INFLUENCE OF SHADOW ECONOMY LEGALIZATION ON NATIONAL SECURITY OF UKRAINE

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Abstract. The held analysis indicates about the availability of a wide spectrum of schemes and instruments of tax evasion, complex application of which, apart from reduction of the fiscal flows, causes deterioration of the economic environment and appearance of the negative macroeconomic consequences: distortion of the payment balance, capital outflow from the country, formation of additional pressure on the exchange rate, destructive influence on the formation of differently vectored priorities of the customs and tax policy of the country, and deepening of corruption schemes. In general, these losses are reflected in significant volumes of shortfalls in budget revenues and the ability of public authorities to perform functions and powers assigned to them. Under the condition of accelerated development of the European integration processes, entry to the new markets for sales of goods and services, the analysis and identification of all possible schemes of tax evasion and illegal financial flows formation take an important place in the general state strategy on the country’s development. The availability of a considerable variety of types and forms of the shadow financial transactions implementation requires the implementation of a measures complex, aimed at timely identification and prevention, development of methodological instruments for assessment of the effects from the existence of the shadow sector in the national economy. This situation makes it necessary to develop an efficient instrumentarium on counteraction to tax evasion, making it possible to timely detect illegal actions of the economic entities at all stages of their appearance. The development of these measures will contribute to financial security level improvement and strengthening of competitiveness of the economy of Ukraine.

Keywords: shadow economy; legalization; national security; financial security; taxation

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1. Introduction

The current economic development trends in Ukraine are characterized by the instability of the activity figures, budget deficits, low efficiency of the economic, political, and social reforms, rise in the level of the unprofitability of the enterprises, a high level of corruption, etc. The transformational transfigurations, which are observed in these days in Ukraine, take place under the influence of factors of exogenous and endogenous nature, which, on the one hand, are the stimulators of these processes and, on the other hand, deepen economic misbalances in the country and lead to threats to national security (Kozlovskiy, S., Grynyuk, R., Baidala, V., Burdiak, V. & Bakun, Y. (2019)).

Shadowing of the economy is one of the most powerful destabilizing factors nowadays (Osipov, G.V., Glotov, V.I., Karepova, S.G. (2018); Vigliarolo, F. (2020); Draskovic, V., Jovovic, R., Streimikiene, D. & Bilan, S V. (2020); Mazzanti, M., Mazzarano, M., Pronti, A., Quatrosi, M. (2020); Chehabeddine, M., Tvaronavičienė, M. (2020); Dorogov, N.I., Kapitonov, I.A., & Batyrova, N.T. (2020)).

Financial flows often become an object of manipulation during the preparation of statistical, accounting, and tax reporting, determination of the economic subjects’ activity results, and, as a result, significantly hinder investment processes in the country, limit the temps of the economic development, and significantly level down the effectiveness of the introduced reforms.

The reinforcement of the globalization processes, openness of the economic and financial systems, an increase in the scale of the export-import operations, and other factors, create preconditions for the expansion of the shadowing volumes of the national economy (NE). According to the estimates of the International Monetary Fund, in 2018, the average global level of the national economy shadowing amounted 25% of the global GDP, and in Ukraine, it reached even higher level – 30% of GDP (Ministry of Economic Development, Trade and Agriculture of Ukraine).

According to the estimated of the Basel Institute on Governance, Ukraine lags significantly behind the leading countries in terms of the quality of the anti-money laundering and counter-terrorist financing policies (in 2017 – 52nd position, in 2019 – 37th place out of 125 possible positions). One of the most common ways of shadowing of NE is the avoidance of tax obligations by the economic agents, which leads to the formation of tax gaps (TG) in the NE. The total average volume of TG in the EU countries upon all taxes amounts approximately 20 % (825 billion euro) of the volume of tax revenues, while in Ukraine – it is about 25 %. Therefore, the TG management should be considered as an important direction of implementation of the state policy on unshadowing of the NE, which necessitates an objective need for harmonization of its methodological, organizational, institutional, and regulatory subsystems.

