# IMPACT OF SHADOW ECONOMY ON FOOD SECURITY OF THE COUNTRY

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#### **Abstract**

The prerequisite condition for existence of human civilization is a supply of food resources with required quantity and quality. The shadow economy causes its special impact on the food security of the Country. First of all, it concerns the food supply and activities of private rural households as a part of the shadow economy. In its turn, the shadow economy has both negative and positive features. The impact on all systems and industries of the Country is negative, but the possibility of preserving the labor potential, solving the income problem, basic survival of the certain part of population can be considered as positive features. The problem of overcoming threats and minimizing negative impact of shadow economy requires a complex solution. Threats from shadow economy for the agricultural sector of Ukraine appear in many forms of negative nature. Today, virtually any shadow activity of business entities is associated with tax and other payments evasion. In the agricultural sector, at first, it concerns activities of private rural households, which today can be considered operating in a shadow economy. The article investigates the impact of shadow economy on food security of the Country. Increasing food security primarily relate to counteracting the shadow processes and the shadow economy, economic crimes and corruption in the agricultural sector. Ways to overcome the negative trends related to the shadow economy are suggested.

**Keywords:** food security, shadow economy, private rural households.

# INTRODUCTION

For the development of human civilization, it is necessary to supply population with the required quantity and quality of food resources. In today's world, people have not been able to reach permanent access to various types of food supplies, and millions of people are starving to death on our planet. Food security is the ability of a state to guarantee satisfaction of food needs at a level that ensures normal functioning of its population. World food security is defined as the production of the necessary amount of food to meet the growing needs of people avoiding food crisis.

In Ukraine food crisis started after the collapse of the USSR, namely in the 1990s, when coupons (for butter, sugar, sausage, etc.) were canceled. Urban residents faced sharp increases in food prices and significant deterioration in their quality. Life of population was supported only through food assistance, usually from the United States and food production from subsistence farms. At the same time, the shadow economy gained significant momentum.

The shadow economy is a complex and multifaceted system, so in the history of world economic science, some aspects of it at various historical development stages have been reflected in the work of philosophers, sociologists, lawyers, psychologists, economists, political scientists and politicians.

### PREVIOUS RELATED RESEARCH

Defining the essence, estimation of depth of problem of shadow economy, its peculiarities in Ukraine, search of a single and exact definition of the concept of "shadow" with all components, threats and methods of counteraction to it is devoted to a great deal of achievements of leading scientists of Ukraine, among them: V.I. Angelko [14], A.V. Antipov [2], A.V. Basiluk [4], Z.S. Varnaliy [16], V.I. Vasylinchuk, L.V. Gerasimenko, Y.I. Kirzhitsky [5], I.I. Mazur [6], T.O. Pozhueva [10], I.G. Savchenko [13], V.D. Sushchenko [15], O.V. Tikhonova, O.V. Turchinov [20], S.S. Cherniavsky [21] and others. Among the foreign ones it should be noted: F. Schneider, G. Abadinsky, J. Arvai, D. Blades, P. Gutman, B. Dallago, E. de Soto, L. Ebergard, R. Klitgaard, P. Mauro, S. Roz- Ackerman, S. Rottenberg, W. Tanzi, W. Thiessen, E. Feige, N. Bokun, V. Dadalko, L. Drexler. involved in the shadow economy studies.

Learning the methods of dealing with the shadow economy is impossible without defining this concept. In the scientific literature there are many definitions of the essence of the shadow economy, because it has many forms of its appearance. Analysis of economic literature shows that there are two main approaches in understanding the essence of the concept of the shadow economy: legal and economic. In the first case, a shadow economy is an economy operating outside the legal field. In another, it is an economic activity that, due to lack of reporting or underestimation of its value, does not reflect in official statistics when determining the value of gross domestic product. The difficulty of defining this phenomenon is that the same economic activity may in one case be shady, in the other, the usual part of economy.

As Skvortsov N.N. in his work "All About Taxes in Ukraine" the shadow economy is actually not controlled by society the production, distribution, exchange and consumption of material goods, that is, such socio-economic relationships between individuals, social groups on the use of existing forms of ownership in selfish personal and group interests, which are hidden from the public administration and the public. It contains all unaccounted for, unregulated, other than those specified in regulatory documents and rules of economic activity. From an economic and legal point of view, this means that the shadow economy encompasses not only selfish economic crimes, but also non-criminal selfish economic offenses and legitimate but unaccounted for or uncontrolled economic activities [17].

