DYNAMICS OF THE MONETARY SECTOR OF UKRAINE DURING THE WAR AND ITS IMPACT ON THE EFFICIENCY OF THE BANKING SYSTEM

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Abstract: The article examines the dynamics of indicators of Ukraine's monetary sector after the beginning of the war and determines its impact on the efficiency of the functioning of banking institutions. The peculiarities of the use of currency and financial instruments by commercial banks of Ukraine in the conditions of destabilization of the banking sector due to the destructive influence of Russian aggression are considered. The dynamics of bank clients' transactions with foreign currency and the volume of interventions of the National Bank of Ukraine in the foreign exchange market since the beginning of the war were studied. The problems of commercial banks with attracting deposits to ensure the efficiency of operational activities are identified. An analysis of the dynamics of the index of rates for deposits of individuals, as well as the yield of bonds of the domestic state loan, as the main instruments for attracting funds in Ukraine's financial market, was carried out.

Keywords: foreign exchange market; financial instruments; banking sector; deposits; government bonds.

1 Introduction

The dynamics of economic processes, especially in the conditions of a military conflict, are determined by many factors, among which the functioning of the monetary sector is critical. At the same time, forecasting the change of such factors or the vector of their influence is challenging for financial analysts since this change significantly depends on events outside the plane of the economic system. Ukraine, which faced the challenges of military operations, got into a difficult situation in the context of ensuring the effectiveness of the banking system at the expense of monetary instruments. The lack of proper experience in regulating financial markets in global practice significantly complicated the process of stabilizing Ukraine's financial sector, as it required a thorough economic analysis of the changes occurring in the markets and the formation of a forecast of their dynamics.

As you know, the ability of the banking system to adapt and work effectively in martial law conditions becomes essential for ensuring the overall stability of the financial system and preserving the country's economic stability. A period of war is always characterized by instability in the financial sector, and this becomes the most difficult challenge to develop effective strategies for managing monetary resources. For Ukraine, achieving such efficiency is possible by studying the dynamics of the monetary sector and analyzing its impact on the efficiency of the banking system. This is because understanding and taking into account the critical aspects of the application of financial instruments will make it possible to determine the main factors that shape the stability of the country's financial system in conditions of instability and military threats. At the same time, it is necessary to focus particular attention on the importance of the proper functioning of the banking system in such conditions, as well as on the need to implement adequate regulatory and control measures to ensure financial stability and support economic growth.

In addition, an essential aspect of the analysis is the impact of military operations on exchange rates and the attraction of deposits by banks. In unstable and long-term uncertainty in the financial markets, exchange rates can be subject to significant fluctuations, severely impacting export-import operations and the country's general economic situation. Banks, on their part, face the problem of attracting deposits ensuring liquidity to support their day-to-day operations. Therefore, in a period of war, trust in financial institutions can undergo a great test, which leads to a possible decrease in the volume of deposits and changes in the strategies of their attraction by banking institutions. Therefore, analyzing these processes becomes necessary to understand how the banking system can adapt to war conditions and how this affects its efficiency and sustainability.

Thus, research and analysis of the dynamics of the monetary sector and its interrelationship with the banking system in conditions of war acquire particular importance in the formation of approaches to support the functional stability of the banking system and ensure its functional efficiency in situations of uncertainty.

2 Literature Review

The relevance of studying the dynamics of the monetary sector and its impact on the efficiency of the banking system attracts considerable attention from scientists and practitioners. At the same time, it is possible to note several critical studies in the field of the interaction of economic processes and the financial sector in crisis conditions, which consider the impact of market instability on the effectiveness of the functioning of banking institutions.

Thus, one of the critical aspects of this issue is the relationship between macroeconomic indicators and the banking system's stability in crisis conditions. This problem is quite widely revealed in the studies of A. Boiar [1], O. Neizvestna [11], J. Reitšpís [13], and O. Yatsukh [20], who determine that the instability of exchange rates and the drop in economic growth rates can lead to significant negative consequences for banks and other financial institutions. At the same time, there is an emphasis on the importance of ensuring proper macroeconomic management to secure the functional stability of the banking system in times of crisis.

Another direction of research revealed in modern economic literature is the role of monetary policy and regulatory measures, including martial law, in solving financial challenges during economic crises. In particular, studies by authors such as B. Danylyshyn [5-6], M. Masl'an [8], and T. Shmatkovska [14-17] show that only effective measures aimed at regulating and maintaining liquidity can affect the successful functioning of banking institutions in conditions of economic instability and negative changes in financial markets.