The shadowing of the economy (Nguyen, T.A.N., Luong, T.T.H. (2020 is an expected result of the economic processes, which reside in the growth of the global economic crisis and the European integration and globalization processes in the country. As of today, the operations on income shadowing are actively used in all spheres of public life and at all its levels. The high level of corruption inside the state, a significant level of bureaucracy, difficulty in starting and further business development contribute to the diversification of channels of the capital transfer and increase in the scale of their use.

The contemporary challenges of the economic development, appearing on the way of economic entities in Ukraine, encourage them to use diverse ways for optimization and reduction of possible expenditures of the
production cycle. While trying to hide their income, commercial entities implement various schemes of shadow funds withdrawal abroad and their subsequent legalization. As a result, one observes an increase in the need for identification of the legal and illegal shadowing schemes as an opportunity to reduce tax pressure, accumulate additional income, etc.

2. Literature Survey

There is a great number of approaches to the determination of the main ways to transfer capital abroad in economic literature. Putniņš, T. J., & Sauka, A. (2015) distinguish two forms of the capital flow: an investment channel – withdrawal (input) of the entrepreneur’s capital or foreign investments, and financial and credit channel – withdrawal (input) of the loan capital or capital transfer (loans, credits, bank deposits, payments upon the transactions with foreign partners).

Based on the held analysis, it is possible to identify the following channels of assets concealment out of country:
1) external-economic – non-repayment of foreign exchange assets, which is related to the use of external-economic transactions (Κάτσιος, Σ. (2015));
2) investment – the use of schemes on the return of pseudo-investments or payments of dividends to non-residents, which significantly exceed the actually invested foreign capital (Schneider, F., Raczkowski, K., & Mróz, B. (2015));
3) foreign exchange – implementation of transactions with valuable securities, primarily through repurchasing of domestic securities (González-Fernández, M., & González-Velasco, C. (2015));
4) insurance – implementation of fictitious transactions in the field of insurance and reinsurance (Dell’Anno, R. (2016)).

Other authors also distinguish the following schemes of the money withdrawal abroad:
1) foreign economic – transfer of foreign currency abroad, disguised as a foreign economic activity through such transactions (Salahodjaev, R. (2015)):
   - understatement of export and overcharge of import contract prices to make a foreign partner receive a reward, part of which is transferred to the foreign accounts of the Ukrainian residents;
   - non-repayment of export earnings or implementation or goods, imported without their actual import into the country, in particular, through the mechanism of making advance payments, disguised as fictitious import ones;
   - contracts;
   - transfer or non-repayment of currency from abroad in the form of contributions to the statutory funds of the joint ventures;
   - lodging of a security deposit in a foreign bank for obtaining a loan, which is actually not disbursed;
   - artificial application of penalties by a non-resident;
2) investment – the use of schemes on the return of pseudo-investments or payment of dividends to non-residents, which significantly exceed the actually invested foreign capital (Feige, E. L. (2016));
3) stock – conduction of repurchase transactions of previously emitted domestic securities (Goel, R. K., & Nelson, M. A. (2016));
4) insurance – conduction of fictitious insurance and reinsurance transactions (Kirchgässner, G. (2017)).

Despite the existing scientific potential, there are many theoretical and applied problems, which still require a final decision and regard, in particular, the definition of catalysts of shadowing of the national economy, the assessment of efficiency of the state policy on unshadowing, considering socio-economic determinants of national economic development. The logical non-completion of the holistic view formation about the governance in the
context of the implementation of the state policy on unshadowing of the national economy has determined the relevance of the research, its objective, tasks, and content.

3. Methods

The methodological basis of the work included the fundamental statements of the economic theory, the theory of money, finance and credit, macroeconomics, management theory, state regulation of the economy, economic and mathematical modelling, and research papers on the TG management and the unshadowing of the national economy.