According to other researchers, the shadow economy is an economic activity that is not reflected in the accounting and reporting of business entities, and is not taken into account and is not controlled by government agencies and is aimed at obtaining uncontrolled income by the state, in violation of existing legislation from which the state does not receive tax revenue [8].

According to E. de Soto, "The shadow economy is a spontaneous and creative reaction of the people to the inability of a corrupt state to meet the basic needs of the impoverished masses" [18].

An important contribution to the study of the shadow mechanisms of economic activity was made by O.V. Turchinov, who defined the shadow economy as an economic activity that is not considered and is not controlled by official state bodies,

as well as activities aimed at generating income through violation of existing legislation. However, this definition can apply to all criminal offenses (theft, robbery, extortion), which can lead to the unacceptable expansion of the shadow economy [20, p. 46–47].

The shadow economy is the basis of a complex multi-level mechanism, to which all the shadow infrastructure belongs, which provides its functioning (legislative, judicial, political, ideological, cultural, ethical, values and behavioral norms), has an active influence on the condition of shadowing processes [21].

Mazur I.I. believes, that the shadow economy is a system of relations between economic entities that self-organizes and covers all stages of the social production process in order to obtain economic benefits, the results of which, or the means of achievement for different reasons, are either replaced, diminished, or completely hidden as from the immediate participants, and from the law [6, p. 68–75].

Despite the considerable achievements of scientists in studying the shadow economy, the question of its impact on food security remained unaddressed.

Task formulation. The shadow economy is primarily represent interest in its impact on most ordinary economic activities and processes: formation and distribution of income, trade, investment and economic growth in general. This is especially true of food supply and food security, as well as food producers.

## RESEARCH RESULTS AND DISCUSSION

It is obvious that the shadow economy has both negative and positive features. The negative features include: reducing effectiveness of macroeconomic regulation, competitiveness of the country's economy, viability of the credit and financial system, destruction of social infrastructure, illegal export of capital abroad, loss of government leadership, control and other major social functions, negative impact on investing climate. Positive features can be considered: possibility of preserving labor potential, solving the problem of income, elementary survival of a certain part of population. Therefore, it is quite reasonable to think that "on the one hand, the shadow economy is a consequence and key economic basis of corruption, and on the other, a certain compensator for economic and financial shocks, especially for small and medium-sized businesses" [11].

The shadow economy is called criminal, unreflected, illegal, unregulated, unofficial, underground, hidden, shadowy, fictitious. At the same time, the essence of each of these names is the same and provides for income outside the legal framework and accounting for financial and economic activities. The types of shadow economy differ depending on its content. For example, a "secondary" shadow economy is a legally forbidden economic activity of workers of the "white" (official) economy, which leads to the hidden redistribution of previously created national income. From the point of view of society in general, this shadow economy does not produce any new goods or services: some people benefit from the "secondary" economy at the expense of the loss of others. The Gray Shadow Economy is a statutory economic activity for the production and sale of ordinary goods and services that are not registered (mainly small businesses). Unlike the "secondary" economy, which is directly related to the "white" (official) economy, the "gray" economy operates

autonomously. In this sector, manufacturers are either deliberately evading official accounting, unwilling to spend (such as costs associated with obtaining licenses, paying taxes, etc.), or not reporting this type of activity at all. The Black Shadow Economy (Organized Crime Economy) is a legally prohibited economic activity related to the production and sale of prohibited and scarce goods and services. These are activities that are completely excluded from normal economic life, as they are considered incompatible with and destroying it (for example, drug business, robberies, etc.) [10].

In view of the above, in our opinion the shadow economy can be divided into:

- "Hidden" economic activity, which in most cases includes legitimate economic activity, which is concealed or diminished by its subjects for the purpose of tax evasion, social security contributions or certain administrative or occupational safety duties, sanitary and other regulations.
- "Informal" economic activity, carried out mainly on a legal basis by individual producers or so-called unincorporated enterprises, that is, enterprises belonging to individuals, households, which are often not established in an established manner, based on informal relations between production participants and can (Fully or partially) produce products or services for their own consumption. Often, informal activity is based on secondary employment, in many cases it is unprofessional. Informal production is widespread in Ukraine in agriculture, trade, construction, and some other industries.
- "Illegal" economic activity. It is illegal, i.e. it covers those types of production of goods and services that are expressly prohibited by existing legislation. Currently, such activities include, for example, the production and sale of drugs; production and sale bypassing established rules, weapons; prostitution, smuggling.
- Shadow non-economic (non-productive) activity related to illegal distribution
  of income and assets; crimes against property (theft, robbery, fraud, etc.); economic
  crimes (deception of buyers and customers, violation of trade rules, etc.); job crimes
  (abuse of power or job duties, negligence, bribery, etc.).

