

INFORMAL MARKET AS A RESULT OF SHADOW ECONOMY

Tetiana Mostenska

National University of Food Technologies

Tetiana T. Mostenska

National University of Food Technologies

Abstract

The analysis of the informal market and its impact on the economy of Ukraine is done in the article. The impact of the shadow economy on economic processes at macro and micro levels is significantly different, which was proved. Studies have also shown a significant impact of the informal market on all stages of the production and distribution: at the stage of forming production factors, use of labor in the informal sector, the distribution of finished goods and supplying for the user. The example of grain informal market in Ukraine presented the scope and trend of this economic phenomenon.

Keywords: informal market, shadow economy, the dynamics of economic development

JEL classification: L66, O17, P2A

Introduction

Shadow economy is present as an integral component in the structure of the economy of any country: with different economic development, and its level is determined by several factors, among which the main one is the level of economic development.

Issues on shadow economy have been long studied in economics, but recently the number of publications aimed at solving this problem has increased. In the economic literature there is no single definition of the shadow economy. Most often the shadow economy is understood as current unregistered economic activities which are not included in the official GDP. Here are the definitions of the shadow economy represented in the scientific papers.

Analysis of recent research and publications

The shadow economy is the economic activity and the income from it that avoid government regulation, taxation and control (Kostin, 2011). For example, F. Smith defines the shadow economy as the market production of goods and services, legal or illegal that is not included into official estimates of GDP (Smith, 1994).

Shadow economy can be defined as an economy unrecorded by official statistics and uncontrolled by society production, consumption, exchange and distribution of wealth (Zakharchenko and Holovchenko, 2011). Based on the above it can be concluded that there is characteristic of the shadow economy as the lack of official records, and uncontrolled processes of production and distribution.

The shadow economy can be seen both on macro and micro levels. The impact of the shadow economy on economic processes at macro and micro levels is significantly different.

At the macro level shadow economic activity is analyzed in terms of its impact on the structure of the economy, production, distribution, redistribution and GDP consumption, employment,

inflation, economic growth and other macroeconomic processes. At the micro level attention is focused on the study of economic behavior and decision-making entities of the shadow economy, business enterprises, some illegal markets (Zakharchenko and Holovchenko, 2011; Boiko, 2013; Iackymchuk, 2013; Piankova, 2014).

Thus, we can conclude that the shadow economy has a negative impact on the functioning of economic systems at any level (enterprise, region, state), and most of the regular economic processes (formation and income distribution of productive activities, trade, investment, economic growth), i.e., on ensuring the economic security of the system (Dyuzhilova, 2012).

The represented views of scholars on the shadow economy allow to analyze it in terms of: economic activity, which is contrary to law and is a combination of illegal economic activities; unrecorded by official statistics and not state-controlled production, consumption, exchange and distribution of wealth (Dyuzhilova, 2012; Kostin, 2011).

Economic activities contrary to the legislation are related to activities prohibited by the state, and become a threat to the economic security of the country, public health and so on. These activities include processing counterfeit vodka production, manufacturing falsified products, etc.

Not included into official statistics and not state-controlled production of goods and services form the shadow markets. Such production is carried out:

- at officially registered production facilities where the products are sold by shady schemes outside the official market of manufactured goods. It is legitimate activities that are carried out with deliberate distortion of results (purposefully decreasing norms of products output of raw material), which reduces the tax burden by means of tax evasion and other charges, and provides illicit enrichment of companies' owners or management;
- at the production facilities that do not have official registration. In this case the production is in violation of technological regimes, failure to comply with the requirements for product quality, etc.

Koriakina (1990) recognizes activities allowed within a state, in which production of goods and services is done but not recorded officially, as a type of shadow economy. Unaccounted or unregistered economic activity all activities that have no specific standard sources of statistical data which cover these activities (Bloem, 2000).

The article is aimed at studying the impact of the shadow economy on the functioning of economic systems and processes, such as formation and distribution of income from production activities, trade, investment, economic growth in Ukraine.

