

## PECULIARITIES OF FUNCTIONING OF THE BANKING SYSTEM OF UKRAINE

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**Abstract.** The state of the banking system indicates the level of prosperity in the country. The financial and economic crisis has provoked a significant outflow of funds from banking system and the growth of non-performing loans, which led to a deterioration in liquidity and solvency of banks and, accordingly, significantly affected their financial stability. *The purpose* of the article is to determine the features of the banking system of Ukraine and trends in its further development. The banking sector is influenced by a set of factors: the general political and economic situation in the country, the development of the securities market and the interbank market, the organization of the refinancing system, the effectiveness of regulatory functions of the central bank. Strikes, natural disasters, military conflicts, revolutionary, political and economic events are also extraordinary factors. The aggravation of the political crisis, inconsistency and inconsistency of public policy make the economic crisis in the country even deeper and longer. It is political stabilization that should be the catalyst for the resumption of economic growth. Another important factor that has a strong impact on the economic situation in the economy as a whole and on the functioning of the banking system is the COVID-19 Pandemic. A key factor in the functioning of the banking system of Ukraine in the COVID-19 pandemic is the change in the discount rate as an element of monetary policy of the National Bank of Ukraine. *Methodology.* The main indicators of banking institutions are analyzed, in particular: the dynamics of changes in the number of Ukrainian banks, the number of structural units of banks, TOP-10 banking institutions in 2021, the dynamics of changes in Ukraine's discount rate in recent years, financial results of Ukrainian banks. It was found that the decrease in the number of banking institutions led to a significant reduction in the number of branches, in particular, most branches were closed by state-owned banks and PrivatBank, but new branches were opened exclusively by private banks. Analyzing the state of the banking services market in terms of raising funds from individuals, dynamics of monetary deposits of the population for the last not a few years show an increase in trust citizens to banks and the interest of bankers to increase in the share of attracted funds of the population in their assets. Changes in the financial market affect the competitive position of banks, which requires rapid adaptation to existing conditions and accumulate all efforts to maintain their own solvency and stability of the banking system. *Results.* The results show that the changes that took place in the banking system during the COVID-19 pandemic and the full-scale war require the development of possible scenarios for the development of Ukraine's banking system in the future. To restore the banks caused by the banking crisis, it is necessary to use such tools as: maintaining liquidity as a "lender of last resort", reducing required reserves, a diversified approach to setting economic standards. Based on the optimistic scenario and using adaptive and regulatory approaches, as well as taking into account the influence of endogenous and exogenous factors, the projected indicators of development of the banking system of Ukraine have been developed.

**Key words:** bank, banking system, National Bank of Ukraine, COVID-19 pandemic, full-scale war, financial and economic crisis.

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## 1. Introduction

A developed banking system is a necessary condition for the normal functioning of the economy, ie the functioning of economic entities and the state budget. The financial condition of the banking system directly affects the economic security of the state and, consequently, its economic sovereignty. The paramount importance of the banking system is aimed not only at the economic activities of individual entities, but also at the financial activities of the state, because it is through the banking system is the direct material support of state functions. On the basis of the adopted legislation, the activity of independent commercial banks is becoming more and more developed, and there is a constant search for ways to increase the efficiency of banks' services to market participants.

But in today's conditions, Ukraine's banking system is going through a difficult period of being affected not only by the global crisis and globalization processes, but also by the COVID-19 pandemic and Russia's full-scale war against our state. Therefore, the issue of improving the banking system is extremely important today and requires urgent action to address it.

In recent years, there has been an increase in the number of scientific papers and studies on the issues raised, which only confirms its relevance. Significant contribution to the study of problems and features of the domestic banking system was made by such domestic scientists as Bulindin D.V. (2017), Granovskaya I.V. (2011), Halperina D.O. (2015), Hrubinka I.I. (2017), Karcheva G.T. (2017), Kholodna Y.E. (2013), Koriahina T.V. (2016), Kvasnitska R. (2018), Oliinyk A. (2018), Simon A.P. (2016), Teliatnyk V.M. (2016), Tarasova O.V. (2014), Rat O.M. (2013) and others.

