of success or failure where success and failure means loss means profit. Based on this idea we need to understand the risk and analyze a company's ability to profit, in other words to be profitable. [4]

In another sense, risk is "the possibility of obtaining favorable results in future action expressed in terms of probabilities". [5]

The relationship between risk and return has been confirmed by numerous empirical studies, such as: [1]

1. U.S. capital market (1926 - 1987) have calculated the average rate of return and risk (gap - type) measured by type of investment and the following results were obtained:

Table no. 1. Rate of return - risk to the U.S. investment market

	Average rate of return (%)	Offset-type (%)
Treasury bills	- 3,6	3,3
Bonds	4,7	8,5
Corporate bonds	5,3	8,4
Actions	12,1	20,9

R. B. Ibbotson and R. A. Siquefield, the study conducted showed that the average rate of return varies with risk.

❖ J. Balin and M. Chedebois presented similar findings obtained on the capital market in France for the period 1950 - 1979:

Table no. 2. Return on risk capital market in France

	Average rate of return (%)	Foreign Exchange (%)
Actions	10,1	- 25,7 / + 41,2
Bonds	5,0	- 10,1 / + 6,1
Receipts	2,8	- 1,9 / + 3,1

"The important thing is it's so full of risk." (Syrus)

From mercantilist and up to modern views off the idea that profit is the net income of the company.

In terms of a competitive market economy, profit is a legitimate income, the result of progress is accompanied by risk and uncertainty. Assuming the risk and uncertainty, entrepreneurs are entitled to collect an income tax form.

Profit - reward entrepreneurs for risk assumed - is the source of investments in the same industry or in new industries best. Benefits not only be seen as an expression of economic rationality, but also as an expression of social rationality and ecological rationality. Thus, the development of economic activities: "social justice" - the preparation (step employed in an enterprise); "environmental justice" - protecting the ecosystem that fosters business development, form the overall progress of society. [6]

The actions and decisions taken and implemented, entrepreneurs need to be concerned about getting "pleasures, benefits or gains as large as small efforts." [7] The

principle of hedonism and "homo economicus" belonging to the paradigm of classical liberalism during sec. XVII - XIX find their cognitive value in the economic affairs of sec. XXI.

Final economic efficiency of the entire economic and financial activities, the quintessence of all sides expressed profitability efficiency. [3]

Profit is in addition to income risk taking, and a volume indicator of profitability.

Profitability is the "visible hand" of progress, equity and environmental protection figure 1.

Place and role in the overall analysis of profit profitability analysis is given of the importance of cognitive that meets the financial and economic profit as an indicator as: profit and thus reveals the efficiency of profitability; profit allows the development of his business; term profit is both economic rationality and social rationality expression. Besides the influence of economic development and operating profit can lead to non - economic activities necessary for any country (social progress generally in line with overall development strategies).

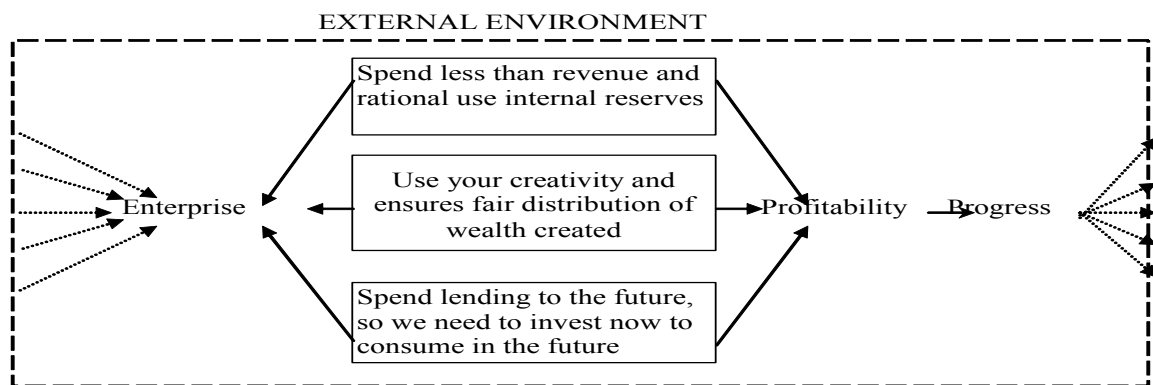
## 2. Profitability - Part of the Complex System of Economic Efficiency, Social and Environmental

To achieve the desired results, companies must achieve conciliation between economic efficiency and social justice, which is not based on solutions of the redistribution of income but that income growth by increasing the efficiency and competitiveness of human action. To make progress in terms of limited resources, supporting market laws and regulation, the "invisible hand", the "visible hand" of society. [6]

It can be said that the effectiveness of the work undertaken has come "two waves": "first wave" - economic efficiency; "second wave" - economic and social efficiency and is in the "third wave" - economic efficiency, social and environmental.

In the "third wave" efficiency requires reducing costs to achieve economic performance and social equity by making organic products under reducing borrowing from the future.

Figure 1. Return - "visible hand" of progress



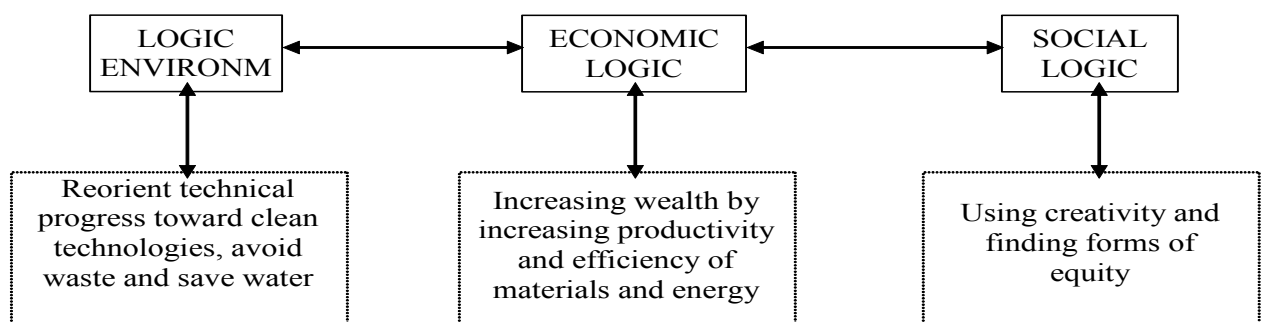
Businesses need to protect the environment by manufacturing "green" products, by changing the traditional product in terms of: content - by replacing some components with more sustainable or disposal of substances affecting the environment; manufacturing - Improving the environmental performance of the product realization process; performance - by reducing harmful environmental effects of product functions; use - by reducing consumption of fossil fuels, energy, water, oxygen. [6]

Enterprises in our country must be cost effective as "enterprises trivalent" - environmental management systems that achieve performance through economical,

ecological valence (avoids waste and pollution) and social. Need to harmonize work with: resource potential; environmental state (outputs will be optimal if firms are at equality between marginal benefit and marginal cost net external - the marginal value of damage plus penalties provided for pollution); [10] peculiarities of human resources based on a degree of fairness, cooperation, complementarity.