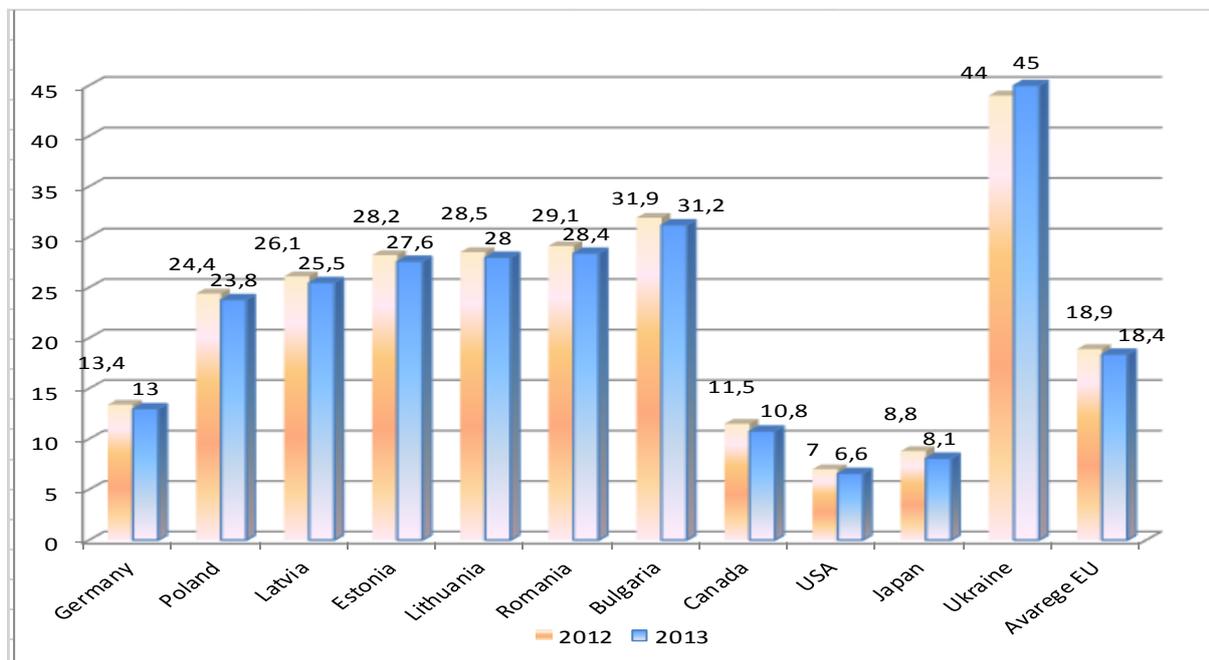
Main results of the study

The level of shadow economy in Ukraine is higher than in the EU. Thus, if the average EU level of shadow economy was 18.4% of GDP in 2013, in Ukraine it was 45%. This analysis of the shadow economy in the presented EU countries, Canada, the US and Japan suggests reducing shadow economy in 2013, compared to 2012, while the figure for Ukraine shows growth, and the forecast for 2015 – even higher growth. The lowest level of the shadow economy to GDP is in the US – 6.6% (2013). In 2013 the highest level of shadow economy in the EU was in Bulgaria and Romania – 31.2% and 28.4% of official GDP, respectively. These numbers are more than 4-4.5 times higher than the same in the United States. However, these countries show a trend towards gradual reduction of the shadow economy level (Figure 1).

According to the official data, in Ukraine the level of shadow economy was 45% of GDP in 2013 – 59.433 million euros (Moiseenko, 2014). Other sources indicate that the level of shadow economy in Ukraine was 58.1% (Schneider, 2014).

Some scholars suggest that the threshold level of shadow economy should not exceed 30% of GDP (Dudin, 2011), others argue that critical limit, at which the economy is ungoverned, is the level of the shadow economy about 50% of GDP.

Figure.1. The level of the shadow economy of certain countries, % of GDP



Source: prepared by the authors according to (Schneider, 2014).

A study of the dynamics of shadow economy in Ukraine for 6 years according to the calculations of foreign experts, based on official statistics, shows that the official statistics is lower than the calculations of foreign experts, sometimes by more than 10 percent points (Figure 2).

