Characteristics and the level of shadow economic activity undertaken by Ukrainian financial services companies

Abstract. The article describes a proposed approach to assessing the level of informal activity conducted by enterprises in Ukraine’s sector of financial services. The author analyses hidden, informal and illegal activities of financial services enterprises, taking into account how these activities affect the efficiency of exploiting its potential to ensure the country’s socio-economic growth and highlighting priority measures that need to be taken in order to create conditions for an efficient operation of financial services enterprises within the legal framework.

Keywords: shadow economy, shadow business, enterprise, financial services sector, banking services

1. Introduction

The 2025 Financial Sector Development Strategy of Ukraine establishes the five strategic goals, the achievement of which is the priority of the Ukrainian financial sector’s functioning in the next five years: achieving financial stability, securing macroeconomic development, financial inclusion, financial markets development, and innovative development. However, the shadow economy as the ground of fraudulent entrepreneurship, corruption, organized crime, etc. remains to be one of the most significant threats to the development of the financial sector in Ukraine. Yet the directions of public policy in systemic de-shadowing of the financial sector were provided neither in the previous Strategy (till 2020) nor in the current one (till 2025). Therefore, the research of preconditions and level
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of shadow economic activity of the financial services companies in general and across regions is quite urgent to develop efficient de-shadowing mechanisms, search for the illegally removed assets and return them to the legal turnover, protect the property, provide financial-economic security, and improve the country’s competitiveness in general.

2. Research methodology

The studies available in the domestic scientific literature on the shadow economy cover its scales and impact on socio-economic processes in general, i.e. the evaluation is conducted for the country’s economy in general, while there is little research across sectors and types of activity, etc.

The methodology of calculation of the shadow economy level by enterprises’ losses suggested by the Methodological Recommendations of the Shadow Economy Level Calculation approved by the Decree of the Ministry of Economy of Ukraine (now the Ministry of Economy, Trade and Agriculture Development of Ukraine) no. 123 as of 18 February 2009 is about the only approach that helps to estimate the shadow economy level across the types of economic activity (based on available and accessible statistical data) [Nakaz minekonomiky vid 18.02.2009 no. 123]. Moreover, the advantages of the method are that it is relatively easy to implement and that it covers an important aspect of the economic system – production.

Based on the mentioned Methodology, the level of shadow economic activity of the financial services companies in Ukraine is calculated by the formula \( P_{SEi} \):

\[
P_{SEi} = \frac{P_{SEmin} - P_{SEmax}}{2},
\]

where:

\( P_{SEi} \) – level of shadow economic activity of the financial services companies in the \( i \) year;

\( P_{SEmin} \) – ultimate minimum level of shadow economic activity of the financial services companies in the \( i \) year;

\( P_{SEmax} \) – ultimate maximum level of shadow economic activity of the financial services companies in the \( i \) year.

The calculation of the ultimate maximum level of shadow economic activity of the financial services companies in the \( i \) year \( P_{SEmin} \) takes into account the following [Nakaz minekonomiky vid 18.02.2009 no. 123]:
Hypothesis 1: all loss-making companies are in fact the profit-making ones according to official statistical data, which is considered the overestimation of shadow economy volumes. Profitability of the loss-making companies is equal to the profitability of profit-making companies in the period under research.

Hypothesis 2: the ratio of expenses of profit-making and loss-making companies and the ratio of the number of such companies are identical.

Therefore:

\[
P_{SE_{\min}} = \frac{P_{PE} \times R_{L/P} + L_{LE}}{VA} \times 100\% ,
\]

where:

- \(P_{PE}\) – profit of the profit-making companies of the financial services sector in the \(i\) year, mln UAH;
- \(R_{L/P}\) – ratio of the number of loss-making and profit-making companies of the financial services sector in the \(i\) year;
- \(L_{LE}\) – losses of the loss-making companies of the financial services sector in the \(i\) year, mln UAH;
- \(VA\) – added value of the financial services sector in the \(i\) year, mln UAH.