In Ukraine there is a so-called "secondary" shadow economy, that is, forbidden by law the economic activity of workers of the "white" (official) economy, which leads to a hidden redistribution of national income.

The problem of overcoming threats and minimizing the negative impact of the shadow economy requires a comprehensive solution. In this regard, it is advisable to consider a methodology where the approach to defining the shadow economy looks complex and complete [7]. These Guidelines have been developed to assess the level of the shadow economy in the national economy as a whole and by particular economic activity by indirectly calculating at the macroeconomic level the value of goods (works, services), which is deliberately overstated or reduced by economic entities in the statistical reporting. Shadow economy – economic activity of an economic entity not registered in the established order, characterized by minimization of costs for production of goods, performance of works and provision of services, tax evasion, fees (compulsory payments), statistical questionnaire and submission of statistical reporting, as a result of which is a violation of statutory standards (minimum wage, working hours, conditions and safety, etc.).

The most common reason for the existence of a shadow economy is the contradiction between the ever-increasing and changing human needs and the limited production capacity.

Often people's desire to maximize benefits at minimal cost leads them to use any means, up to criminal ones, which is why the shadow economy is always selfserving, closely linked to corruption, economic crime.

The practice of transformation and liberalization of the domestic economy has shown that a low degree of state intervention in the economy, imperfection of laws and legal norms is one of the reasons for the development of the shadow economy. Usually, when regulating the economy, the state realizes the interests of some economic entities in contrast to the interests of others, then the latter move to informal activities, that is, a shadow economy. This situation appears because of the rigid requirements of licenses, forms of control and the severity of taxation.

Today, virtually any shadow activity of business entities is associated with tax evasion and other payments.

However, on the one hand, the more taxes the state collects, the better it can solve social problems, more actively support the country's defense capability. On the other hand, world experience shows that the weaker the tax pressure on the economy, the faster the economy develops. The mitigation of this contradiction depends on the effective legal policy of the state.

The weakness of state power leads to a significant increase in transaction costs, to a decrease in the competitiveness of domestic production, which occurred in all sectors of the economy, except for raw materials, most clearly shown in the agri-food sector. The weak state is especially vulnerable to the corruption that is currently observed in the Ukrainian economy, which, together with the underdevelopment of the main market structures, the lack of mechanisms and rules of the game in the market related to competition, market pricing, stock market, stock market activity, contributes to the development shadow relations in the economy.

The shadow economy depends on the previous socio-cultural heritage of the state, condition of the economy and standard of living of population for a given period of time.

In the USSR, under the conditions of command and administrative management of the economy, public ownership of the means of production, the shadow income consisted of deliberately distorted planning, so-called losses, overestimation of all kinds of expenses, notes, financing of non-existent projects, etc. As a result, fictitious capital was formed, which gave ample opportunity for irregularities. This "practice" is still used today, including in the agri-food sector.

According to the calculations of the Ministry of Economic Development (Figure 1), the indicator of the level of the shadow economy, calculated by the method of loss of enterprises, amounted to 22% of official GDP in January-September 2018, recording no changes compared to the level of 9 months of 2017.

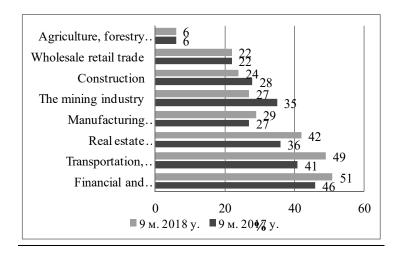


Figure 1. The level of shadow economy by type of economic activity, % of the volume of official GVA of the relevant SEA

Source: estimates of the Ministry of Economic Development [18]

According to the methodology of calculation by the method of loss-making enterprises, the tendency to increase the level of the shadow economy is formed in the conditions of increasing the volume of losses or reducing the volume of profits of economic entities.

