

## CHAPTER «ECONOMIC SCIENCES»

### FINANCIAL MONITORING STABILITIES OF THE BANKING SYSTEM

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**Abstract.** *The purpose of the article* is to substantiate the theoretical approaches to determining the place and role of the banking system in the economic development of the state, improving the methods of its measurement and regulation. The research data were carried out on the analysis of “Oschadbank”. The financial security of the bank is the most important component of the financial and, therefore, national security of the country, it is a state of a commercial bank, which is characterized by resistance to threats of different nature and balance, the ability to achieve the planned strategic goal and generate sufficient financial resources to ensure compliance. Characterizing the financial security of commercial banks, it is necessary to focus on key parameters: financial security ensures a balanced and stable financial condition of the bank; contributes to the efficient operation of the bank; well-organized financial security allows to identify problem areas in the bank’s activities in the early stages, as well as to neutralize the impact of crises to prevent bankruptcy. *Results.* Banking regulation is the process of promoting financial stability through the use of special methods, tools, by establishing specific rules and regulations. Therefore, the functions of banking regulation are closely related to the conduct of monetary policy and the organization of the settlement system and

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have historically been carried out by central banks. Supranational banking regulation is a regulatory process carried out by world-class international organizations (IMF, IBRD, EBRD, BCBS). Banking supervision is the control over the stability and stability of the banking system, which must adequately respond to global trends and reassess supervisory policy. From the standpoint of methodology, banking supervision should be understood as a set of methods, techniques, tools used by banking supervisors to monitor the performance of banks, the application of measures of influence and so on. Banking supervision is based on a constant analytical survey of banks and serves socio-economic needs, as there is a close relationship between risk analysis and banking supervision. In Western and domestic scientific sources, the issue of banking supervision is often identified with the analysis of the causes of banking risks and methods of their study. An analysis of the literature has shown that the study of risks has a long history, but the active study of financial risks began relatively recently – in the late nineteenth – early twentieth century. *Value/originality*. The scientific novelty of the work is determined by the following provisions: improved comprehensive approach to monitoring the activities of banks, which allows to obtain a quantitative description of their impact on the banking system of Ukraine.

### **1. Introduction**

Banking is an ancient science. It accumulates thousands of years of experience in credit institutions, reveals what has long been formed as mandatory principles of banking. Monetary, credit relations as elements of economic relations reflect the most complex phenomena of life, as they relate to relations between people as its most complex subjects. Money, credit give society a significant incentive for development, gives a whole system of special relationships, special order and a high degree of organization.

The bank as a specific enterprise produces a product that is significantly different from the product of material production, it produces not just goods, but goods of a special kind in the form of money, means of payment. Money is a reproducible category; Cash money issued by the bank as the sole monopolist in the total mass of the subjects of reproduction, serves both the sphere of production and distribution, exchange and consumption. In addition to this product, banks also provide a variety of services, mostly

financial. In short, banks are “suppliers of money” to society, ie we can say that the bank plays an important role for people. Each bank has its own little secrets of success – a wide and extensive branch network, establishing and developing relations with Belarusian and foreign banks on the basis of mutually beneficial and long-term cooperation, improving service technologies and introducing new services. We can assume that the more services, the higher the rating, therefore, public confidence in banks will be higher, and the greater the role of the bank in people’s lives. The key to the bank’s success in the services it provides to individuals and legal entities.

The banking sector is undergoing constant change and development. This is with the development of the country’s economy, foreign economic relations, world financial markets, as well as state regulation of banking. Methods of work of banks, forms of customer service, technologies of performance of operations change. The informatization of banking should play a leading role in solving these problems. Remote customer service comes to the fore when all possible access channels are used. Rapid development of mobile devices and increased mobility of customers themselves make remote service operations more popular. Internet services (Internet banking) of banks are already in place and will be developed, as the speed of service provision is important. This allows you to manage your accounts online from anywhere. Customer relationship management in banking with a focus on the client as a leading direction in banking ensures the stability and competitiveness of the bank.

The urgency of issues related to the place and role of the banking system in the economic development of the state, the need for deeper development of relevant theoretical and methodological and information-analytical support led to the choice of work topic, its purpose and objectives.

The aim of the work is to study the state and development of the banking system of Ukraine and develop recommendations of economic, regulatory, informational and organizational nature to regulate the activities of foreign banks taking into account national economic interests and the challenges of globalization.

Achieving the goal of work was based on the use of general scientific methods of cognition (analytical, synthetic, dialectical, historical) – in the study of the nature, causes and consequences of banks and strategies for their regulation; methodological principles of a systematic approach – in the

study of the functional and organizational structure of the regulatory system of foreign banks and the development of proposals for its improvement, as well as special techniques and methods of analytical research. The research methodology is based on observation, measurement and characterization of objective economic phenomena, followed by analysis of results using mathematical and statistical methods, methods of structural analysis and forecasting, development and practical implementation of existing methods, theoretical generalization of identified trends and patterns.