However, these researchers studied some aspects of the functioning of the banking market, which did not give a complete picture of the problems and prospects for its development today.

## 2. Characteristics of the state of the banking services market

The banking system plays an important role in shaping economic relations between money market players. This is due to the fact that banks are one of the most important elements of the structure of the economy in the organization of financial flows. They form the basis of the country's credit system, concentrate the bulk of its resources. The banking system is the branch of activity where all the positive and negative phenomena occurring in the economy are most dynamically and actively reflected (Kholodna, Rat, 2013).

To identify the main shortcomings of the banking system of Ukraine, it is necessary to explore the

peculiarities of its formation and development. In general, the development of the banking system began with the adoption of the Law of Ukraine "On Banks and Banking" (On banks and banking: Law of Ukraine).

Its operation is based on generally accepted principles of banking in the world, in particular: two-tier structure, clear functional distinction between first and second tier banks; functioning of second tier banks on a commercial basis and on contractual relations with the clientele; elimination of the state monopoly on banking, the possibility of creating commercial banks of various forms of ownership; organization of state control and supervision over banking activities and assignment of this task to the central bank; independence of the central bank from state executive bodies; formation of system-wide infrastructure for banking (Granovskaya, 2011).

Banking services actively influence the development of Ukraine's economy at both the macro and micro levels. First, the banking service is one of the effective factors in intensifying the reproducible process in general and its component such as exchange in particular. Second, banking services play a significant role in meeting the needs of the population, improving their living standards by providing consumer credit and influencing the development of small businesses.

The banking system is an integral part of the financial system and economy of any country, which summarizes a set of different for organizational and legal form and specialization of banking institutions that exist within a single financial system and a single monetary system mechanism in a certain period of time, is the field of activity in which most positively and actively reflect all the positive and negative phenomena occurring in the economy. It operates through the banking system mechanism for the distribution of financial resources embodied in financial assets, is their mobilization and involvement in economic circulation. (Kvasnitska, Oliinyk, 2018).

The political and economic crisis that began in late 2013 and hostilities in 2022 have worsened the financial condition of domestic banks. Some banks and the entire banking system of Ukraine today operate in difficult conditions with high risks. Due to the crisis in the financial market, commercial banks have to work in a sharp decline in funding, due to significant outflows clients, restricting access to international capital markets, falling stock prices, reducing the amount of financial support provided to Ukrainian subsidiaries by foreign parent banks. The low level of resource base and the predominance of short liabilities make the banking sector too vulnerable to the risk of liquidity loss, increased credit and market risks. Negative impact on banking have low incomes, and unsatisfactory financial condition

