Considerations Regarding Shadow Economy and Tax Evasion

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Abstract

A serious problem facing all countries of the world today is the hidden economy and tax evasion. Estimating the size of the hidden economy is a challenge for economists and not an easy task. No country can fully control illegal economic activity. There are currently several estimation methods, but the most commonly used in specialized studies is the MIMIC method. This work begins with a presentation of the latest analyzes on the estimation method of the shadow economy: MIMIC. The work further analyzes the evolution of the hidden economy in the EU member states and in our country. In the last part, we focus on the connection between the hidden economy and tax evasion and some conclusions regarding this aspect are presented.

Key words: shadow economy, MIMIC, tax evasion
J.E.L. classification: C51, H26

1. Introduction

Tax evasion associated with the hidden economy is a real threat both to any economy and to all participants in it. In this paper we will mainly focus on highlighting the method by which the size of the hidden economy can be calculated and what are its negative effects.

The underground economy is, in its nature, hard to measure because the agencies involved in this type of activities try to remain undercover. Due to its economic and political importance, there is a high demand for information in this area. On top of that, the overall economic activity is essential in formulating the economic policies, which can respond, in space and time, to both the economic development and fluctuating trends. In order to make the best decisions to reduce the negative implications on the economy, each state must have an approximation of the size of the hidden economy.

The shadow economy activities imply the non-payment of the taxes and contributions, so that the factors that determine the tax evasion affect, of course, the shadow economy as well.

The shadow economy includes the entire variety of goods and market services, which deliberately lays hidden for the following motives (Schneider, 2016):

- To escape payment of taxes
- To escape payment of social security contributions and taxes
- To escape specific legal standards of the employment market: minimal incomes, maximum number of working hours, standards' protection
- To escape obeying particular administrative procedures and criteria: completing in the statistical questionnaires or other administrative forms.

Legally, *the tax evasion,* translates as: "by all means, partially or entirely omitting to pay the taxes or other amounts of money owed to the state budget, to the local budget, to the state social security budget and to the extra budgetary funds, by national and foreign natural and legal persons, referred to as taxpayers..." (Law 241/2005).
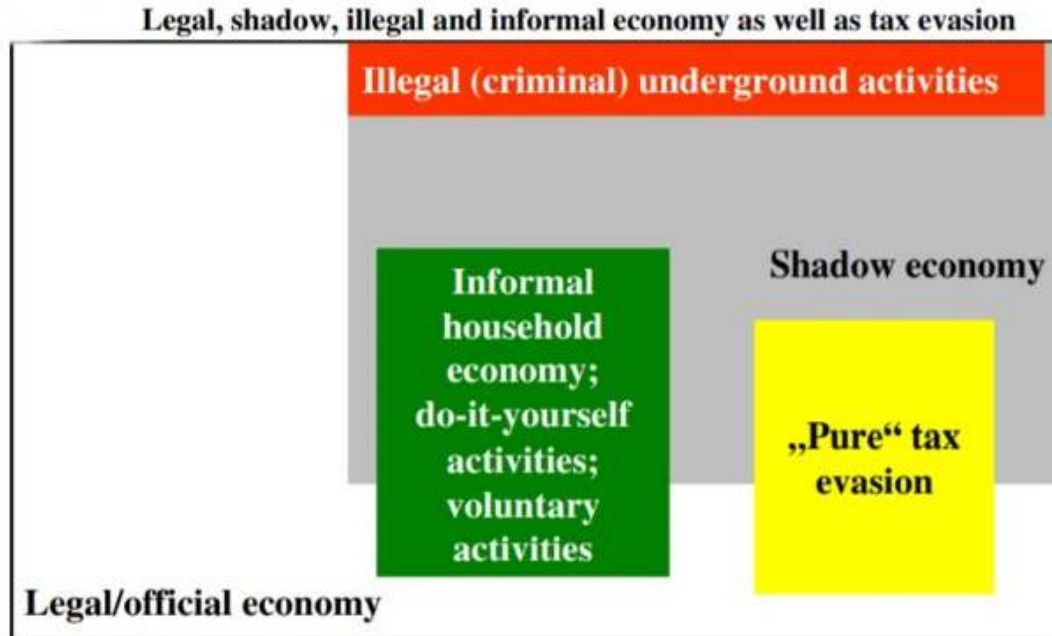
Source: Friedrich Schneider, University of Linz, 2012