The research includes the use of such research methods as the methods of logical generalization and scientific abstraction, induction and deduction – during the clarification of the conceptual and categorical framework; a system-structural analysis – while assessing the efficiency of the state policy on unshadowing of the NE.

The information and factual basis of the research covered: the laws of Ukraine, decrees of the President of Ukraine, the normative acts of the Cabinet of Ministers of Ukraine, international legal and regulatory and recommendation documents on financial monitoring, analytical and reporting data of the Ministry of Finance of Ukraine, the Ministry of Economic Development, Trade and Agriculture of Ukraine, State Statistics Service of Ukraine, data of the World Bank, and Organization for Economic Cooperation and Development, the analytical reviews of the international agency Bloomberg, the Financial Action Task Force (FATF), the research results on the TG management problematics, and counteraction to shadowing of the NE.

4. Results

The annual increase in the shadowing volumes of the economy leads to the formation of the institutional and regulatory policy on the economy shadowing countermeasures both at national and international levels. As of today, the existence of the shadow sector of the economy is typical for the majority of the world countries, each of which has already developed a variety of countermeasures that are different in terms of specificity structure of their budget, tax, finance, investment, and other policies.

The modern system of counteraction against income shadowing of each country consists of two components: a national component and a supranational component. The structure and functioning peculiarities of the national component are determined by the level of development of a particular country and the powers of the authorities, involved in this process. To date, the international community has developed a significant variety of tools on counteraction against economy shadowing, which can be divided into restricting and controlling ones (Table 1).
Table 1. Generalization of the structural features of the national system on counter shadowing in the world countries

| Country | Peculiar features of the national system |
|---------|----------------------------------------|
| Poland  | Prohibition to hold an economic activity for individuals who were previously engaged in activities, aimed at concealment of tax liabilities or other measures, regarding income shadowing in significant amounts. One introduced the property liability for unlawful acts of a financial nature. |
| Italy   | Restrictions for payments in cash during operations, carried out by individuals and juridical entities in meaningful amounts. |
| Japan   | Obligation to give notice to financial monitoring and control bodies about big transactions of financial character from financial and non-financial organizations. |
| France  | Restrictions for export-import operations, carried out by domestic economic entities in the offshore areas. |
| Germany | Obligatory declaration of transactions with non-residents, notification of financial monitoring bodies about all suspicious operations of financial character from financial and non-financial organizations. |
| Netherlands | Enhancement of control over all potential sources of corruption appearance and people who were previously engaged in shadow operations. The law violators are prohibited to take public posts. |

Source: systematized by the authors

Thus, for example, the Italian government has imposed restrictions on cash payments for minimizing of illicit financial flows. France limits the size of the export-import transactions with representatives of companies from offshore zones.

Alongside these instruments, an obligatory reporting of public authorities about the meaningful financial transactions to public authorities is becoming more widespread. In Germany, all financial and non-financial institutions are obliged to notify the financial monitoring authorities about all suspicious financial transactions, in Japan, all financial institutions must report to the financial monitoring and control authorities about grand-scale financial transactions.

The European integration processes across the world and the realization of the large-scale influence of the shadow economy on the development of countries have led to an understanding of the need for establishing supranational institutions, alongside national organizations on monitoring and control of shadow financial flows; whose activity is aimed at monitoring and enhancement of control over the financial operations of the member-countries of these organizations.

The functioning of the above-mentioned organizations provides deepening of international cooperation between the member-countries and eases the supervision and monitoring procedures over the level of shadow financial flows, considering the possibility of faster access to information, it contributes to the formation of the unified rules and recommendations for the national institutions, which are compulsory for all interested parties.

Usually, the engagement of a non-resident-partner in the shadow capital transfer operations complicates the procedure of financial monitoring and control over the movement of capital, the identification of all participants of the shadow schemes, verification of the information reliability, reflected in the financial statements due to a lack of timely data exchange between customs authorities of different countries. This fact contributes to an annual increase in the volume of illegal capital transfer through external channels.
Thus, upon the results dated 2018 in the general income shadowing structure 60% of the total volume of shadow capital movement (UAH 27 billion) take the operations on illegal transfer of money abroad from Ukraine (Figure 1).