The study was conducted on the basis of laws and regulations of the Verkhovna Rada of Ukraine, the Cabinet of Ministers of Ukraine, the EU, official statistics of the National Bank of Ukraine, the Ministry of Finance of Ukraine, the Association of Ukrainian Banks, the State Mortgage Institution, the Deposit Guarantee Fund, Ukraine, information-analytical and rating agencies. The study used the reporting data of commercial banks of Ukraine and consolidated financial statements of transnational banks, monographs, publications of domestic and foreign scholars on the study of foreign banks.

The scientific novelty of the obtained results is the substantiation of theoretical approaches to determining the place and role of the banking system in the economic development of the state, improving the methods of its measurement and regulation. The scientific novelty of the work is determined by the following provisions: an integrated approach to monitoring the activities of banks has been improved, which allows obtaining a quantitative description of their impact on the banking system of Ukraine.

## **2. Theoretical principles of determining the nature and assessment of financial stability of the banking system**

Ukraine is one of the countries whose financial industry is developing within the bank-centric model. In the total assets of the financial sector, the share of banks exceeds 80%, which determines their important role in the formation and distribution of cash flows of the economy. One of the main sources that generates these flows is lending, which, including interbank lending, accounts for 69.2% of the total assets of the country's banking system.

Banks are the center of the financial system, the stability of which is the most important condition for economic development. For Ukraine to

achieve and maintain the modern world level. The organization of banking is of paramount importance. The process of market transformation began with the reform of the banking system and so far serious positive results have been achieved in this direction. Banks are trust companies inherent in any functioning economy. Formations engaged in lending and financing of industry and trade, retail business at the expense of money capital attracted in the form of deposits and by issuing own shares and equity and debt securities. They provide cash services to customers, as well as perform cash transactions at the bank's cash desks and its remote units. The special role of the banking system is to ensure stable economic growth, expand the capacity of enterprises to attract financial resources, in maintaining and increasing the savings of citizens. Without a strong banking system there can be no strong economic system of the country.

Banks in Ukraine are the main providers of financial services. As of April 1, 2019, the total volume of loans granted by banks to non-financial corporations and individuals reached 48.9 trillion UAH (52% of all assets of the banking system). Banks' investments in debt make up 11.2% of all assets. Banks are the largest operators in the domestic foreign exchange market (over 90%), the repo market (about 85%) and the bond market (almost 70%). Ukrainian banks perform an important social mission to ensure the availability of financial services for citizens and organizations of all forms of ownership, regardless of population density and geographical distances. Remote banking has become widespread: 93% of accounts of individuals and 98% of accounts of legal entities provide access via the Internet. The banking system belongs to the sectors of the economy that are characterized by a high degree of vulnerability to the negative effects of external shocks and fading macroeconomic dynamics. The high sensitivity of banking to crisis scenarios is explained, though not entirely, by its dependence on the behavioral psychology of customers, which, especially in the face of signs of financial instability, and even more panic, may acquire features of irrationality. The number of banks in Ukraine reached its peak by the mid-1990s, when their number exceeded 2,500. Excluding local crises (1995 and 2004), there were three waves of decline. All of them were related to the implementation of crisis scenarios of economic development: default in August 1998, the global financial crisis of 2008–2009 and the currency crisis in 2014–2015.

Thus, the concept of “financial stability” originates in the practical problems associated with the emergence and overcoming of financial crises, which governments and central banks of almost all countries have faced in different historical periods. This concept began to develop most actively in the 90s of the twentieth century. At this time, the liberalization of capital movements, the rapid development of the financial services market for foreign capital and other economic globalization processes observed in many countries have clearly demonstrated the danger of financial imbalances and the possibility of rapid financial crises. Against this background, the urgency of the problem of ensuring financial stability in general, the stability of financial relations of all sectors of the economy, as well as reducing the likelihood of systemic financial destabilization.

Table 1 shows the views of foreign practitioners to determine the essence of financial stability.

Summarizing the existing definitions of the concept of “financial stability” in the scientific literature (Table 1), we should distinguish three approaches to its interpretation: direct (functional), inverse and mixed definition.

1. Direct definitions contain a description of the functions and other characteristics that a stable financial system should have. These definitions are based on the thesis that the financial system is stable as long as it performs its functions. This approach was presented by practicing economists at the Deutsche Bundesbank and the Bank of Poland.

Table 1

**The essence of the concept of “financial stability”  
in terms of foreign scholars and practitioners**

<b>Author</b>	<b>Definition of “financial stability”</b>
A. Krocket, Head of the Financial Forum stability	this is the lack of instability, a situation in which economic activity is negatively affected by fluctuations in the prices of financial assets or there is an inability of financial institutions to meet their obligations
Maykl Fut (UK Financial Services Authority)	is determined by: a) monetary stability; b) the level of employment close to the normal rate of employment in the economy; c) trust of economic entities in financial institutions and markets; d) the absence of relative fluctuations in prices for real or financial assets.