Theoretically, economic activity today must be based on long-term, on a triad logic - logic trivalent (is meant to eliminate the exclusive application of economic logic):

Figure 2. Enterprise trivalent



Businesses today need to gradually convert to trivalent and profitable businesses, based on the following: use of clean technologies, the peak (to lessen wastage); processing of raw materials "green"; use the "man in the right place"; obtaining and marketing of "green".

Managers of enterprises, in view of the above, the need to print business conduct that quality standards are complied with, to be able to fulfill performance.

In order to match the quality standards of the European Union, businesses need to consider directions: to comply with the rules established, aiming at the protection of life, health and the environment; standards are of generally binding (1992) so as to give manufacturers the freedom to broaden the range of products - without compromising quality - according to market requirements.

Businesses in Romania are the following categories of standards: Romanian standards (SR) developed by technical committees of

the Romanian Institute for Standardization; professional standards; corporate standards (applies to businesses forcing them to review all the products in terms of quality specifications); certifying compliance of enterprises are performed at the Romanian Institute for Standardization (IRS), which grants the right to use the certification mark.

By applying management "review", companies can expect that profit to enable them to maintain and even more work to develop in close accordance with market economy requirements, international standards and European Union in the context of sustainable development (trivalent). It is must to produce competitive goods market; to have a range of products that meet consumption Romania and European customers; to register a unit cost at the same level or a higher level than the unit costs of European reference market and get a selling price as great (to advance the costs and make the company competitive products).

All these efforts come to the line of going concern businesses.

### **3. Continuity Supports Audit Regulation Quality**

The general objectives of audit quality are conformity assessment processes and outcomes of these processes (products, services) with a specific standard or other normative document; assessment of the quality management system compliance with the specified requirements; assessing the effectiveness of the quality management system of the organization on achieving identification of critical points, sources of deficiencies in the activities of the organization; initiating corrective measures necessary to improve on processes and outcomes of these processes (products, services); follow up of corrective actions and improvement established.

The importance of business continuity audit quality is given by: identify corrective actions that were aimed at identifying and eliminating the causes of nonconformities found to prevent them; may be more robust actions to improve the quality of processes, products / services and quality management system of the organization; can reach steady decline deviations and thus to increase the satisfaction of the requirements; International

Standard ISO 19011:2002 establishes the principles, criteria , practices, principles and provides guidelines for planning, conducting and documenting audit quality management systems and / or environmental management . It also provides the minimum criteria required to qualify auditors and guidelines for management of audit programs.

Audit quality management system includes: determining conformity of the quality management system requirements specified in the reference documents (standards or other normative document); assessing the effectiveness of the quality management system in achieving the objectives set out in the quality; improving the quality management system audited organization; certification of quality management system conformity of the audited company.

### **4. Business Continuity Border between Accounting Normalization Statutory and Regulatory Audit**

Business Continuity assumes that the economic entity will continue to operate for a period of at least twelve months after the reporting date of the financial statements in normal activity, without going into liquidation or bankruptcy. In this regard, IAS 1, "Presentation of Financial Statements" states: "When assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least twelve months the end of the reporting, but is not limited to this. When an entity has a history of profitable operations and ready access to financial resources, the entity may reach the conclusion that the going concern basis is appropriate without detailed analysis. In other cases, management may need to consider a range of factors affecting current and expected profitability, debt repayment schedules and potential sources of replacement financing before it can satisfy itself that the going concern basis is appropriate." [15]

Managers entities in establishing accounting policy must take account of the conventions of prudence, independence period and consistent methods with the basis of accounting logic continuity rule , to be understood as governed by International Financial Reporting Standards, according to which" the statements financial, management should evaluate the entity's ability



to continue operations". An entity shall prepare its financial statements on the going concern basis unless management either intends to liquidate the entity or to cease trading, or has no realistic alternative but to do so. Where, in making its assessment, management is aware of material uncertainties related to events or conditions that may cast significant doubt upon the entity's ability to continue working, uncertainties shall be disclosed. When an entity does not prepare financial statements on a going concern basis, it shall disclose that fact, together with the basis of preparation of the financial statements and the reason why the entity is not considered to be in a position to continue.

Since the activity to be sustainable, must reach waist corporate farm managers and investors will have the reference benchmark reasonable assurance business values by the statutory auditors.

The International Standard on Auditing 570 "Going Concern" presents the auditor's responsibility in the audit of financial statements in connection with the use by management of the going concern assumption in preparing the financial statements.

From the perspective of the auditor's going concern assumption involves the assertion that an entity is deemed to have a going concern in the foreseeable future, with no intention or need to liquidate or stop operations. Such assets and liabilities are recorded based on the presumption that the reporting entity will be able to realize its assets and discharge its liabilities in the normal conduct of business. (International Regulations for auditing, assurance and ethics, 2009)

The auditor's responsibility is to ensure that they are adequately managing the economic entity uses this principle, if there is significant uncertainty regarding going concern and whether they were presented either in the notes to the financial statements or financial statements have been prepared under liquidation values or other appropriate values. "The auditor's responsibility is to obtain sufficient appropriate audit evidence about the appropriateness of using the going concern assumption driving the financial statements and draw conclusions if there is significant uncertainty regarding the entity's ability to continue. This responsibility exists even if the financial reporting framework used to prepare the financial statements do not include an explicit requirement for

management to make a specific assessment of the entity's ability to continue. [15]

Of particular importance to the principle of going concern and subsequent events is the end of the year. International Accounting Standard 10 "Events after the reporting period" sets treatment in the financial statements favorable and unfavorable events that occur after the balance sheet date, which can be of two types: those that provide evidence of conditions that existed at the end of the reporting period (adjusting events after the reporting period of the financial statements); those that indicate conditions that arose after the reporting period (non-adjusting events after the reporting period of the financial statements). [17]

Further information can confirm or refute assumptions and forecasts economic entity management. Potential liabilities that are not paid on time, may put questions to the auditor in respect of the going concern of the economic entity. In this regard, the International Standard on Auditing 560, "Subsequent Events" establishes requirements for the auditor to consider the implications of events hind end of the year, both on the financial statements and its report, distinguished three stages: events that occur between the date of the financial statements and the date of the auditor's report; facts of which the auditor becomes aware after the date of the auditor's report but before the date the financial statements are published; facts of which the auditor becomes aware after the financial statements have been published. [15] From the foregoing analysis demonstrates that the going concern assumption, essential accounting and statutory audit transposed.

