

PUBLIC GOVERNANCE AND THE UNDERGROUND ECONOMY

PhD Student **Constantin STRĂPUC**
Ștefan cel Mare University of Suceava, Romania
strapuc@gmail.com

Professor PhD **Elena HLACIUC**
Ștefan cel Mare University of Suceava, Romania
elenahlaciuc@gmail.com

Abstract:

In the real economy of a country, besides the formal or visible economy, there is also an informal or underground economy, the existence of which is a real challenge both for state authorities and for international organizations called to find solutions to limit the effects negative, which it causes to national economies and the global economy. Deciphering the nature of the underground economy, along with the main causes that generate and develop it, can provide pertinent responses to methods to counteract its negative consequences. This study attempts to answer a key question: is there any link between public governance and the underground economy? And if so, how does public governance influence the existence of the underground economy? The methodology of the study is predominantly hypothetic-deductive, the conclusions resulting from the authors' own research and from the synthesis, critical analysis and original treatment of the research results in the field. The analysis was carried out on the sample of the 28 EU Member States and covered the period 2007-2017. The data were statistically processed with the SPSS software, the results obtained demonstrating a close and negative connection between the public governance and the underground economy, in the sense that improving (increasing) the quality of public governance has the effect of lowering the underground economy.

Key words: governance, global governance indicators, the underground economy

JEL classification: E26, H26.

1. INTRODUCTION

The expansion of the complex phenomenon of the underground economy brings into discussion the need to know and understand the causes of the emergence and the development of its activities, in order to find the most effective means of counteracting its negative consequences. Most often, economists and politicians define the underground economy as including both the undeclared economy and the criminal economy. Specialty literature highlights several denominations describing behaviours in the sphere of underground economy, such as subterranean/hidden economy/non-observed/shadow/dual/parallel/occult/invisible/grey/illegal/counter-economy etc., all suggesting, by semantics, the negative connotations of the phenomenon (Brașoveanu, 2010) .

The phrase "institutions counts" occupies a common place in literature that seeks to identify factors that influence economic and social development in a state (Șandor & Creța, 2014).

From this perspective, it is timely and necessary to undertake an analysis of the level of underground economy and the quality of public governance, as well as research into how public governance influences the underground economy.

2. REVIEW OF THE SPECIALIZED LITERATURE

2.1. REFERENCES ON THE NATURE AND STRUCTURE OF THE UNDERGROUND ECONOMY

Historically speaking, to a greater or lesser extent, the underground economy is a permanent presence in any economy in the world, regardless of its level of development, its existence being

directly related to the two components indispensable to any economic activity: man and the state, or in other words, human nature and human condition, directly influenced by the quality of public governance (Voicu, 2012). Table no.1 summarizes the main causes (grouped by their source) and the effects of the underground economy.

Referring to "the informal economy", the European Commission considers it "part of the economy - that is, not regulated or protected by the State" (European Commission, 2018).

Table no.1. Causes and effects of the underground economy

Causes related to	human nature	a) natural freedom and free will; b) individualism (personal interest above all); c) the sense of private property above public property and citizenship duties; d) tax response; e) state confidence and the purpose of the tax system; f) the temptation of the higher profit margin; g) fiscal morality and civic spirit;
	public authority	a) the lack or ambiguity of legal regulations or, on the contrary, the <i>inflation</i> of normative acts; b) ineffectiveness and inefficiency of tax administration; c) tax pressure above the tax acceptability threshold (Dinga, 2009); d) insufficient cross-monitoring of economic activities; e) the inability of the control bodies to identify underground activities; f) Excessive bureaucracy and high costs of legal records; g) the inability of authorities to ensure fair competition in the economy
Effects on the	market	a) imbalance of demand and supply on the "spot" market; b) the imbalance of the labour market; c) the emergence of parallel markets for goods and services; d) the occurrence of parallel prices for those goods or services;
	visible economy	a) imbalance of the private sector (saving, investments, etc.); b) changing consumer behaviour;
	state budget	a) reducing budget revenues by circumventing tax obligations; b) increase of budget expenditures by indirect tax refunds to fraudulent subjects;

Source: own processing

Some authors such as Smith (1994), Lubell (1991), Feige (1994), Lippert and Walker (1997) opt for a broader meaning in defining the underground economy, including all outputs of goods and services, legal or illegal, totally or partially undeclared. Other authors (Schneider and Enste, 2006; Schneider et al., 2010-2016) give a narrower meaning to the concept, referring only to the licit goods and services market deliberately hidden to public authorities to avoid tax obligations and administrative (not including illegal activities or "informal domestic economy").