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(End of Table 1)

Author	Definition of “financial stability”
Vim Duyzenberh (Head of the European Central Bank)	means the smooth functioning of the key elements that shape the financial system.
Rodzher Ferhyuson Jr., Member of the Board of Governors of the US Federal Reserve	should be defined by its opposite – financial instability, which is determined by three criteria: (1) prices for key financial assets that deviate significantly from fundamental values and (or) (2) failures in the functioning of securities markets and access to credit within the country and, possibly at the international level; (3) aggregate costs that deviate significantly from the potential value.
Deutsche Bundesbank	describes a stable state in which the financial system effectively performs its key functions, in particular, resource allocation and risk reduction, as well as payments.
Bank of Norway	is determined by the absence of crises in the financial system, ie the resilience of the financial sector to shocks arising from the activities of financial institutions or the functioning of financial markets.
Bank of Poland	a situation where the system continuously and efficiently performs all its functions, even in conditions of significant unexpected and negative shocks.
Bank of the Czech Republic	a situation where the financial system operates without significant defects or undesirable effects on the current and future development of the economy as a whole, which indicates a high degree of resilience of the system to shocks.
Nout Vellink , President Bank of the Netherlands	a stable financial system is able to efficiently allocate resources and absorb shocks, prevent the impact of their devastating effects on the real economy and other financial systems.
Harri Dzh. Shynazi	The financial system can be considered stable if it: 1) facilitates the efficient allocation of economic resources in space and time, as well as other financial and economic processes; 2) allows you to assess and allocate financial risks, as well as manage them; 3) retains the ability to perform these important functions even in external externalities or when increasing economic imbalances.

2. Direct definitions contain a description of the functions and other characteristics that a stable financial system should have. These definitions are based on the thesis that the financial system is stable as long as it performs its functions. This approach was presented by practicing economists at the Deutsche Bundesbank and the Bank of Poland.

3. In the opposite definitions, financial stability is interpreted as the absence of financial instability, ie the absence of financial crisis. Representatives of this approach are John Chant (Bank of Canada Advisor), Roger Ferguson Jr. (Member of the Board of Governors of the US Federal Reserve) and H.F. Minsk. However, this approach to the interpretation of the concept of “financial stability” has drawbacks. First, the financial crisis is a complex, complex and multifaceted concept that needs a clear scientific definition. Secondly, the definition of financial stability due to the lack of financial instability does not give any recommendations to government regulators on what specific actions should be taken in a stable situation in order to maintain it.

4. The mixed approach is the simultaneous application of direct and inverse definitions of the concept of “financial stability”. A mixed approach includes alternative formulations of financial stability, such as the definition given by M. Foote or Harry J. Shinazi.

Based on the analysis of the above definitions and agreeing with the author, the following characteristics are revealed, which reveal the meaning of “financial stability”: systemic (it arises as a synergistic result of interaction of financial institutions, financial markets and infrastructure, and financial relations economy); the plurality of possible states (financial stability is not the only fixed state, but the range of possible values, each of which is characterized by a certain “margin of safety” of the financial system); relative (because there is always a theoretical probability of financial destabilization, even in the most stable financial systems); dynamic aspect (in the presence of financial stability in the current period  $t_1$  existing risks are identified and assessed properly. Proper assessment of risks that may manifest themselves in the future allows to ensure financial stability in periods  $t_2$  and  $t_3$ , etc., if not occur unexpected and/or significant negative macroeconomic or financial shocks); based on trust in the financial system (without trust in financial institutions, markets, instruments, financial infrastructure there can be no financial stability); ability to fully absorb negative shocks within the financial system (lack of negative impact on the real economy by the financial system in a state of financial stability).

Taking into account the object of dissertation research, the author clarified the concept of “financial stability of the banking system”, differences in the interpretation of the relevant category for the level of an individual bank.



Research and generalization of scholars' interpretations of the concept of "financial stability of the banking system" allowed to identify the following theoretical approaches to determining its economic essence.

The second theoretical approach, formed by O.I. Baranovskiy and S.K. Reverchuk, who saw the stability of the banking system as its ability to withstand external and internal influences, while maintaining the ability of the system to perform its functions and operations, provided its integrity and stability of elements, which allows the system to return to equilibrium after external and internal forces. This interpretation of the stability of the banking system is based on the need to preserve the properties inherent in any system – integrity, organization, functionality, which depends on the stability (stability) of the system, ie the ability to function properly, maintain its structure and functions. A similar definition of the studied concept is given in which the stability of the banking system is a complex characteristic of the banking system, which implements its essence and purpose in the economic system, adequately and effectively performs its functions, and provides the ability to maintain balance and restore after external shocks or increasing disparities, any deviations from the safe parameters caused by the crisis.

The third theoretical approach to determining the economic meaning of the concept of "financial stability of the banking system" is to focus on the need to ensure financial stability and stability of the elements of the banking system, which are banking institutions. Thus, N.P. Pohorelenko emphasizes that to achieve such a qualitative characteristic as the stability of the banking system, which determines the stability of the economic environment that surrounds the bank, is impossible without ensuring the stability of individual banks.

The fourth approach is to interpret financial stability through the connection of the banking system with the financial and macroeconomic systems. Yes, O.O. Zatvarka notes that the stability of the banking system means the balance of its components, the presence of interconnected and mutually agreed proportions between them in both sectoral and regional aspects, as well as maintaining balance and effective relationship with the financial and macroeconomic systems.