![Figure 1. The most commonly used operations for money laundering in Ukraine in 2018 (UAH billion)](image)

Source: compiled by the authors, based on the data of The most common money laundering schemes are related to operations on illegal withdrawal of money abroad and investment from offshore zones (2019)

The main sectors of the economy, which included the application of various schemes on income shadowing, were: mining industry, operations with real estate, process industry, financial and insurance activities.

Nevertheless, considering the low growth rates of the economic development of Ukraine (one of the lowest GDP growth rates in the world for the analyzed period), this value of illegal financial flows is a significant destabilizer for the economic situation in the country.

According to the methodology of Global Financial Integrity, an illegal incoming flow can form upon two directions: overrating of the export accounts and undervaluation of the import ones. Herewith, in the first case, one more often observes the procedure of return of illegally withdrawn capital, while in the second case – includes the possibility of shadow settlements for imported goods, works, and services. Alongside this, the output financial flow is made available by the action of the opposite operations – the undervaluation of export accounts and the overrating of import accounts. Thus, we can talk about the use of only one channel of the capital outflow, namely, the export-import one (Illicit Financial Flows Reports. Global Financial Integrity official web-site). At the same time, the author mentions that it is an international business component that takes a significant part of the shadow sector of the economy. It is the most common among the subjects of economic activity.
According to the Statement of the Ministry of Economic Development, Trade and Agriculture “About the statement of Methodical recommendations concerning a complex estimation of volumes of unproductive outflow (export) of financial resources outside of Ukraine” (2015)), the capital outflow out of Ukraine can be conducted upon the following schemes: unproductive legal outflows, hidden outflows, and unrecorded outflows.

The legal unproductive capital outflows can be carried out through the provision of loans by deposit corporations to non-residents (except for the NBU), payment of interest upon deposits, belonging to non-residents, conduction of direct investments from Ukraine, implementation of portfolio investments from Ukraine, repatriation of income of the non-residents, received from investment activity in Ukraine, payment of capital and other current transfers.

The hidden capital outflows can take place through price distortion of the exported or imported products, which results in a financial profit of the foreign counterparties; under-receipt of revenues by the domestic participants of the foreign economic activity through the fictitious transactions; non-repayment of foreign currency from export operations; and the purchase of freely convertible foreign currency in Ukraine for spending it outside our state.

The conducted analysis shows about the availability of a wide spectrum of ways and schemes of illegal costs withdrawal abroad, engaging a lot of participants, among which are bank institutions, insurance and investment companies, and subjects of economic activity both inside the country and beyond its lines as well (Table 2).

### Table 2. Channels of illegal costs withdrawal abroad used in Ukraine

| Channel       | Way of implementation                                                                                     | Characteristics                                                                                   |
|---------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Bank          | Granting of visibly unrecoverable loans                                                                  | Transactions, involving funds transfer in foreign currency from accounts in Ukrainian banks to accounts in foreign banks |
|               | Fraudulent bankruptcy of banking institutions with the withdrawal of funds to foreign accounts            |                                                                                                  |
|               | Opening of an account by residents in foreign banks                                                      |                                                                                                  |
|               | Overstatement of the interest rate for a loan in foreign currency granted to the Ukrainian side          |                                                                                                  |
|               | Shredding of deposits (smurfing)                                                                        |                                                                                                  |
| Export-import | Understatement of the documented export price for goods, which are sold offshore at world prices         | Non-return of currency in Ukraine, obtained from economic activity, carried out outside Ukraine    |
|               | International reinsurance operations                                                                     |                                                                                                  |
|               | Giving time on payment of export products                                                                |                                                                                                  |
|               | Manipulations with prices during commodity exchange operations with the consequent investment of part of the funds abroad |                                                                                                  |
|               | Unjustified advance payments, based on the fictitious contracts for the delivery of goods into the country and payment for fictitious import services |                                                                                                  |
|               | Overstating the quality of the export product in the contract with simultaneous overstating of the penalty for the case if the goods do not meet the specified quality |                                                                                                  |
|               | Overrating of the documented import price of the goods, which is actually sold at its real cost          |                                                                                                  |
|               | Fictitious import contracts                                                                            |                                                                                                  |
|               | Creation of fictitious debts for the controlled legal entities abroad                                     |                                                                                                  |
The problem of funds legalization, obtained by fraud is a challenge to the financial and economic sustainability of many countries. Stable operation of a country’s financial system is possible under the condition of availability of effective mechanisms and measures on holding and counteraction to laundering of illegal funds at the level of various subjects of the national economy and financial institutions. In recent times, one observes adjusting of the existing legislative and regulatory framework under the requirements of international standards of the national system on combating against funds legalization, obtained by fraud, and financing of terrorism.