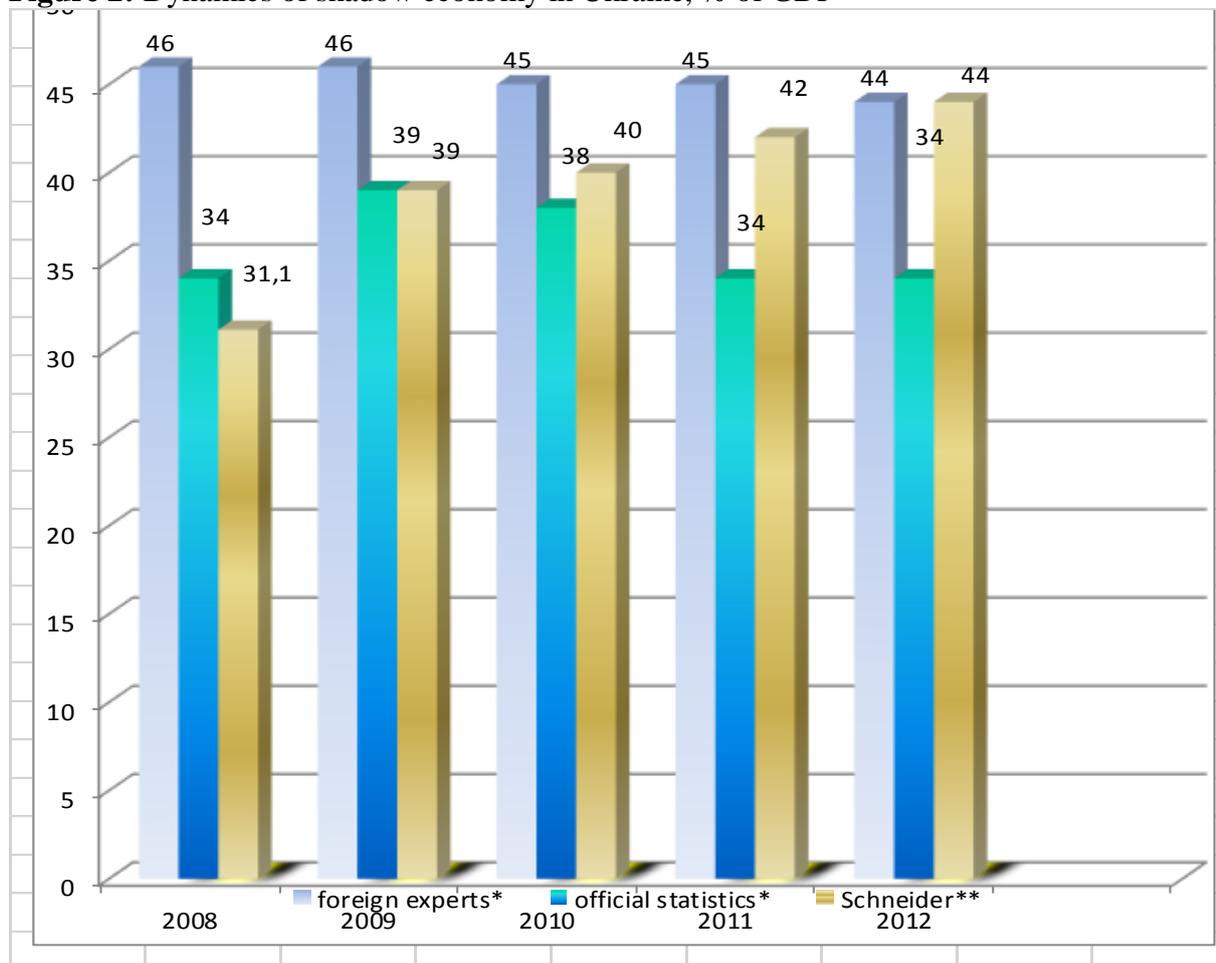
Apparently, the level of shadow economy has significantly increased within recent years. There are several ways to identify the main reasons for the growth of the shadow sector:

- military operations in Eastern Ukraine, which led to a reduction in production, loss of markets;
- imbalances of the financial system, which leads to the growth of balance of payments deficit, formation of debt for delivered raw materials, and goods shipped;
- growing distrust in financial institutions;
- increasing administrative pressure;
- price fluctuations;
- increased loss of production;
- excessive tax burden;
- high level of corruption and bureaucracy.

Discussions about the role of shadow economy in economic development continue. But still a consensus of scientists on the issue has not been formed. Thus, shadow economy is often considered an essential element for the economic system of any country, and in the post-Soviet economies, it has a special role – as an important tool to support economic and social balance. Regarding this point of view, shadow economy creates the conditions for business and population survival. Shadow economy facilitates covering the shortage of legal markets, provide people with goods and services at discounted (relative to the legal market) prices.

However, participants of shadow market cannot guarantee the required quality of products and services.