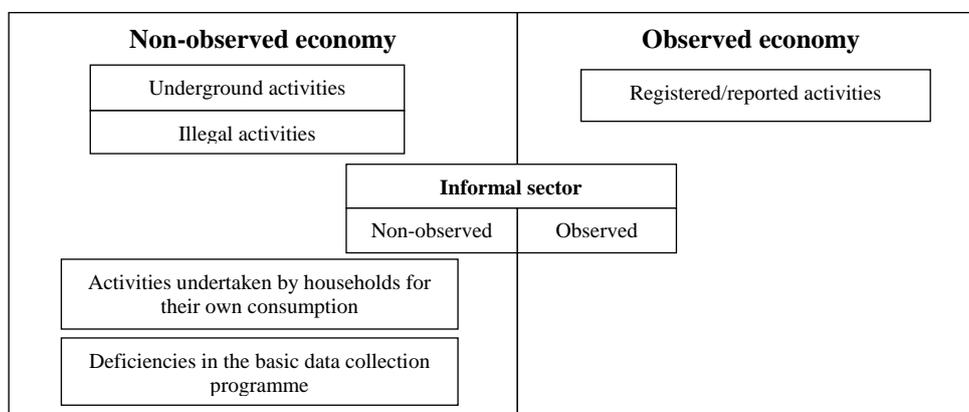


Figure no.1. Delimiting the observed from non-observed economy

Source: - EUROSTAT (2014), "Essential SNA: building the basics"

The option for the narrow definition is encountered by researchers involved in assessing the underground economy, as illegal activities, such as smuggling, drugs, money laundering, and legal activities, such as household production, are practically difficult to measure, and therefore researchers do not take them into account, when estimating the underground economy. Two main elements of the underground economy remain to be estimated: a) undeclared work (two thirds) and undeclared business revenue (one third) the purpose of non-disclosure is to obtain benefits from circumventing tax or administrative burdens (Schneider, 2016).

The structure of the economy (*lato sensu*) and the delimitation between the underground (non-observed) economy and the observed economy are synthesized in Figure no.1.

The level, impact and structure of the unnoticed part of the economy varies considerably from one country to another, depending on several aspects: the structure and development of the economy, the legislation, the organization of the national statistical system, the political interest, etc.

Experts' attempts to quantify the underground economy and governments' attempts to combat it, have proven their limits. Practically, the phenomenon does not fall within the scope of measurable, empirical evidence and the possibility of combating or eradicating. The underground economy was estimated by macroeconomic modelling methods (Ene, 2010; Manole, 2012; Schneider, 2016), assuming a certain measurement inaccuracy from the start. The main features of these methods are: 1) Methods based on direct approach: a) are specific to the microeconomic field; b) are based on opinion polls, interviews, statistics and tax audits, etc., with a high degree of subjectivity; c) the information presents the profile of the subjects involved in the underground economy and reveals the structure of the phenomenon; d) allows estimation of the level of the phenomenon, but not its dynamics over time; 2) Methods based on indirect approach: a) are specific to the macroeconomic field; b) are used to estimate the size of some components of the economy; c) the information collected at macroeconomic level, although not exclusively aimed at sizing the underground economy, allows estimates of the level and the temporal dynamics of the phenomenon based on objective logical deductions; 3) Methods based on causality - MIMIC (Multiple Indicators and Multiple Causes) or DYMIMIC (Dynamic Indicators Multiple Causes Multiple) - have been developed in response to the need to integrate the multiple causes of the manifestation and development of the underground economy with the effects generated over time.