To identify the areas of activity and channels of the financial flows penetration, where the degree of probability of money laundering and financing of terrorism is the biggest, one should carry out an analysis and risk assessment for these transactions. The approach, based on risk assessment, will include the detection and control of potential risks of funds legalization, obtained by fraud, which will make it possible to prevent money laundering processes. The implementation of the approach, based on the risk assessment, is possible under the cooperation of the competent authorities and financial institutions.

Upon the results of the analysis, held by the International group of the Financial Action Task Force, the annual volume of money laundering amounts 700 billion – 2 trillion US dollars, which on average equals 2-5 % of the world GDP and is considered as the one, which does not have a significant impact on the indicators of the socio-economic development of society (Illicit Financial Flows Reports. Global Financial Integrity official web-site). Nevertheless, although the global average level of income shadowing does not exceed a conditionally safe level, for some countries, this indicator is regarded as critical (Table 3) and indicates about a rather developed and extensive shadowing system.

| Source: systematized by the authors |

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**Economical**
- Creation of the offshore companies for withdrawal of part of the income from taxation
- The use of schemes on the recovery of pseudo-investments or payment of dividends by non-residents, which significantly exceeds actually invested foreign capital
- Manipulations with prices
- The enterprises’ coming into agreement with the same party for purchase and sale of the same valuable securities

**Conduction of unprofitable for a partner activity with an unofficial benefit outside Ukraine**

**Non-bank**
- Non-controlled transfer of currency abroad
- Purchase of real estate abroad
- The use of charity organizations (criminal funds are disguised as charitable contributions)

**The use of telegraphic and other ways of funds transfer**

**Insurance**
- Conclusion of a fictitious insurance contract, a refund of insurance payments, overseas reinsurance transactions
- Making or a security deposit in a foreign bank with the formal intention of getting a loan and its subsequent cancellation

**The conduction of fictitious insurance operations**

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Table 3. The economy shadowing level of the world countries, 2018

| Country            | Economy shadowing level (% of GDP) | Country            | Economy shadowing level (% of GDP) |
|--------------------|------------------------------------|--------------------|------------------------------------|
| Azerbaijan         | 60.04                              | Germany            | 10.4                               |
| Ukraine            | 52.2                               | Australia          | 9.4                                |
| Nigeria            | 48.37                              | Canada             | 9.8                                |
| Russian Federation | 39.07                              | China              | 8.1                                |
| Sri Lanka          | 37.76                              | Switzerland        | 8.4                                |
| Brazil             | 34.76                              | Japan              | 8.6                                |
| Pakistan           | 31.78                              | USA                | 5.4                                |
| Spain              | 17.2                               | X                  | X                                  |

Source: compiled by the authors, based on the data of The official site of the World Economic Forum

The above-given information shows that the number and volume of illegal capital outflows in Ukraine have significantly increased and the level of economic crime has also risen as a result of the deep economic and political crisis. The country takes second place upon income shadowing and has more than 50% of the total value of hidden income, Figure 2.