In this respect, taking into account the mentioned assumptions, the numerator of the formula (2) characterizes the volumes of shadow profit of financial services companies in the \(i\) year (mln. UAH).

The ultimate maximum level of the shadow economy in the financial services sector in the \(i\) year \((P_{SE_{\max}})\) is calculated based on an assumption that all profit-making companies show in their reports only the unbiased data, while all loss-making companies conceal the total volume of the added value of their products rather than only the income. Therefore:

\[
P_{SE_{\max}} = \frac{n_{lm}}{n_{pm} + n_{lm}} \times 100\% ,
\]

where:

- \(n_{lm}\) – number of loss-making companies in the financial services sector in the \(i\) year;
- \(n_{pm}\) – number of profit-making companies in the financial services sector in the \(i\) year.

3. The main results of the study

Fig. 1 shows the results of calculations of the shadow economic activity level of the enterprises in the financial services sector (excluding the banks) made according to the methodology presented above.
Therefore, according to our calculations, the level of shadow economic activity of the enterprises in the financial services sector (excluding the banks) in Ukraine in 2018 was 32.1% of the GVA in the sector under research, having reduced by 1.2 p.p since 2013.

The differentiation of the shadow economy level in the financial services sector has increased by 1.8. points in the period under research (5.8 points in 2018 against 3.9 points in 2013).

Among Ukrainian regions, in the base year, the highest level of shadow economic activity of the financial services sector’s companies was in Donetska oblast (44.2%) and in Kyiv (39.6%), while in the reporting period – in Kyiv (43.1%) and Volynska oblast (35.2%).

Substantial reduction of the shadow economic activity level of the financial services sector’s companies (excluding the banks) in 2018 against 2013 was peculiar to Donetska oblast (from 44.2% down to 17%). Indeed, the volume of the shadow income per financial services sector’s company has substantially decreased in the region in the period under research (from 7 mln. UAH down to 0.7 mln. UAH\(^1\)) against the background of slight growth of the ratio of loss-making and profit-making enterprises in the financial sector (0.07 points).

The highest volume of the shadow income per financial services sector’s company was recorded in Kyiv. Indeed, in 2018, the rate had grown since 2013 a bit more than twice and amounted to 10.3 mln. UAH\(^2\). Therefore, the shadow economy

\(^1\) Calculated by the author on the basis of Methodical recommendations for calculating the level of the shadow economy, approved by the Ministry of Economy of Ukraine.

\(^2\) Calculated by the author on the basis of Methodical recommendations for calculating the level of the shadow economy, approved by the Ministry of Economy of Ukraine.
economy level in the sector under research (excluding the banks) had increased by 3.5 p.p. – from 39.6% to 43.1%.

In general, the shadow activity of the enterprises of the financial services sector can be roughly divided into three types:

1) concealed – legal economic activity that is concealed or understated to avoid taxation;

2) informal – activity that is not registered, therefore, not subject to taxation;

3) illegal – activity prohibited by law (conversion, embezzlement of property, or its acquisition by abuse of authority; bribery, obtaining an unlawful benefit, etc).

Avoiding taxation, i.e. the deliberate concealing/understating of income from conducting business, is about the most important component of shadow economic activity of the financial services sector’s companies. According to the analysts of Kyiv International Sociology Institute [Tinova ekonomika v Ukrayini. Rezultaty doslidzhennya 2019 roku], in 2018, the general rate for Ukrainian companies was 56.7% of the overall shadow economy volumes. Therefore, the growing level of the latter is considerably formed in conditions of the growing number of loss-making companies (coefficient of correlation $R = 0.904$)\(^3\) and/or the reducing number of profit-making companies (coefficient of correlation $R = –0.904$)\(^4\).

