Study on The Evolution of Stock Market Capitalization and Gross Domestic Product in The Emerging Countries of The European Union

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Abstract

This paper includes an analysis of the economic and financial markets of the emerging countries of the European Union. The evolution of these markets is captured primarily in the context of the phenomena of globalization and deglobalization, but also in view of the economic, social and political conjunctures that these countries have experienced during the twenty years of transition from border markets to economies integrated with the European market. The study includes a descriptive analysis applied to the selected markets over a period of twenty years, based on the selected methodology. Analyzing on a long-term the evolution of the markets of Romania, Hungary, Poland and Greece through a comparative approach, the paper highlights similarities and differences in the developments of the Emerging European markets, as well as the degree of reaction to the major events that had an impact on the economic and financial environment of the European Union.

1. Introduction

Any national economy is characterized by the functioning of markets specific to economic sectors, where the supply and demand and supply of financial assets meet and balance freely or in a controlled manner, generating the resources necessary for the development of the production of goods and services. Based on this statement, the study aims to analyze the evolution of emerging financial markets in the European Union as an integral part of the European financial market.

The analysis of these indicators will be made in the context in which the level of development of the countries, as well as the degree of integration of these economic and financial markets differ from state to state, according with the level of globalization or deglobalization trend of each country (Troto, 2020). According to Troto, the globalization phenomena is one of the factors that influences the market behaviors, the integration level causing more or less impact. Through this comparative analysis we will highlight both the similarities between the behaviors of these markets in the context of international and regional events, as well as the differences resulting from domestic circumstances.

Thus, we will study the evolution of the financial markets in Romania, Hungary, Poland and Greece through the prism of the most relevant stock and macroeconomic indicators, through a descriptive analysis of the values recorded in the period 2000-2020. The aim of this study is to identify the level of interconnectivity between emerging EU markets, the degree of integration into the European market, as well as the correlations between macroeconomic development and the capital market.

2. Literature review

The literature includes comparative studies of general indicators. We recall here the work carried out by Luwihono and others (2021) that refers to the share price, the exchange rate, the interest rate, the long-term consumer price index. In the study conducted for South Africa, Mpofu (2014) notes that the degree of correlation of the two indicators studied, i.e. which analyzes the evolution of gross domestic product and the growth index of the JSE FTSE, is not strong enough to be able to represent a method of financial market prediction. Demir (2019) conducts an empirical study in the case of the Turkish market, concluding with the fact that developing markets need strong national currency, high international capital inflows and low investment cosThe study prepared by MSCI Barra Research in 2010, analyzing the gross domestic product and the net profit per share, confirms that the economic evolution of a country is characterized by cyclicality, this being one of the external factors that influence the interrelationships between the indicators of the economic and financial markets. Other specialized papers also address this topic, which we consider relevant for the theoretical substantiation of this work the studies conducted by Haeck (2021), Muller (2019) and Cristescu (2021) and which represent a benchmark for the results obtained in this study.

3. Research methodology

The quantification of the state of evolution of the economic and financial processes, in order to explain the interdependence phenomena that are engaged in the economy, can only be achieved by standardizing the macroeconomic theories and simplified models of analysis. In order to analyze the macroeconomic and stock market evolution, the specialized literature and expertise of the business environment provide a variety of methodologies, but we note that in essence, they are synthesized in the values determined by the main indicators.

From the multitude of quantitative expressions indispensable for the statistical analysis of the financial markets and macroeconomics, we summarize two essential indicators, with which we standardize the information in order to ensure the comparability of indicators over time and between different countries. Thus, the present work includes a descriptive analysis of the evolution of the stock market capitalization and of the gross domestic product (in absolute values).

4. Findings

Regarding the market capitalization of Greece between 2000 and 2020, we can see a significant upward trend in the period 2001-2007, this positive evolution being suddenly lost in the coming years. It is worth noting that the values have remained low until now, the indicator remaining relatively constant in the period 2011-2020, below the level of the 2000's.