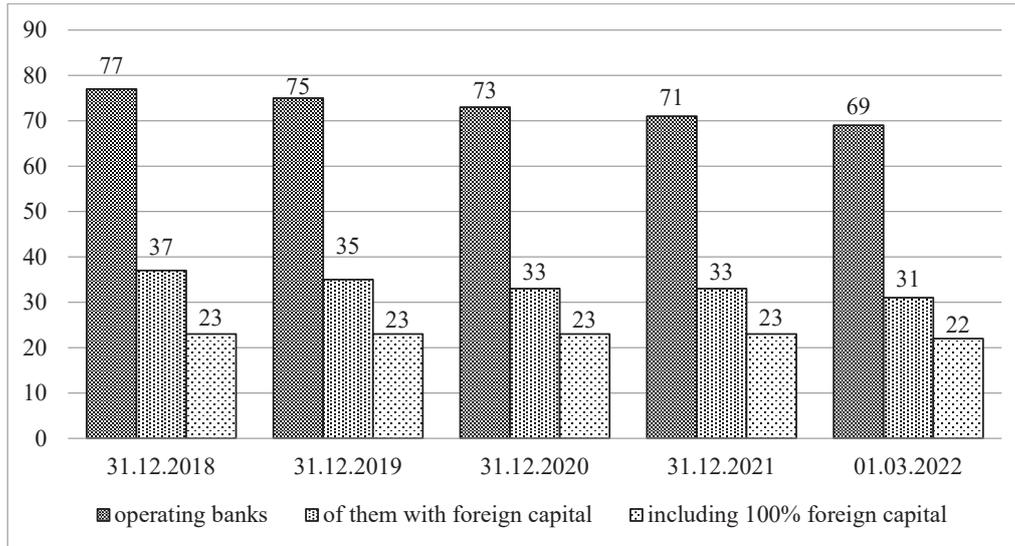


Figure 1. Dynamics of change in the number of Ukrainian banks

Source: (Official site of the National Bank of Ukraine, 2022)

of borrowers requires the creation of significant reserves, which in the absence of relatively stable sources of resources complicates the formation of the resource base of commercial banks (Credit ratings of borrowers. RURIC National Rating Agency, 2021).

To characterize the state of the banking services market, it is advisable to study the dynamics of existing banks in Ukraine (Figure 1).

As of December 31, 2021, 71 banking institutions were licensed by the National Bank of Ukraine to conduct banking activities. Between 2018 and 2021, the number of solvent banking institutions decreased by 6. At the beginning of the large-scale invasion, of the 71 banks that formed the second tier of the banking system, two were indirectly owned by the

Russian government (Russian Sberbank and VEB subsidiaries). In the banking sector, these two banks together had 2% of assets, so their closure did not have a significant impact on the banking system of Ukraine. The decrease in the number of banking institutions led to a significant reduction in the number of branches (Figure 2).

Most branches were closed by state-owned banks and PrivatBank. New branches were opened exclusively by private banks, during the fourth quarter – 34. In total, in 2021 the number of separate divisions decreased by 449, most notably in Kyiv and Dnipropetrovsk region (53 branches each).

Given the volatile factors in the global market, it is necessary to operate effectively and professionally,

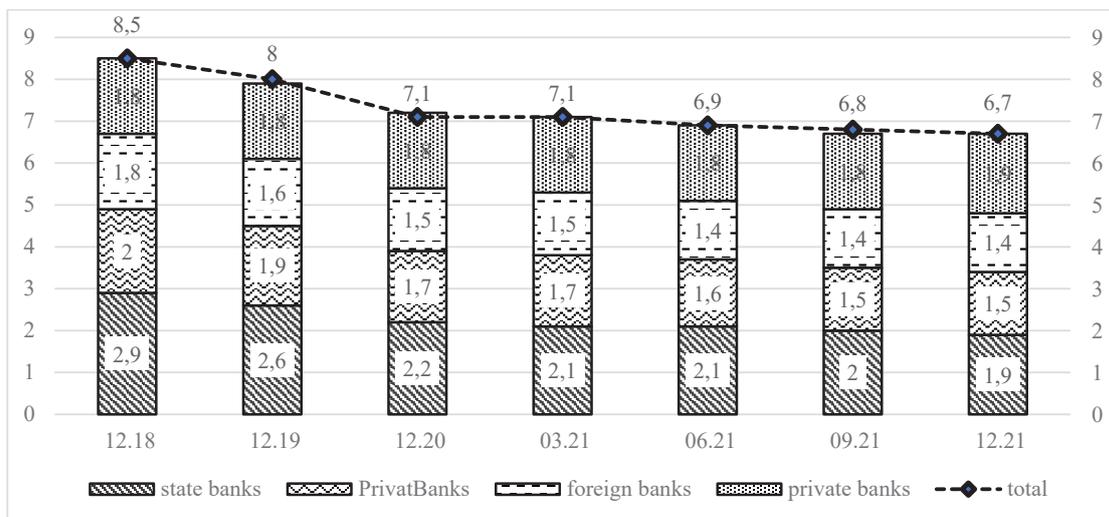


Figure 2. Number of structural units of banks, thousand units

Source: (Official site of the National Bank of Ukraine, 2022)

so that a highly competitive position must quickly adapt to existing conditions and accumulate all efforts to maintain their own solvency and stability in the market. Mind presented the traditional update of the reliability rating of Ukrainian banks in 2021 and the analysis of the banking industry (Rating of banks – 2022: in the fog of war, 2022).

