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THE MAGNITUDE AND NATURE OF THE SHADOW ECONOMY IN UKRAINIAN BORDER REGIONS

Abstract. The peculiarities of the formation and functioning of the shadow sector of economy of the border regions of Ukraine have been considered. It has been substantiated the importance of studying the nature of the emergence of the shadow economy and finding the effective tools for leveling the preconditions for its development.

The main regularities and indicators of the emergence and growth of the shadow economy have been outlined. Among them there are the levels of tax burden and social protection, regulatory measures, the quality of social services, the number of self-employed, etc. It is substantiated that the important direction of reducing the shadowing of economic processes is to stimulate the socio-economic development of territories. Positive tendencies of economic development, availability of sufficient opportunities for employment and obtaining decent remuneration for their work, etc., suspend the processes of shadowing in the economy of any country and its regions.

The level of the shadow economy has been estimated based on direct and indirect approaches. It has been found that given the importance of retail trade in the economy of the border regions (borderline location, active participation of local residents in the local border traffic, more significant share of services, etc.) and relatively lower levels of socio-economic development, the share of unaccounted economic activity in the official economy of the territories is higher compared to its average in the country.

The results of an expert survey of representatives of local authorities on the issues of socio-economic development of the border areas under the terms of the EU-Ukraine Association Agreement have been presented. In particular, the main reasons for the shadowing of the economy, types of economic activity in which the share of economic activity, which is in the "shadow", is the highest, etc. have been outlined.

It has been revealed that the illegalization of economic activity and population's income in the medium- and long-term time period creates preconditions for the outflow of production factors (including the workforce) abroad and reduces investment attractiveness of Ukrainian border territories. In addition, the negative impact of border trade is strengthened by forming of substantial dependence on import of certain types of goods, discouraging the development of domestic

production; by avoiding the payment of taxes and therefore — the shortfall in revenues to local budgets, etc.

Keywords: border regions of Ukraine, shadow economy, estimation of the level of shadow economy of the border area, border trade, directions of reducing the shadowing of economic processes.

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ОЦІНКА РІВНЯ І ПРИРОДА ТІНЬОВОЇ ЕКОНОМІКИ У ПРИКОРДОННИХ РЕГІОНАХ УКРАЇНИ

Анотація. Розглянуто особливості формування та функціонування тіньового сектору економіки прикордонних регіонів України. Обґрунтовано важливість вивчення природи виникнення тіньової економіки та пошуку ефективних інструментів нівелювання передумов її розвитку.

Окреслено основні закономірності та індикатори виникнення і зростання тіньової економіки, серед яких рівні податкового навантаження та соціального захисту, регулятивні заходи, якість соціальних послуг, кількість самозайнятих осіб тощо. Обґрунтовано, що важливим напрямом детінізації економічних процесів покликане бути стимулювання соціально-економічного розвитку територій. Позитивні тенденції економічного розвитку, наявність достатніх можливостей для працевлаштування та отримання гідної винагороди за свою працю тощо призупиняють процеси тінізації в економіці будь-якої країни та її регіонів.

Проведено оцінку рівня тіньової економіки на основі прямого і непрямого (індикаторного) підходів. Виявлено, що з огляду на вагомість роздрібною торгівлі в економіці прикордонних регіонів (прикордонне розташування, активна участь місцевих мешканців у місцевому прикордонному русі, більш вагома частка сфери послуг тощо) та відносно нижчі рівні соціально-економічного розвитку, частка необлікованої господарської діяльності в офіційній економіці територій є вищою порівняно з її середнім значенням у країні.

Представлено результати експертного опитування представників органів місцевої влади з питань соціально-економічного розвитку прикордонних областей в умовах дії Угоди про Асоціацію між ЄС та Україною. Зокрема, окреслено основні причини тінізації

економіки, види економічної діяльності, у яких частка господарської діяльності, яка перебуває у «тіні», є найвищою, тощо.