Figure no. 1. Market capitalization - Greece (current billions US$)
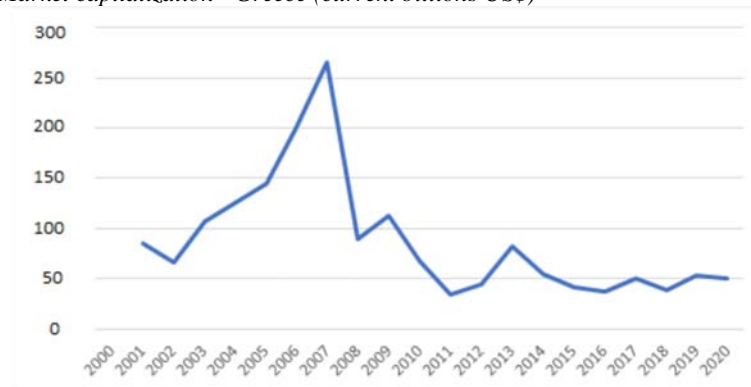
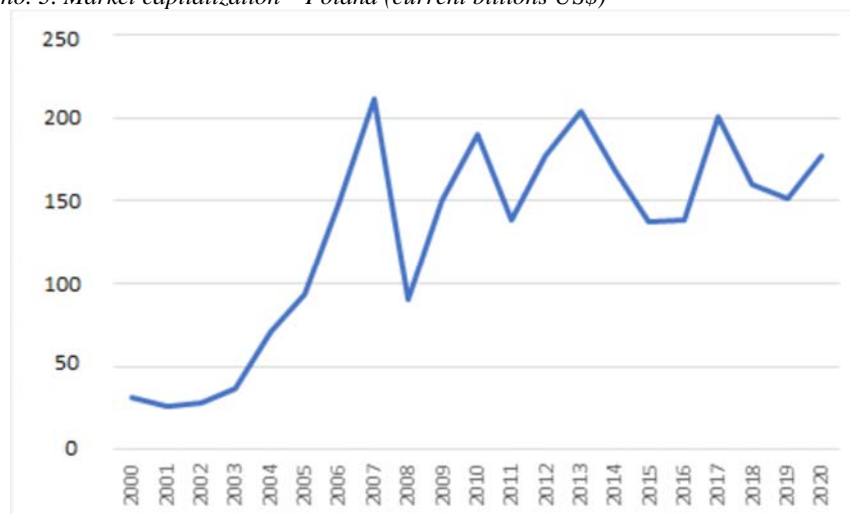*Source:* Author processing, data from www.worldbank.org

Figure no. 2. Market capitalization – Hungary (current billions US$)
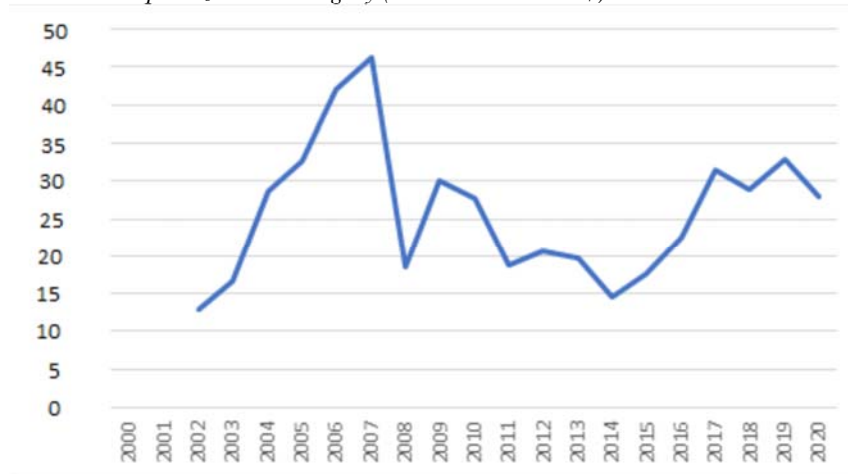
Source: Author processing, data from www.worldbank.org

In the pre-crisis period, Hungary's market capitalization had a significant ascent, the peak reached in 2007 being four times higher than the value recorded in 2002. The indicator recorded a dramatic decrease during the crisis, after which its evolution was volatile. In the last three years, the indicator stabilizes, but at a level much lower than that recorded in 2007.

Figure no. 3. Market capitalization – Poland (current billions US$)

Source: Author processing, data from www.worldbank.org

Like the other emerging countries of Europe, the market capitalization of Poland noted a significant positive trend in the period 2002-2007. In the following years, the market value recorded from year-to-year considerable oscillations, but it is noted that the indicator managed to reach in this post-crisis period values similar to that of 2007. Thus, we can appreciate that the market value in the case of Poland reflects a stable stock market, based on sustainable mechanisms, which supported the economic development of the country.