Separately, it is worth noting such an essential field of research as determining the impact of currency risks and strategies of banks in attracting and managing deposits in crisis conditions. In this aspect, it is necessary to note the research of scientists such as I. Britchenko [2-4], N. Kunitsyna [7], O. Ramos [12], O. Stashchuk [18], and V. Yakubiv [19], which emphasize the need for flexible and adaptive risk management strategies to ensure the stability of the banking system in conditions of uncertainty and external threats.

In general, it can be argued that all the mentioned studies form an essential contribution to the understanding of the dynamics of the monetary sector in periods of economic and financial crises and emphasize the need for an integrated approach to the management of the country's financial system in conditions of geopolitical instability. However, the specificity of the state of war in which Ukraine's banking system operates requires an in-depth analysis of these aspects to develop practical recommendations to support the effectiveness of Ukraine's banking system during wartime.

3 Materials and Methods

To study the dynamics of the monetary sector and determine its impact on the change in the efficiency of the banking system during the war in Ukraine, a comprehensive methodology was applied, which includes the analysis of macroeconomic indicators, the assessment of monetary and financial policy, and other unique and general research methods.

In particular, an analysis of economic indicators of Ukraine's monetary sector during hostilities was carried out. These indicators included parameters such as currency operations of banks, exchange rate dynamics, the index of bank interest rates on deposits, the yield of government bonds, etc., which made it possible to reflect the change in the general state of the economy of Ukraine in its relationship with the monetary sector.

Evaluation of monetary and financial policy, within the framework of which the activity of the National Bank of Ukraine and its monetary and credit policy during the war were investigated. At the same time, critical decisions regarding ensuring the stability of the banking system and the need to ensure a sufficient level of liquidity for commercial banks and the banking system as a whole were studied.

An assessment of the strategies of commercial banks in wartime conditions was carried out, which involved the study of financial statements of banking institutions, based on which the method of managing currency risks and attracting deposits by banks was formed. Special attention was paid to banks' reactions to changes in the macroeconomic environment after the start of the war.

A documentary analysis of official reports and publications of the National Bank of Ukraine was carried out, as well as a study of scientific and analytical studies on this topic to ensure the validity and reliability of the results obtained.

Also, in the research process, the abstraction method was used to determine the main concepts and general principles that characterize the dynamics of the monetary sector during the war and the study of its impact on the effectiveness of the banking system in Ukraine. Thanks to the application of this method, it was possible to generalize the cause-and-effect relationships between economic, financial, and political processes during the war and to single out general trends and relationships between them.

In general, the data and results obtained make it possible to consider the dynamics of the monetary sector during the war and determine its impact on the efficiency of the banking system in Ukraine.

4 Results and Discussion

Russia's military aggression, which began in February 2022, caused catastrophic consequences for the economic and financial system of Ukraine. At the same time, the negative consequences of the war are observed not only in Ukraine but also have led to a general worsening of global growth forecasts, a reduction in world trade due to the destruction of supply chains, and increased threats to specific sectors of the world economy. The consequence of such destabilization was a general increase in threats to financial stability. At the same time, the negative impact on the economic system made it necessary to pay special attention to ensuring the financial stability of Ukraine's banking system, which became a significant problem for commercial banks and the National Bank of Ukraine.

In practical terms, the macroeconomic shock caused by the beginning of the war led to several forced steps by the Government and the National Bank of Ukraine. In April 2022, the NBU approved the "Basic principles of monetary policy for the period of martial law," which approved the change of the monetary regime and the goals of monetary policy for the period of the legal regime of martial law [9]. At the same time, the NBU also abandoned the regime of inflation targeting with a floating exchange rate and introduced temporary administrative restrictions on the foreign exchange market. Moreover, to ensure the smooth functioning of the public finance system under martial law, the National Bank approved the possibility of financing the state budget through lending through the purchase of government bonds on the primary market. Thus, for several months, there was an issue with funding the budget deficit in Ukraine, which was stopped with the start of financial assistance from partner countries, due to which the problem of covering budget expenditures was solved. However, financial instability during the war demonstrated a general decrease in the effectiveness of the discount rate as a monetary transmission tool of the regulator, as well as an increase in the threat of credit monetization of the state budget deficit.