The high tax burden on the companies of the legal financial services sector stipulates their disadvantageous position from the economic point of view compared to the companies that use “shadow schemes” in their activity. Due to avoiding taxation, the activity of these companies can be of higher profitability compared to the legal sector companies. As a result, they can have temporary benefits in capital and labor force distribution [Tendentsiyi tinʹovoyi ekonomiky v Ukrayini – 2015 rik].

Avoiding taxation by insurance companies when real existing companies-beneficiaries transfer the non-cash funds for the supposedly provided insurance and reinsurance services to the accounts of the transit insurance companies, which, in turn, transfer the funds to the accounts of bogus insurance companies controlled by the participants of the “conversion” center is one of the most typical schemes on the insurance services market. Further, the funds are cashed, including through the accounts of straw individuals [Serhiy Bilan rozpoviv… 2016].

It is worth emphasizing that, according to the analysts, the growing tax burden and amount of social security contributions are the reasons for transferring the business into the shadow in 52% of cases in the developed countries [Pichuhina, Chorna 2015].

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\(^3\) Calculated by the author.

\(^4\) Calculated by the author.
The entities of informal activity in financial sector can include, for example, the wage workers forced to undertake activity that is not registered and conceal additional income, in particular due to high load on labor remuneration fund. Therefore, the activity is significantly related to shadow activity on the labor market in general as a primary link of the shadow economy. Indeed, according to the data [Nezadeklarovana pratsya v Ukrayini... 2018], in 2016, the financial services sector had the following trends:

– share of employees payed less than 50% of working hours was 4.3% (−13 p.p. compared to 2015);
– share of employees payed less than the minimum wages was 2.5% (+1.3 p.p. compared to 2015);
– share of employees payed about the minimum wages was 2.7% (−0.4 p.p. compared to 2015).

Therefore, the analysts [Nezadeklarovana pratsya v Ukrayini... 2018] assume that in 2016, 9.5% of financial sector employees (−12.1 p.p. compared to 2015) possibly worked over 50% of working hours and received some part of wages “in the envelope”, i.e. they declared their work only partially.

Households that transfer certain funds and other material benefits between them through unofficial (informal) channels are also the entities of informal activity in the financial services sector. Mostly, the operations are related to temporary or permanent migration of population and are carried out by the households from abroad in favor of domestic households. Thus, whereas in 2010, 26.3% ($ 777 million) of private money transfers came to Ukraine through informal channels, in 2018 the rate was 48.9%, and in 2019 – 49.7% ($ 5436 million and $ 5977 million respectively)\(^5\).

Illegal (unlawful) activity in the financial sector. The economic paradox of Ukrainian realities lies in the fact that illegal (unlawful) activity is the component of ordinary entrepreneurship activity in the financial sector. Moreover, there is a symbiosis of shadow activity with authorities in the mentioned sector. Thus, according to the State Financial Monitoring Service of Ukraine [Derzhavna Sluzhba Finansovoho Monitorynhu Ukrayiny. Pidsumky roboty za 2013 rik], in 2018, out of 420 cases on unlawful financial operations related to the activity of “conversion” centers and enterprises with the features of bogusness involved in legalization (laundering) of income received by criminal means, public officials of various ranks were the targets of investigations by 53.6% of cases, 18.6% – government officials, and 6.7% – members of Parliament.

\(^5\) In 2010, the substantial share of private transfers to Ukraine was carried out through the banks’ corresponding accounts (50.5%) and international payment systems (36.2%).

In 2017-2019, the substantial share of crimes in the financial services sector was committed by the companies of the group 64.9 “Providing other financial services excluding insurance and pension” (Table 1). It includes, in particular, the companies that provide services related to the allocation of funds (excluding granting of loans) – factoring services, swap arrangements, option contracts, and other hedging transactions.

The statistics on committed crimes by the companies of the group 64.3 “Trusts, funds, and similar financial entities” in 2016 is interesting. Thus, if the mentioned companies committed only 0.5% of crimes of the total number of crimes in the sector of financial and insurance activity, the share of financial damage caused by the crimes was 40.4% (UAH 70.8 million) of the total financial damage caused by the crimes in the sector under research. In this context, the founding of an investment firm (trust association, pension fund, insurance company, etc.) by criminal groups by the principles of a Ponzi scheme with the further abstraction of depositors’ funds is the most common shadow financial operation.