2.2. REFERENCES TO PUBLIC GOVERNANCE

Public governance was defined as "a participatory process of governance of the social, economic and political affairs of a state, country or local community through structures and values that reflect society" (Farazmand, 2004). The quality of public governance is estimated on a yearly basis by World Bank specialists through the Worldwide Governance Indicators (WGI) - a project started in 1996 that reports aggregate and individual governance indicators for over 200 countries and territories, for six dimensions of government (Table no.2).

Each component is calculated and reported on a scale of -2.5 (weak) to +2.5 (strong) on governance performance.

Table no.2. The dimensions of public governance

The dimension of public governance	Content and significance
Voice and Accountability	The perception of the extent to which citizens have the possibility to participate in the election of the public power, as well as the freedom of expression, association, including the press freedom
Political Stability and Absence of Violence/ Terrorism	The perception of the possibility of destabilizing / overthrowing government by violent or unconstitutional means (including politically motivated violence or acts of terrorism)
Government Effectiveness	The perception of: the quality of public services and civil servants (including independence from political pressures); the quality of public policies and the credibility of the government in its commitment to these policies
Regulatory Quality	The perception of the government's ability to formulate and implement viable policies and regulations that promote the development of the private sector.
Rule of Law	The perception of the extent to which state agents trust and respect the rules of society, in particular, the execution of contracts, property rights, police and courts, as well as the likelihood of crimes and violence.
Control of Corruption	The perception of the extent to which public power is exercised for personal use (both small and large corruption).

Source: own processing

By reviewing the literature, we find that public governance is identified as an important cause of the underground economy. For example, Dreher and Schneider (2006) have pointed out that an increase in the corruption index in public institutions by one point may lead to an increase in the underground economy (expressed as a percentage of GDP) by 1.5 to 3.5 percentage points. Kirchler (2007) points out that lowering confidence in public governance has the effect of altering tax ethics and morality, which causes public authority to multiply regulatory norms. There is a vicious circle that has the effect of increasing the underground economy. The quality of governance is associated with a downward trend in individuals' tax evasion intent and engagement in underground activities (Antoci et al., 2014; Achim et al., 2016).

3. ASSESSING THE DYNAMICS AND STRUCTURE OF THE UNDERGROUND ECONOMY

With the MIMIC model and using the data provided by Schneider (2016) and Medina and Schneider (2018), we identified the level (as a percentage of Gross Domestic Product - GDP) and the dynamics of underground economies in EU countries for 2007-2017 (Strapuc, 2018), the results being graphically shown in Figure no.2. The dates shown in Figure no.2a) show that Austria recorded the lowest level of the underground economy, while Bulgaria recorded the highest level. Romania ranked in the antepenultimate place. The EU average is 19.1%. The dynamics of the phenomenon (Figure no.2b) shows a decreasing trend both in Romania and in the countries at the minimum and maximum of the interval, a trend confirmed by the evolution of the European average.