In the fifth theoretical approach, the content of the stability of the banking system is determined in terms of stability of operation,

development and preservation of its structure. Yes, L.A. Bondarenko and M.V. Tarasenko consider the stability of the banking system as the stability of functioning, ie the ability of the banking system to fulfill its obligations to its counterparties; as the stability of development, ie the stability of the positive dynamics of the characteristics of the banking system; as the stability of the structure, ie the commitment of the elements of the banking system (banks) of a particular model of functioning and the invariability of this commitment over time. The need to take into account the time factor also indicates L.A. Zveruk, emphasizing that the financial stability of the banking sector is a concept that defines the development of the banking sector in the long run, it should be understood as the absence of obstacles to the dynamic development of the banking sector to effectively play the role of financial intermediary in the economy.

Having analyzed the interpretations of the financial stability of the bank, it should be noted that the concept of “financial stability of the bank” has common key characteristics with the concepts of “financial stability” and “financial stability of the banking system”. Therefore, when disclosing the content of the bank’s financial stability, it is advisable to take into account such key features as: systemic nature (financial stability arises as a result of financial relations arising both inside and outside the bank) and dynamic (the need to take into account time).

Thus, the financial stability of the bank should be understood as a characteristic of its condition, when the bank has the ability to withstand imbalances in the financial environment and ensure the smooth operation and development in the strategic perspective.

The question of the relationship between the concepts of “financial stability” and “financial stability” is also debatable.

The analysis of scientific opinions on the relationship between the concepts of “financial stability” and “financial stability” allows us to conclude that the first category characterizes changes in the basic parameters of the banking system in a longer period than financial stability. This raises the question of how to interpret the results of the assessment of financial stability in the short term. Approaches to assessing the financial stability of the banking system and their compliance with certain criteria (taking into account the identification features of the system and the aggregation of analytical data) are presented in table 2.

Table 2

**Analysis of existing approaches  
to assessing financial stability banking system**

Author / authors of the approach	Indicators proposed to be used to assess the financial stability of the banking system	Conformity approach criteria	
		K1	K2
I.I. Dyakonova, Ye.Yu. Mordan'	indicators of financial stability (solvency, profitability, liquidity, credit and currency risks), financial vulnerability (reflect macroeconomic conditions, including the state budget, foreign exchange reserves and the real sector), economic climate (characterize the state of the main counterparties of Ukraine).	+/-	+
K.M. Zhulins'ka	indicators of economic efficiency, capital adequacy, liquidity and risk.	+/-	+
V.I. Mishchenko, O.K. Malyutin	indicators of capital adequacy, asset quality, liquidity, efficiency, sensitivity to interest rate and currency risks.	+/-	+
I.M. Chmutova, V.Yu. Bilyayeva	indicators of capital adequacy, liquidity, business activity and efficiency.	+/-	+
V.V. Kovalenko and Yu.O. Harkusha	indicators of capital adequacy, liquidity, business activity, efficiency and concentration in the banking services market	+/-	-
T.V. Protsyk	indicators of bank capitalization, accounting policy, bank liquidity and rates of change.	+/-	+
V.V. Kovalenko	indicators characterizing the external environment of the banking system (indicators estimating GDP; indicators characterizing the inflation process; trade balance indicators; indicators characterizing the place of banks in the macro environment; monetization indicators; indicators characterizing the level and conditions of bank refinancing; indicators characterizing the effectiveness of monetary policy) and indicators characterizing its internal state (indicators of scale; indicators of saturation of banking services; indicators of stability and liquidity; indicators of profitability; structural indicators of assets and liabilities).	+/-	-
K1 and K2 – criteria for taking into account the identification features of the system and the aggregation of analytical data within the approaches to assessing the financial stability of the banking system.			

Despite the fact that M.I. Zvyeryakovym, L.V. Kuznyetsovoyu and V.V. Kovalenko assessment in his scientific publications identified the financial stability of the banking system (rather than financial stability), presented in approaches based on sound conclusions about the relationship of relevant concepts is quite legitimate to consider in this study. Comparing the proposals of scientists on the content of evaluation indicators allows us to draw the following conclusions about their common features and fundamentally important differences (in terms of systems analysis).

The analysis of the considered approaches to the assessment of the financial stability of the banking system allows us to conclude that none of them fully takes into account the presence of complex relationships between its elements, features of internal organization, place in the economy, main functions. These aspects allow us to single out the general systemic features of the banking system, which, along with integrity, hierarchy and purposefulness, includes its emergence, which in the context of assessing and monitoring the financial stability of the banking system has significant practical value.

A large number of scientific works have been devoted to the peculiarities of the emergence of emergencies and the application of the emergent approach to the study of various economic systems. At the same time, in the banking sector, aspects of the impossibility of reducing the properties of the system to the sum of the properties of its elements are poorly studied and are considered in a small number of publications.