Source: Schneider, "Shadow Economies Around The World With Latest Results (2019) For Romania And Her Neighboring Countries: What Did We Learn Over The Last 20 Years?" dated September 2019

2. Literature review

Regarding the shadow economy and fiscal evasion, there is a broad literature published by the World Bank, Transparency International and many national and international institutions worldwide. Despite the broad professional literature for the shadow economy, the economist who has studied the most this field and whose works are often cited in specialized studies is Friedrich Schneider, with his work "Shadow Economy and work in the shadow: What do we (not) know" (2012).

Defining the shadow economy has been a challenge for all economists (Schneider and Enste 2000, 2002; Alm, Martinez-Vazquez and Schneider 2004; Feld and Schneider 2010; Schneider and Williams 2013; Schneider 2015;). A definition often used in many works refers to all currently unregistered economic activities that would contribute to the officially evaluated Gross National Product if observed.

In recent years, work in the field of the hidden economy has multiplied and we have through them sufficient data for many countries (Gerxhani 2003, Feld and Schneider 2010, Schneider 2011, Schneider and Williams 2013, 2015, 2017, Williams and Schneider 2016, Hassan and Schneider 2016).

3. Research methodology

For a brief description of the MIMIC methodology (Multiple Indicators-Multiple Causes), we start from the premise that the effects of the underground economy are felt simultaneously in production, labor and financial markets (Schneider et al, 2010). The methodology take into account many causes that leading to the existence and size of the shadow economy, but withal more effects over time. In this methodology, the shadow economy is defined by a variable latent (not directly observable, called variable unobservable), which are part of some functional relationships, with other variables observable (measurable). The observable variables in these functional relationships are causal (explanatory) variables and indicators.

The model consists of two parts: the structure equation and the measurement model. Structure equation expresses, through a linear regression relation, the latent variable as a function of causal variables. The measurement model consists of several regression equations linear, in which the indicators are expressed according to the latent variable. In order to determine the size of the shadow economy, certain steps are required (Schneider et al, 2010). The first step consists in the statistical verification of the connections between the latent variable-the causal variables and indicators-latent variable. After identifying the relationships and estimating the parameters, it is calculated the MIMIC index, based on the results provided by the model. This method offers only relative, not absolute, results of the size of the shadow economy.

In recent years, the MIMIC method has been used more and more often to determine the size of the shadow economy.

4. Size of the Hidden Economy

How to calculate the dimension of a hidden economy? The means may be either direct, as questionnaires (at a microeconomic level), or indirect (at a macroeconomic level). Here are a few methods pertaining to the latter category:

- Discrepancy between the national expenditure and revenue, according to the statistical data
- Discrepancy between official and unofficial labor force
- Discrepancy between national transactional volume, namely the nominal Gross National Product (GNP) (price x transaction) and the official GNP
- Increased demand for foreign currency
- Discrepancy between the Internal Gross Product (IGP) and the electricity consumption

There is also another approach, which takes into consideration the different factors of the underground presence and growth, such as the multiple effects of the underground economy along the time (the MIMIC method). The main causes, which determine people's tendency towards hidden economic practices, are (Schneider, 2016):

✓ *The burden of the taxes*. Together with the increase of the labor force prices (concomitantly with the income decrease), raises the temptation for the hidden economy, the lure of avoiding paying the taxes.

✓ *The fiscal morality.* A better fiscal morality and more powerful social norms can decrease the potential of individuals working illegally.

✓ *The quality of the public institutions*. The efficiency and the lawfully implementation of the Fiscal Code and of the government policies play a big role in the decision to work legally. The existence of a high bureaucracy, associated with corrupted government officials, lead to the extension of the hidden economy. Given this, it is recommended that the public institutions become stronger, in parallel with aligning the fiscal laws to the preferences of the voting majority.

✓ *Unemployment rate*. The tendency towards the hidden economy increases together with the unemployment rate and vice versa.