A substantial share of crimes in the financial services sector accounted for the companies of the group 64.1 “Monetary intermediation”— from 22.2% in 2016 to 35.2% in 2019. The share of financial damage caused by the crimes accounted for 2.6% of the total financial damage caused by the crimes in the sector under research in 2016 and had grown up to 22.8% in 2018 (in 2019 – 1.8%).

The significant share of crimes in the sector of monetary intermediation in the period under research was committed by commercial and saving banks as well as credit unions (category 64.19 “Other types of monetary intermediation”). In 2019, it accounted for 78.5% of the total crimes committed in monetary intermediation, while in 2018 – 80.3%.

Outdated (inefficient) system of analysis of information on suspicious financial operations, inadequate detection and authorization of suspicious financial operations of national public officials, inadequate detection and inadequate elimination of the factors of shadow and offshoring activity of the financial system, high cash turnover, and outflow of financial capital from the country are among the most threatening problems of the domestic financial services sector from the viewpoint of promoting the activity of the transit-conversion groups (the so-called “conversion” centers) and companies with features of bogusness involved in legalization (laundering) of income received by criminal means. Thus, in 2013, the State Financial Monitoring Service of Ukraine sent 207 cases on financial operations related to money laundering to the law enforcement agencies, while in 2018 – 420 cases [Derzhavna Sluzhba Finansovoho Monitorynuh Ukrayiny. Pidsumky roboty za 2013 rik]. The amount of these unlawful financial operations was UAH 277.8 billion. In 2019, the rates were 211 cases for the total amount of UAH 41.8 billion.
Table 1. Information on crimes committed at the companies of the financial and insurance activity sector in 2016-2019

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Financial and insurance activities</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Criminal offenses</td>
<td>Material damage caused by criminal offenses</td>
<td>Criminal offenses</td>
<td>Material damage caused by criminal offenses</td>
<td>Criminal offenses</td>
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<tr>
<td></td>
<td>total, units</td>
<td>% to the total number of offenses in the financial and insurance sector</td>
<td>total, UAH million</td>
<td>% to the total number of offenses in the financial and insurance sector</td>
<td>total, units</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>4983</td>
<td>22.2</td>
<td>4624</td>
<td>31.5</td>
<td>3203</td>
</tr>
<tr>
<td>Monetary intermediation</td>
<td>1104</td>
<td>22.2</td>
<td>4624</td>
<td>31.5</td>
<td>3203</td>
</tr>
<tr>
<td>Activities of holding companies</td>
<td>5</td>
<td>0.1</td>
<td>3</td>
<td>0.1</td>
<td>1</td>
</tr>
<tr>
<td>Trusts, funds and similar financial entities</td>
<td>24</td>
<td>0.5</td>
<td>10</td>
<td>0.2</td>
<td>17</td>
</tr>
<tr>
<td>Provision of other financial services, except insurance and pension provision</td>
<td>3420</td>
<td>68.6</td>
<td>2746</td>
<td>59.4</td>
<td>1729</td>
</tr>
<tr>
<td>Insurance, reinsurance and private pension provision, except for compulsory social insurance</td>
<td>137</td>
<td>2.7</td>
<td>185</td>
<td>4.0</td>
<td>137</td>
</tr>
<tr>
<td>Ancillary activities in the areas of financial services and insurance</td>
<td>293</td>
<td>5.9</td>
<td>409</td>
<td>8.8</td>
<td>192</td>
</tr>
</tbody>
</table>

Cash financial operations and financial operations related to foreign economic activity, depositing the accounts of the newly established companies, receiving/granting the financial assistance, operations conducted by the high-risk clients (public officials), and stealing the NBU refunding loans are the most common financial operations from the viewpoint of the income legalization (laundering). Electronic banking, private banking, and settlement of international trade transactions are the tools most commonly used for legalization (laundering) of income received by crime means.