The assessment of financial stability of the banking system is proposed in the following areas: intensity of credit and financial interaction in the interbank market. function to neutralize the lack of financial resources in other interbank market participants); functional load of the banking system in ensuring macroeconomic development, structural changes and financial imbalances in the banking system and economies of scale resulting from changes in the main financial parameters of systemic banks.

In summary, we can conclude that the proposed approach to assessing the financial stability of the banking system taking into account such a property as emergence is complex and takes into account all major factors that characterize the banking system as a complex system. In the context of the indicative space of features used for assessment based on the emergent properties of the banking system, the author's proposal is to take into

account the diversity of financial processes that may occur simultaneously in the system (profitable and unprofitable banks, excess and lack of liquidity sufficient level of capitalization created with the participation of both public and private capital, including foreign capital, etc.) and the level of financial stability of systemic banks, the reduction of which leads to destabilizing impulses and crisis trends in the banking sector.

### **3. Economic crisis effects on consumer behavior**

Ensuring the financial stability of the banking system of Ukraine is one of the priority goals of the National Bank of Ukraine as the Regulator of the banking sector in the country. According to the Constitution of Ukraine, the Laws of Ukraine “On the National Bank of Ukraine” and “On Banks and Banking”, the National Bank of Ukraine regulates and supervises banking and determines the features of regulation and supervision of systemically important bank (hereinafter CBB), a bank with settlement center status. on servicing contracts in financial markets, taking into account the specifics of such banks.

The problem of implementation of banking regulation from the standpoint of its target orientation, functional manifestation of the Regulator and content load is widely studied by leading Ukrainian and foreign scholars. Despite the thorough work of scientists on these aspects, further research is needed on the content of the concept of “banking regulation”, given the importance of its impact on ensuring the financial stability of the banking system.

Sydorenko O.M. identifies four main approaches to the definition of “banking regulation”: 1) regulatory (banking regulation is seen as a process of streamlining and standardizing the requirements, rules and standards to be followed by banks in the organization of operations, operations, relations within the banking system); 2) regulatory control (within this approach, regulatory banking regulation is supplemented by a set of control procedures); 3) anti-crisis (regulation is aimed at all operations and processes, the conduct of which may primarily affect the stability of the banking system, and gradually the state of the national economy); 4) strategic (banking regulation is considered from the standpoint of determining the priority goal – ensuring the stability of the banking system). According to current legislation, banking regulation is interpreted as one of

the functions of the National Bank of Ukraine, which is to create a system of rules governing the activities of banks, determine the general principles of banking, banking supervision, liability for violations of banking legislation. Representatives of European schools and some Ukrainian scholars consider the concept of “banking regulation” through the prism of micro- and macroprudential supervision, which is based on the ability to monitor and mitigate credit risks that depend on the stability of the banking system at the macro and micro levels. According to current legislation, banking regulation is interpreted as one of the functions of the National Bank of Ukraine, which is to create a system of rules governing the activities of banks, determine the general principles of banking, banking supervision, liability for violations of banking legislation. Representatives of European schools and some Ukrainian scholars consider the concept of “banking regulation” through the prism of micro- and macroprudential supervision, which is based on the ability to monitor and mitigate credit risks that depend on the stability of the banking system at the macro and micro levels. To eliminate the vagueness of delimitation and identify the essential features of the morphological analysis of the category of “banking regulation”, which allows you to find a significant number of all possible ways to define the concept by combining basic structural elements or features, which allows you to choose the most complete. Researchers studying financial security point out that the problem has two aspects. On the one hand, it is necessary to work on ensuring the financial security of the banking system as a whole, and on the other hand, it is also necessary to study the issues of ensuring the financial security of a particular banking institution. Bank security is part of the country’s financial security as a special part. The banking system is the most important component of the financial and credit sphere of any state. And that is why the level of financial security of the state determines the state of the banking sector. Financial intermediaries are the catalysts of globalization through the latest modern information technology. The integration of Ukraine’s banking system into the global financial space poses threats to the financial stability of banks, which are exacerbated by the economic crisis but, at the same time, opens up new opportunities for the development of the domestic financial sector.

The issue of tools for financial security of commercial banks is insufficiently covered by modern economics. To date, we can say that there

is no single list of external, internal methods and tools of financial security of a commercial bank. The existing works concern only certain aspects of the financial security of a commercial bank. Studies of the financial stability of banking institutions are conducted, various aspects of improving financial management are analyzed, a large number of scientific papers are devoted to the study of liquidity and banking risks, but all these are separate parts of the picture. At the same time, there is a lack of research that allows to form a holistic vision of the tools for ensuring the financial security of a commercial bank. Financial security as an economic category includes the concept of financial stability. In general, it should be noted that the financial stability of a commercial bank is an important condition for ensuring its financial security. Well-known foreign scholars paid a lot of attention to the issue of financial stability of commercial banks E.Dzh. Dolan, R.L. Miller, P.S. Rouz, Dzh.F. Synk (mol.), Dzh. K. Van Khorn and others. It should be noted that in the works of foreign scholars the concept of “financial stability” is used identical to the concept of “financial stability” as a characteristic of the equilibrium state of the economic system, which is dynamic, provides constant growth and is a necessary condition for improving the situation firm levels.