Виявлено, що тінізація економічної діяльності та доходів населення в середньо- та довгостроковому часових періодах створює передумови для відпливу факторів виробництва (у т. ч. робочої сили) за кордон і знижує інвестиційну привабливість прикордонних територій України. Також негативний вплив прикордонної торгівлі посилюється формуванням значної залежності від імпорту певних видів товарів, не сприяючи при цьому розвитку внутрішнього виробництва; ухиленням від сплати податків та відповідно недоотриманням надходжень до місцевих бюджетів тощо.

Ключові слова: прикордонні регіони України, тіньова економіка, оцінка рівня тінізації економіки прикордоння, прикордонна торгівля, напрями детінізації економічних процесів.

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ОЦЕНКА УРОВНЯ И ПРИРОДА ТЕНЕВОЙ ЭКОНОМИКИ В ПРИГРАНИЧНЫХ РЕГИОНАХ УКРАИНЫ

Аннотация. Рассмотрены особенности формирования и функционирования теневого сектора экономики приграничных регионов Украины. Определены основные закономерности и индикаторы возникновения и роста теневого экономики. Проведена оценка уровня теневого сектора на основе прямого и косвенного подходов. Представлены результаты экспертного опроса представителей органов местной власти по вопросам социально-экономического развития приграничных областей в условиях действия Соглашения об ассоциации между ЕС и Украиной. В частности, определены основные причины тенизации экономики; виды экономической деятельности, в которых доля хозяйственной деятельности, которая находится в «тени», есть наибольшей. Обоснованы направления детенизации экономических процессов.

Ключевые слова: приграничные регионы Украины, теньовая економіка, оцінка рівня тенизації економіки приграниччя, пригранична торгівля, напрями детенизації економічних процесів.

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Introduction. Six border regions of Ukraine border with EU member states. Monitoring of the main socio-economic indicators of the development of border areas for 2000—2018 indicates a significant lag of their economic development compared to other regions of the country and regions of the EU member states which adjacent to them. Increasing the transparency of borders, the attractiveness of foreign labor markets and educational services are factors that intensify the processes of outflow of skilled labor and youth in the border regions of neighboring countries. At the same time, the lack of sufficient employment opportunities and relatively low economic development create the preconditions for the formation and functioning of the shadow economy sector in the border areas.

The assessment of the scale of the shadow economy, given the peculiarities of its functioning and the illegal nature of economic activity, is an extremely difficult task and at the same time is extremely necessary.

Analysis of research and statement of the problem. Theoretical considerations and empirical researches into the size and development of the shadow economy are presented in the studies of such authors as F. Schneider [1, 2, 7, 10], A. Buehn [1], M. Hassan [2], J. Buček [3], Yu. Kharazishvili [4-5]; T. Putnins, A. Sauka [6]; R. Goel, J. Saunoris [7]; T. Tiner [8], etc.

However, most studies are devoted to the formation of a shadow economy at the macro level and less attention is paid to the peculiarities of its functioning at the regional level. The purpose of the article is to assess the level of the shadow economy in the border regions of Ukraine and to determine the directions of reducing its level.

Research results. In all countries in the world, we see a significant decline in the size of the shadow economy over time; the average decline from 1991 to 2015 was 5.3 percentage points [9]. If in 1999—2000 the size of the shadow economy (in % to the official GDP) amounted to an average of 17%, then in 2007 it dropped to 14%. That is, since 1997—1998, when this indicator was the highest on average in all OECD Member countries, it was constantly declining. The only exceptions are Germany, Austria and Switzerland. The largest decline in the share of the shadow economy in national income was observed in Italy (by 5%) and Sweden (4%), where in the second half of the 2000s a significant reduction in the number of taxes and government expenditures was observed [10].

The following patterns of the formation and functioning of the shadow economy can be distinguished (based on the results of a comprehensive study of 21 developed OECD countries during 1990—2007) [10]: an increase of direct and indirect taxes causes the development of the shadow economy; an increase in social security expenditures also contributes to the development of the shadow economy; the higher the overregulation of economic activity, the more entrepreneurs are oriented to work «in the shade»; the lower the level of development of state institutions and the lower the level of public consciousness about paying taxes, the more entrepreneurs go to work «in the shadows».

