



Munich Personal RePEc Archive

Causes and consequences of underground economy

Eugenia-Ramona Mara

Babes Bolyai University of Cluj-Napoca, Faculty of Economics and Business Administration

2011

Online at <https://mpra.ub.uni-muenchen.de/36438/>

MPRA Paper No. 36438, posted 6 February 2012 16:22 UTC

CAUSES AND CONSEQUENCES OF UNDERGROUND ECONOMY

MARA EUGENIA RAMONA¹

“BABEȘ-BOLYAI” UNIVERSITY, FACULTY OF ECONOMICS AND BUSINESS
ADMINISTRATION

58-60 TH. MIHALI STREET, CLUJ-NAPOCA, ROMANIA

ramonanandra@yahoo.com

Abstract:

In this endeavor an attempt has been made to investigate the major causes and factors of influence of the underground economy. Our analysis is based on the study of tax payer behavior and taxation system pattern. The paper examines how social institutions and government policies affect underground economy. All these factors have an important impact on the level and size of underground economy and determine the consequences of this phenomenon.

Key words: *underground economy, tax burden, corruption, taxation system*

JEL classification: *O17, O52, H12*

Introduction

Underground economy - the complex and dynamic phenomenon of the contemporary world - a universe that evolves complementary or contradictory to the formal economy, may take on a case by case, forms of progress or, conversely, harmful, very serious, jeopardizing the economic and social development.

A large part of market goods and products comes from the underground economy. Much of the money in circulation has their origin in the activities of underground economic activities. The underground economy coexists with the official economy and between them are very tight correlations. It exists in most countries in the world and generally has the same causes: inadequate tax systems, excessive state involvement in the economy and the lack of coordination in establishing economic policies.

The shadow economy affect the market functions as a phenomenon of erosion of the formal economy because speculate any opportunities generated by non-synchronization and indecision, following infiltration into any space left open by it. In the evolution of the informal economy during the past ten years, can be distinguished three stages: the construction of underground structures, developing networks and focus decision.

The concept of underground economy

For a better understanding of this phenomenon, in this study we tried to clarify the concept of shadow economy, major causes and characteristics of this phenomenon and finally, implications on the official economy.

In the economic literature it can be find a lot of expression for this type of economy. It was called underground economy, occult, invisible, black, gray, ghost, unofficial or informal. Regardless of how it was called, this economy has been

¹*Acest articol a beneficiat de suport financiar prin proiectul „Studii Post-Doctorale în Economie: program de formare continuă a cercetătorilor de elită – SPODE”, contract de finanțare nr. POSDRU/89/1.5/S/61755, proiect finanțat din Fondul Social European prin Programul Operațional Sectorial Dezvoltarea Resurselor Umane 2007-2013*

understood by all authors doing business as a whole held in violation of social norms and economic laws, aiming to obtain income that can not be controlled by the state. The scope of activities that may include the underground economy is very comprehensive, which is justified by its fluidity, dynamics and flexibility in relation to the real economy.

The structure of the underground economy includes informal economic reporting system that ensures satisfaction of the profit interests of the economic system due to imperfections.

Underground production represents the area of production activities that are not directly observed due to: economic reasons as activities carried out with the deliberate desire to avoid taxes and social contributions in favor of employees or, also, to avoid observing law provisions concerning minimum wages, the number of work hours, job safety, etc.; and, statistical reasons as production activities that are not registered due to failure to fill out administrative forms or statistics questionnaires because of a lack of sensitivity to statistics and/or shortcomings in the statistics system, difficulty in grasping the changes of a rapidly evolving productive system characterized by small productive activities that are often not detectable with the traditional survey techniques (Dell'Anno, 2007).

Tabel 1. Types of economic activities involved by underground economy

Type of Activity	Monetary Transactions		Non Monetary Transactions	
ILLEGAL ACTIVITIES	Trade with stolen goods; drug dealing and manufacturing; prostitution; gambling; smuggling; fraud; etc.		Barter of drugs, stolen goods, smuggling etc. Produce or growing drugs for own use. Theft for own use.	
	Tax Evasion	Tax Avoidance	Tax Evasion	Tax Avoidance
LEGAL ACTIVITIES	Unreported income from self-employment; wages, salaries and assets from unreported work related to legal services and goods	Employee discounts, fringe benefits	Barter of legal services and goods	All do-it-yourself work and neighbour help
1. Structure of the table is taken from Lippert and Walker ([1997], p. 5) with additional remarks.				