The result of the war was the general destabilization of the national economy of Ukraine, which manifested itself in the following main changes:

1. A decrease in GDP in 2022 by 29.1% due to a reduction in absolute production volumes.
2. An increase in inflation rates for 2022 to 26.6%, as well as dollarization of the economy due to the devaluation of the national currency against the US dollar by almost 34%.
3. An increase in the unemployment rate to 21.1%, according to the results of 2022 [10].

At the same time, to stabilize the financial and, in particular, the banking system, the NBU applied several monetary, fiscal, and debt policy measures aimed at normalizing financial markets and ensuring the smooth functioning of banking institutions. At the same time, among the monetary measures of financial regulation, it is worth noting the following:

1. Cancellation of the restriction on setting the exchange rate at which commercial banks could sell foreign currency in cash to clients, as well as similar restrictions on setting the exchange rate at which banks debit money from client accounts in Hryvnia, provided payment is made with hryvnia cards abroad.
2. Temporary reduction of the monthly limit for withdrawing cash abroad from hryvnia accounts opened in Ukrainian banks from UAH 100 to UAH 50,000, or the equivalent.
3. Temporary ban on making payments abroad to buy securities, shares, and bonds and pay for brokerage services for these transactions, which are carried out using cards issued by Ukrainian banks.
4. Redemption of government bonds by the NBU.
5. Change in the discount rate from 10% to 25%.

The result of taking the mentioned measures was stabilizing Ukraine's financial sector. In particular, as a result of the adaptation of the exchange rate policy, there was an increase in competition in the foreign exchange market, an increase in the liquidity of its legal segment, as well as a decrease in the volume of illegal transactions and a decrease in the amplitude of exchange rate fluctuations in its cash segment. Several transformations also contributed to reducing the risks of unproductive capital outflow, reducing the possibility for speculation and bypassing currency restrictions. The general consequence of such actions was the practical preservation of Ukraine's international reserves [11].

Let's evaluate the dynamics of the NBU discount rate since the beginning of the war (Figure 1).

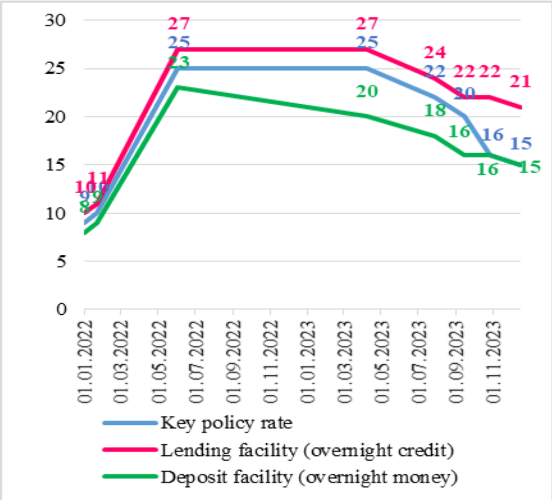

Figure 1. Dynamics of the National Bank of Ukraine discount rate for 2022-2023, %.
Source: [10]

As you can see, since the beginning of the war, when the National Bank of Ukraine adopted significant restrictions on the movement of capital and currency funds, there has been no change in the discount rate. Only at the beginning of June 2022, when the market stabilized, the NBU sharply raised the discount rate to 25%. At the same time, it is worth noting that in 2015, when the first stage of Russian aggression was ongoing, the accounting rate was 30%. So, the NBU tried to stabilize the financial market based on previous years' experience. At the same time, within a year, the National Bank has started easing the monetary policy, lowering the interest rate first to 22% and, by the end of 2023, to 15%. It is also worth noting that the rate on overnight loans has undergone less significant changes since its value, after increasing to 27% in June 2022, decreased by only 6 points to 21%. That is, we can see that the National Bank of Ukraine, trying to stimulate economic activity, behaves quite cautiously with "short" money, limiting the possibilities of situational speculation by market participants.

In general, it can be argued that the increase in the discount rate and refinancing rates during the war was entirely justified, as it allowed the National Bank of Ukraine to prevent the rise in the speculative demand of banks in the foreign exchange market and thereby, forced them to focus their attention on smoothing one-day liquidity gaps to fulfil daily banking LCR and NSFR regulations.