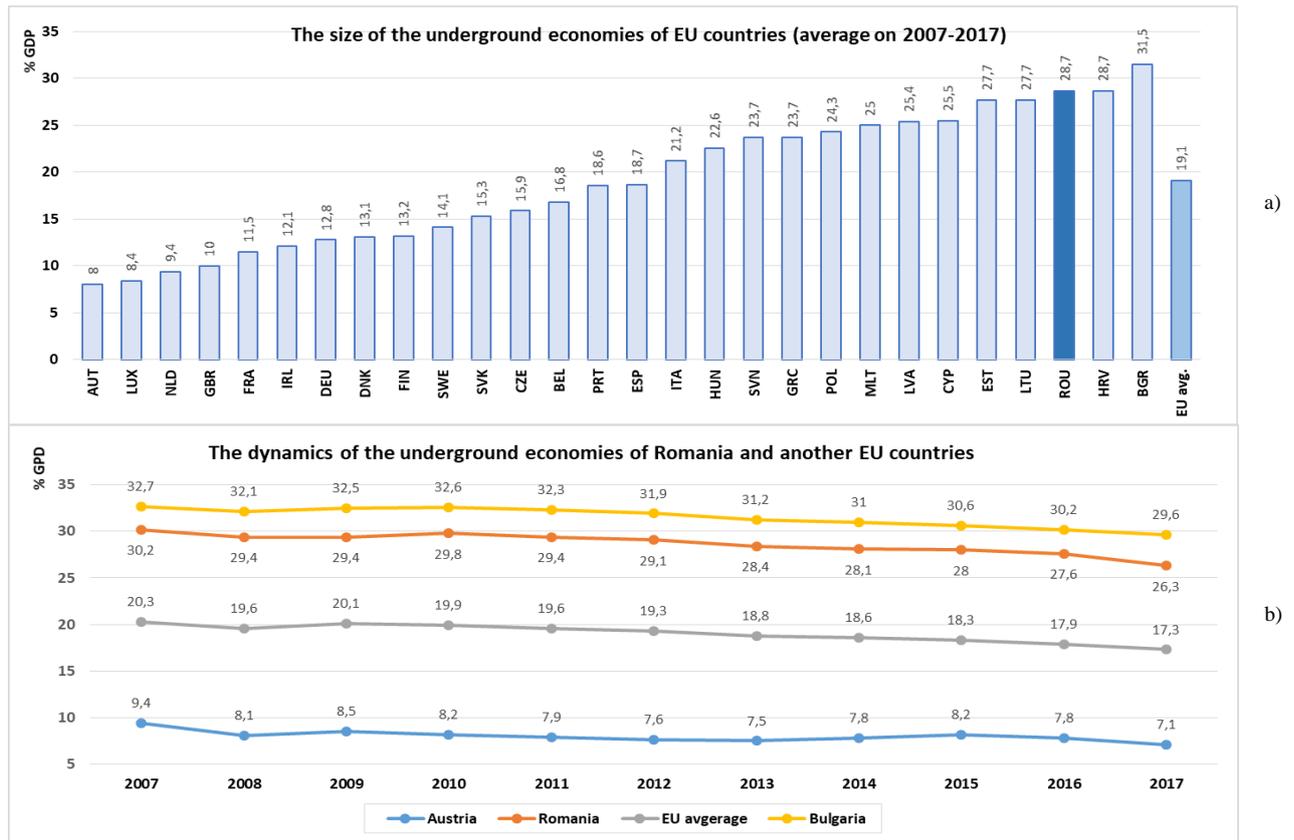


Figure no.2. The size and dynamics of the underground economies of EU countries (% GDP)
 Source: Strapuc (2018), based on data from Schneider (2016); Medina & Schneider (2018)

4. ASSESSING THE QUALITY OF PUBLIC GOVERNANCE

In order to assess the quality of governance in EU countries (particularly in Romania), we have referred to those dimensions of governance which, intuitively, can significantly influence the underground economy, namely: the government effectiveness, regulatory quality and the rule of law, on the relevant indicators, estimated by the World Bank, according to the method presented above, for the period 2007-2017. The results are presented graphically in Figure no.3.

From Figure no.3a) we find that for the period 2007-2017 the lowest effective of public governance is registered by Romania (the only one with a negative score in the EU), followed by Bulgaria and Italy. The most effective government is registered in the Nordic countries.