The shadow economy may take different forms and can be treated with different methods and different ways of study. One theory says that the underground economy is responsible for losses to the assembly and the role has increased inequality between different groups of people. Another theory says that the underground economy is just a spontaneous response to the inability of public power to ensure the conditions necessary for an efficient business environment and conditions for survival of disadvantaged groups.

Regardless of the importance of the two theories economy into the economic system should be analyzed from the truth that is obvious: the underground economy is part of the national income which is not officially recorded but constitute real and material quantities of goods and services in one form or another within the national and international economic system. The shadow economy is extremely versatile; it adapts its forms and methods of action based on socio-economic context in which it is located. In countries with developed market economy, underground economy is a means of avoiding the tax burden, social burden and excessive government intervention. In countries with centralized economies (former socialist countries) it is considered that the underground economy was a means of correcting weaknesses planned resource allocation system, a quasi-biological revealing a response for a rigidity of centralized control and ideological means- bureaucracy. In developing countries (considered the

"third world") to maintain pre-capitalist relations reminiscent type of natural economy, the failure of chronic unemployment and rural exodus in the inability of the domestic capital accumulation economy turns into a lifestyle that helps survival a population with no hope of employment in an orderly modern market system and competitive.

The causes and characteristics of the underground economy

The shadow economy may be present in all sectors of the economy, which can generate extremely difficult situations for the general development of the economy itself. The main causes of the underground economy are considered:

- excessive taxation - tax system has been identified as one of the main factors for the emergence and development of the economy;
- government regulations for certain types of activities - increase in the intensity of legal regulations, often measured by their number, reduces freedom of action of individuals employed in the formal economy, thus leading to a significant increase in labor cost in the formal economy, costs it is the true incentive to work in the informal economy;
- weak legal system - as long as it works on the principle of rule of law leaves enough loopholes to get away with specific operating businesses in the economy.
- fear of losing some welfare benefits provided by the state;
- much flexibility in the use of labor;

The economic literature distinguishes three types of causes of the shadow economy (Schneider, 2009):

- (1) The burden of direct and indirect taxation, both actual and perceived: a rising burden of taxation provides a strong incentive to work in the shadow economy;
- (2) The burden of regulation as proxy for all other state activities. It is assumed that increases in the burden of regulation give a strong incentive to enter the shadow economy;
- (3) The tax morality (citizens' attitudes toward the state), which describes the readiness of individuals (at least partly) to leave their official occupations and enter the shadow economy: it is assumed that a declining tax morality tends to increase the size of the shadow economy.

The implications of the underground economy

One of the main negative effects of the underground economy is how it may affect a state's fiscal health. Financially there are theories that say that if governments would be able to control manifestations of the underground economy, many public sectors' fiscal issues (e.g. debt) could be reduced.

The shadow economy has a strong social impact and because it is closely linked to a number of phenomena such as corruption, crimes of various types, drugs, mafia-type organizations, labor exploitation through a stock black money laundering, human rights violations environmental pollution, etc. Politically, the shadow economy is seen as having negative effects because it emits false signals and induces decision makers as inadequate macroeconomic strategy. As a consequence, any macroeconomic policy on the tax system, unemployment, inflation, savings, social security, productivity and competitiveness is weak.

Despite these adverse effects, the economy has positive side effects: has a strong economy to absorb potential economic and political shocks, as a reserve of flexibility when passing certain activities in the unofficial official business.

Therefore absorb some of the black economy labor force in the formal sector and contribute to offsetting the existence of a variety of products on the market, thus

acting in the direction of balancing the various markets. Failure to pay tax obligations increase the budget deficit and consequently lead to increased taxes and contributions that will have to pay, in particular, honest taxpayers and, most often the poorest.