✓ *Self-employment.* The bigger the self-employment rate is, the bigger the underground economic activities can be.

✓ *The public sector services*. As the size of the hidden economy grows, public revenues decline and the state can no longer provide, at the same level, the public goods and services. As a result, this fact increases the taxes for legal and natural persons, notwithstanding the quality of public goods (public infrastructure) continues to corrode. The consequence is an even stronger motivation for involving to the underground economy. The undergorund economy IGP percentage from the European Union countries could be calculated using the MIMIC method.
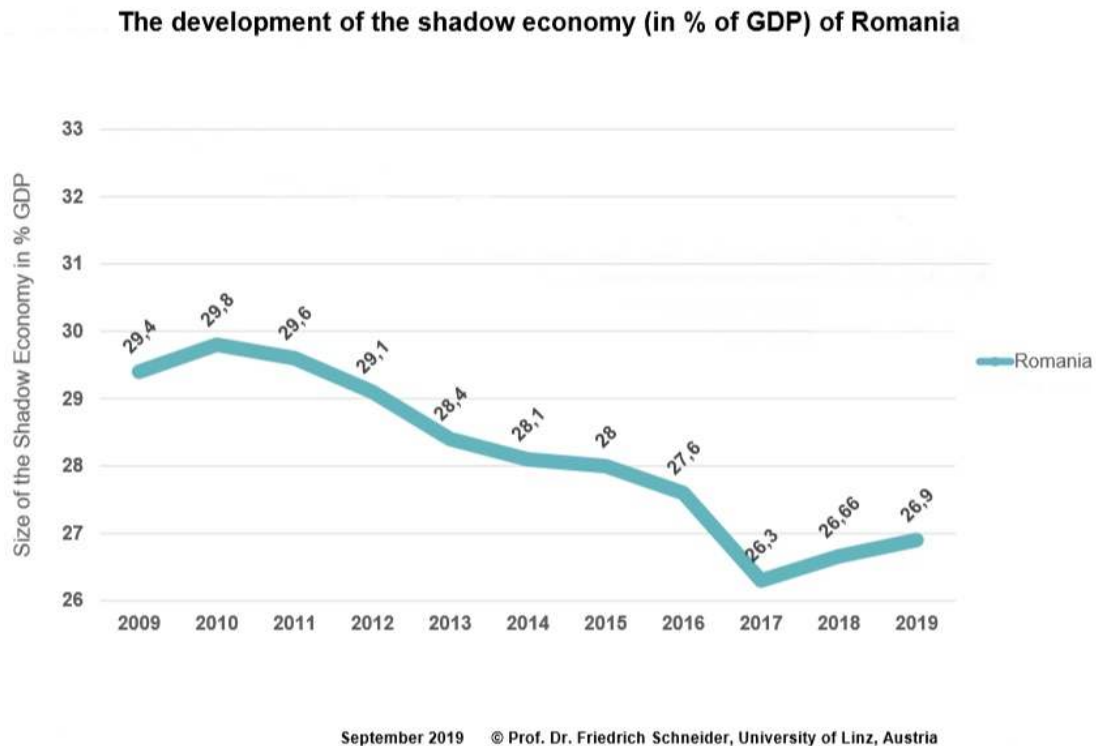
If we analyze the data below, we can notice that our country is situated second place, at a community level, in terms of IGP hidden economy percentage (27,6% in 2016), behind Bulgaria. For our country, it is possible to observe, from this table, a decrease of the percentage held by the hidden economy in the analyzed period.