The domestic banking system is significantly affected by the presence of foreign capital, which should be directed to additional forces of the National Bank Ukraine, as well as other state bodies in the field of banking regulation and control in order to prevent the formation monopolization in the banking sector of foreign banks, in addition to preventing the possible displacement of the domestic banking sector from the financial market.

Traditionally, the highest scores are given to large institutions that are members of foreign banking groups or supported by Western countries: Raiffeisen Bank Aval, Ukrsibbank, City Bank, ING Ukraine, Credit Agricole and OTP. For the first time since the nationalization, the state-owned PrivatBank received a high rating of 4.5 stars. Two other state-owned Ukrainian banks also received high 4 stars: UkrEximbank and Ukrgasbank. Outsiders include RVS Bank, Russia's Prominvestbank, and small Ukrainian banks with a translucent ownership structure and weak financial performance: RADA Bank, MTB, Dnipro Bank, Investment and Savings Bank, Megabank, Sich Bank, and Industrialbank.

There have been negative structural changes in the system, which led to a reduction in current capacity, excessive concentration in hands of state assets (55% of banking assets system) in the absence of a clear policy on state banks. It is known that excessive monopolization and concentration of predominant most of the resources are in the hands of a limited circle has a negative impact on the economy and system. On the one hand, this factor market opportunities for pricing based on free competition, which leads to significant problems with full-fledged

development under by the action of market forces, and on the other – levels the market labor, determining the extremely low level of income able-bodied population and, as a consequence, the possibility of savings, which are the main source of resource base of banks (Karcheva, Bulindin, 2017).

### 3. Characteristics of factors influencing the activities of banks

The banking sector is strongly influenced by many external and internal factors, including: the NBU discount rate, inflation in the country and the world, the state of the economy, the crisis caused by the SOVID-19 pandemic, full-scale war, gross domestic product, state budget deficit, state debt, etc. Therefore, it will be expedient to analyze one of the basic indicators as the discount rate of the National Bank of Ukraine.

In order to support Ukraine's economy in the pandemic, the NBU Board decided to reduce it to 8% (from April 24, 2020) and then to 6% (from June 12, 2020), analyzing the entire history of the economy of an independent state, its level became the lowest in 30 years (Discount rate of the National Bank, 2022).

A high discount rate can provoke reduction of lending activities, which may adversely affect financial security resources of economic entities. Therefore, lowering the discount rate to 6% made it possible hope for adequate credit conditions. Delivery is a guide for cheaper credit resources, so the gradual reduction of the discount rate relative to projected inflation, which may help reduce devaluation and inflation expectations that largely provoke inflation.