Some specialists consider that the official activities of the underground economy provides flexibility and adaptability which it lacks, supplying areas that do not cover them, providing employment to the unemployed and acting as a remedy in times of recession. Milton Friedman said that the underground economy is a "safety valve" for the formal economy in crisis.

Certainly empirical studies have shown that at least two thirds of the income earned in the shadow economy is quickly spent in the official economy. And in Germany and Austria, two thirds of the value added produced in the shadow economy would not be produced at all if the shadow economy did not exist. In the United Kingdom during 1960–84, earnings in the hidden economy significantly raised consumer spending, especially on durable goods and services. The positive effects of such expenditures on economic growth and on revenues from indirect taxes certainly bear keeping in mind.

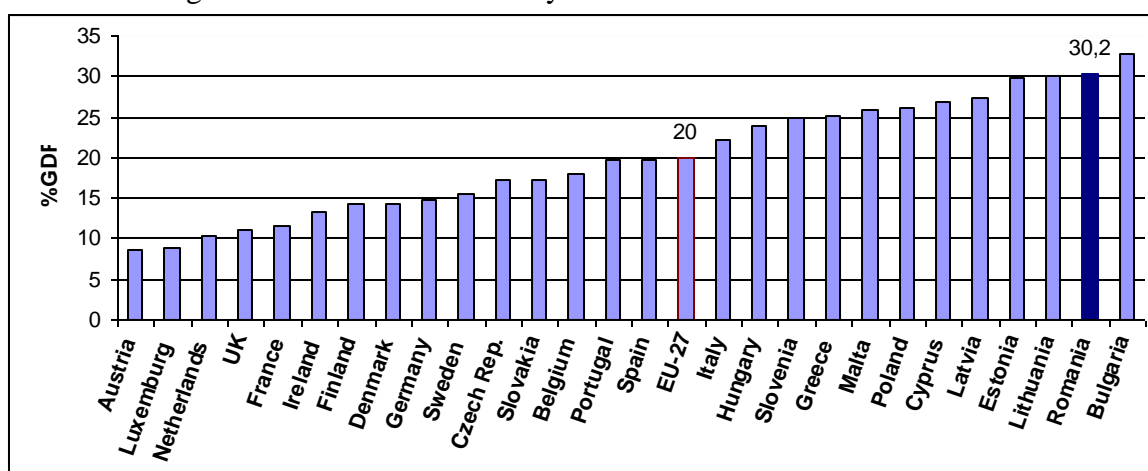
Transactions in the shadow, rather than the official, economy keep state revenues lower than they otherwise would be, and in turn reduce governments' ability to provide goods and services. Governments may respond by raising individual and corporate tax rates. Higher taxation—especially when combined with a perceived deterioration in the quality of public goods and public administration, or under investment in public infrastructure—motivates firms and workers even more strongly to move into the shadow economy, perpetuating the cycle.

Methods and results

Our analysis is based on study causal-effects of the underground economy in EU member states in 2009. First part consider some factors for determining the underground economy like tax burden, because this is the major factor of this kind of economy. Other factors are fiscal freedom and freedom of corruption, also considered important for dynamics of underground economy. The last part of the study is considering the effects of the underground economy on GDP and unemployment rate.

In view of a complete understanding of the size of the underground economy in EU countries, will still involve the next graph showing the estimated amount for 2010 economy as a percentage of GDP in Member States of EU.

Figure 1. The shadow economy in the EU Member States in 2010



Source: Schneider, 2010

In 2010, the underground economy, in our country accounts for 30.2% of GDP, exceeded only by Bulgaria. The average for the EU27 Member States is 20% of GDP, which makes our country to be 10 percent above average. The difference between the share of shadow economy in GDP in Romania and the European average is somewhat justified by the fact that Romania is a country emerging as one would expect that a value above the EU average. It is an approach to the European average, which would bring considerable sums from the state budget, unless this would increase fiscal discipline. Unfortunately, this perspective is more distant if we think of taxation in our country increasingly pronounced. As regards the other Member States, we see that the share of shadow economy is less than 15% of GDP in the Nordic countries, Austria, Germany, France, Ireland, Great Britain, Luxembourg and the Netherlands. Even if these countries the values are low, the share of underground economy must be taken into account, considering that the lowest value of it is still significant, being 8.67% in Austria.