Figure 2: Dynamics of shadow economy in Ukraine, % of GDP



Source: prepared by the authors according to (Vinnychuk and Ziukov, 2013)

Defining the role of the shadow economy as part of ensuring market equilibrium A. Kireyenko and Y.Ivanov note that this feature of shadow economy is the most dangerous: it means that criminal behavior of economic entities is the condition of business and population survival. Thus, the real behavior of the population and state authorities is only partially regulated by formal laws (Kireyenko, 2013).

Despite the fact that the shadow economy is primarily characterized negatively, there is a point of view that shadow economy acts as a regulator of economic processes and leverage of leveling distribution and accumulation.

The positive role of shadow economy is in increasing the competitive advantage of shadow sector enterprises, which gives those engaged in shadow business the opportunity to receive certain revenues, decreases level of real unemployment in the country.

The negative role of shadow economy is in damage to the country (shortfall of revenues for the state budget and, consequently, lower levels of social protection), reduced competitiveness of legally operating companies (higher spending and, thus, prices of goods), reduces the efficiency of the economy in general (slows down the reproduction process, makes inefficient economic policy, stimulates corruption component in management), distorts the structure of the economy, reduces investment attractiveness of doing business in the country and so on.

The level of shadow economy can be studied in several ways, which are described in the economic literature, including "electric" method, monetary method, loss ratio of the enterprises, 'spending-retail sales' method. Below there are estimates of the shadow economy in Ukraine, according to the data of 2013 and 2014 (Table 1).

Table 1 The shadow economy level, the percentage of official GDP

Methods for determining the size of shadow sector	Years	
	2013	2014
"Electric" method	30%	39%
Monetary approach	34%	42%
Personal spending - retail sales	50%	57%
Unprofitable enterprises	29%	34%

Source: Own calculations

Various options for determining the size of the shadow market demonstrated growth of its level in 2014, compared to 2013. The results show that Ukraine crossed the threshold limit; according to various estimates the informal sector generates 34 to 57 percent of GDP in Ukraine.

Regarding the above mentioned macroeconomic data, the level of the shadow sector is studied on the example of grain market. On the base of statistical data we calculate the capacity of the shadow market of bread and bakery products in Ukraine. In the work of I. Ladyko and L. Ladyko (2013) calculations of shadow production of bread and bakery products are presented. Using the proposed methodology we extended the period of calculation for the years of 2011-2013 (Table 2).

Table 2: The dynamics of the shadow market of bread and bakery products in Ukraine

Indexes	Years										
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
2. Dynamics of production of bread and bakery products in Ukraine to 2003, %	100	98,8	97,0	92,5	87,1	84,7	75,1	77,4	75,8	71,4	64,6
5. The share of "shadow" market in the market of bread and bakery products in Ukraine, MFN,%	43,0 44,4	42,5 45,1	44,8 46,1	47,3 48,6	50,4 51,6	51,8 52,9	57,6 58,6	55,9 57,0	56,9 57,9	59,3 61,7	
6. Average estimated size of the "shadow" market	1815	1818	1886	1990	2116	2172	2396	2343	2381	2482	
7. Dynamics of the "shadow" market of bread and bakery products in Ukraine to 2003, %	100,0	100,2	104,0	109,8	116,7	119,8	133,0	129,1	131,2	136,8	

Source: extended calculations on the base of Ladyko & Ladyko (2013)

According to the calculations, the shadow market share of bread and bakery products gradually increased – in 2003 it was 43-44.4%, and in 2012 it already was 59.3 - 61.7%.

Conclusions

Our results suggest that the shadow economy affects the production process at every stage of the reproductive processes: at the stage of production factors – unrecorded purchase of raw materials, long-term assets used in the production and distribution of goods of shadow market,

using labor in the informal sector (illegal employment, illegal salary); production, which is not recorded by official statistics and is not included into official control procedures, the distribution of finished products (shadow schemes of the illegal trade for maintaining final consumption, illegal export and import).

As it was noted, the shadow economy creates a informal market of goods and services. Thus there is a breach of the functioning of markets, namely the profit motive, reducing capacity (diminish ability), the principle of competition, the principle of exclusive rights, the principle of rejection ability. The growth of the shadow component of commodity markets as a result of disruption of normal principles of market makes enterprises of legal sector less attractive, causing them to use shadow schemes to achieve higher levels of efficiency.