Figure 2. Integral indicator of the shadow economy in Ukraine and the growth/decline rate of real GDP

Source: compiled by the author, based on the data of National risk assessment report on preventing and countering legalization (laundering) of proceeds of crime and financing of terrorism. Kyiv, Ukraine. 2019
The indicator of the economy shadowing in Ukraine sits at a rather high level, which indicates about significant deficiencies in the government policy. The biggest weight in the overall structure of money laundering is taken by the operations on illegal transfer of funds abroad – UAH 27 billion or 60% of the total volume.

Upon the results of 2018, the main areas of the economy, housing the application of various income shifting schemes, included: mining, real estate transactions, processing industry, and financial and insurance activities.

Some of the main sources of illegal financial flows among others are the income in the form of tax evasion and manipulation with prices during foreign economic transactions – transfer price formation, which is the most significant component of such flows.

The shadow outflow of profits abroad takes place due to violation of existing legislation on its taxation (for example, without payment of the corresponding corporate taxes or with violation of currency control and regulation rules, etc.).

Despite the availability of a rich spectrum of funds shadowing channels, the tax channels are the most widespread ones in Ukraine. Their key objective is to minimize the sums of tax obligations. As of today, there is a great diversity of ways of income shadowing through tax channels, in particular: double-entry book-keeping; introduction of accounting mistakes; underdeclaration of profit; concealment of a part of assets.

Furthermore, the operations on taking profit abroad through the distribution of business processes between business entities in different countries are also quite common. Usually, the production processes are carried out on the territory of Ukraine, while financial and asset management operations are carried out at foreign enterprises abroad. The process of income and expenditures distribution of these enterprises is built in such a way so that the maximum share of revenues is accumulated abroad.

Apart from the above-reviewed scheme on income shadowing, some economic entities use mechanisms, focusing on receiving VAT recoveries in the result of illegal operations on income shadowing.

During the study of the global competitiveness dated 2017-2018, it was determined that Ukraine, in terms of its tax system, occupies an 81 place out of 148 countries (The official site of the World Economic Forum). The use of optimization schemes contributes to the appearance of channels of money withdrawal out of the national economy. It is a rather flexible and universal tool for companies, engaged in different types of activity. Thus, the payment of interest on loans from controlled foreign companies may become a convenient channel for domestic economic entities for hiding of capital out of the country. If a foreign company is located in a country, with which Ukraine has signed a double taxation treaty, and this country is not included in the CMU list of offshore zones, the interest on such a loan is treated as an expense of the Ukrainian company, which, therefore, allows it to minimize its profit tax liabilities.

There are almost no barriers to hidden capital withdrawal in Ukraine. That is why profit is taken out of the country almost without hindrance. To prevent the illegal outflow of capital, some countries have created conditions, in which the legal transfer of profits to “tax havens” is accompanied by additional payments to the budget and expenses, while the illegal transfer is accompanied by the risk of prosecution.

Apart from their traditional purpose, the investment flows in Ukraine are often part of schemes on hidden capital withdrawal. An indicative example of this is the large volume of investment from Cyprus, which accounts for...
more than 32% of total domestic foreign direct investment. According to the data of the State Statistics Service, Cyprus accounts for the largest share with 19 billion US dollars out of 58.2 billion US dollars of foreign direct investment, attracted during all years of independence of Ukraine since 1991. Only in 2013, the investors registered in Cyprus invested 1.8 billion from 3.7 billion US dollars of direct foreign investments (in 2012 – 3.9 billion US dollars from 4.1 billion US dollars).

The estimates of the Tax Justice Network experts indicate that for the ten jurisdictions, which have the highest financial secrecy score upon the “Financial Secrecy Index” account for around 80% of global financial services trade in the global market. Over 50% of bank assets pass through jurisdiction, which has a high level of secrecy. According to the data of the Stoles Asset Recovery Initiative, almost all large transnational companies use jurisdictions with high levels of secrecy for minimizing tax assessment base upon the corporate taxes (The official site of The Stolen Asset Recovery Initiative (StAR)).