In the next table it is presented a synthesis of all indicators used by our study for reflecting the correlations. Data for underground economy are from Friedrich Schneider (2010) computed using the MIMIC model.

Tabel 2 Indicators of underground economy modeling

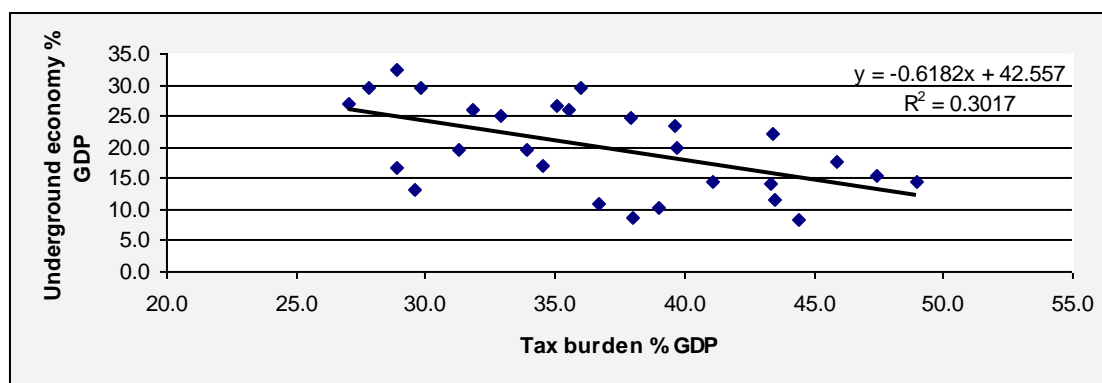
2009	Underground economy % GDP	Tax burden %GDP	Index of Fiscal Freedom	Freedom From Corruption	Unemployment rate %	GDP per capita Euro
EU 27	19.8	39.7			8.9	23600
BE	17.8	45.9	41.5	71	7.9	31400
BG	32.5	28.9	86.2	41	6.8	
CZ	16.9	34.5	80.2	52	6.7	13100
DK	14.3	49.0	35.4	94	6.0	40300
DE	14.6	41.1	58.5	78	7.5	29300
EE	29.6	36.0	81.5	65	13.8	10300
IE	13.1	29.6	69.2	75	11.9	35700
EL	25.2	32.9	66.5	46	9.5	20800
ES	19.5	31.3	58.6	67	18.0	22900
FR	11.6	43.5	50.9	73	9.5	29600
IT	22.0	43.4	55.8	52	7.8	25200
CY	26.5	35.1	76.6	53	5.3	21200
LV	27.1	27.0	82.3	48	17.1	8200
LT	29.6	29.8	87.6	48	13.7	7900
LU	8.8	38.0	66.3	84	5.1	76500
HU	23.5	39.6	70.6	53	10.0	9300
MT	25.9	35.5	70.6	58	7.0	14200
NL	10.2	39.0	50.9	90	3.7	34600
AT	8.47	44.4	49.9	81	4.8	32800
PO	25.9	31.8	69	42	8.2	8100
PT	19.5	33.9	61.6	65	9.6	15800
RO	29.4	27.8	87	37	6.9	5500
SI	24.6	37.9	62.9	66	5.9	17300
SK	16.8	28.9	84.1	49	12.0	11600
FI	14.2	43.3	64.3	94	8.2	32100
SW	15.4	47.4	35	93	8.3	31300
UK	10.9	36.7	61	84	7.6	25300

Source: Friedrich Schneider (2010), Eurostat, Heritage Foundation

Tax burden is provided by Eurostat, computed as % in GDP and includes the direct taxes, indirect taxes and social contributions. Fiscal freedom is a measure of the burden of government from the revenue side and is a part from the global indicator Index of freedom. . It includes both the tax burden in terms of the top tax rate on incomes (individual and corporate separately) and the overall amount of tax revenue as a percentage of GDP. Thus, the fiscal freedom component is composed of three quantitative factors: top tax rate on individual income, top tax rate on corporate income, and total tax revenue as a percentage of GDP. In scoring the fiscal freedom component, each of these numerical variables is weighted equally as one-third of the factor.