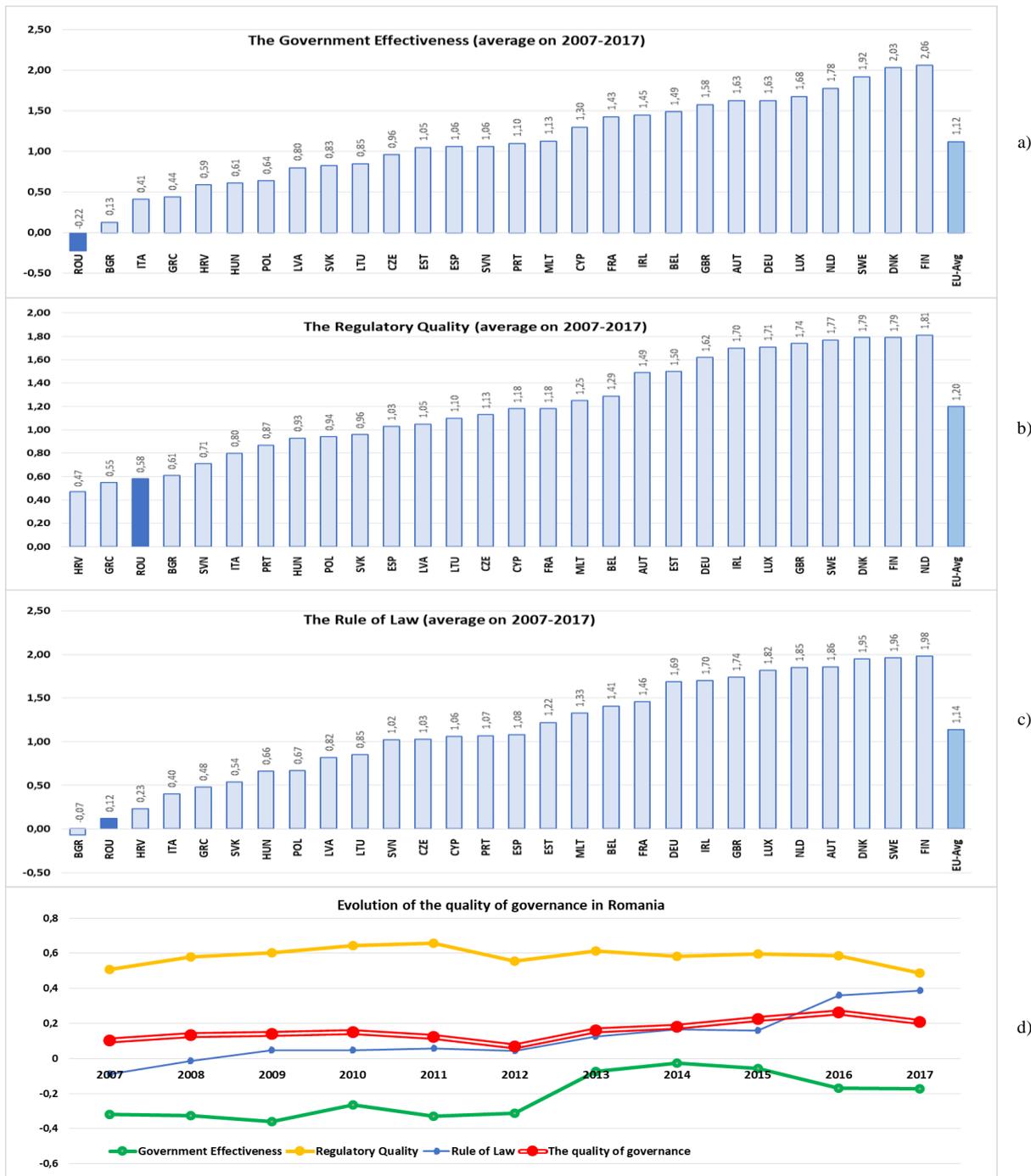


Figure no.3. The quality of public governance in EU countries and Romania
Source: own processing