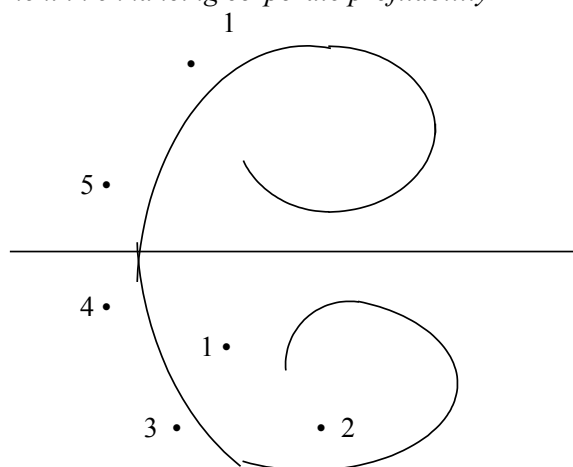
## 5. Conclusions

Products businesses, to keep markets won and to conquer new markets must be of high quality in accordance with customer needs and standards imposed by the European Union. Quality (Latin "quales" = to be) is a key factor influencing the growth and competitiveness of organizations profitability.

The quality of products is obtained from a cyclic process (a "spiral of quality") in which all the business of milling and bakery: R (1); preparing production - purchasing raw and auxiliary materials, a certain quality (2); actual production - permanent control trials, analyzes,

samples (3); storage products - as provided by law (4); selling products in time to reach the consumer within the validity period (5): [9]

Figure 3. Spiral quality - an essential element in enhancing corporate profitability



Product quality is dynamic (evolving over time), relative (depends on customer expectations), complex (the result interdependence activities by industry) and gets priority in increasing profitability competitive bakeries and mills.

Quality strategies are numerous and have the following objectives: needs of beneficiaries, removing the causes of poor quality; quality products to maintain and develop sales and thereby achieve increased corporate profitability.

The quality and related strategies should be priorities in our country increased corporate profitability in the context of sustainable development, a phenomenon that becomes widespread, crossing the "gray goods" to "green products".

As businesses go through difficult times in our country (the last 3-4 years have been marked by lack of profitability work performed). I believe that many companies in the sector, strategic approach adopted involves restriction (where they can not work things out). However, despite the hardships and threats global environment, businesses can be profitable, while respecting the principles of continuity and therefore may opt for a strategic approach to stability.

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## Forms of Export Credit Insurance Found in International Practice

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### Abstract

*Export credit insurance covers a multitude of export risks which will be grouped according to the moment when the risk occurs and its nature. Credit insurance is designed to provide protection against economic agents against risks specific to export.*

*Credit insurance is designed to provide protection against economic agents against risks specific to export. An export contract may relate to supply of goods, performance of works or provision of services including transfer of licenses or patents in favor of buyers or recipients residing abroad.*

*Export is done by means of commercial credit granted by the supplier or business partner, external buyer or buyer credit granted by a foreign buyer's bank. Both forms of export credit designed to encourage trade exchange in the interests of the contracting parties and shall be granted by private operators (suppliers, banks) in conditions close to those practiced in the market.*

**Key words:** insurances, commercial contract, export, risks, importer

**JEL classification:** G22, F13

### 1. Introduction

When contracting parties agree that the supplies, works or services covered by the export contract not to pay on delivery but after elapsed time, the supplier provides to the external buyer a commercial loan. Consenting to such method of payment, the provider assumes export credit risks, treasury effects of export operation with term payment. Because credit export blocks a period of time and financial resources of the provider incorporated into products supplied

on credit, he is obliged to supplement and fill his own, appealing to a bank loan.

Supplier credit is granted for short periods of time. In case of export of high values, the provider can not block his financial resources for long periods of time without jeopardizing his own financial management. The buyer is obliged to procure the resources needed to pay for importation on supplier products delivery. For this purpose, he addresses to a bank on the market of the supplier, asking for the loan he needs and which is called buyer credit. This is a form of financial credit, characterized in that it is linked to an export operation.

On supplier credit, the contracting parties - the supplier and the buyer - prepare a single document, the commercial contract, which shall include particulars of the goods delivered: structure, quantity, price, value and payment terms.

On buyer credit, two separate documents occur: commercial contract concluded between a supplier and external buyer and the loan agreement concluded between buyer as beneficiary of external credit and lending bank.

### 2. Export credit insurance

Along with these forms of credit, others are found with aid character given by state by their governments or specialized institutions.

External loans from public sources are granted on terms more advantageous than those practiced by private operators (below market interest rates, longer reimbursement periods, and grace periods). Aid-loans from public resources are granted by bilateral or multilateral basis and are designed to encourage economic development of recipient countries.

Bilateral aid-loans are linked; they can only be used to pay for imports of goods and services from the donor country.

Usually aid loans are not guaranteed by credit insurers but remain the responsibility of the state.

Export credit insurance covers export risks to be grouped according to the time when the risk occurs and its nature. Viewed through the prism of the moment when the risks occur covered by export credit insurance refers to the period before signing the contracts or before this period.

To penetrate with his products a foreign market, an economic agent is required to prospect that market to convince itself whether and under what conditions could export in that marketplace.

Prospecting the external market reclaims expenditures from the potential exporter without being certain that his action will be successful, will make possible to conclude export contracts even though in some countries there are state practice of bearing a portion of the costs of prospecting for expenditure which remain in the economic agent's task, the risk of commercial failure of prospecting action can not be neglected. To protect itself against such a risk, the potential exporter can conclude a prospecting insurance at a specialized body in such insurances.

In case of important objective targeting product deliveries, execution of works or provision of services across borders of large values, the international competition takes sharp shape. Some economic agents to be able to place themselves in a more advantageous position in the competition they attend, they present firm offers valid for a certain period of time. Changing economic conditions (price, interest rate, currency exchange, financing conditions) during the validity period of the firm offer compared to those contemplated in his preparation, may lead to the exporting agent, in case of adjudication of the order a loss that can not be recovered from the importer. The bidder is obliged to file a bail in favor of the purchaser to grant them that the bidder in the assumption of the adjudication of the transaction will sign the external contract as provided in the offer presented.

Insurances may be concluded against the risks incumbent to the remission by the exporter of firm offers on long periods of validity.

After the conclusion of the export contract two types of risks may arise[1]:

a) some in the time interval between the moment of signing the export contract and the external delivery contract of ordered products accompanied by legal documents;

b) others in the delivery time period on credit of products and until the collection of their value;

During the actual production period of goods under contract for the exporter subsists the risk of contract interruption for reasons beyond his control.

To the extent that the goods, works or services ordered are unique and after termination can not be sold to other beneficiaries, contract interruption generates losses for the exporter.

The risk of loss registration for the exporter, in this phase of the performance of the contract is the risk of fabrication. If the exporter has filed a bail in favor of the purchaser to ensure in case of necessity the reimbursement of the advance paid when the contract was concluded or a guarantee of quality, then the exporter forfeits the warranty right.

In case of international cooperation works (execution made by the exporter of key targets abroad or of some works with the help of equipment, machinery and materials that are to be distributed after the performance of the contract) there is the risk that the material values belonging to the exporter may not be brought back to the country of origin for political reasons.

After delivery of the products (loss of executed works or supply of services) by the foreign partner, for the provider there is the risk of failure to pay their value by the external customer.

The classic insurance company or specialized insurance institution acting by order and for the account of the state can protect the exporter against such a risk. Ensuring of credit risk is given by the credit insurer or exporter (in the case of provider credit) or bank (in the case of buyer credit).