Freedom from Corruption is another indicator from Index of Freedom. Corruption erodes economic freedom by introducing insecurity and uncertainty into economic relationships. The score for this component is derived primarily from Transparency International's Corruption Perceptions Index (CPI) for 2007, which measures the level of corruption in 179 countries. This procedure considers the extent to which corruption prevails in a country. The higher the level of corruption is, the lower the level of overall economic freedom and the lower a country's score.

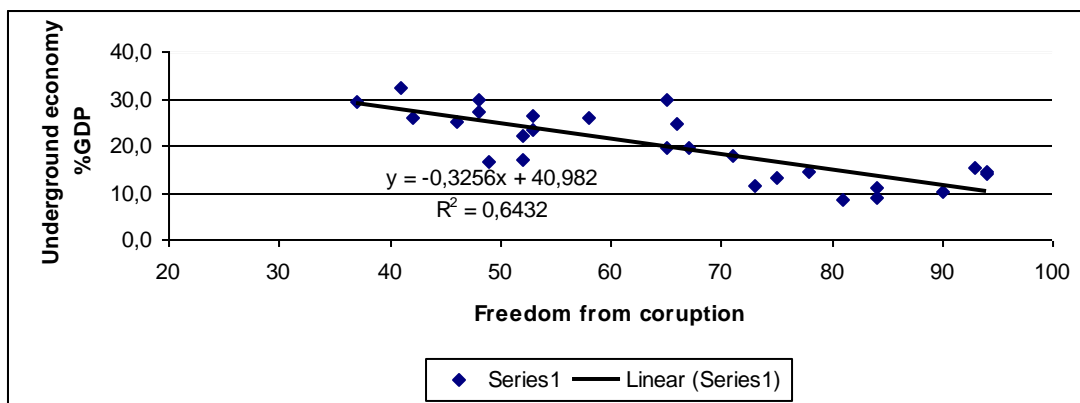
Figure 2. Correlation between tax burden and underground economy in EU27 countries in 2009



Source: own calculation based on Table 2

Tax burden is a determinant factor of underground economy and if the tax burden increase than also the underground economy increase. But from the previously figure we can identify an indirect correlation between this two indicators. How can be explained this fact? In the European Union the tax burden is very high, especially in Nordic countries -almost 50%, and the underground economy is very low, between 15-20%. There is another factor which has a major influence on the underground economy - tax morale, which is very high in Nordic countries and in the German nations. The behavior of the tax contributors is very important for the size and growth of underground activities.

Figure 3. Correlation between corruption and underground economy in EU27 countries in 2009

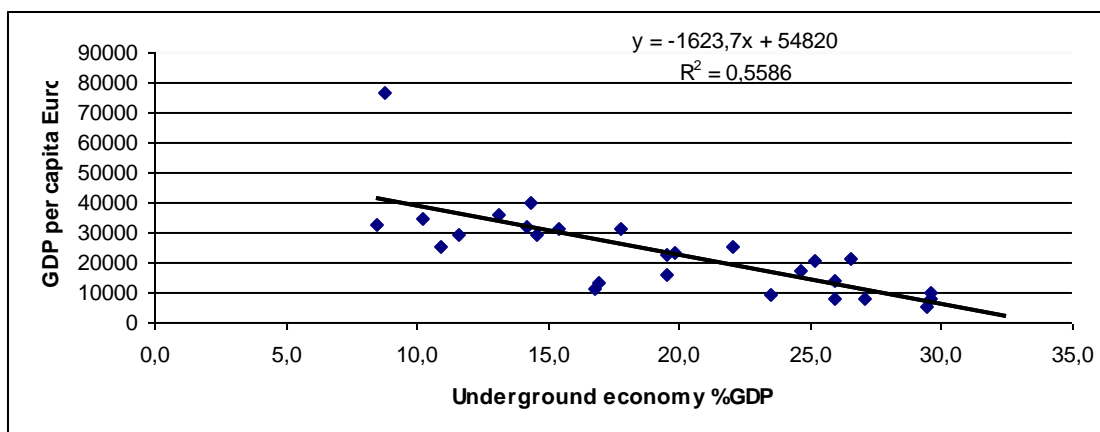


Source: own calculation based on Table 2

If there is a high level of corruption given by a low index of freedom from corruption than the underground economy is very high. And the most important is the fact that between corruption and underground economy is a correlation of 60%.