Figure no. 4. Market capitalization - Romania (current billions US$)

Source: Author processing, data from www.worldbank.org

The market capitalization in the case of Romania recorded in the analyzed period an evolution correlated with the general economic state. The maximum value was recorded in 2007, noting this similarity with the other emerging countries, in an upward trend in the pre-crisis period. After a significant decrease in 2008, the indicator registers a moderate but constant growth. We interpret this evolution as a consolidation of the stock market, but cautious given the experience of 2008 and the geopolitical uncertainty that followed. Between 2008-2010, we are witnessing a minimum level of market value, the stock market environment still managing to alleviate the shock of the economic crisis, stopping the negative evolution. After 2011, the capitalization is supposed to register a positive evolution, but characterized by the same high degree of volatility, specific to the Romanian market but also to the other emerging markets. We also note that the values recorded at the end of the analyzed period do not reach the maximum level of 2007, the investors' sentiment being modified for a long time by the economic crisis of 2008, they acted more circumspectly.

*Figure no. 5. GDP – Greece (current billions US$)*
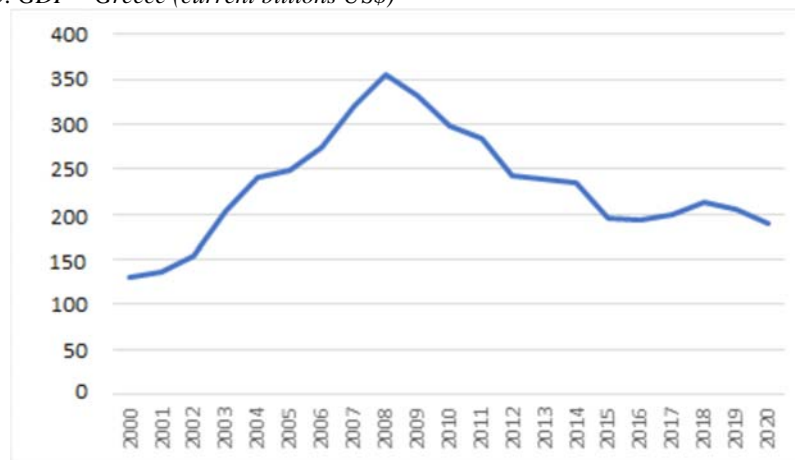
Source: Author processing, data from www.worldbank.org

Analyzing the gross domestic product exchange rate in the case of Greece, we note that its evolution is different from the other emerging markets of Europe. In the situation in which Romania, Greece, and Poland register relatively stable values of GDP after the economic crisis of 2008, Greece is affected dramatically, witnessing a contraction of GDP by 2020.

We notice a period of relative immobility, even a slight increase in the values recorded between 2015-2018, but analyzing the long term, we consider this evolution insignificant. Moreover, speaking of an economy based on tourism services, a decrease in GDP during the pandemic period is justified.

*Figure no. 6. GDP – Hungary (current billions US$)*
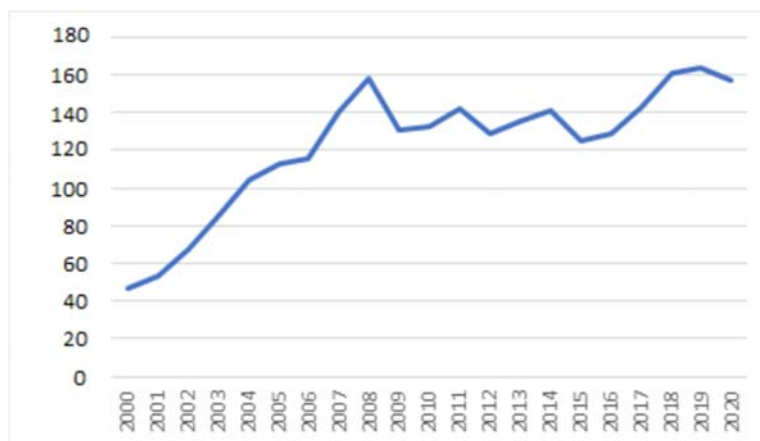
Source: Author processing, data from www.worldbank.org

Hungary's gross domestic product registers a similar evolution to the other markets analyzed. We note, however, that it records absolute values much inferior to Poland and Greece, and since 2010 even below Romania's values. During 2015-2019, a positive evolution of the indicator is noted, reaching in 2019 a maximum within the analyzed period. Hungary's economy is complex, based on exports, this advantage conferring an economic environment that had the capacity to soften the effects of the 2008 crisis.