Bails deposited by the exporter in favor of the purchaser which guarantees the high quality of performance of the contract or restitution of the advance payment received from the buyer in case of failure of contractual obligations by the supplier, can be recovered under the terms established.

In this phase of the performance of the export contract can occur the currency exchange risk. Even if the external customer (debtor) time-honored his commitment to the supplier in the case of the supplier credit or to the bank, in case of the purchaser credit regarding the export can hover the risk of registration of losses resulting from the difference between the existing exchange rate at the moment of the conclusion of the contract and the one practiced at the payment of the loan. Against currency exchange risk, the exporter may conclude an insurance to protect him in such circumstances[2].

Export credit risks have been addressed through the light of the moment when they occur.

Such an approach aims the nature of those risks that distinguishes between commercial risks, political risks, currency or economic.

Commercial risks, also called non-payment risks are related to the behavior of the buyer towards his seller. When the foreign buyer is a private individual or legal entity, he has the non-payment risk. Against him can take legal action to compel him to abide to the assumed commitment through the contract.

Against the public buyer who evades the fulfillment of contractual obligations he had assumed, there is no appeal in court. Because of the risk of non-payment from the private buyer is considered commercial risk, while the same risk coming from a buyer of public law is considered political risk.

### **3. The notion of political risk**

The notion of political risk has a broad scope of coverage that includes: proper political risk as the risk of non-payment of the public buyer and non-transferable currency risk to the supplier.

Proper political risk refers to war, revolution, etc. and acts of public authorities (nationalization, requisition, seizure, prohibition or restriction of imports of certain products, currency transfer restriction, prohibition of repatriation of assets belonging to strangers) that prevents the execution of the contract.

Has political measure taken by a public authority of the exporting country to ban the export of a particular product and contracted out during fabrication.

The political character has also the taken measure by a public authority of the exporting country to ban the export of a particular contracted product and found during fabrication period.

Performance of a contract may be influenced by measures taken by a third country.

Some insurers assimilate the risk of non-payment of an export contract concluded as a partner of public law, with political risk.

The risk of not transferring the currency by the exporter which granted a supplier credit or by the creditor bank, in case of buyer credit, occurs when the supplier can not take possession of currency representing the value of his export because the monetary authority does not transfer the amount owed by the importing agent to his supplier and for which he paid the equivalent in local currency.

This refusal to transfer currency acquires a political risk being generated by a measure taken by a public authority but not because of the inability to pay of his client.

Some export credit insurers assimilate natural disasters produced in countries other than the one of the exporter's political risk.

In the case of a catastrophe a common insurer covers the disappearance or damage to insured property and an export credit insurer covers the impossibility of the buyer to take possession of the ordered goods, or to pay them at maturity.

Within these include: currency exchange risk, the risk of increased cost of production of the product that is the subject of export and fluctuation and interest rate risk.

Currency exchange risk arises when the currency of the country of the exporter and importer country's currency are connected by a fixed exchange ratio.

This causes the rate of exchange to which the exchange of the two currencies is made to evolve from one period to other causing negative or positive effects on for the exporter.

To protect against currency exchange risk, the exporter requires payment on time like the lending bank that lent the importer may use various solutions[3]:

a) to contract an import in the currency of its client or into another currency, such that the currency risk, afferent to the payment commitment expressed in a different

currency other than the national currency to complete the exchange risk related to his debt.

This solution must operate with identical receivable amounts from abroad and payable worldwide, due on the same date and present the same risk of currency exchange or a close one.

b) The exporter to sell his product at a rate fixed before.

The exporter avoids the risk of the registration of a negative influence of the exchange rate fluctuation but also that of achieving a favorable influence.

Each of these solutions has advantages and disadvantages and sometimes shows technical difficulties of application. The exporter addresses to a credit insurer on export to provide him the necessary protection against this risk. The exporter is subject to currency exchange risk not only when selling with term payment expressed in a currency other than the one of the contractor or in another currency.

The export credit insurer provides currency exchange risks arising in both circumstances.

The risk of increased manufacturing costs of the product subject to export occurs due to inflation phenomena that manifest on exporter's country market on products with long manufacturing cycle, the risk is pronounced and can cause increased costs to be fast enough to exceed the margin taken before calculating and the transaction would result in a loss[4].

If the exporter for reasons of prudence includes in costs a higher margin can reach an offer price level that makes it uncompetitive. If the exporter requests the inclusion in the commercial contract of a revision clause of the price, this solution might not suit the importer.

To protect his interests, the exporter requests the export credit insurer an insurance against economic risks.

The interest fluctuation rate risk charged from the supplier credit as well as buyer credit. When the interest rate is fixed which the importer will pay to the exporter on the validity period of the credit supplier or lending bank on the validity period of the buyer credit, the supplier shall take into account the interest rate at which he will be able to procure the necessary money for

refinancing. If the market interest rate tends to increase, should be taken into account when concluding the contract of loan with fixed interest. In a contract with a fixed interest there is the risk that the market interest to be superior to that provided under the contract disadvantaging the creditor exporter or the lending bank.

To protect exporters and banks from fluctuation risk of interest rate on granted loans by them, they apply different solutions.

#### 4. Conclusions

In some countries, the mechanisms of export refinancing with fixed interest rates are managed by public institutions. The state supports part of the interest that the exporter has to pay when he borrows on the market to replenish his financial resources; another solution consists in determining the interest rate charged by the banks from their foreign customers. The difference between the market interest rate (higher) and fixed interest rate, charged from the external customer is supported by the state throughout the duration of the credit agreement.

Regardless of organizational forms and their legal statutes, specialized bodies in export-import credit insurance conclude about the same types of insurance, use the same types of policies, and practice differentiated insurance premiums[5].

Besides insurances having the same or very similar characteristic features, standard, some specialized insurers still practice other insurance types.

Export Credit Guarantee Department (ECGD) from the United Kingdom concludes insurances for guarantees against unjustified claims of the buyers, insurance for foreign investments, insurance against the risk that may occur due to the fluctuation of currency exchange in which the payment is made.

COFACE from France concludes insurances for the currency exchange risks, insurances against the rising of manufacturing costs of the product for export as a result of inflation, insurance for guarantees.

NCM from the Netherlands concludes insurances for currency exchange risks, additional insurances for guarantees and counter-guarantees, insurances for construction machinery.

HERMES from Germany concludes insurances for lease contracts, insurances regarding capital investment risk, insurances for guarantees, insurances for currency exchange risks.

Instituto nazionale delle assicurazione and sezione speciale per assicurazione del credito all esportazione from Italy concludes insurances for: currency exchange risk, guarantees, direct investments abroad, market research, and public contracts.

Regardless of organizational forms, through the activity carried on, by insurance forms that they conclude, the facilities that they grant, specialized bodies follow the promotion of the export of their countries, the increase of their countries' production in worldwide export, the penetration of their countries' goods on several markets. The provision of support the economic agents from their country need, to increase export competitiveness and security on foreign markets.