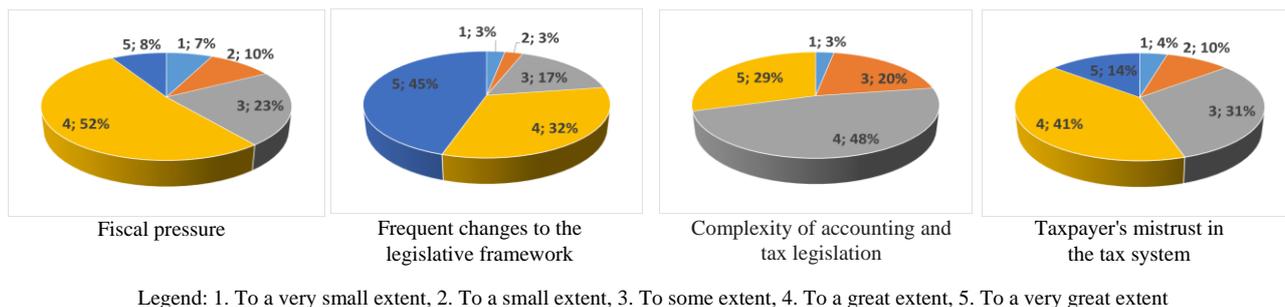
Regarding the quality of legal regulations (Figure no.3b), the lowest level is registered by Croatia, followed by Greece and Romania. The highest level is recorded by the Netherlands, preceded by the Nordic countries. From Figure no.3c), the least trust in the rule of law is registered in Bulgaria, Romania and Croatia, while at the opposite end there are the Nordic countries, Austria and the Netherlands.

For the analysed period, the evolution of the quality of governance in Romania (Figure no.3d) follows a positive trend, with some inflections (e.g. 2012, when the street demonstrations culminated with the resignation of the Government). The evolution of the three dimensions of individually analysed governance demonstrates an evolution full of inflections, in which the periods of growth are followed by decreasing stages, in the area of the measurement scale median.

5. ANALYSING THE LINK BETWEEN THE QUALITY OF PUBLIC GOVERNANCE AND THE LEVEL OF UNDERGROUND ECONOMY

The idea of researching the correlation between the quality of public governance and the level of the underground economy was born in the context of a quantitative analysis of the factors favouring non-compliance (carried out in March 2019).

Based on a questionnaire applied to a sample of 71 specialists in the field of fiscal control in the NE Region of Romania we have shown the factors influencing the temptation of taxpayers to avoid tax burdens, namely: a) fiscal pressure; b) frequent changes in the legislative framework; c) the complexity of tax and accounting legislation; d) distrust in the state and the purpose of the tax system (Figure no.4).



Legend: 1. To a very small extent, 2. To a small extent, 3. To some extent, 4. To a great extent, 5. To a very great extent

Figure no.4. Factors affecting tax attitudes and tax compliance

Source: own processing

The results of the analysis have indicated the citizen's perception of aspects of public governance. Logically, for those who have lost their confidence in the state and the finality of the tax system, or who consider excessive institutional bureaucracy, legislative clutter and/or fiscal pressure, it is very likely that they are turning to activities in the sphere of the underground economy, assumption suggesting intuitively that there is a link between the quality of public governance and the underground (shadow) economy.

The research on the relationship between public governance and the underground economy was based on the use of the statistical data processed and revealed in the preceding paragraphs for the 28 Member States using descriptive methods, correlation coefficients, regression analysis and tests to verify the results. We start from the intuitive perception, reflected also by the literature, according to which the level of the underground economy is influenced by the quality of public governance.

Working Hypothesis: A higher level of public governance decreases the size of underground (shadow) economy. We consider the public governance - an independent variable, and the underground economy - a dependent variable. To define and quantify the "public governance" we use the governance score named Worldwide Governance Indicators (WGI), considering those six dimensions of governance, referred to in the previous subparagraph. The software used for data processing is SPSS ver.22, and the results are presented in Figure no.5 and Tables no.3 and no.4.

Correlation analysis revealed that there are reverse links between the dimensions of public governance (*voice and accountability, political stability and lack of violence, government effectiveness, quality of regulation and rule of law, corruption control*) and the level of underground economy. Therefore, if public governance increases in quality, correlatively there is a decrease in the level of the underground economy.