The financial systems of developing countries are more prone to the accumulation and realization of systemic risks, despite the small size and sophistication level of their financial systems, compared to developed countries. The level of financial stability risk in a country depends on the behaviour of many participants in the financial system.

Considering constant systemic interaction of the economic agents in the domestic and foreign markets for resources, goods, and services and financial markets, and the consequences of these interactions in the form of synergistic explicit and latent effects, we have identified the drivers and methods for economy shadowing.

The main components of the process of illegal funds withdrawal abroad are given in Figure 3.
Let us conduct practical testing of the proposed approach to assessing the risk of income shadowing, using the example of investment channels for the withdrawal of funds. According to the State Statistics Service of Ukraine for the period 2012-2018, the volume of foreign direct investment from Ukraine amounted to USD 39 billion. Cyprus and the United Kingdom were the main investors.

The share of countries upon the volumes of direct investments from Ukraine is given in Figure 4. Considering the details mentioned above, the practical testing of the proposed approach for determination of the probability of funds legalization transactions for Ukraine will be carried out using the example of Cyprus and the Virgin Islands as the countries with the largest volume of investments from Ukraine.
Since, by the types or the economic activity, the largest amount of funds in Ukraine has been invested in science activities and the processing industry, the mentioned types of activity will be assessed for the probability of income shadowing risk appearance.

The results of calculations, given in Table 4, show about the intermediate-risk level of income legalization, obtained by fraud during conduction of operations in the processing industry under the participation of Ukraine and the Virgin Islands. At the same time, since the Virgin Islands and Ukraine are determined as the offshore area, which is automatically considered by us as the high-risk area, the probable risk estimate of income shadowing during operations in the area of processing industry for this group of characteristics constitutes 0.74, which indicates about a high level of risk for this operation.
Table 4. Assessment results of the possibility of an appearance of income legalization risk, obtained by fraud under the participation of Ukraine and the Virgin Islands

| Characteristic                             | Estimate upon qualitative grading scale | Score | Probabilistic estimate |
|--------------------------------------------|----------------------------------------|-------|------------------------|
| Member-country (The Virgin Islands)        | high                                   | 0     | 0.27                   |
| Bodies, which participate in operations    | Customs (high)                         | 24.26 | 0.16                   |
| Country of origin (Ukraine)                | high                                   | 7.3   | 0.0085                 |
| Type of economic activity                  | Processing industry (high)             | 2     | 0.17                   |
| General estimator                          | high (intermediate)                    | 55.7  | 0.74 (high)            |

*Source: calculated by the authors*

During the implementation of these operations, we have identified local governments and customs as the bodies directly involved in them. Nevertheless, this list is somewhat relative, as there are usually many more different institutions involved in these operations from both countries. Thus, the operations in the area of transport, warehousing, postal and courier services, and scientific and technical activities are regarded as the least risky ones; the types of activity with high-risk level belong to metallurgical production, manufacture of finished metal products, except for machinery and equipment.

Thus, the application of this instrumentarium for assessment of the income shadowing risks makes it possible to determine the most critical operations from the point of view of illegal funds withdrawal and place them in the zone of increased attention from customs, tax, and other state control authorities.

Considering the multifaceted and multi-channel nature of the phenomenon of the shadow economy, the development of a unified approach to assessing the probability of risk of income legalization, obtained by fraud, is a rather complex task. Since the factors and causes of the shadow economy significantly differ in every country, then the determination of the extent of illegal activities depend on the functioning of the economic system. Thus, while the shadow economy in the developed countries is a determined as criminal activity, which constitutes only a small part of illegal transactions, in the countries with transformational economies, including Ukraine, it is also a share of the legal economy, without the functioning of which the official economy is impossible.