The functioning of the shadow sector is an integral part of the economic system of any country or region. Consequently, the nature of the emergence of the shadow economy and the leveling of the prerequisites for its development remain an important subject of scientific research.

Assessment of the level of shadow economy of the border area. Identification or defining of the shadow activity is the major problem of assessment of shadow sector volumes. According to the legally defined term «the shadow economy is an unregistered according to the defined procedure activity of economic entity characterized by minimization of production costs and costs of works executed and services provided, avoiding the taxation, payment of fees (mandatory payments), statistical surveys and providing of statistical reporting, leading to violation of legally established norms (the level of minimum wages, duration of working time, conditions and safety of work, etc)» [11]. Direct and indirect approaches are the major methods of assessment of shadow economy sector [1]. Indirect approaches, also called indicator approaches, are mostly the macroeconomic ones; they use economic and other parameters, containing information about shadow economy development in time. Usually these approaches use one-two indicators. At the same time, taking into account the fact that shadow economy simultaneously influences production, employment, financial markets, etc, it is reasonable to use model multi-indicator approach, the so-called MIMIC

method (Multiple Indicators and Multiple Causes). The concept of MIMIC model lies in finding the interrelations between the latent variable «the volume of shadow economy» and the observed variables from the viewpoint of relation among the observed variables raw, using their information on the covariance. Application of the above-mentioned approaches has both positives and flaws.

«The Methodical Recommendations on Calculation of Shadow Economy Level», approved by the Order of the Ministry of Economy of Ukraine № 123 as of 18 February 2009, stipulate the use of the following methods to evaluate the level of shadow economy: «population's expenditures — retail turnover», financial, monetary, electricity-based. The method of enterprises' loss ratio is used to estimate minimal and maximal coefficients, within the range of which the level of shadow economy is.

In the course of assessment of shadow economy level in border regions, we have applied the approach that can be applied at regional level: «population's expenditures — retail turnover». Calculation of shadow economy level according to this method lies in revealing the exceeding consumer cash expenditures of population for purchase of goods over the overall volume of goods sold to population by all economic entities in legal economy sector. The method is the direct one and is applied to calculate macroeconomic parameters of shadow economy.

According to the approach, we calculate the level of shadow economy for six border regions and Ukraine in general. The tendency towards the growth of the gap between the volumes of cash expenditures of population for purchase of goods and retail turnover is peculiar to all border regions and Ukraine in general. At the same time, in 2014 and 2016 the gap reached 2-2.2 times in Ivano-Frankivska oblast. In Zakarpatska and Chernivetska oblasts, the rate was lower than the average in Ukraine in the whole examined period.

In the majority of border oblasts, except for Ivano-Frankivska, the share of retail trade in the overall output of goods and services is 1.5—2 times higher than the average rate in the country. We estimate the share of consumer cash expenditures of population for purchase of goods exceeding the overall volume of goods sold to population by all economic entities in legal economy sector in the Gross Regional Product of border oblasts (country's GDP), which demonstrates the share of unrecorded economic activity in the official economy of territories (*Table 1*).

Table 1

The share of consumer cash expenditures of population for purchase of goods exceeding the overall volume of goods sold to population by all economic entities in legal economy sector in the Gross Regional Product of border oblasts (country's GDP), %

№	Oblast	Years			
		2010	2012	2014	2016
1	Volynska	14.69	22.04	32.63	31.08
2	Zakarpatska	9.71	18.19	25.13	33.44
3	Lvivska	12.90	23.48	24.16	29.22
4	Chernivetska	10.52	25.89	25.90	31.34
5	Ivano-Frankivska	19.19	22.83	34.25	38.27
6	Odeska	19.18	27.49	32.24	33.88
7	<i>Ukraine</i>	15.08	18.61	21.35	22.86