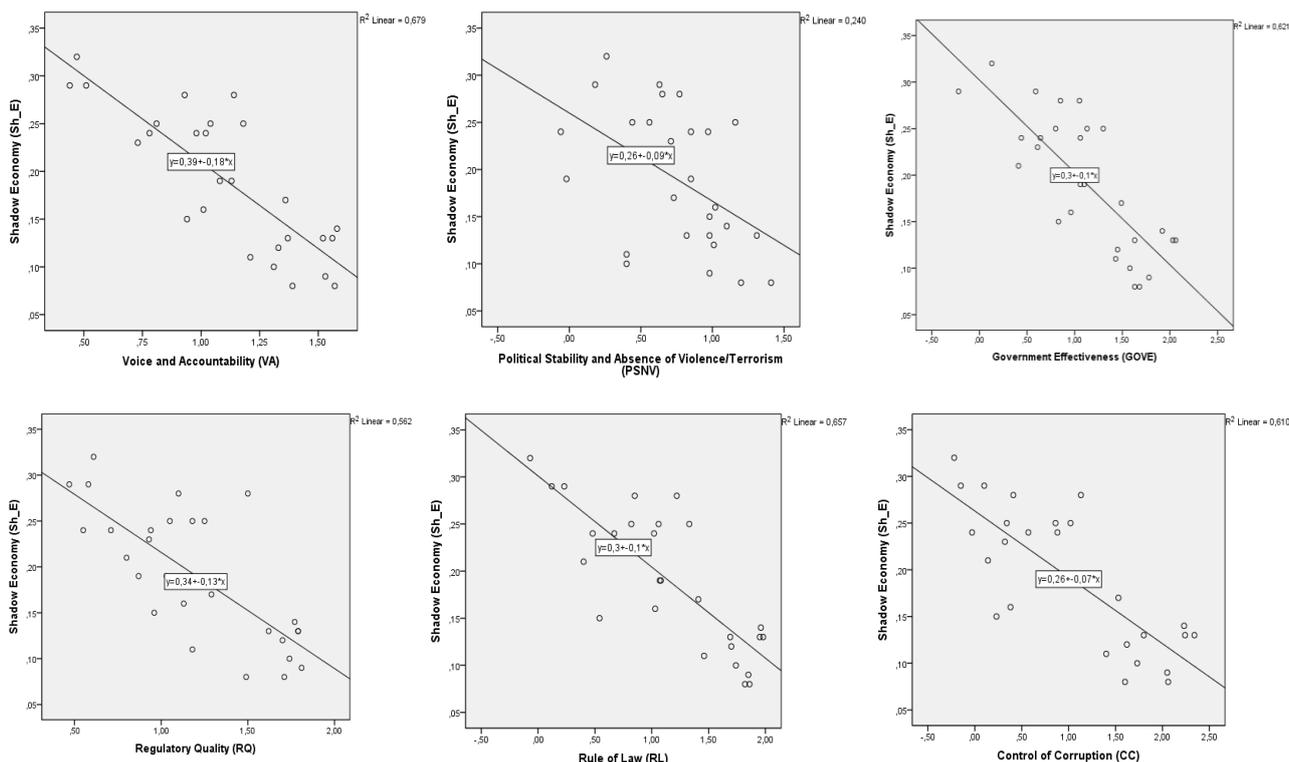


Figure no.5. The correlation between the underground (shadow) economy and the elements of public governance

Source: own processing

Correlation coefficients (Table no.3) are negative, which highlights the inverse correlation. The values recorded by these coefficients confirm a high correlation between the underground economy variable and the voting and accountability variables ($r = -0.824$), the rule of law ($r = -0.811$), the efficiency of governance ($r = -0.788$), corruption control ($r = -0.781$), the quality of regulations ($r = -0.749$).