The export credit insurance has certain limitations, grants adequate protection of the insured within the limits and conditions set forth. The loss suffered by the insured should result from a risk contained in the insurance, the due indemnity is paid to the insured when the waiting term expires, not paying the debt may be caused by reasons not related to the client's inability to pay but technical difficulties; a part of the risk, a few percents remain the task of the insured, export-import operation must be done in compliance with the regulations of foreign trade of the exporting country like the importing country, export credit insurance does not cover losses arising from an existing dispute between the provider and the buyer or between lender and borrower.

State credit insurance can only be made when the operation is of interest.

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# The Budget of Income and Expenditure, "Instrument Panel" of a Local Community

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## Abstract

*An important issue, always topical is the creation and use of financial resources, both locally and nationally, our research focusing on the Foundation of strategies on revenue and expenditure, a financial management component, being aware of the fact that this "picture" will be able to be completed in the future with other information necessary for the completion of the capacity and the financial performance of local communities.*

*The description of the operation of the financial mechanism of the communities at the local level is a delicate process regarding the quantification of the impact on public management of local communities consisting of: local taxes and duties collected from taxpayers in the form of tax revenues, according to the rules in force that shall be subject to the principle of depersonalization (lose their source of origin), to fund public services portfolio; the amounts taken from the State budget deficit expanding role of resources and financing public services locally.*

**Keywords:** *local budget, developments in the budgets of the regions*

**JEL Classification:** *G01, H70, H76*

## 1. Introduction

Regarding financial management, we believe that a modern budget, to meet European standards, determines public Manager to use, only in the public interest, strategic financial instruments such as the consolidated general budget, the operating budget, the capital budget.

The general consolidated budget, as modern financial management tool, is offering an overview of the financial situation on the local community.

## 2. Local strategic financial instruments

As a result of the budgetary reform in 2003, it appeared the need to strengthen the budgetary reform, where the legislature has defined the general consolidated budget components namely:

- A proper Budget of revenue and expenditure of local communities;
- public institutions Budgets full or partial funding from local budgets;
- local public institution Budget financed entirely from own income;
- internal and external loans Budgets;
- reimbursable external funds Budget.

For the science budget and for the accounting one, the revenue and expenditure budget consolidation has become nowadays a necessity to know the financial status (surplus or deficit) of the activity of the main loan authorities financed from the local budget and the financial situation of the local public institution run by the public managers.

According to some authors [1], the budget is the "*financial instrument where are all the local budgetary resources and their intended use*".

It is obvious that, from one year to another, the financial dependence of local budgets from the State budget increases more and more.

1. **The consolidated local budget** represents a modern instrument with which the public get an overview of the financial situation of a local community.[3]

The consolidated general budget provides information on times recorded deficit



surplus, otherwise being difficult to obtain information from various authorizing officers, operators of services.

2. **The operational Budget** through the surplus recorded communicates with the capital budget so that the officer has jurisdiction to determine, rigorously, their own resources at its disposal to be able to use them as resources for the financing of public investments. In this sense, a benefit is the reduction of interest costs as a result of knowing the exact surplus, starting from the idea that this surplus of sources may contribute to the financing of public investments.

**The resource surplus growth strategy** consists of increasing the surplus of own resources by increasing tax revenues and their orientation towards capital expenditures, bringing long-term benefits; capital revenue growth may also bring a considerable financial contribution for the benefit of the community at the local level.

If the operational budget and the capital participating in the reliability system composed of resources-allocations- public investment-private investment, then we can say that one RON public investment will ensure an increase of the local budget income ( $\Delta V_{bl}$ ), as a result of the creation of jobs and making investments that, through taxes and local taxes, increase the local revenues.

3. Another instrument for the implementation of the strategies is the **management program budget** with which the goals set by the local public administration may be achievable, given the advantages:

-clear and precise orientation of financial, human and material resources in order to achieve the established objectives

-with the help of the program budgeting can be traced to the duration of execution of the objectives of financial strategies.

4. The **budget scissors tool** by which we can determine the financing policies of local communities, being the result of "*cutting with scissors*" the funding from the central budget to cover the costs of public services.

The situation arises where levies from the central budget is below the income level of the local budgets.

The effect can be negative if the local community does not benefit from appropriate financial transfers which General Government local autonomy can be enhanced.

5. Low level of local taxes and fees is another tool set, on the basis of accurate data, the ratio between the level of taxes and local taxes and household personal budget providing essential information in relation to two situations:

a) where an upward trend, the fiscal budgets of citizens can become unbearable, and for this reason it is advisable to take measures to expand the tax base with the effect increasing the budgetary incomes;

b) in the second situation, if you record a trend of decrease, the fiscal pressure is tolerable by his own household budget (increase in budgetary revenues is achieved). [3]

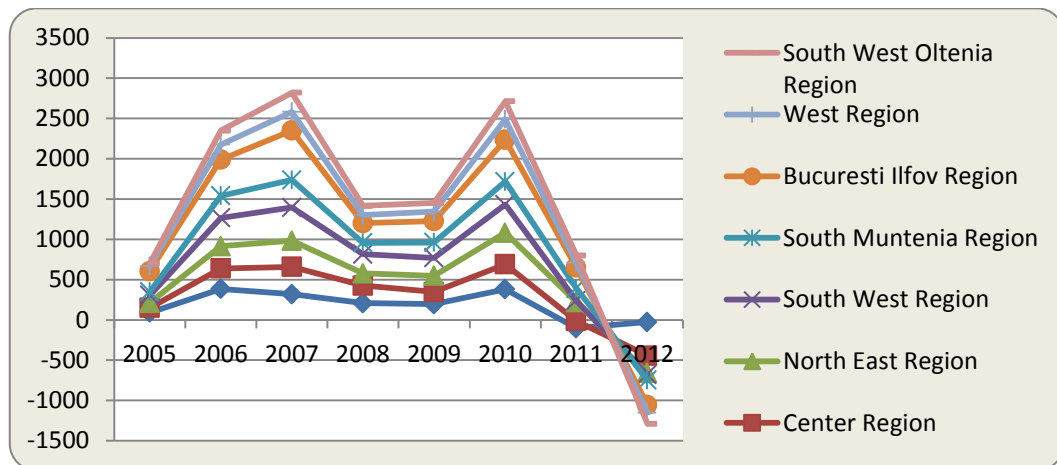
At the end of the execution of local budgets, based on current income and expenses, the result of budgetary execution shall be established if the current income > local government current expenditures for reunification of the working capital of the administrative units with the amounts used for covering the cash gaps, developing public services at local investment and financing of local interest.

The principal officers of the local budget transfer the budget surplus from the surplus account to the account of the working capital available of the administrative unit. If it results in surplus, then it is redistributed, with priority to the payment of outstanding loans, interest, penalties and fees.

In the event that the current revenue < expenditure at the local budget, the account is closed with deficit. Local councils, county councils and the general Bucharest City Council may decide lowering the current budget deficit with local amounts referred to above, namely the working capital.

Based on this rule, the credit officers have obligation to draw up orders for the State Treasury to cover these deficits.