On the other hand, political decisions and Euroscepticism have created suspicions regarding Hungary's European evolution. From our point of view, these decisions of the political environment have discouraged multinational businesses, created a negative feeling among investors and caused a stagnation of Hungary's economic integration at regional level.

*Figure no. 7. GDP – Poland (current billions US$)*
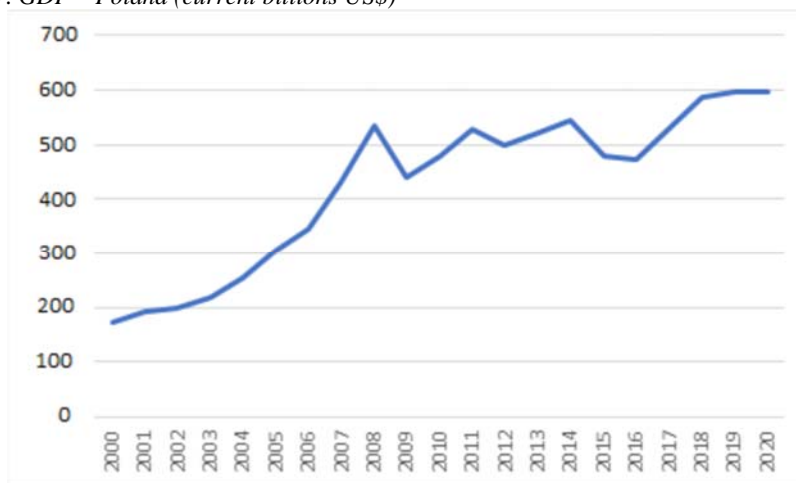
Source: Author processing, data from www.worldbank.org

Poland's gross domestic product is a positive example of the economic development of a state in transition from the emerging market to a developed one. In the period 2000-2008, Poland's GDP experienced a steady ascent, followed by a justified decrease by the crisis of the years 2008-2009 and an immediate recovery in the years 2010-2011. Analyzing this evolution, we express our point of view by saying that Poland was the only European state that managed to avoid a recession.

This success was due to Poland's capacity to absorb European funds, which contributed to the economic and infrastructure development, as well as due to the lending of small and medium-sized enterprises. Thus, we can say that the economic measures taken by Poland during the analyzed period of time have been capitalized by the economic and financial environment, offering a favorable course of development and European integration.

Figure no. 8. GDP – Romania (current billions US$)
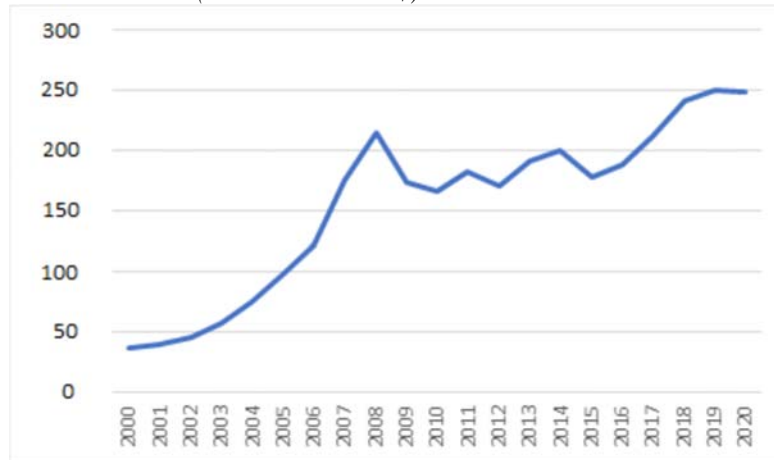
Source: Author processing, data from www.worldbank.org