In the period under research (2010—2016) the level of shadow economy according to the method «population's expenditures — retail turnover» in the GRP of border oblasts in average by oblasts is higher compared to the average rate in the country. Moreover, we can observe the tendency towards the growth of the gap. It can be explained by the higher share of retail turnover of enterprises involved in retail trade and individual entrepreneurs in output of goods and services of border oblasts compared to the average rate in the country as well as probably the increasing volumes of unregulated border trade in the first place. In 2017, the expenditures of Ukrainians in the Ukrainian-Polish border region amounted to €1.8 billion (in 2016 — €1.64 billion). In addition to that, the number of crossings of the Ukrainian-Polish border from the Ukrainian side reached 20.7 million in 2017 (for comparison, 20.4 million in 2016).

Taking into account the importance of retail trade in the economy of border regions (border location, active participation of local residents in local border movement, more essential share of services sphere, etc) and relatively lower levels of socio-economic development, the share of unrecorded economic activity in the official economy of the territories is higher compared to the average rate in the country.

The tendencies of shadow economy development at border territories: the results of experts' survey. Application of direct or macroeconomic approach based on well-designed surveys and samplings and voluntary responses is one of the methods to evaluate the level of shadow economy, along with tax audit and other corresponding methods. Selected surveys designated to evaluate the shadow economy are also vastly used. The flaws peculiar to any survey are also the major shortcomings of this method. For example, average accuracy and results strongly depend on a respondent's eagerness to cooperate; it is hard to assess the volumes of undeclared works from direct questionnaire; most of respondents are reluctant to admit fraudulent behaviour, and therefore aren't reliable, preventing the calculation of real assessment (in cash) of the degree of undeclared works. Detailed information on the structure of shadow economy is the major advantage of the survey, but the results of such surveys are very sensitive to the wordings in the questionnaire.

The high share of employed in agriculture and significant retardation of border oblasts' economic development compared to the rest of regions in the country and the regions of adjacent EU Member States create the preconditions for forming of shadow economy sector at the researched territories. In particular, the Institute's employees have conducted the experts' survey of local authorities' representatives on the issues of socio-economic development of border oblasts in conditions of EU — Ukraine Association Agreement. The representatives of the cities of republic and oblast significance (city councils' employees), employees of district state administrations of six border oblasts participated in the survey, in particular Volynska, Lvivska, Zakarpatska, Ivano-Frankivska, Chernivetska and Odeska oblasts (the survey covered 288 experts-representatives of 113 local governments). The questionnaire had the separate block of questions regarding the tendencies of shadow economy development at their territory. In particular, the experts identified the illegal economic processes as one of the restraining factors of modern development of the country and its regions (approximately 13% of surveyed respondents).

Most of experts (49.64%) consider the share of economic activity that is «in the shadow» to be significant and ranging within 6—20%. At the same time, almost 7% of respondents think that over 50% of the economy of relevant district (city) is currently «in the shadow».

The results of the survey show the impact of the distance from a territory to the state border on the level of «shadow» economy. Almost 10% of experts that represent the districts (cities) located at 0-50 km distance from the border mention that over 50% of economic activity is in the «shadow», and only 11% indicate that the share of «shadow economy» is less than 5%.

The respondents were suggested to mention the major reasons of emergence of illegal economic activity at the territory of districts or cities. Among the five most important factors of economic processes' «illegalization» the experts emphasize high tax rates, expansion of legal nihilism among population (21.54%), inefficient existing system of subsidies and benefits in Ukraine (12.39%), inefficient work of State Fiscal Service of Ukraine and its territorial divisions (11.61%), substantial over-regulation of economic entities' activity (11.5%). Such factors as «the impact of Local Border Movement» or «the impact of Polish, Hungarian or Romanian Cards» the experts see as not the decisive ones.