Therefore, it is also necessary to investigate the changes that took place in the foreign exchange market, considering the restrictions on the movement of capital and currency funds, as well as the interventions of the National Bank of Ukraine to maintain the stability of the national monetary unit – the hryvnia (Figure 2).

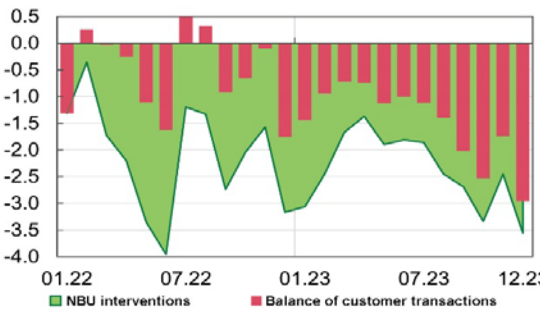

Figure 2. Balance of operations with foreign currency of bank clients and NBU interventions for 2022-2023, billion dollars.
Source: [10]

As you can see, after the resumption of market activity in the summer of 2022 and the growth of the discount rate, the National Bank introduced the first stage of easing the requirements for regulating the established restrictions. At the same time, to avoid a speculative surge in currency operations, the NBU made significant foreign currency interventions to ensure the economy's stability. However, despite the initial positive balance of clients for foreign exchange operations, constant pressure was felt on the foreign exchange market, which relates to the destructive impact of military actions on the real sector and the growing need for imports. Similarly, to smooth the situation, the NBU had to significantly increase the volume of currency interventions at the end of 2022 and 2023. In particular, at the end of 2023, the National Bank's interventions amounted to 3.6 billion dollars, aimed at ensuring the controllability of the foreign exchange market.

In general, it can be stated that the application of the fixed exchange rate regime in the conditions of military operations, as practice has shown, has justified itself. The stability of the foreign exchange market reduces the risk for exporters, so under such conditions, they can plan their activities without expecting sharp fluctuations in exchange rates. Therefore, the banking system ensured the stability of the functioning of the national economy in the crisis period of 2022-2023.

However, these changes certainly impacted the exchange rate dynamics, which significantly differed from the official one in a certain period (Figure 3).

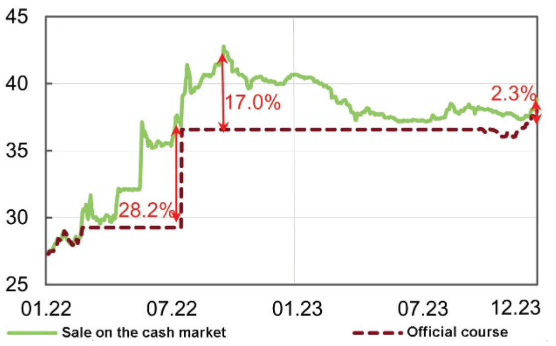

Figure 3. Exchange rates of the hryvnia to the US dollar for 2022-2023
Source: [10]

As you can see, from the beginning of the war until the first stage of removing currency restrictions by the National Bank of Ukraine in July 2022, there was a significant gap between the official and cash exchange rates, which reached a value of 28.2%. At the same time, even the easing of restrictions did not lead to the normalization of the situation, and the equalization of exchange rates lasted almost a year. Initially, the gap decreased to 17%, and only at the end of 2023 it was reduced to 2.3%. The consequence was decreased commercial banks' operations with individuals' foreign currency funds. At the same time, it is also worth noting the low general activity of banks on the foreign exchange market since the rates on foreign currency deposits throughout the period remained at an extremely low level, reaching the value of 0.01% per annum. This shows that due to instability in the foreign exchange market, banks did not want to take currency risks due to significant restrictions on these transactions by the regulator and their unforeseeable changes in the future.

Let's also consider the dynamics of rates for hryvnia deposits offered by Ukrainian banks after the start of the war (Figure 4).