Ukrainian scientists began to study the financial stability of commercial banks only with the beginning of reforms aimed at establishing the foundations of Ukraine’s market economy as an independent state. Some aspects of financial stability have been considered by such prominent scholars as: A.N. Moroz, M.I. Savluk, O.D. Zaruba, M.F. Pukhovkina – in the study of financial management and analysis of banks; K.Ye. Rayevs’kym, R.I. Shyllerom, V.P. Pantelyeyevym, S.P. Khalyavoyu – when substantiating approaches to ensure profitability, liquidity, solvency of commercial banks, analysis of the results of their activities, financial reporting, summary assessment of the financial condition of a commercial bank; A. Mazaraki, N. Shul’hoju, L. Svystun – in substantiation of methodological bases of construction of rating systems of estimation of activity of commercial banks; N.M. Shelud’ko – in identifying factors and criteria for financial stability of commercial banks.

Characterizing the above definition of financial stability of banks in terms of achieving the main purpose of the business entity (including the bank), we can say that it is incomplete because it has no requirements

for profitable activities of the entity (bank) and its quality assets, which in our opinion should be one of the necessary conditions for the financial stability of a commercial bank and ensure a high level of financial security of the banking institution. N.H. Antonov and M.A. Pessel' argues that financial stability is liquidity and solvency. In our opinion, the definition of N.H. Antonova and M.A. Pessel' is also incomplete, as taking into account only the liquidity and solvency of the bank in determining this category is not enough.

Yudanov A.YU. considers that a sign of financial stability is stability as the ability to be in a privileged, relatively less vulnerable position during crises and the ability to overcome them. Thus, stability is only a qualitative characteristic of stability, the latter has a dynamic nature and is based not only on stability but also on the laws of equilibrium. I.V. Larionova considers stability as a concept based on stability, ie the ability to withstand internal and external influences, maintain a stable balance and reliability for a long period of time. Thus, we can conclude that the etymology of the term "stability" is based on the constancy of the state, keeping within the required limits of certain parameters. In a broader sense, this term means the ability of a system to perform its functions against the action of endogenous and exogenous factors. Well-known researcher of economic security problems O.I. Baranovs'kyy provides the following interpretation of the concept of "financial security of the bank" – it is: 1) a set of conditions under which potentially dangerous to the financial condition of the banking institution actions or circumstances are eliminated or reduced to a level at which they can not cause damage to the bank, preservation and reproduction of its property, infrastructure and prevent the bank from achieving statutory goals; 2) the state of protection of financial interests of a commercial bank, its financial stability, as well as the environment in which it operates.

The contribution of these scholars to solving the problems of financial security at different levels and in different areas is invaluable, but it should be noted that the issues of financial security of banks are still insufficiently studied. For example, taking into account a number of specific risks in the activities of banks, using the leading experience of domestic and foreign banks, diagnosing and assessing the level of financial security of the bank, as well as the use of financial management tools. That is why the current research topic was chosen.



The financial security of the bank is the most important component of the financial and, therefore, national security of the country, it is a state of a commercial bank, which is characterized by resistance to threats of different nature and balance, the ability to achieve the planned strategic goal and generate sufficient financial resources to ensure compliance. Characterizing the financial security of commercial banks, it is necessary to focus on key parameters: financial security ensures a balanced and stable financial condition of the bank; contributes to the efficient operation of the bank; well-organized financial security allows to identify problem areas in the bank's activities in the early stages, as well as to neutralize the impact of crises to prevent bankruptcy. To determine the financial stability of a commercial bank, first of all, it is necessary to emphasize the distinction between the methods of normal and crisis management, as the management of a stable commercial bank and a bank experiencing financial difficulties, of course, is different. This does not mean that the list of instruments is changing, but such a distinction allows you to use the experience in the field of financial management, as well as the financial stability of the banking institution. An analysis of existing publications shows that all the methods and tools used to ensure the financial security of a commercial bank can be divided into two separate large groups: internal and external. This section is based on two preconditions. On the one hand, the bank, like any business entity, has economic independence and, accordingly, it can take certain steps to achieve financial security. On the other hand, its activities are influenced by the state, which has its own tools to influence the activities of banking institutions.

It is necessary to consider the internal tools available to commercial banks and methods of ensuring financial security. To do this, use the study of financial management. It has a number of features due to the nature of banking. Unlike enterprises that produce and sell goods, provide services, banks are financial institutions, whose main activity is to work in financial markets. That is, financial transactions are the main activity of banks. Based on this, the financial management of a commercial bank is, on the one hand, the management of its operations, and on the other – is part of an interdependent process, which distinguishes liquidity management, financial risk management, profitability management and effective performance. Financial management, as a system of economic management, is a set of

organizational, structural and functional subsystems. Commercial banks are objects of management that include all aspects of its financial activities, including capital, liquidity and solvency, borrowed and borrowed resources, assets, financial instruments, banking products and services, financial results and taxes. The subject of management will be the responsible person or group of persons who have the right to make decisions, are responsible for the effectiveness of the management process of a commercial bank.