**Figure 1. The evolution of budgetary surpluses (+) and (-) deficit budget, during the period 2005-2012**



(source: own contribution)

Public finances of a local government increase with the amounts deducted from the value added tax from the state budget amounts for expenses for educational services, health, culture, defense and security, etc.

We observe that in recent years, as a result of this analysis, budget deficits appear due to the fact that either local budgets were not enough filled with resources, or the amounts deducted from the state budget were not managed accordingly by public managers or authorizing officers.

According to some specialists in the field, it is necessary to supplement the financial resources of the local budget "in view of the inflationary nature of the economy in our country, the budget appropriations can be increased by Government decisions that is to be contained in Law amendment, based on a draft to be presented to and approved by Parliament." [2]

In these circumstances, to balance local budget, in order to cover the funding needs it can be allocated in the budget of the County, with the default destination, specified amount intended for the financing of expenditure on education, culture, health, social protection and assistance, etc. and financing costs of modernization, extension and refurbishment of infrastructure.

Currently, considered a modern financial management tool, with the help of local budget we can enlighten aspects relating to: [3]

1. Identification of the global income of local communities made up of all budget revenues, including revenues of service operators or main or secondary authorizing officers and creation of a financial "frame" in this regard;

2. Knowing the consolidated budget expenditures and the efforts by local communities to ensure the needs of financing public services; [7]

3. Performance analysis and financial capacity based on the surpluses or deficits throughout the budget year (we find a weak performance at the level of the budget for year 2012);

4. Analysis of deficits on activity segments observing the errors;

5. The allocation of surpluses (if any) for the establishment of the working capital as reserve funds that can be used by the local community in cases of extreme emergency.

The end of the fiscal year at the level of local budgets may result in surplus or deficit. In case of obtaining the budget surplus, current legislation provides that after making adjustments to the limit of the amounts allocated in the central budget of some income, as well as for the consolidated transfers from the State budget or from other budgets, the surplus is used for repayment of any outstanding loans and related interest payments, commissions, etc., or for the establishment of the working capital (interest-bearing, shall be kept in a separate account in the State Treasury territorial units (at the level of municipalities, counties or cities), outside the local utility's budget

coverage gaps, gaps arising as a result of differences between the current year's income and expenses as well as to cover the budget deficit result end of a budget year). [5]

By adding the budgets by region, we develop a table in which are presented the budgetary revenue, expenditure, deficit and surplus from 2004 until 2012, as follows:

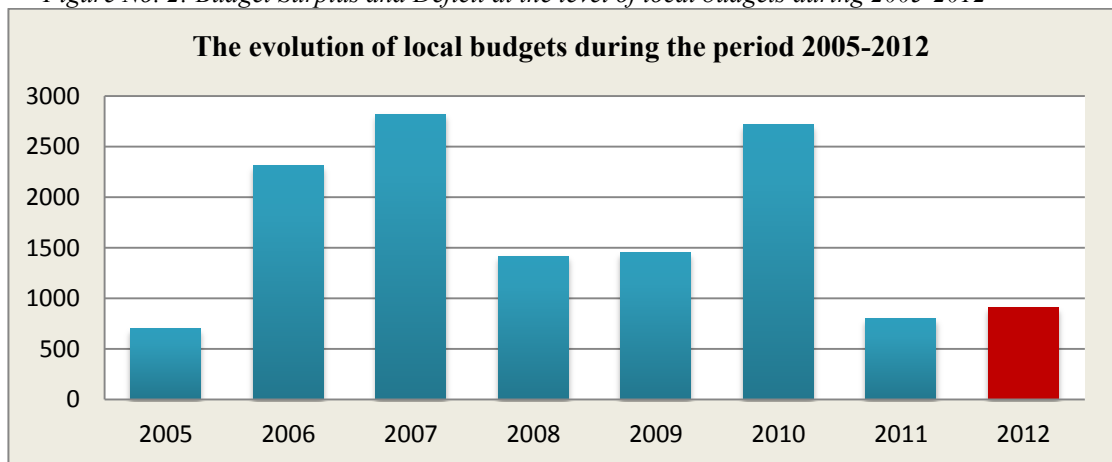
*Table 1. The evolution of Romania's local budget revenue and expenditure in the period 2004-2012*

Year	2004(mil./bil.lei)	2005	2006	2007	2008
<b>Budgetary revenues</b>	159558	19480,9	27708,6	36805,2	43629,1
<b>Budgetary expenditure</b>	155407	18777,0	25392,8	33982,3	42210,2
<b>+Surplus/Budget Deficit-</b>	+4151	+703,9	+2315,8	+2822,9	+1418,9

Year	2009	2010	2011	2012
<b>Budgetary revenues</b>	43526,1	43922,2	44803,9	45419,3
<b>Budgetary expenditure</b>	42074,5	41207,1	44003,8	46333,4
<b>+Surplus/Budget Deficit-</b>	+1451,6	+2715,1	+800,1	<b>-914,1</b>

*Note: the revenue and expenditure were recorded until 2004 in million/billion lei and the 2005 in million EUR source: National Institute of Statistics, 2013, www.insse.ro[6]*

*Figure No. 2: Budget Surplus and Deficit at the level of local budgets during 2005-2012*



*(source: own contribution)*

At the present time, according to the data presented, a budget deficit of 914, 1 million GBP is recorded in 2012 and the maximum budget surplus occurred in 2007. Should be noted the fact that, in recent years, the administrative authorities at the local level are facing budget deficits as a result of a not-so-effective management regarding the use of the local public finances, because, more often, the public manager/main credit officer

do not apply an effective strategy of management in relation to the use of public funds for local public interest [4] or they fail to attract sufficient resources from the local budget. In these circumstances, the question of interest is:

*Given that our country ranks among the first in Europe in terms of the number of fees and taxes, which taxpayer, legal or natural person, may still incur an additional fee or*

*tax to the State, disproportionate with the reduced income of the population?*

The answer is not in the power of citizens, taxpayers, but in the power of the persons and authorities (directly-elected, indirectly appointed), were granted the power to manage these revenues to the State budget or local, optimally and efficiently the financial resources of local interest.

As long as there is not a correlation between revenue and expenditure, where the expenditure is less or equal than the revenue, then we can speak of a deficient management at the expense of the public interest, the citizen as the final consumer of public goods and services and the local authority involved.

### 3. Conclusions

Knowledge of these features enables the Manager to develop a public financial management system to trigger all the financial resources for the provision of local public services, according to the three E's (Efficiency, Effectiveness, Economy).

Managers of public authorities at the local level, in the exercise of their duties, in accordance with the legislation in force, it should fold all changes to normative acts in the field to modify the level of local taxes and fees according to local needs and affordability of the public.

