
Understanding the Underground Economy

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Abstract:

The article deals with interdisciplinary areas of interest in the understanding and the cognition of the underground economy in Russia. The purpose of the article is to identify possible cross-circuits and areas of interdisciplinary research in the underground economy in Russia and abroad.

The object is the underground economy as part of criminal and post-criminal reality. The subject is the laws governing the development and functioning of the underground economy both in a criminal and post-criminal reality, as well as in legal economic relations.

Hypothesis is the application of economic knowledge in the fight against the underground economy as a priori forensic intention, which requires integrative approaches to understand the activities and the behavior of the criminals.

The article reveals systemic methods of dealing with the underground economy and the phenomena accompanying it, and the techniques and methods of criminalistics and economic sciences are shown as the core of these methods.

Keywords: *Underground economy, shadow economy, financial development, economic growth, post-criminal activity and behavior, criminalistic methods, corruption.*

JEL Classification Codes: E62, K14, K42, O17.

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1. Introduction

The underground economy is one of the most complex phenomenon of modern reality. The behavior of criminals is a category filled with economic and legal sense. So, the 1992 Nobel laureate Gary Becker was one of the first to apply economic concepts of costs and profits to understanding the behavior of criminals (Becker, 1974.). The size of the underground economy should be viewed as an estimate of the aggregate demand equation for a given calculation, and secondly, the calculation of the cost of the underground economy, which, in our opinion, includes the cost of preparing, committing, and hiding a crime. In modern economic thought there is an opinion that with the development of society, the destructive manifestations of this sector of the economy, like itself, will be minimized or disappear. However, recent authoritative studies of the scale and tendencies of its functioning proved quite the opposite (Medina and Schneider, 2018; Faye and Chua, 2017). The basic economic provisions on the underground economy are of particular importance in searching for forensic intentions (Budik and Schlossberger, 2015).

From our point of view, scientific researches responding to new economic challenges and legal threats (financial development, digital economy, cybercrime, eco-terrorism, etc.) should be particularly relevant and scientifically productive (Grima *et al.*, 2017). The circuits of new intersecting questions are most clearly reflected in the following works. Thus, Capasso and Jappell, show that financial development (a reduction in the cost of external finance) can reduce tax evasion and the size of the underground economy (Capasso and Jappell, 2013).

Other authors touch upon the relationship between the underground economy and financial development in a model of tax evasion and bank intermediation. Agents with heterogeneous skills seek loans in order to undertake risky investment projects. Asymmetric information between borrowers and lenders implies a menu of loan contracts that induce self-selection in a separating equilibrium (Blackburn *et al.*, 2012; Denisova *et al.*, 2017; Ivanova *et al.*, 2017).

Nchor and Konderla (2016) use the approach to foreign exchange demand “it measures the size of the underground economy in two stages: a) the econometric estimation of an aggregate money demand equation b) the calculation of the value of the underground economy through the quantity theory of money”.

We believe that all the research of the next five years will be associated with such a negative phenomenon penetrating into all areas of society like the digital shadow economy. The entry of the world community into the era of the digital economy sets high demands on the effectiveness of state law enforcement systems, the modernization of which is possible only on the basis of knowledge of the laws governing the development of society, law and the economy. Some authors made developments in the field of digital shadow economy (Gasparyniene and Remeikiene, 2016; Gasteratos *et al.*, 2016).

The same authors continued studying the problem of increasing transfer of transactions to electronic space determines the growth of the number of illegal digital operators and promotes consumers' involvement in digital shadow trade. Definition of digital shadow activities as illegal ones, development of the efficient legal framework, containing clearly established criminal and/or administrative responsibility for a consumer as a party of digital shadow transaction, public announcement and availability of the information on illegal e-traders in e-space, availability of appropriate protection software, more intensive supervision and control, establishment of e-police department and assurance of the sufficient number of supervising officers can be considered the most efficient measures of digital shadow economy prevention (Gasparyniene and Remeikiene, 2016).

Thus, on the basis of the foregoing, we believe that the financial development of the state and society directly depends on reducing tax evasion and reducing the size of the underground economy. At the same time, state financing of inflation is necessary in the presence of the tax evasion sector and the underground economy. One of the trends of our research is the problem of the possibility of reducing the manifestations of the underground economy. For example, different kinds of policy to reduce the underground economy and to enhance development are being studied (Carillo and Pugno, 2004).

We agree with the opinion of specialists who note that fiscal policy experiments suggest that a moderate tax cut, along with a stronger effort in the monitoring process, causes a sizeable reduction in the size of the underground economy and provides a positive stimulus for the regular economy (Orsi *et al.*, 2014).

Others think that, an increase in the effective tax rate has a greater effect than a decrease on the underground economy (Han-Min Wang, Hui-Kuang Yu, Heng-Chang Hu, 2012). Empirical evidence shows that increased competition is indeed correlated with an expansion of the underground economy. The effect is strongest in low-tax, high-corruption countries that do not provide the public services which make it worthwhile for firms to remain official despite growing competitive pressure (Karlinger, 2009).