The financial management process includes subsystems of regulatory support, which is divided into external (laws, regulations, resolutions, orders, etc.) and internal (instructions, guidelines, standards developed by the bank to regulate its financial activities); information support (economic, commercial, financial and other reporting); technological support; staffing. The tools of bank management are the functions of financial management. In the textbook “Financial Management”, edited by Doctor of Economics, Prof. Momot T.V., the main functions of management are defined, such as: research of the external environment; development of financial strategy; analysis and planning of financial activities; decision-making on operational financial activities; making investment decisions; interaction with other counterparties on financial activities. Given the functions of financial management in a banking institution, we can identify the following interdependent areas: 1) financial planning; 2) financial analysis; 3) financial regulation; 4) financial control.

The functional model of financial management in the bank can be presented in the form of a diagram presented in Figure 1. This scheme is standard and is given in most textbooks on financial management. This division is quite logical and is based on a common list of forms of financial management. The planning process is a systematic setting of goals and determining the composition of the structure and sequence of activities aimed at achieving them. This process allows you to identify tasks that ensure the effective functioning of the bank in the long run and rapid adaptation to changing environmental conditions. The main trends in the formation and use of financial resources of the bank are determined, financial relations with counterparties are formed.

The main objects of financial planning in banks are assets and liabilities, the portfolio of banking services and related income and expenses. The financial plan consists of two parts: the plan of the banking portfolio, on

the one hand, the budget – on the other, as well as the reflected production and portfolio functions of the bank. A financial plan is a document in which the bank's budget and the plan of its banking portfolio are logically connected elements of a single system. The formation of the budget of a commercial bank is carried out in relation to the system of its objects, ie budget units and is to determine the specific technology of financial management. Thus, planning is a continuous and comprehensive process and includes the following stages: 1) development of the bank's financial model; 2) calculation of forecast financial results, formation of forecast balance of resources and investments, preparation of capital movement plan, banking operations plan, plan of development and implementation of new banking products and services, calculation of forecast indicators and standards; 3) setting limits on the cost of maintaining the bank, determining the minimum margin, calculation of tax payments and mandatory deductions.

Financial analysis is one of the main functions of financial management. Financial analysis is a process of studying the financial condition and main results of the bank's financial activities in order to identify reserves to increase its market value and ensure effective development. Its importance is explained by the fact that the analysis data are used as a basis for other financial management tools of the bank. The main tasks of financial analysis are: determination of indicators and standards of the bank's activity established by external regulatory bodies; definition and analysis of indicators that characterize the process of managing the assets and liabilities of the bank as a whole and managing certain types of its active operations, taking into account the liquidity of the funds invested in them; definition and analysis of indicators that characterize the process of managing commissions and trading operations of the bank; determination of internal indicators and standards governing the degree of risk (including liquidity risk) of banking operations; determination and analysis of indicators of profitability of the bank and the efficiency of the capital management process (own funds) of the bank; definition and analysis of performance indicators of individual divisions of the bank and certain types of operations, analysis of factors influencing performance indicators.

The next tool is regulation. This is an objective process based on the definition of boundaries, which is carried out using various methods and appropriate tools to achieve a specific goal, which involves influencing the

object of management to eliminate deviations from the specified parameters (schedules, plans, norms and standards). The specifics of banking requires the allocation of the following functions in the financial regulation: operational management of bank profitability; operational management of the bank's financial risks; operational cash management in order to maintain the required level of liquidity.

Professor Savchenko L. gives the following definition: financial control is the activity of state bodies and non-governmental organizations endowed with the appropriate powers, aimed at ensuring legality, financial discipline, rationality in the mobilization, distribution and use of state financial resources.

The control system, which ensures the concentration of control actions on the highest priority areas of the bank, timely detection of deviations of actual results from the budgets and making operational management decisions to ensure the stability of the banking institution – is financial control. Its action is to verify the compliance of the results of the banking institution, control over compliance with liquidity standards, limits and indicators set by the NBU, taking into account various financial risks; control over the implementation of planned tasks that reflect the required volume and efficiency of the bank's operations. The information base of financial management is the internal information of accounting, internal banking, legal and regulatory framework of legislative and regulatory bodies, external economic information. External instruments for ensuring the financial security of banks are one of the important groups, which include: banking regulation; banking supervision; banking control. According to the Law of Ukraine "On the National Bank of Ukraine" banking regulation is one of the functions of the National Bank, which is to create a system of rules governing banks, determine the general principles of banking, banking supervision, liability for violations of banking legislation.