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## Financial Sustainability of the Company

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### Abstract

*The concept of sustainable development refers implicitly to financial issues at both macro and microeconomic levels. The correlated substantiation of the two major decisions of Economics - investment and funding - imposed a detailed analysis of the financial structure. The financial crisis induced effects for the economy have produced significant changes in the approach of the financial phenomenon, many of the previously developed theories being adapted to the existing situation. Depending on the determining factors, there has been established a possible optimal structure of capital, at a particular time, designed to ensure the maximization of the company's value. Within this context, the financial theory has developed a number of concepts which are based on the existence of a direct correlation between the increase of the turnover, asset growth and equity, two of which are dealt with in this article.*

**Key words:** financial stability, sustainable growth, self-financed growth, reinvestment.

**J.E.L. classification:** F30, G01

### 1. Introduction

The conditions under which a company operates, entails various configurations of the financial structure, as well as of its entire activity. Synthetically, according to favourable or unfavourable vectors, the optimal point, which allows the survival and development of the company, must be found. Financial theory provides a number of effective financial models which must be adapted to specific situations. In terms of relative economic development, there is often adopted an "aim" financial structure[1] determined by negotiations between managers and shareholders. An important

role in the decision making is held by the cost of various categories of capitals and the possibilities of their acquirement. The relationship between the decision of investment and the decision of funding shouldn't be neglected either. A correct decision at the financial and investment level forms the basis for receiving new funds and the guarantee of refunding and remuneration of capitals. Conversely, a funding involving high costs drastically diminishes the return of the investment, or even makes it impossible. In practice, the managers of the company prioritize resources allocation. In the financial theory and practice, among the ways to organize the capital structure, as financial planning tools, concepts as sustainable and self-financed growth established themselves. The main benefit they present is the simplicity of calculations which can give a quick overview of the correlation established between variation of equity, assets and turnover.

### 2. Bridging the financial flows of the company

Implementation of the correlation between the monetary input and output flows constitutes the essence of a normal development in a company. Another essential bridging is the one between cash flows at macro and microeconomic levels. Recently completed financial crisis hopefully highlighted the importance of macro-economic policies.

In the financial practice, there is often ascertained that the companies with consistent accounting profits end up in cessation of payments. Companies which for years have experienced a continuous development suddenly are declared bankrupt. The same situation may occur at the level of national and global economies. After periods of economic "boom", deep crises arise which require the shift of the economic strategies

which often impair entire sectors of the economy. Such a contradictory scenario requires a thorough research of the causes that may favourably or unfavourably influence the financial activity. Addressing the concept of balance was based on different theories that have proven useful for a while and limited when a certain level of economic development has been reached. Complicated economic life has sounded the alarm to abandon mechanistic theories and to implement a mechanistic philosophy that considers financial and economic activities as part of the natural environment [2]. In this new light, the economy is perceived as an open system simultaneously governed by the Law of matter preservation and the Law of entropy.

*According to the first law, everything is transformed (equity and assets), while the second shows that the transformation is realized by losses (expenses) and therefore the useful results (the profits) are lower than income (revenues).* The complexity of the financial balance issues is given by the fact that we have to take into consideration a large range of drivers both from the internal environment and as well as from the external environment of the company. Basically maintaining the financial balance involves providing the necessary conditions so that the circuit: money - commodity - money to proceed with the greatest efficiency possible in the given socio-economic situation. We must not forget that a competitive economy provides both the "freedom" of promoting and development of the company, as well as the "freedom" to go bankrupt, and to be excluded from the market. The specialized literature has produced a number of theories and tools for analysing the financial balance, which are responsible for the Western-version of the economic development. But we have to bear in mind, especially for the Romanian economy, the fact that their implementation requires the entrepreneur to have knowledge and to perceive sensitive financial processes and phenomena to succeed an appropriate intervention in their optimization. Consequently, the balance drivers are the company's management and the types of economic environment in which it operates.

### **3. Conducting the financial flows at macroeconomic level**

The general stability of the economy is the generalized expression of the material stability of the real economy, of the labour stability and of the value stability. The stability of the value involves the financial, monetary and exchange rate stability. Between these forms of value's stability there are many correlations and links.

The stability of the value is influenced by three key drivers: *the offer and demand of currency, the inflation rate and the intervention of Central Banks.* The exchanges on the financial markets are intense and spectacular. They aim both to purchase currency for conducting commercial trade as well as to achieve speculative and hedging transactions. *In the transitional economy,* the demand and supply of loans should be higher, and the investment process should be more intense, this being the sole solution for reducing discrepancies. But the demand of bank loans is influenced by the interest rates and terms of the offer. During the financial crisis, the Romanian companies have lost a number of business opportunities on the foreign markets due to the cessation of bank loans. For example, the demand of exporting furniture has increased, but many companies have not been able to find the necessary financial resources for their development and retrofitting. The situation in Romania can be related to the fact that the percentage of Romanian capital is very low, less than 16%. The interest rates charged for loans in RON is around 10%. Compared to Germany, interest rates are of 3% [3]. A large offer means low interest loans, high investment and in the end additional output, therefore economic growth. This economic growth requires additional currency issue. If there is no additional issuance of currency, the purchasing power of the currency increases. This stability, including financial stability is achieved as a trend. At every single moment or for limited periods of time, there may be the following situations: *over-sizing the goals; overestimation of the resources; large stocks of finished goods.*

Over-sizing the goals requires greater financial funds than originally projected. Also, an overestimation of resources means the need to seek externally to supplement

such resources, which often leads to major economic and financial imbalances.

Of these three aforementioned circumstances, the existence of large stocks of finished goods may cause a real economic crisis. The warning signal given by this circumstance, targets the failure of the economic circuits, on one hand, and a lack of flexibility and adjusting to this situation for a large number of companies, on the other hand. The real economy bears many relationships with the banks, the budget and the insurance companies. These relationships generate material and financial flows that are parallel or autonomous. The possible financial resources, able to be mobilized, must fully cover the needs of the economic growth, the social needs, and the needs for defence and internal order. To constantly restore the financial stability, all financial resources must be taken into account, regardless of the economic branch where they are generated or managed. The financial stability has a powerful presence even at the territorial level. For example, large amounts of funds of the state budget are allocated to the county departments, especially for social protection. Also, the redistribution of funds especially for social protection, education, health and public utility activities may take place among the local budgets. The economic development of Romania presents major differences between the administrative territorial units; Moldova's county districts form the poorest region of the EU, with a contribution to GDP between 30-40 % of the national average [4]. The Romanian economic crisis would have occurred regardless whether the international economic crisis had occurred or not. As the causes and the transmission mechanism differ, the Romanian out of the crisis measures cannot be similar to those applying to the developed economies. The level of country risk is enhanced, mainly due to the political factions, politicians being considered as "complete strangers regarding the national benefit"[5]. On the external level the consequence is the decline of the foreign investors' interest in local economic environment, scarred by structural deficiencies, instability and uncertainty.

Apparently the economic recovery has occurred in 2013, the year when GDP grew with 3.5% [6]. The structural analysis shows

that there was not sustainable growth but a conjectural one, due to the favourable agriculture climatic conditions. However, there was a decrease of the industrial branch; e.g. the County of Mehedinti experienced a decline of the industrial productivity of 30%. In comparison with resumption of lending, the investments recorded a slow rate. The excessive liquidity of the interbank market, balanced by frequent interventions of the Central Bank, is a strong signal that the flow of funds into the real economy is poor.