References

- Bloem A. (2000), *Comprehensive Measures of GDP and the Unrecorded Economy*, Блум А.М. Исчерпывающие показатели ВВП и неучтенной экономики. А.М. Блум, Л.М. Шрестра. Рабочий документ МВФ. 43 с.
- Dudin M. (2011), *The impact of the shadow economy of Ukraine on its economic security*, Дудін М.М. Вплив тіньової економіки України на її економічну безпеку. М.М.Дудін // Бізнес-інформ. 2011. №12, С. 4-14]
- Dyuzhilova O. (2013), *The shadow economy as a threat to economic security of Russia*. / Дюжилова О.М. Теневая экономика как угроза экономической безопасности России. / О.М.Дюжилова, И.В. Вякина // Вестник ТвГУ. Серия: Экономика и управление (2). С. 23-27
- Zakharchenko V., Holovchenko E. (2011), *Shadow economic relations and economic security* / Захарченко В.И. Головченко Е.Н. Теневые экономические отношения и экономическая безопасность // Культура народов Причерноморья. — 2011. — № 197, Т. 1. — С. 58-63, С. 59
- Kireyenko A. (2013), *Evaluation of the shadow economy on the basis of indicators of the level and quality of life* / Киреенко А.П. Оценка теневой экономики на основе показателей уровня и качества жизни населения / А.П.Киреенко, Ю.Б.Иванов // Известия Иркутской государственной экономической академии. — 2013. — № 4 (90). — С.109-113, С. 110
- Koryakina T. (1990), *Shadow economy. Analysis, estimates, forecasts* / Корякина Т.И. Теневая экономика. Анализ, оценки, прогнозы /Т.И. Корякина // Изв. АН СССР. Сер. Экон. — 1990. — № 6. — с.17
- Kostin A. (2011), *Experience of measuring shadow economy in Western literature* Костин А.В. Опыт измерения теневой экономики в западной литературе / А.В.Костин // Вестник НГУ. Серия: Социально-экономические науки. — 2011. — Том 11, выпуск 4, С. 33-43
- Ladyko I., Ladyko L. (2011), *Analysis of the baking industry enterprises in Ukraine* Ладико І. Ю. Аналіз стану підприємств хлібопекарської промисловості України / І.Ю. Ладико, Л.М. Ладико. [Електронний ресурс] Режим доступу: http://archive.nbuv.gov.ua/portal/soc_gum/emp/2011_23_1/03Lad.htm
- Moiseenko A. (2013), *Infographics: shadow economy in Europe and Ukraine* / Моисеенко А. Инфографика: теневая экономика в Европе и Украине <http://forbes.ua/nation/1381353-infografika-tenevaya-ekonomika-v-evrope-i-ukraine>]
- Boiko, I. (2013), *Instruments of Implementing the Enterprises' Strategy, Economics and Sociology*, Vol. 6, No 2, pp. 73-81.

- Iackymchuk, T. (2013), Ukrainian Companies of Food Industry: Investment Activity and Factors Affecting the Results, Economics and Sociology, Vol. 6, No 2, pp. 82-93.
- Piankova, O. (2014), Food and Beverage Brand Development: Global Trends and Directions for Ukraine, Economics and Sociology, Vol. 7, No 2, pp. 149- 159.
- Schneider F. (2014), Size and Development of the Shadow Economy of 31 European and 5 other OECD Countries from 2003 to 2013 http://www.econ.jku.at/members/schneider/files/publications/2013/shadeceurope31_jan_2013.pdf
- Schneider R., (2013), Buehn A., Montenegro C. New Estimates for the Shadow Economies all over the world ', International Economic Journal, 24: 4, 443 -461
- Smith Ph. (1994), Assessing the size of the Underground Economy: The Canadian Statistical Perspectives // Canadian Economic Observer. 1994. Catalogue № 11-010, 3.16-33, at 3.18
- Vinnychuk I., Ziukov S. (2013), Shadow economy in Ukraine: modeling and analysis, Business Systems and Economics Vol/3 (2), P.141-152
- Shadow economy of Ukraine broke the record / <http://korrespondent.net/business/financial> Теневая экономика Украины побила многолетний рекорд// Корреспондент.biz, 15 мая 2015

About the authors:

Tetiana Mostenska (mosten(at)nufft.edu.ua) works at the National University of Food Technologies, Volodymyrska str. 68, 01-601, Kyiv, Ukraine.

Tetiana T. Mostenska (mostik_t(at)mail.ru) works at the National University of Food Technologies, Volodymyrska str. 68, 01-601, Kyiv, Ukraine