In the case of Romania, the gross domestic product in terms of value recorded in the analyzed period figures similar to Hungary, even exceeding them in certain periods of time. Even if Romania's GDP is well below the level of those in Poland, the evolution was favorable. We note that the period 2015-2020 represented a significant jump, in recent years the figures exceeding the level reached in 2008. The involution caused by the financial crisis has been recovered, the Covid-19 crisis not affecting, at least in the short term, the gross domestic product of Romania. We interpret these values as representing the premises for a medium and long-term increase in macroeconomic indices. However, we must mention the precaution under which we state this forecast, based on the inertia of the recorded figures, but without being able to predict the uncertainty of the geopolitical events that will certainly significantly influence the domestic, regional and global economic and financial environment. Summing up to the analyzed interval, 2000-2020, we conclude with the fact that Romania proves to be a feasible economy, with real premises for an ascent to a developed economy, remaining subject to the influence of external factors.

5. Conclusions

For an analysis of the capital market and the macroeconomics of the emerging European markets – Romania, Hungary, Poland and Greece, in the time frame 2000-2020, we used two established indicators – market capitalization, respectively gross domestic product. Through their comparative study, the paper researches the correlations between the financial and macroeconomic evolution within the economic and financial mechanisms of these countries, as well as the similarities between the evolutions of the emerging markets of the European region.

A first conclusion we state is that the evolutions of the stock markets, analyzed through the prism of market capitalizations, have a higher degree of volatility than the macroeconomic indicators, and the similarities between the total values cannot be considered strong enough to be able to say that the capital market and the macroeconomic environment are decisively influenced. However, there is an

interdependent evolution in the medium and long term, considering that the mutual influences between the two environments define the general macro-economic trend that the analyzed markets develop. We notice that the inflection points of the indicators, influenced by internal and external factors, such as 2008 marked by the global economic crisis, are found in all the analyzed indicators. We note, however, that the capital market index is much more sensitive, its reaction being faster, and the oscillations recorded being more significant, while the macroeconomic environment reacts more slowly, with smaller inflections, but with longer-term effects.

Regarding the market capitalization, we note that the evolution moments of the indicator are influenced by similar events, on all the analyzed markets. The factors of positive influence differ from one state to another, but in essence we are talking about similar circumstances, such as joining the European market, the privatization process of large state-owned companies, promoting the capital market from a border market to an emerging one (and, in the case of Poland, in 2018, towards a developed market). As the common denominator of the analyzed markets, we notice a period of significant evolution of the indicator in the period 2000-2007, but the trends recorded in the post-crisis period differ from state to state. Thus, in the case of Greece, market capitalization has entered into a constant regression, valid until the end of the period analyzed in the present study. On the other hand, Hungary had a high degree of volatility, while in Poland and Romania, even if the indicator recorded oscillations, in the medium term it had a positive temptation.

As far as gross domestic product is concerned, we note a degree of its stability. Even more, we observe in the macroeconomic statistics indicators a constant and significant increase of the GDP value in the period 2000-2007 in the case of all the analyzed economies. This favorable evolution is justified, given that during this period the entire economy of Europe experienced a period of development. Being economies in transition to the status of capitalist countries, emerging markets had a significant gap with developed markets, capitalizing on this period and thus diminishing the differences between the stages of macroeconomic development of European states. It is thus justified the common moment of 2008 in which all the analyzed states registered an involution, but after which they re-entered a favorable trend. However, the periods and the way of returning differed from state to state, and Greece is in this situation the exception of the present study.

The internal crises that Greece went through during this period reflect on GDP significantly, which makes us express ourselves with caution towards the general evolution of this economic and financial market. Its consistent course within the European Union gives Greece the guarantee of an integrated economy, but the evolution of the statistical indices remains equally important to ensure a favorable evolution towards a developed market. On the other hand, Poland was the least affected by the crisis, thus proving its economic stability. In 2011, Poland's GDP returned to its peak in 2008, and in the following years the evolution was overall positive. A similar course had Romania and Hungary.

Finally, we conclude that the general evolution of the capital markets and of the macroeconomic environment of the analyzed emerging markets support the temptation for financial and macro-economic development, and emerging markets find resources and opportunities to support a long-term development. Both from the point of view of the capital market and of the economic environment, the markets of Romania, Greece and Hungary meet the premises of an evolution towards the status of a developed market, but in our opinion, this process is long-lasting, and the external regional factors, both economic and geopolitical, will have a decisive influence, as this work has shown that they had in the past.

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