Table no. 1 The Size of Shadow Economy in Europe Union

Country / Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	10.8	11.0	10.3	9.7	9.4	8.1	8.5	8.2	7.9	7.6	7.5	7.8	8.2	7.8
Belgium	21.4	20.7	20.1	19.2	18.3	17.5	17.8	17.4	17.1	16.8	16.4	16.1	16.2	16.1
Bulgaria	35.9	35.3	34.4	34.0	32.7	32.1	32.5	32.6	32.3	31.9	31.2	31.0	30.6	30.2
Croatia	32.3	32.3	31.5	31.2	30.4	29.6	30.1	29.8	29.5	29.0	28.4	28.0	27.7	27.1
Czech Republic	19.5	19.1	18.5	18.1	17.0	16.6	16.9	16.7	16.4	16.0	15.5	15.3	15.1	14.9
Denmark	17.4	17.1	16.5	15.4	14.8	13.9	14.3	14.0	13.8	13.4	13.0	12.8	12.0	11.6
Estonia	30.7	30.8	30.2	29.6	29.5	29.0	29.6	29.3	28.6	28.2	27.6	27.1	26.2	25.4
Finland	17.6	17.2	16.6	15.3	14.5	13.8	14.2	14.0	13.7	13.3	13.0	12.9	12.4	12.0
France	14.7	14.3	13.8	12.4	11.8	11.1	11.6	11.3	11.0	10.8	9.9	10.8	12.3	12.6
Germany [1]	16.7	15.7	15.0	14.5	13.9	13.5	14.3	13.5	12.7	12.5	12.1	11.6	11.2	10.8
Greece	28.2	28.1	27.6	26.2	25.1	24.3	25.0	25.4	24.3	24.0	23.6	23.3	22.4	22.0
Hungary	25.0	24.7	24.5	24.4	23.7	23.0	23.5	23.3	22.8	22.5	22.1	21.6	21.9	22.2
Ireland	15.4	15.2	14.8	13.4	12.7	12.2	13.1	13.0	12.8	12.7	12.2	11.8	11.3	10.8
Italy	26.1	25.2	24.4	23.2	22.3	21.4	22.0	21.8	21.2	21.6	21.1	20.8	20.6	20.2
Latvia	30.4	30.0	29.5	29.0	27.5	26.5	27.1	27.3	26.5	26.1	25.5	24.7	23.6	22.9
Lithuania	32.0	31.7	31.1	30.6	29.7	29.1	29.6	29.7	29.0	28.5	28.0	27.1	25.8	24.9
Luxembourg (Grand-Duché)	9.8	9.8	9.9	10.0	9.4	8.5	8.8	8.4	8.2	8.2	8.0	8.1	8.3	8.4
Malta	26.7	26.7	26.9	27.2	26.4	25.8	25.9	26.0	25.8	25.3	24.3	24.0	24.3	24.0
Netherlands	12.7	12.5	12.0	10.9	10.1	9.6	10.2	10.0	9.8	9.5	9.1	9.2	9.0	8.8
Poland	27.7	27.4	27.1	26.8	26.0	25.3	25.9	25.4	25.0	24.4	23.8	23.5	23.3	23.0
Portugal	22.2	21.7	21.2	20.1	19.2	18.7	19.5	19.2	19.4	19.4	19.0	18.7	17.6	17.2
Romania ●	33.6	32.5	32.2	31.4	30.2	29.4	29.4	29.8	29.6	29.1	28.4	28.1	28.0	27.6●
Slovakia	18.4	18.2	17.6	17.3	16.8	16.0	16.8	16.4	16.0	15.5	15.0	14.6	14.1	13.7
Slovenia	26.7	26.5	26.0	25.8	24.7	24.0	24.6	24.3	24.1	23.6	23.1	23.5	23.3	23.1
South-Cyprus	28.7	28.3	28.1	27.9	26.5	26.0	26.5	26.2	26.0	25.6	25.2	25.7	24.8	24.2
Spain	22.2	21.9	21.3	20.2	19.3	18.4	19.5	19.4	19.2	19.2	18.6	18.5	18.2	17.9
Sweden	18.6	18.1	17.5	16.2	15.6	14.9	15.4	15.0	14.7	14.3	13.9	13.6	13.2	12.6
United Kingdom	12.2	12.3	12.0	11.1	10.6	10.1	10.9	10.7	10.5	10.1	9.7	9.6	9.4	9.0
28 EU-countries / Average (unweighted)	22.6	22.3	21.8	21.1	20.3	19.6	20.1	19.9	19.6	19.3	18.8	18.6	18.3	17.9

Source: (Schneider, 2016)

Schneider (2019) represented graphically which is, in our country, the tendency of the hidden economy, as a percentage of the GDP:

The development of the shadow economy (in % of GDP) of Romania

September 2019 © Prof. Dr. Friedrich Schneider, University of Linz, Austria

Source: (Schneider, 2019)

We can determine what is the value of the shadow economy in Romania, knowing that the percentage of this economy in GDP is 26,66% (Schneider for 2018) and the size of the 2018 GDP is 947,9 billion lei:

947,9 billion lei x 26,66% = 252, 7 billion lei (the value of the shadow economy in Romania, 2018).