Considering the effects of underground economy we choose first impact on GDP per capita. We have an indirect correlation because if the underground economy is high than the GDP per capita is low (for instance Bulgaria and Romania with the lowest GDP per capita and with huge levels of underground economy).

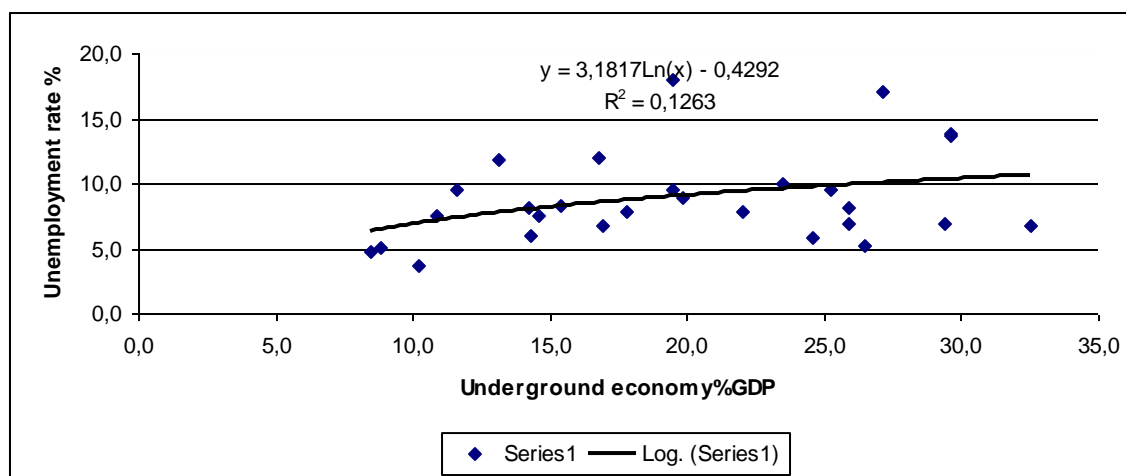
Figure 4. Correlation between underground economy and GDP per capita in EU27 countries in 2009



Source: own calculation based on Table 2

The impact of underground economy is very important on GDP per capita ($R^2=0.55$) and any increase of underground activities means a decrease of official GDP.

Figure 2. Correlation between underground economy and unemployment rate in EU27 countries in 2009



Source: own calculation based on Table 2

The underground economy has a low impact of unemployment rate because the labor force of the hidden economy is very heterogeneous workers; one part is classified as unemployed because they are components of the official labor force, the other part of 'hidden' workers is composed of retired people, minors and housewives who are not part of the official workforce. Furthermore, there are people who have both an official and unofficial job at the same time.

Conclusions

As a final conclusion of our study we can say that the most important factors which stimulate the underground economy are corruption and tax morality. The underground economy has not only negative effects but also positive one like simulative effects on economic growth and increasing the monetary

REFERENCES

1. Dell'Anno, R., 2007, The shadow economy in Portugal: an analysis with the MIMIC approach, Journal of Applied Economics. Vol X, No. 2 (Nov 2007), 253-277
2. Schneider, F., & Enste, D., 2002, Hiding in the Shadows: The Growth of the Underground Economy. Economic Issues No. 30: The International Monetary Fund, <http://www.imf.org/external/pubs/ft/issues/issues30/index.htm>.
3. Schneider F., 2010, Size and Development of the Shadow Economy of 31 European Countries from 2003 to 2010, ShadEcEurope31_2010.doc
4. Heritage Foundation, 2009, Index of Economic Freedom, Methodology for the 10 Economic freedoms, <http://www.heritage.org/index/download>