The downward trend in the level of the shadow segment as of January-September 2018 remained in the two main aggregated economic activities - mining (by 8 pp compared to the corresponding period of 2017) and construction (by 4 pp).

Four types of economic activity showed an increase in the level of the shadow economy, obtained in the context of increasing volume of losses of enterprises of these types of economic activity (including due to insufficient work of enterprises with creditors and poor performance of enterprises obligations under contracts, which in particular had to fulfill the requirement to creation of a reserve of doubtful debts and payment of penalties). As a consequence, the level of the shadow economy "Transport, warehousing, postal and courier activities" increased by 8 pp. compared to the corresponding period of 2017; in manufacturing – by 2 pp. in accordance. Increase in the level of the shadow economy in the "Real Estate Transactions" led to 6 pp. (compared to the level of 9 months of 2017), in the economic activity "Financial and insurance activities" – 5 pp.

The level of the shadow economy in the wholesale and retail trade, as well as in the agricultural, forestry and fisheries sector, has not changed for 9 months of 2017.

At the same time, the list of the most shadowed types of economic activity was headed by "Financial and insurance activities" (51% of the volume of GVA in SEA).

Traditionally, the level of the shadow economy remained in the agricultural, forestry and fisheries sector -6% of the volume of the GVA in the said sector. But in estimating the level of the shadow economy due to the lack of relevant statistical information, the volume of commodity exchange transactions, the use of which is

characteristic of agriculture, are not taken into account. However, it is precisely these operations that tend to evade taxation, which in turn is the source of a phenomenon such as the "shadow economy".

Threats from the shadow economy of the agri-food sector of Ukraine have many forms of reflection of negative nature. From the standpoint of economic theory, usually the shadow economy is regarded as one of the socially deformed forms of market activity. Thus, the shadow economy is a destructive factor of economic security, hindering the sustainable development of the economy, including the development of the agrarian sphere of the economy. In this case, it is mainly related to the potential threats arising in the process of production, processing and sale of agricultural products, as well as in the field of production services, crediting and financing of rural producers, provision of social and other services to rural population. When shadow activity crosses the legal framework and damages the economy, it becomes a real threat.

Based on the foregoing, we define the shadow economy in the agroindustrial complex as the production, distribution, exchange and consumption of material goods and services that are uncontrolled by society, and as activities of a destructive, illegal nature, which, under certain conditions, bring harm, harm to the state, society and its members. In order to ensure food security, it is important to find out the causes, the main features and features of the shadow economy as a threat to the development of the agri-food sector, and the interests in the field of food security.

One of the most important features of the transition economy was the institutionalization of the shadow sector, which became a stable element of the economic system, a kind of complement to the legal economy. Of course, the modernization of agricultural production will be accompanied by shadow processes in all areas of agriculture.

In the agricultural sector of the economy, its shadow component develops under the same circumstances as in other industries, but at the same time has its own characteristics, which is due to the specific nature of agricultural production.

In private rural households, agricultural products produced for personal consumption (subsistence farming) and for the sale of surplus food on the market. Activities related to the conduct of personal farming, do not relate to entrepreneurial activity. That is, according to the Law of Ukraine "On Personal Rural Households" [9], these activities are not subject to mandatory registration and losses to the state due to non-payment of taxes on market turnover are not applied and can be called informal activities.

Today in Ukraine personal ancillary agricultural production occupies a significant share in the gross product. For example, in recent years, households have become active participants in the market turnover, producing over 50% of the main types of food. In 1990, agricultural enterprises produced 66.6% of gross output, and households - 33.4%; in 2000 - 38,4; 61.6 and agricultural - 2.1% of gross production, in 2017 the figures were 56.4; 43.6 and 8.7% (Tables 1 and 2).