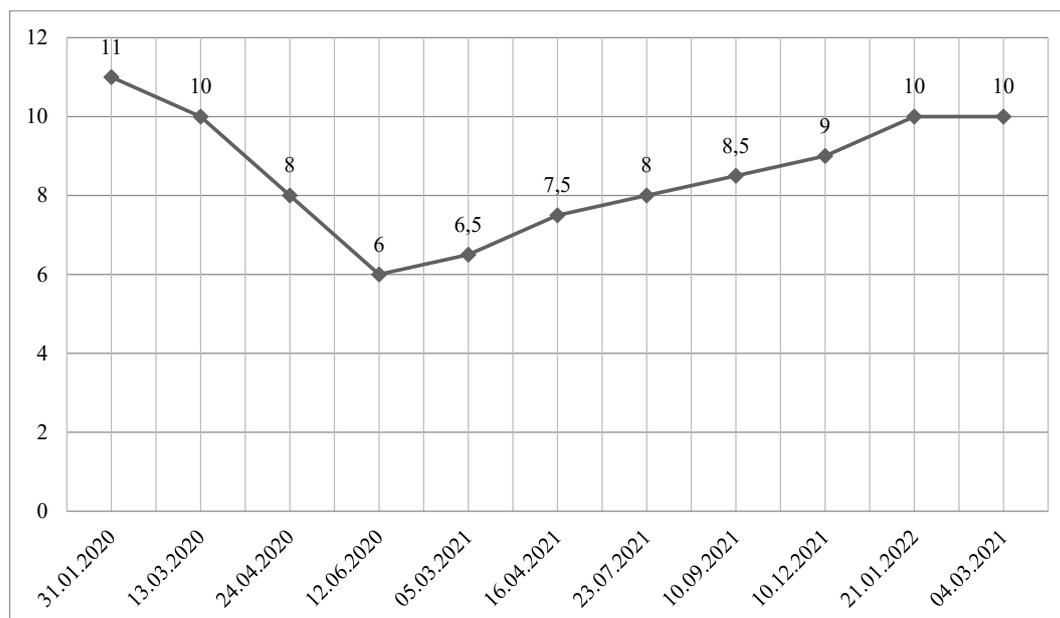
During 2021 there is an increase in the discount rate, and by almost the end of the year the Board of the National Bank of Ukraine decided to raise the discount rate to 9% per annum, and on January 21, 2022 – to 10%. This decision is aimed at leveling the impact of additional pro-inflation risks, improving inflation expectations and ensuring a sustainable reduction in inflation to 5%. However, the inflation rate in March

Table 1

#### TOP-10 banking institutions in 2021

	Bank	Rating	Net assets, UAH million	Instant liquidity, %	Problem loans, %
1	Raiffeisen Bank Aval	4.5	131736.4	15.0	2.3
2	PrivatBank	4.5	407256.7	10.3	71.2
3	Ukrsibbank	4.5	78391.5	13.6	2.5
4	OTP Bank	4.5	69862.6	11.0	6.2
5	City Bank	4.5	33681.3	7.3	0.2
6	ING Ukraine	4.5	13644.5	19.9	0.0
7	Credit Agricole	4.5	54871.0	6.5	1.8
8	Ukrgasbank	4.0	123874.6	5.1	11.7
9	UkrEximbank	4.0	192053.6	3.5	34.8
10	FUIB Bank	4.0	104648.8	7.0	7.3

Source: (Rating of banks – 2022: in the fog of war. Mind official site, 2022)



**Figure 3. Dynamics of changes in the discount rate of Ukraine in 2020–2021**

Source: (Official site of the National Bank of Ukraine, 2022)

2022 rose to 13.7% against 10% in January. But the NBU, given previous mistakes, left the discount rate at 10%, which can not be ignored. Analysis of the financial performance of banking institutions in Ukraine over the past four years shows that the income of Ukrainian banks increased by UAH 69,289 million in 2021 compared to 2018 (Table 2), and increased costs, but this did not affect the performance of banks.

In 2021, the banking sector received the historically highest profit of UAH 77.5 billion (+ 95.4% yoy), primarily due to a rapid increase in operating income and a reduction in provisions. In the fourth quarter, the profit of the banking sector was 12.6 times higher than in the fourth quarter of 2020. Profitability indicators are experiencing sharp jumps in the period from 2018 to 2021, and remain positive. In addition to the significant growth rates of income, this was due to the dissolution of provisions for legal risks and, by 71.1% lower than last year, allocations to reserves for expected credit losses. The number of unprofitable banks fell from seven to five in the quarter, with their total loss remaining insignificant.