Table no.3. The correlation coefficients and the regression between the underground (shadow) economy and the elements of public governance

		Shadow Economy (Sh_E)	
Voice and Accountability (VA)	N=28	Pearson Correlation	-,824**
		Sig. (2-tailed)	,000
Political Stability and Absence of Violence/Terrorism (PSNV)	N=28	Pearson Correlation	-,490**
		Sig. (2-tailed)	,008
Government Effectiveness (GOVE)	N=28	Pearson Correlation	-,788**
		Sig. (2-tailed)	,000
Regulatory Quality (RQ)	N=28	Pearson Correlation	-,749**
		Sig. (2-tailed)	,000
Rule of Law (RL)	N=28	Pearson Correlation	-,811**
		Sig. (2-tailed)	,000
Control of Corruption (CC)	N=28	Pearson Correlation	-,781**
		Sig. (2-tailed)	,000
Shadow Economy (Sh_E)	N=28	Pearson Correlation	1
		Sig. (2-tailed)	

** . Correlation is significant at the 0.01 level (2-tailed).

Source: own processing

The values of the linear regression coefficients (Table no.4) indicate that all 6 indicators of public governance influence the underground economy, the regression coefficients being significant at a significance threshold of 1%. Among the dimensions of public governance, the greatest

influence on the level of the underground economy has the variable called voice and responsibility (VA) which, when increased by one point, causes a decrease in the level of the economy underground by 0.181 points. Also a low trust in the state, Rule of Law, police and justice is a important motivation for the taxpayer's migration to the underground economy.

Table no.4. The correlation coefficients and the regression between the underground (shadow) economy and the elements of public governance

Model		Unstandardized Coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,391	,28		13,903	,000
	Voice and Accountability	-,181	,024	-,824	-7,418	,000
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,260	,027		9,601	,000
	Political Stability and Absence of Violence	-,093	,033	-,490	-2,863	,008
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,302	,019		15,789	,000
	Government Effectiveness	-,099	,015	-,788	-6,542	,000
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,342	,028		12,285	,000
	Regulatory Quality	-,127	,022	-,749	-5,772	,000
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,301	,018		17,053	,000
	Rule of Law	-,097	,014	-,811	-7,057	,000
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,263	,014		18,365	,000
	Control of Corruption	-,071	,011	-,781	-6,376	,000

a. Dependent Variable: Shadow Economy (Sh_E)

Source: own processing

We conclude, at the end of the paragraph, highlighting the negative relationship between the components of public governance and the underground economy.

6. CONCLUSIONS

The underground economy has been, is, and will always be, a concern for governments in the world and a challenging topic for the academic world to debate. Reducing the phenomenon of underground economy to an acceptable natural rate is directly and indirectly linked to the quality of public governance. The main conclusions are:

- Regardless of the level at which it is analysed (national, European, global), the actual (exact) size of the underground economy remains unknown; this study, like other studies, only reports estimates of the size and dynamics. Even under these circumstances, the utility of research can't be challenged as long as research results can serve as a reference for appropriate corrective action.
- In the EU countries, the underground economy, estimated as a percentage of GDP, varies between 9.4 and 32.7% in 2007, and between 7.1 and 29.6% in 2017. The average of the European Community is 19,1% of GDP, suggesting that, in the period under review, the fifth part of EU GDP was, on average, lost due to the underground economy.
- On states and regions, the range of information provided by the study varies from gloomy shades (states whose underground economy has reached almost one third of gross domestic

product, as well as Romania) to optimistic tones (where the underground economy below 10% of GDP, namely Luxembourg, Austria). On a spatial basis, there is a concentration on South-East Europe of the countries with a large share of the underground economy, in contrast to the northern and south-western countries where the underground economy is at much lower levels.

- The main determinants of the emergence and development of the underground economy are: the economic system; fiscal and moral pressure; the social system; the cultural system; the quality of public institutions (including officials serving them); legislation; the international context; local governance features, etc.
- There is a negative relationship between the quality of public governance and the underground economy, in the sense that improving (increasing) the quality of public governance has the effect of lowering the underground economy. In this context, it is noted that states with high levels of quality of public governance record low levels of the underground economy and vice versa.

Future research boundaries and directions. The present study is based on information from recent research in the field, but the relationship between the underground economy and governance has been established on a relatively small sample (the 28 EU Member States), using the average of the variables, which may constitute a opinion criticizes a limit of research. However, the study may be an orientation starting point for a future research, the results of which can be improved by expanding the analysed sample and by introducing new control variables into the analysis, such as fiscal pressure, financial satisfaction etc.

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