The size of the “benefit” of the conversion centers in 2014-2015 was 7-9% of the converted amount. Nowadays, the cost of the services is 11-12% [Serhiy Bilan rozpoviv… 2016].

However, the schemes for obtaining illegal cash have changed lately. Whereas previously the conversion centers received cash mostly in one bank specifically involved in encashment, now the accounts of many economic entities opened in several banks are used, and the cash is withdrawn in small amounts (up to UAH 150 thous.) not only in bank cash offices but also via ATMs. Moreover, it is received from economic entities involved in the realization of trade-financial values for cash without recording in the companies’ accounts. Overall, in 2017, the Tax Police of Ukraine liquidated 65 conversion centers (amount of “converted” funds was UAH 13.5 billion) [My bachymo, yak zminylysy skhemy... 2018], and in 2018 – 55 conversion centers (amount of “converted” funds» was UAH 12.1 billion) [Zvit Derzhavnoyi Sluzhy Finansovoho Monitorynuhu Ukrayiny za 2018 rik].

4. Conclusions

The financial system reform in Ukraine is not finished, and the financial services sector remains to be one of the most problem-plagued from the viewpoint of consistency of the shadow activity development and expansion. The latter, in turn, stipulates the reduced residents’ economic activity in the financial sector, the decline in production, and deteriorated financial security of the country in general. Therefore, the need to search for ways to eliminate the shadow activity of the companies in the financial services sector, on the one hand, and to create conditions for efficient activity in the legal economy, on the other hand, is of urgent importance nowadays. In our opinion, the key ways should be the following:

1) creation of favorable tax conditions to conduct business in the financial services sector, in particular, through stabilization of legal regulation of the taxation system, simplification of taxation, improving the efficiency of tax administration;
2) closing the gap between the level of deposit and credit rates and reducing the rates level in the economy in general to make the lending procedures more accessible for business;

3) improving the monetary discipline, in the first place, through securing the stable conditions on financial market by monitoring and increased control for the activity of financial intermediaries;

4) increased control for the financial markets in terms of countering the inefficient capital outflow through the circuit institutions;

5) countering cybercrime: detecting illegal online activity, prevention and protection from cyber strikes directed at bank electronic systems, combating crimes affecting the financial infrastructure and information system;

6) expansion of financial inclusion, etc.

Therefore, the real reduction of shadow activity in the financial services sector can take place in case of declining costs and the growing efficiency of the legal economy and the creation of equal conditions for the functioning of various business forms in the financial sector. Relaxing the fiscal pressure on the legal economy should be the key condition of such transformation that would create motivation to transfer the shadow operations into the legal domain.

References


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Serhiy Bilan rozpoviy pro naybilsh poshyreni pravoporushennya v kredytno-finansoviy sferi [Serhiy Bilan spoke about the most common offenses in the credit and financial sphere] (published on
Charakterystyka i skala działalności gospodarczej w szarej strefie prowadzonej przez ukraińskie firmy świadczące usługi finansowe

Streszczenie. Celem artykułu jest zaproponowanie podejścia do oceny poziomu szarej strefy w działalności ukraińskich przedsiębiorstw sektora usług finansowych. Autorka analizuje działalność w szarej strefie, biorąc pod uwagę, jak te działania wpływają na efektywność wykorzystania potencjału sektora finansowego z punktu widzenia zapewnienia rozwoju społeczno-gospodarczego kraju oraz wskazując na priorytety działania, które należy podjąć, aby stworzyć warunki dla sprawnego funkcjonowania przedsiębiorstw usług finansowych w ramach prawnych.

Słowa kluczowe: szara strata, szara działalność, przedsiębiorstwo, sektor usług finansowych, usługi bankowe, działalność bankowa