In early 2022, military and political tensions around Ukraine led to a moderate outflow of population deposits. As of mid-February, it is clear that banks have calmly met the outflow, having a significant margin of liquidity. As term funds were stable, financial institutions did not raise deposit rates, as they did not need to compete for clients. Further tightening of monetary policy is expected to affect the conditions for raising funds and increase funding. Therefore, the interest rate risk of banks will increase. State-owned banks were leaders in hryvnia lending in 2021. Together with the implementation of the strategy of reducing non-performing loans, this significantly reduced the share of non-performing loans. Such actions increase investment attractiveness and bring state-owned banks closer to the strategic goal of privatization.

In the near future, the NBU will decide on a schedule for the gradual recovery of capital buffers deactivated during the deployment of the corona crisis. Capital buffers increase banks' ability to withstand risks in times of financial and economic instability. The formed capital reserve can be used both to absorb possible losses and for further lending. According to the NBU,

Table 2

**Dynamics of financial results of banks of Ukraine for 2018–2021**

Indicator	31.12.18	31.12.19	31.12.20	31.12.21	2021/2018 (+,-)
Revenues, UAH million	204554	243102	250171	273843	69289
Costs, UAH million	182215	184746	210445	196313	14098
Operating result, UAH million	22339	58356	39726	77530	55191
Profitability on assets, %	1,69	4,26	2,44	4,09	2,4
Profitability on capital, %	14,67	33,45	19,22	35,15	20,48

Source: (Official site of the National Bank of Ukraine, 2022)

the current high profitability and available capital reserves allow banks to easily comply with such regulatory requirements (Review of the banking sector, 2022).

The banking system has managed to adapt to work in wartime and continues to function relatively well. Banks have developed effective plans for current activities, as well as recovery plans. This allows them to continue operations in those regions where there is no active hostilities. The practice of remote work is quite effective in these conditions.

Banks gained this experience during lockdowns in the context of the COVID-19 pandemic. Assessing the prospects of the financial result, banks will certainly face very serious challenges. Due to the decline in business activity and payments, commission income has fallen sharply since the beginning of the war. Interest income will also be significantly reduced due to the introduction of credit vacations by banks, which sometimes allow borrowers to pay only symbolic interest.

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However, the sharp deterioration in the quality of the loan portfolio and the associated increase in reserves will be the biggest challenge for banks. It is expected that after the end of the credit holidays, banks will receive large volumes of applications for restructuring. Also, many customers are likely to report being unable to service loans because of the damage the war has done to their business. Therefore, it is safe to say that even if the war ends quickly, banks will be forced to recognize significant losses from the loss of tangible assets and from the depreciation of the loan portfolio. These losses will absorb their capital.

ICU analysts expect that most banks, including systemically important ones, will have negative capital at the end of this year due to the consequences of the war.

National Bank of Ukraine will be forced to adhere to the policy of easing regulatory requirements in 2023. In the future, military reparations from Russia may become one of the sources of bank capitalization. In the further process of restructuring banking systems that have endured or will endure a large-scale banking crisis, such tools as: liquidity support "lender of last resort", reduction of mandatory reserve requirements, diversified approach to setting economic standards, transition to troubled credit institution (bank) under the management of a specialized institute for restructuring, recapitalization and nationalization

of socially significant banks for the country. Most of these tools have been used in the US, EU and CIS countries to overcome the effects of crises in banking systems.

#### 4. Scenarios for stabilizing the banking system

Stabilization of the banking system largely depends on the development of effective scenarios for the development of the banking system, which would provide for its transition from extensive to intensive development model, ie how the development of the banking system is characterized by qualitative changes and focus on strategic efficiency.

When developing scenarios, it is necessary to take into account that the stable functioning of financial markets and the banking system, ensuring liquidity and stability of banks are extremely important for the stable socio-economic development of the country. Unfortunately, commercial banks and non-bank financial institutions in Ukraine have low diversification compared to European countries, which reduces their efficiency and competitiveness. The structure of the country's financial system is dominated by non-banking financial institutions.