#### **4. Sustainable growth and self- financed growth**

These kinds of growth can be defined in two ways: either as the achievement of an additional turnover with the same financial effort, or maintaining the same turnover with less financial effort. In order to compare the data of different financial exercises, we have to eliminate the inflation influences and variation of the sale prices. Applying this concept essentially involves respecting two parameters: maintaining the equity at a constant level and ensuring the constancy of the ratio: Total Debt / Equity.

The simplicity of the method is only apparent; actually it has a great power of synthesis. A standard should be provided on which specific elements of the activity of each company could be drawn up, thus providing the possibility of measuring deviations. The most challenged element in applying this method is that of direct proportional relationship between the variation of the turnover and patrimonial assets. In this respect, the following arguments are displayed:

- ✓ stocks increase in direct proportion to the square root of the turnover due to a shorter rotation [7];
- ✓ the enhancement of the provided loan cannot be bridged with the turnover, thus the funding percentage of the current assets by raised funds is unlikely to maintained;
- ✓ the supplementation of the turnover usually requires a relaxation of the client's loan period and accepting the risk of increasing the insolvent customers portfolio;
- ✓ the company will not invest in fixed assets until all available capacity is saturated;

✓ not any level of growth in turnover is appropriate to be supported by new investments. For example, in many commercial fields, the increased production requires the acquisition of a capacity unit (additional fixed costs) which causes the breakeven to raise at a higher level for the potential increase of the turnover.

The financial planners commonly use this method, despite all aforementioned objections. Therefore, if this year, the ratio: Assets / Turnover, is maintained at a constant level, then the same increase rate of the turnover and of the capital will be registered. "This growth rate is sustainable (durable) if it is determined on account of the return on equity and on the percentage of retained net earnings" [1]. As for the assets versus objections, the increase can be considered as a maximum, any savings made due to increased use of production capacity or to increased use of rotation speed of the current assets being beneficial to the activity efficiency. At the company level, pursuant to a standard methodology, adjustments can be made, so that all the variables are integrated. Calculating the sustainable growth rate (Sgr) allows us to determine the necessary additional capital and how much of this should be achieved by self-funding and how much by loans.

$$Sgr = Fr \times Rpr; Fr = \text{Net profit} / \text{Equity}$$

$$Rpr = \text{Retained Net profit} / \text{Net profit};$$

Where:

Fr = financial return

Rpr = retained profit rate

Proof of their correlations and links is revealed in the following example:

**Table 1: Simplified balance sheet**

Assets		Liability	
Fixed assets	90	Equity	1200 (60%)
Current assets	1100	Loans	800 (40%)
Total assets	2000	Total capital	2000

**Source:** The author

$$\text{Turnover} = 3,500 \text{ MM um}$$

$$\text{Net profit} = 250 \text{ MM um}$$

$$Fr = 250/1200 \times 100 = 20.80\%$$

$$Rpr = 50\% (125 \text{ MM um})$$

$$Sgr = 20.80\% \times 50\% = 10.40\%$$

Expressed in terms of the growth rate, the additional capitalization for the current year is calculated as it follows:

$$\Delta C = \text{Total capital} \times Sgr (1 + Rcs) = 2000 \times 0.104 (1 + 0.104) = 230 \text{ MM um}$$

Next, we have to determine how much of the additional capital requirement must be provided by self-funding ( $\Delta C_p$ ) and how much by loans ( $\Delta D_{at}$ ) so that the financial leverage (Loans / Equity) recorded in the previous financial year (0.67) to remain the same.

$$\Delta C_p = \text{Net profit} \times Rpr (1 + Sgr) = 250 \times 0.5 (1 + 0.104) = 138 \text{ MM um}$$

$$\Delta D_{at} = \Delta C - \Delta C_p = 250 - 138 = 112 \text{ MM um}$$

The required supplementation of equity (138 MM RON) exceeds the retained profit of 125 MM RON. We have to check if the other source of self-funding, namely depreciation, is able to cover the difference of 13 MM um, otherwise the financial leverage will be modified by increasing the loans.

The new structure of the capital is:

$$C_p = 1338 (1200 + 138) 60\%$$

$$D_{at} = 892 (800 + 92) 40\%$$

$$\text{Total capital} = 2230$$

The growth is of 11.5%, which should be reflected in increase of the economic assets and of the turnover.

$$\Delta CA = Sgr(1+Sgr)=0.104(1+0.104) = 11.5\%$$

$$\Delta CA = CA [Sgr (1 + Sgr)] = 403 \text{ MM um}$$

When determining the rate of the sustainable growth two aspects must be considered:

- ✓ retail market opportunities; and
- ✓ stock market requirements.

**Table No. 2: Correlations evolution**

Growth of the retail market	8%	12%	15%
The optimal retained profit rate	30.48%	57.69%	72%
The possible sustainable growth rate	6.33%	20%	50%
Dividend distribution(MM)	90	90	90
Turnover growth	6.73%	24%	75%
Available net profit (MM)	+64	+16	- 20

**Source:** The author

Table analysis reveals that for a growing market, a higher rate of reinvested earnings is appropriate. There is a conflict between the increase of the retained profit and the investors' requirements for return; in this case it is assumed that they require a 10% return. The first two cases indicate that the



available profit needs to be capitalized in the financial market, and the last indicates that the financial leverage should be amended by the necessary loans as to exploit the opportunities of the market. Note that the growth rate of turnover is in all cases higher than the sustainable growth rate.

**Self-financed growth** means ensuring full additional funding requirements using its own resources. Self-financed growth rate is expressed by the sustainable growth rate and the percentage of equity from the total capital.

$$\text{Sfgr (Self-financed growth rate)} = \text{Sgr} \times \%Cp = 10.4\% \times 60\% = 6.24\%$$

$$\Delta Cp = 1200 \times 6.24\% = 74.88 \text{ MM um}$$

Self-financed growth of the turnover and assets is:

$$\Delta CA = \text{Sfgr} (1 + \text{Sfgr}) = 6.63\% (232 \text{ MM})$$

In this situation, it is also necessary to make the correlation with the retail and financial markets.

## 5. Summary

In addressing the two concepts, we started to analyse the internal elements of a company and we have demonstrated the direct correlation which is established between the increase of the sales and assets in certain imposed financial conditions. The two types of growth in a company are, at the same time, focused and dependent on the allocation of its own funds.

Key drivers for these types of increase are:

✓ *The characteristics of the economic environment.* A favourable environment stimulates the optimal development of the financial flows in the real economy;

✓ *Net profit margin.* Profit growth leads to the increase of the company's ability to generate its own equity;

✓ *Dividends policy.* Increase or decrease of a part of the profitability distributed to shareholders will directly influence the rate of return;

✓ *Financial policy.* Establishing the equity portion for the development of the company should be done at an optimum

level by combining its own resources with loans;

✓ *Rotational speed of current assets.* Its speeding up / slowing down implicitly leads to an increase / decrease of the profits on the currency unit and where appropriate, it will determine the additional funding needs or the additional funding sources.

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