Across oblasts, the list of reasons by their importance is somewhat different. In particular, in Ivano-Frankivska and Chernivetska oblasts the experts note a significant impact of substantial over-regulation of economic entities' activity, and in Lvivska and Chernivetska oblasts — inefficient existing system of subsidies and benefits in Ukraine. Inefficient work of State Fiscal Service of Ukraine and its territorial divisions imposes essential pressure on the activity of economic entities in Lvivska, Volynska and Odeska oblasts, therefore promoting the transition of many of them «to the shadow».

Respondents chose among the suggested types of economic activity those with the highest share of illegal sector, to their opinion. They are the wholesale and retail trade (28.67%),

agriculture, forestry and fishing (17.7%), construction (10.44%) and hotel and restaurant business (9.91%), etc.

Estimation of shadow economy isn't an easy task due to its content and peculiarities of functioning: it is developing beyond state recording and control, and therefore isn't displayed by official statistics. The results of survey usually show lower levels of shadow economy compared to its real volumes [10].

The lack of sufficient opportunities for employment and establishment of routes and «schemes» of border trade urges significant share of population in border areas to be its active participants. Unregulated activity of substantial share of population and the lack of constant monitoring and mechanisms of border trade regulation at both central and local levels aggravate the tendencies. The volumes of such trade are impressive: in the last two years only at border areas of Polish Republic, Ukrainians have bought goods for almost € 2 billion annually. Most of them goes to retail trade at the territory of Ukraine and is sold half-legally.

By 2018, the number of border crossings by the residents of border areas of Ukraine had been annually growing by 10%. Moreover, the amount of their total expenditures at Polish territory had been growing in average by 15—20%. In order to partially regulate the issue of border trade, at the end of 2017 the Law of Ukraine «On Amendments to Tax Code of Ukraine and Several Legal Acts of Ukraine on Securing the Balanced Budget Revenues in 2018» (as of 7 December 2017) was adopted. In particular, the Subparagraph 191.2.3 of the Paragraph 191.2 of the Article 191 of the Tax Code of Ukraine was supplemented by the second section according to the Law «In case of importing the goods (except for excisable goods and personal items) into the customs territory of Ukraine in hand luggage and/or in accompanied luggage, the total invoice value of which does not exceed the € 500 equivalent and the total weight of which does not exceed 50 kg, through other Ukrainian border crossing points than those open for air traffic by an individual absent in Ukraine for less than 24 hours or entering Ukraine more than once in 72 hours, the base for taxation is the share of total invoice value of such goods exceeding the € 50 equivalent with the payable duty».

However, substantial changes to the Tax Code haven't brought about the expected results yet: the number of border crossings in the first half of 2018 reduced compared to the first half of 2017 only by 9%, and the volume of expenditures — less than by 5%.

Illegalization of economic activity and population's income in the medium- and long-term time period creates preconditions for the outflow of production factors (including the workforce) abroad and reduces investment attractiveness of Ukrainian border territories. The negative impact of border trade is strengthened by forming of substantial dependence on import of certain types of goods, discouraging the development of domestic production; by avoiding the payment of taxes and therefore — the shortfall in revenues to local budgets, etc.

Conclusions. Among the number of indicators for the development of the shadow economy (tax burden, level of social protection, regulatory measures, quality of social services, the number of self-employed persons, etc.), the level of development of the official economy is probably determining. Positive trends in economic development, the availability of sufficient opportunities for employment and obtaining decent remuneration for their work, etc., suspend the processes of shadowing in the economy of any country and its regions. And hence, an important direction of reducing the share of shadow economy is to stimulate the socio-economic development of territories. At the same time, the priority directions of their development are:

- Formation of a favorable investment environment;
- Deregulation of the business environment and reduction of tax burden;
- Intensification of processes of internationalization of entrepreneurial activity in the border regions of Ukraine;
- Effective implementation of social policy;
- Development of road and transport infrastructure;
- Streamlining the border movement of goods and services.
- Inventory of available resources of the territory and development of integrated strategies and programs of socio-economic development of territories;
- Deepening of cross-border cooperation.

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