In our country, according to art. 8 of Law 241/2005 for the prevention and combating tax evasion, constitutes a crime and is punishable by imprisonment from 3 years to 10 years and the prohibition of certain rights. In february 2020, the Senate re-examined the Law on preventing and combating tax evasion, establishing that, in case of full payment of the damage, to tax evasion for values less than 100.000 euros, the penalty can be a fine or an administrative action.

5. Shadow Economy and Tax Evasion

There is a direct link between the hidden economy and tax evasion.

The economist Peter Spiro (2005) said that among OECD countries, characterized by the highest levels of taxes, for every percent of growth is an increase of the shadow economy level of 0.25%. Likewise, Richard Cebula said that if the tax rate rises by one percentage point, the underground economy increases by 1.4%.

In the category of fiscal rules that can foster the underground economy we can find: repeated changing of tax legislation; issuance of arbitrary regulations; with the possibility of random interpretation; implementation of tax discrimination; lack of credibility of the actions of the authorities; the presence of thick legislation.

The importance of the underground economic analysis and of the tax evasion derives both from their impact on the budget balance and on the political class, as well as from the implications that they have in the overall architecture of the economic behavior:

- The insufficient financing of the social projects: education, culture, public administration, health
- Effects of political nature: failure to register an increase in the state budget, as a result of the tax evasion increase, leads to a greater fiscal pressure, to a sense of dissatisfaction with the government, which, on the following elections, will no longer receive the electorate vote
- The disloyal competition shown by the evaders to all other taxpayers.

The perception by taxpayers of the tax burden can decisively influence the phenomenon of tax evasion. In this respect, the Fraser Institute points out that the underground economy rises or falls depending on how people perceive the direct and indirect taxes, the government regulations and the government spending values.

Problems also arise when decisions are made, at the government level, regarding the level of fiscal taxes, because the analysis underlying them does not take into account the existence of the hidden economy. On the other hand, high tax rates will cause entrepreneurs to leave the legal area of activity. Serious empirical analysis of elasticities of reaction are the key to a right tax policy. It is not possible to establish a single method by which to arrive at an optimal tax policy.

6. Conclusions

As we have seen from the analysis, all countries are facing with shadow economy and tax evasion. It is important to find measures, at national and international level, to reduce the size of the hidden economy.

In Romania, there is a a reduction trend, as in other EU countries, in the share of the shadow economy after 2010 until the crisis of 2017. After this moment, we have an intensification of illegal activity in the economic field. We can come to a conclusion from this evolution, namely that entrepreneurs seek to get out of the legal zone when they face financial difficulties (determined either by a crisis, or by a significant increase in taxes, or for other financial reasons).

A measure that must be taken into account and studied in detail in specialized works, is the education of the population on fiscal morality, from the first years. Even if the level of fiscal taxes will be reduced, when there is a weak fiscal morality, the tendency to resort to the shadow economy will remain. Until the important steps are taken in this direction, a short-term solution may be to increase controls and fines.

The efforts to reduce opportunities for VAT fraud and evasion have made gradual progress - but much more work is also needed. The coronavirus pandemic has drastically changed the EU's economic outlook and is set to take a severe toll on VAT revenues (CASE, 2020). At this time, more than ever, EU countries simply cannot afford such losses. That is why we need to do more to step up the fight against VAT fraud with renewed determination, while simplifying procedures and improving cross-border cooperation.

It is imperative that international and national tax regulations be reformulated, to adapt to the new market conditions, to the economic, social and technological challenges of the 21st century. As a result of these steps, international, European and national tax systems will be reformed, as they do not have the necessary characteristics to keep up with new developments. The changes will ensure that all market participants will pay their contributions correctly.

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