In the Russian economic literature, the phenomena analyzed are disclosed in the category of the shadow economy and have been thoroughly studied, although they are not always consistent with the current domestic and international law, as well as law enforcement and economic activity. We note that the term 'underground economy' is considered to be new, while it is practically not used in Russian sources.

For example, Kulik (2016) singled out the following negative trends in the development of the shadow economy in Russia: avoidance of taxes, outflow of the financial capital abroad, conducting double-entry bookkeeping by enterprise structures, shuttle trade, the hidden unemployment, corruption growth, trade in

narcotic substances and the weapon. The shadow economic relations are the engine of corruption activity which in turn creates favorable conditions for development and functioning of shadow economy. Scale of a shadow segment directly depends on corruption of state bodies and the power. The shadow relations promote formation of a corruption component in spheres of policy and economy in which they gain the greatest distribution. At the same time corruption promotes development of new types and forms of a shadow segment, and also finds and broadens spheres of their mutual distribution.

2. Methods

Various statistical sources and scientific research include terms that are used in a broad sense and could be attributed to the field of the underground economy, denoting similar in meaning and intersecting concepts, but nevertheless, differing among themselves: hidden (shadow) activity, informal activity and illegal activity. That is, each of the sciences (legal, economic) uses its own terminological framework corresponding to its own field of subject research.

Hidden economic activity includes in most cases legitimate economic activity that is hidden or understated by the entities that carry it out in order to evade taxes (Vardanyan, 2016), social contributions or fulfill certain administrative duties, other norms. Informal activities are carried out mainly on a legal basis by individual producers or enterprises belonging to individuals, households, which are often not formalized in the established manner, based on informal relations between participants in production. Illegal activity is outlaw, as it covers types of production of goods or services that are directly prohibited by law. Thus, the shadow economy is not understood in macroeconomic statistics as synonymous with criminal. Most of the production included in the shadow economy is completely legitimate.

In this study, we use these concepts, since we consider them to be the most developed in connection with the application in building the system of national accounts in official statistics and in documents of the international labor organization. However, one should not lose sight of non-economic activity, which does not create new value, but means redistributive operations (thievery, heist, fraud, corruption, etc.). Therefore, in general, we refer to manifestations of the underground economy the following:

1) unrecorded economic activity:

- unregistered production (hidden production, informal production, illegal production);
- hidden income (hidden entrepreneurial income, hidden wages, income from informal activities - "mixed income");

2) non-economic criminal actions leading to the redistribution of national wealth;

3) other activities and behaviors of persons with criminal and post-criminal reality as part of the underground economy.

So, the underground economy in a broad sense is the production, distribution, exchange and consumption of inventory, money, services, works that are not controlled by society and are hidden from government. Since the underground economy is a hidden, officially unrecorded economic activity, the determination of its scale becomes one of the most important tasks of economic research. In one of the latter researches conducted under the flag of the International Monetary Fund (IMF), a new MIMIC model (Medina and Schneider, 2018) was proposed, but the legal aspects, unfortunately, are not taken into account even in such a respected source.

In this article, we have presented a study of more than 200 criminal cases involving crimes related to manifestations of the underground economy (commercial bribery, counterfeiting, falsification of banking documents and securities).

3. Results

Cross-study of economic and legal problems and forensic intentions allowed us to obtain the following results and conclusions. The results of the study of 158 countries for the period 2004-2015. Medina and Schneider (2018) revealed that Switzerland is the country with the smallest size of the shadow economy (7.24% of GDP on average for the entire period), the highest figure is for Georgia (64.87% of GDP). Russia is represented by experts with a figure of 38.42% of GDP.

A slightly different result came out in the published forecast of the size of shadow economies in 28 countries published by the Association of Chartered Certified Accountants (ACCA). The forecast states that the global index in 2020 will be 22.11% of GDP, and in 2025 - by 0.72 percentage points less despite the fact that in 2017 it was 22.5%. The highest indicator among the countries studied is spotted in Azerbaijan (66.12% of GDP), the smallest one is in the United States (7.69% of GDP). In Russia, the shadow sector of the economy is 39% of GDP. At the same time, according to experts, the Russian shadow sector will not lose grounds and by 2025 it will generate a result of 39.3% of GDP. However, when comparing the nominal amounts of GDP and the size of the shadow economy across countries, we found that in Russia its scale is estimated at 530.7 billions of dollars, and the United States' one is 1,444.68 billions of dollars, i.e. 2.7 times higher.

Analysis, knowledge and methods of economics allow us to construct forensic versions in a timely manner, detect, record, withdraw and preserve traces of criminal and post-criminal activities in the field of underground economy. Features of crimes reveal certain aspects of the phenomena and processes of the underground economy (especially personality traits, *modus operandi*, *modus vivendi*, traces, circumstances of the commission, and a number of others).