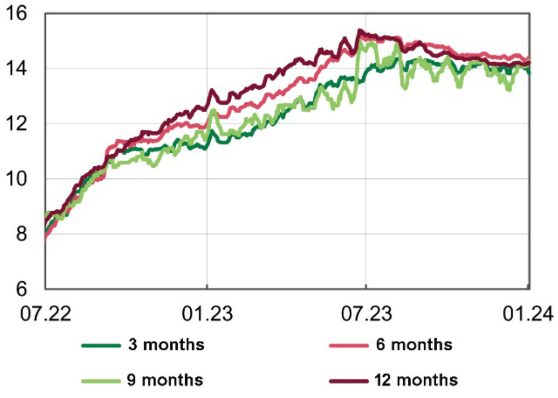

Figure 4. Ukrainian rate index for deposits of individuals for 2022-2023, %
Source: [10]

From the analysis, we can see that the growth of the discount rate forced commercial banks to increase the yield on deposits and other hryvnia income instruments to ensure the inflow of funds from the population. At the same time, at the end of the analyzed period, banks' interest rates closely approached the National Bank of Ukraine rate for overnight deposit certificates, which is evidence of the regulator's effective policy in this area. In addition, such dynamics of rates on deposits of natural persons indicate the general stabilization of the money market, as it forces banks to actively attract funds to finance their current operational activities. It is also worth noting that if in the first half of 2023 there was a noticeable gap between short-term and long-term interest rates, by the end of the year, it significantly narrowed, and deposit rates approached the levels of differentiation that existed before the start of the war.

We will also evaluate the yield dynamics of domestic state loan bonds, which remain one of the most liquid instruments of the money market (Figure 5).

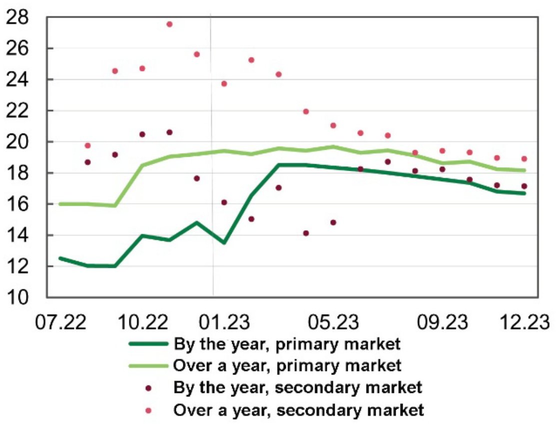

Figure 5. Yield of hryvnia Bonds of domestic government loans for 2022-2023, % per annum
Source: [10]

From the figure, we can see that the increase in the yield of government bonds occurred at a slower pace than the increase in the discount rate of the National Bank. However, by March 2023, this yield increased by almost 6% - from 12% to 18%. At the same time, the yield on the secondary market at the end of 2022 was nearly 28%. Such yield dynamics have led to domestic government loan bonds being the most attractive investment debt instrument for commercial banks. At the same time, according to the NBU, operations with three-month Bonds of domestic government loans (BDGL) are the most attractive, and the overall demand for them remains high despite the decrease in yield at the end of 2023.

In general, it can be stated that the activity of commercial banks in the BDGL market allowed, on the one hand, to cover the government's needs in financing the state budget deficit, and on the other hand, it provided banks with stable profitability of transactions with securities in conditions of a significant reduction in overall activity on the stock market.

5 Conclusion

Thus, we conclude that the National Bank of Ukraine, under challenging conditions, managed to ensure the effective implementation of the macroprudential policy by using the monetary channels of the transmission mechanism not only to ensure macroeconomic stability but also to limit the effect of systemic risks to prevent a financial crisis and reduce losses from the destructive impact of the war on the national economy. At the same time, it made it possible to ensure the effective functioning of the banking system, which became a determining factor in ensuring financial stability in Ukraine. As evidenced by the dynamics of the main components of the monetary sector, the banking system in crisis managed to respond effectively to challenges and threats, which affected the general stabilization of the economic situation in Ukraine.

At the same time, it can be argued that overcoming threats to financial stability in wartime forces the National Bank of Ukraine to transition to a countercyclical monetary policy, oriented towards a rigorous use of key monetary policy instruments and the transmission mechanism. The implementation of this policy will enable the NBU to effectively influence the recovery of the national economy and maintain support for macroeconomic balance by balancing the money and credit market.

In the upcoming periods, the National Bank of Ukraine should focus on reducing the key interest rate and expanding the supply of credit resources in the money and credit market. This will also require it to liberalize the conditions of the foreign exchange market to facilitate the access of commercial banks to the financial resources of the global financial market. Such access will provide cheaper hryvnia loans and stimulate the general economic activity necessary for the post-war recovery of Ukraine's national economy.

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Primary Paper Section: A

Secondary Paper Section: AE, AH