The results of the table confirm the thesis about the significant differentiation of the instruments and mechanisms of income shadowing prevention. Considering this, in our opinion, the development of a unified methodological approach and the construction of mathematical models for assessment of the volumes of the shadow economy and proposals for their substantial reduction is one of the priority areas of research.
5. Discussion

The variety of instruments indicates about the use of an individual approach by the countries in the course of development of the economy unshadowing policy. The executive and legislative authorities should determine the reasonability for application of a particular instrument and form the respective regulatory framework of their use, depending on the level of the country’s economic development, the level of income shadowing risk, and the most powerful shadowing inhibitors, typical to a particular country. One of the most important and, at the same time, most difficult elements in terms of implementation in the management system of the shadow economy is the performance evaluation of the existing shadowing tools.

In this context, the introduction of a results-oriented approach in the executive authorities during the determination of the priorities of their activity becomes particularly important. Quite often, the actual activity of public authorities in the field of the economy unshadowing does not correlate with the tasks that are declared in the legal acts of the respective direction. Nevertheless, the experience of the leading world countries shows that the inconsistency of the strategy and tactics can act as a barrier for the determined tasks.

We think that the analysis of the effectiveness of the economy unshadowing policy should consider the fact that the stage of determining the key principles of their implementation (including objectives, indices and the time horizon for their achievement) is an important step towards building the state policy. The further successful achievement of these objectives is ensured through effective governance, which can be considered as a process of making decisions by businesses, institutions, organizations, and individuals, concerning compliance or non-compliance with the determined objectives.

Thus, the assessment of the instruments’ conformity to the declared objectives is one of the key phases of determination of the efficiency of the economy unshadowing policy. The introduction of the collaborative control regime, grounding on the involvement of all interested parties to the process of development and implementation of the state policy on the economy unshadowing will promote, on one hand, the improvement of understanding of the importance and rightness of the decisions, which are made as part of the implementation of the tax system in the country, and, on the other hand, will create an opportunity for reconciling of the interests of the state and society during strategic decision-making.

Conclusions

Summing up, one should mention that the availability of effective instruments for assessment of the income shadowing volumes creates favourable conditions for an increase in the country’s investment attractiveness and the level of its financial potential. A prerequisite for achieving these objectives is the Timely forecasting of the potential illegal funds withdrawal abroad and the introduction of the preventive measures is an important condition for achievement of the mentioned objectives.

The offered approach makes it possible to assess the possibility of occurrence of the risk of income legalization, which was obtained illegally, both upon individual components (a type of economic activity, authorities, involved in transactions, country of origin, etc.) and the transaction as a whole. The foundation for the development of this approach included the assumption that the use of the corrupt schemes of funds withdrawal abroad takes place at every level of the economic system, and, therefore, one should assess its effects on the overall extent of risk of the operation.
The control measures for managing tax gaps should be diversified, depending on the risk level of the business operation shadowing, which is determined based on: 1) the risk of exposure of the involved public authorities to the facilitation of shadow financial and economic relations (in Ukraine, it is the highest for the law enforcement authorities (0,55), customs (0,82), police (0,49)); 2) risk of the national economy shadowing of the countries, performance of activity of counteragents (can be identified as high for 36 offshore areas as well as 35 other countries, for example, Bulgaria (0,87), Turkey (0,75), Uzbekistan (0,65), Azerbaijan (0,84), Kazakhstan (0,71), Tadzhikistan (0,73), etc.); as low – for 23 countries, for example, Germany (0,32), Sweden (0,44), Denmark (0,39), etc.; 3) risk of shadowing of the corresponding the type of the economic activity (17 types of economic activity were identified as the riskiest in terms of shadowing the national economy, for example, financial leasing operations (0,98), crediting (0,98), insurance (0,98), etc., the least risky – 16 types, for example, textile production (0,14), metallurgy (0,11), processing industry (0,21), etc.).

This approach can be used as a tool for assessing the efficiency of the state anti-corruption policy, especially in the area of shadow flows minimization both at micro- and macrolevel. Apart from that, the offered approach can be used for identification of the main stabilizing and destabilizing factors on the income shadowing level for their more profound research and transformation into controlled in a short- and long-term perspective.

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