As of January 1, 2021, the number of financial companies in Ukraine was 1,031, credit unions 327, pawnshops 304, leasing companies 144, non-life insurance companies 196, life insurance companies 19, insurance brokers 63. Therefore, the development of banking systems take into account the presence on the financial market of other entities that belong to non-banking financial institutions. In addition, the share of banking services in the financial market is 82% in assets and 72% in capital.

Based on the optimistic scenario and using adaptive and regulatory approaches, as well as taking into account the impact of endogenous and exogenous factors, developed indicators of Ukraine's banking system until 2025 (Table 3), based on the assumption of economic recovery, active implementation of banking innovations and growth digital economy.

Under the optimistic scenario, there will be a revival of the banking system, which has suffered enormous problems in reducing its resilience during hostilities in Ukraine in 2022. However, Ukraine's gradual accession to the EU and the rate of gradual economic growth will be moderate, and the level of social security will remain relatively low and will not meet the high standards of quality of life typical of most European countries.

The banking sector will go through a difficult path of quality growth and development, aimed at increasing financial stability, capitalization and liquidity, reducing risks. The optimistic scenario is based on the introduction of innovative banking products in the development of the banking system

Table 3

**Forecast indicators of development of the banking system of Ukraine**

Indicator/ year	2025
Assets to gross domestic product, %	90-100
Capital to gross domestic product, %	13-15
Credit to non-financial companies and households	65-75
Money of individuals	20-30
the share of non-performing credit in the credit portfolio	5-8
The share of the banking sector in the financial services market	65-75
NBU discount rate	5-7
Share of state-owned banks in assets	20-25

of Ukraine. During crises, hostilities and competition in the banking market, banks need to increase their competitiveness while ensuring financial stability, in particular through the introduction of innovative banking technologies.

Pessimistic and realistic scenarios for the development of Ukraine's banking system are not entirely acceptable, as such scenarios will not ensure systemic stability, efficiency and stable development of the banking system, positive impact on socio-economic development of regions and the country as a whole.

## 5. Conclusions

A strong banking system is a prerequisite for sustainable economic growth in Ukraine. Banks are one of the main sources of investing financial resources in the country's economy. In the modern economy, the banking system is of great importance due to the links of this system with all sectors of the economy. Domestic banks are forced to operate in high-risk conditions, so they are more likely than their foreign counterparts to be in crisis situations. Most crises are due to banks' underestimation of equity and financial stability.

Analyzing the current state of the banking sector in Ukraine, it can be noted that in recent years the pandemic has significantly affected the functioning of banking institutions, it is easy to trace the dynamics and trends of key performance indicators. Today, the Ukrainian banking system is coping quite well with the unprecedented crisis caused by Russia's full-scale war against Ukraine. Most banking services remain available to the extent that their provision does not endanger the safety of customers and employees of banks. However, risks may increase as the inflow of new funds into accounts is likely to decrease. Profitability and capital risks will be key medium-term risks in the banking sector. Therefore, the future state of the banking system in Ukraine cannot be accurately predicted, and therefore, it is necessary to be able to anticipate changes and quickly develop and implement existing mechanisms and methods of banking institutions.

In order to curb inflation and balance the situation in the money market, the National Bank of Ukraine considers it necessary to take measures to increase the domestic value of the national currency through the use of leverage interest rate policy. Stabilization of the banking system largely depends on the development of effective scenarios for the development of the banking system. The optimistic scenario is based on the introduction of innovative banking products in the development of the banking system of Ukraine. Pessimistic and realistic scenarios for the development of Ukraine's banking system are not entirely acceptable, as such scenarios will not ensure systemic stability, efficiency and stable development of the banking system. Thus, the directions of improving the efficiency of the banking system are: increasing the capitalization of the banking system; increasing the competitiveness of domestic banks compared to foreign financial institutions; strengthening risk management control in banks; development of effective scenarios for the development of the banking system.

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