Table 1. Structure of agricultural production by category of producers (at constant 2010 prices; %)

Tymes of mucduets	Years													
Types of products	2000	2000 2005		2010 2014		2016	2017							
Agricultural enterprises														
Agricultural products	38,4	40,5	48,3	55,3	55,1	57,0	56,4							
crop production	49,3	48,6	53,6	59,4	59,1	61,3	60,5							
livestock products	21,0	26,2	38,8	45,5	45,5	45,6	45,8							
including farms														
Agricultural products	2,1	4,6	6,1	7,6	7,9	8,7	8,7							
crop production	3,1	6,7	8,7	10,0	10,4	11,2	11,3							
livestock products	0,4	0,7	1,6	1,8	1,9	2,0	2,0							
Private households														
Agricultural products	61,6	59,5	51,7	44,7	44,9	43,0	43,6							
crop production	50,7	51,4	46,4	40,6	40,9	38,7	39,5							
livestock products	79,0	73,8	61,2	54,5	54,5	54,4	54,2							

Source: [1]

If in 1990 agricultural enterprises (collective farms, state farms, inter-farm enterprises) used 93.7% of agricultural land, and private households - 6.3%, in 2000 – respectively 84.9; 15.1 and farmers – 2.7%, in 2017 – 59.6; 40,4 and 12,3% respectively [3].

This agrarian sector has become one of the main determinants of ensuring the physical and economic availability of food to the public, i.e. food security.

Table 2. Structure of crop production by category of holdings (as a percentage of total)

T	Years											
Types of products	2000	2005	2010	2013	2014	2015	2016	2017				
Private households												
Cereal and leguminous crops	18,4	24,3	24,2	21,2	21,9	22,7	21,3	22,6				
Factory sugar beet	12,2	21,5	7,9	15,7	7,2	7,5	4,7	4,4				
Sunflower	12,5	21,2	17,5	14,5	14,3	14,6	13,9	13,4				
Potatoes	98,6	98,8	97,4	97,0	96,8	97,8	97,8	98,1				
Vegetable crops	83,1	89,3	88,1	88,3	86,1	86,1	85,9	85,5				
Fruit and berry crops	81,8	88,2	83,6	80,6	83,4	80,9	81,5	83,7				
Meat (in slaughter weight)	73,7	63,2	44,9	39,7	38,5	37,0	35,9	36,0				
Milk	71,0	81,2	80,3	77,5	76,2	74,9	73,9	73,1				
Eggs	66,2	50,5	39,9	37,6	36,0	41,8	46,6	46,1				
Wool	61,4	78,3	83,1	86,6	85,4	86,2	87,2	87,0				
Honey	93,2	96,6	97,7	98,2	98,5	98,6	98,5	98,7				

Source: [1]

If private farmers are to be registered as physical private-entrepreneurs or farmers, they must pay taxes. However, there are no standards, criteria for the transfer of PRHs, there is only limitation of the size of land plots, which is established by normative legal acts, the maximum size of the total area of land for maintaining a private rural household may not exceed 2 hectares.

#### **CONCLUSION**

In rural areas, informal economic activity also covers primary processing and marketing of agricultural products, construction and repair of private homes and other services, which is one of the sources of income for rural residents.

The second feature is related to the mistaken notion that in agriculture, the magnitude of the shadow economy, offenses and crimes is declining. On the contrary, it increases with active transformations of ownership, weak control over the use of financial support from the state, which creates conditions for abuse and crime.

The third feature of the development of shadow tendencies in agriculture is the use in the management of the economy of intentionally distorted statistical information. Thus, in the regional statistical authorities, the volume of agricultural production in personal peasant households is determined by calculation based on a sample survey of households using information from the books kept by the local self-government bodies of settlements. Maintenance of business books is carried out on the basis of information provided on a voluntary basis by citizens who lead a private household. Here, part of the economic activity due to incomplete coverage of the surveyed households or respondents' errors may not be taken into account. It may be the other way around, that is, economic activity is increased by reflecting non-existent activities ("notes") in the statistical reporting.

Non-existent, virtual economic activity leads to a violation of the structure of reproduction in the agroindustrial complex: in statistics, agricultural production in personal households significantly "increases", respectively, increases the gross agricultural product. At the same time, the production of personal farms in small quantities gets into the market turnover, the capacity utilization of the enterprises processing agricultural raw materials is reduced and the consumption of food products of own production decreases. Embellishing reporting, the true state of the economy leads to erroneous managerial decisions on the development of the agrarian economy.

Thus, improving food security is largely related to counteracting the shadow processes and the shadow economy, economic crime in the agri-food sector, which necessitates the study of this problem in the economic security system of Ukraine. This methodological approach is due to the processes of modernization of agricultural production with state support, associated with the development of financial and credit relations in the agroindustrial complex, with the development of reproduction processes in agriculture.

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