Personality traits cause behaviors in an underground economy. For example, in counterfeiting, the results of the study showed that the majority of crimes in this

category are committed by persons aged 30 to 49 years (42%). A slightly lower figure is observed among criminals aged 18 to 24 years old (33%), 15% are persons aged 25-29 years old and a small proportion are people over 50 years old. The higher the education of the subject, the less likely it is to fall into the field of law enforcement or to avoid punishment by legal or illegal means. So, we revealed that 62% of those convicted of counterfeiting have secondary and specialized secondary education, 18% have an incomplete secondary, 17% have a higher and unfinished higher education.

The presence of stable links between personality traits and criminal activity, post-criminal behavior (Andreev, 2018) allows them to be profiled. Thus, as a rule, this crime is committed by men aged 30 to 49 years old, not previously tried and not having a permanent job, being local residents and having secondary or specialized secondary education (Osyak and Osyak, 2017).

The characteristics of the subjects, operating in digital shadow economy, are not extremely different from the ones of the subjects, operating in traditional shadow economy, the expert evaluation has enabled to identify the distinctive features of an illegal digital market seller, who can be represented as a young or middle-aged male with higher education, a professional in his operational field. Sellers in digital shadow economy include the entities with officially registered activities, who are trying to evade taxation of the revenues earned from the operations in e-space. The defined profile of an illegal seller proposes that a seller in digital shadow economy is an intellectually developed person with advanced professional skills, but insufficient financial earnings (Gaspreniene and Remeikiene, 2016). The circumstances contributing to the commission of a crime are characteristic of the underground economy. Thus, in the area of counterfeiting, these include:

- improvement of printing technique and technology;
- increasing the criminal professionalism of counterfeiters and the quality of counterfeit cash-notes;
- rapid development of operations using electronic money;
- free circulation of cryptocurrency;
- transparency of borders with the territory of neighboring states with Russia and the difficult international political situation (Osyak and Osyak, 2017).

We emphasize that the way crime is particularly manifested in the underground economy (*modus operandi*). This is a method of generating income, and a way of life (*modus vivendi*), and subordinate relationships. For example: a pimp - a prostitute, a drug dealer - a drug user, a gun dealer - a killer.

Bribery and corruption are the main manifestations of the underground economy (Bondareva and Osyak, 2016). The latter can not exist without actions that are studied in forensic science. In the manifestations of the underground economy, as a

rule, criminal transactions are veiled under completely legal or artfully masked and falsified ones (74.3% of cases).

4. Discussion

The underground economy as a forensic intent is a part of objective reality that includes criminal activity and other offenses, post-criminal activity and behavior (Andreev, 2013), criminal assault related to previously committed crimes (for example, the sale of the abducted person).

The main laws of the underground economy, as a segment of objective reality, include: the connection between activities (both criminal and non-violating the law) with traces left (material, ideal, virtual); the connection between criminal activity and post-criminal behavior of persons in an underground economy (receiving incomes and super-profits and hiding them, or, on the contrary, legalizing money or other property acquired by criminal means); the prevalence of organized group activities (criminal and post-criminal nature); the impact of individual traits on the content and choice of types of criminal and post-criminal activities (Andreev, 2014); stable use of concealment methods, both in criminal activities and in the implementation of post-criminal actions (which are based on disguise, falsification, dramatization).

These patterns are based on the following important position: leading lawyers from the mid-60s of the 20th century drew attention to the relationship between the compliance of people's activities with economic laws and the operation of legal norms. In other words, if the activity of people does not comply with objective economic laws, then the operation of the norms of law is paralyzed. For this reason, any legal form has an economic content. The existence of regularities related both to the subject of criminalistics, the general theory of law and the state, and a number of economic sciences (macroeconomics, finance, money circulation, credit) require the specification and improvement of the objectives of these sciences.

ACCA experts have identified five areas to fight the shadow economy: an increase in the number of transactions that must be carried out through electronic platforms; increasing of companies' oversight to ensure compliance; reducing unemployment; increasing investment to create opportunities for the marginalized; strengthening special forces to identify offenders (Faye and Chua, 2017).

5. Conclusion

Underground economy is a phenomenon that is inherent in all countries of the world. Government response to the impact of the underground economy should be systemic in nature, including scientific support by both the economic sciences and forensic one. In this connection, further interdisciplinary research of this phenomenon is

required. The following areas could be utilized as a regulatory framework for scientific research in this area:

- work out the main directions of the fight against the underground economy in the framework of the strategic directions of ensuring national security and the program-oriented approach;
- continue the further improvement of forensic knowledge used in affecting the underground economy;
- integrate the most effective means and methods of economic analysis and identification of the underground economy in forensic science;
- develop forensic tools for the prevention of phenomena and processes in the underground economy;
- optimize developments aimed at detecting, fixing, removing and preserving virtual traces of financial cybercrime;
- study of the world's best practices in dealing with various manifestations of the underground economy and the exchange of professional experience.

Authors consider that this study tends to open a new page of interdisciplinary knowledge of the underground economy, and therefore determines the vector of effective and efficient struggle with such a negative phenomenon of objective reality.

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