One of the most important external methods of ensuring the required level of financial security of banks is the implementation of banking supervision. According to the Law of Ukraine "On the National Bank of Ukraine" banking supervision is a system of control and active actions of the National Bank aimed at ensuring compliance with banks and other financial institutions in their activities the legislation of Ukraine and established standards to ensure stability of the banking system and protection interests of depositors. The

last group of external instruments to ensure the financial security of banks according to the basic classification is banking supervision. Most economic dictionaries define external banking control as central bank control over the activities of commercial banks. That is, it is a system of economic relations aimed at ensuring the reliability, efficiency, legality, security of banking and improving the efficiency of the existing system of financial security of banking institutions. The specifics of control over banks and banking activities by the state due to a number of features inherent in the banking sector, as well as its role in national security. First, the banking system mediates the passage of payments of almost all economic entities of the country, secondly, the banking system is characterized by a high level of systemic risk, which applies not only to the banking system but also to the entire economy, and thirdly, monetary flows through banking channels are closely monitored by financial and law enforcement agencies. The main criterion for the efficiency and quality of the bank's security is the stability of its financial and economic development in accordance with plans and objectives, regardless of changes in the situation. PJSC CB Oschadbank has an internal audit service, which is an independent structural unit of the bank, which is the body of operational control of the Supervisory Board. It is created by the decision of the highest body of the Bank in order to verify and assess the adequacy and effectiveness of the internal control system and the quality of performance of assigned duties by employees of the Bank. The analysis of financial and economic security of the bank is an analytical center of risk management, which aims to combine the efforts of departments involved in research, prevention, risk analysis by forming tasks for assessment, control, confirmation of assumptions made on the basis of analysis of operations in the form of mathematical series, further initiation of inspections and back-testing of assumptions and forecasts, development of management decisions to improve operational security and minimize risks based on the data obtained during inspections. Given all the above, we can formulate the following definition of the financial security of the bank: a set of interrelated diagnostic, instrumental and control measures of a financial nature, which should optimize the use of financial resources, ensure their proper level and mitigate internal and external risks. It is advisable to recommend commercial banks to use the experience of the leading Ukrainian bank PJSC CB Oschadbank in the

field of sustainability through an effective financial security system. Thus, the assessment of the current level of theoretical basis needed to build a financial security system of the bank, showed that there is not only a fundamental possibility of this, but also accumulated a sufficient amount of theoretical and practical knowledge in this area. The main problems are the lack of clear systematization of knowledge, as well as their adaptation to the conditions of the modern Ukrainian economy. Therefore, the construction of an effective system of financial security of banks is a necessary condition for the stability of the individual bank and the banking system as a whole. Given the key role of security of the banking system in the security of the country, these tasks can be made a priority for national security. At this stage of development of the banking system of Ukraine, the tools to ensure its financial stability are presented as follows in table 3.

According to table 3, the main current and potential for implementation tools of banking regulation in the system of organizational and economic support of financial stability of the banking system, the variability of which is due to the objects of regulation and problems in the process of achieving financial stability.

Representatives of the Central Bank of Sri Lanka identify financial (banking) institutions and their operations as the main objects of regulation in the process of financial stability research. According to the instruments of macroprudential (and sometimes microprudential) regulation, as a direction of banking regulation used in the context of achieving financial stability, and recommended by the Global Stability Committee, the objects of organizational and economic support of financial stability of the banking system are the bank and credit requirements), and the Group of Thirty – leverage, liquidity, credit expansion, Basil I, II, III – capital, liquidity, risks, information, market discipline. In addition, according to the official position of the National Bank of Ukraine, according to the vector orientation of the application of mandatory economic standards, the objects of regulation are capital, liquidity, credit risk, asset quality and investment. Thus, in addition to the above objects of regulation in the context of achieving financial stability of the banking system, according to previously concluded conclusions on the assessment of financial stability of the banking system taking into account the properties of emergence, the objects of organizational and economic support of financial stability systemic banks; structural changes and financial imbalances in the

**Banking regulation tools used to ensure the financial stability of the banking system of Ukraine**

The name of the tool	Legal act, recommendations requirements	Availability of a tool in the system of financial stability Of Ukraine
Registration of banks and licensing of their activities	Law of Ukraine “On Banks and Banking”	Available
Establishing requirements and restrictions on activities of banks		
Application of administrative sanctions or financial nature;		
Supervision of banks		
Providing recommendations on the activities of banks		
Establishment of mandatory economic standards:	Instruction on the procedure of regulation activities of banks in Ukraine	Available
Minimum amount of regulatory capital of the bank (H1)		Made changes from 17 June 2016 to 2024.
Normative minimum regulatory size capital (H1)		Available
Sufficiency (adequacy) ratio regulatory capital (H2)		
Fixed capital adequacy ratio (H3)		
Instantaneous liquidity ratio (H4)		
Current ratio (H5)		
Short-term liquidity ratio (H6)		
Maximum credit size ratio risk per counterparty (H7)		
Standard of the maximum aggregate size loans, guarantees and sureties provided to insiders (H10)		
The norm of investing in securities separately for each institution (H11)		
Standard of the total amount of investment (H12)		
Reserve buffer (conservation) capital		Potential for implementation from January 1 2020 to 2023.

(End of Table 3)

<b>The name of the tool</b>	<b>Legal act, recommendations requirements</b>	<b>Availability of a tool in the system of financial stability Of Ukraine</b>
Dynamic redundancy	Basel III Agreement	Absent in the legislative framework of Ukraine
Reserve requirements for banks	Law of Ukraine "On Banks and Banking"	Available
Rates of contributions to reserves to cover risks from active banking operations;		
Interest rate policy		
Bank refinancing		
Correspondent relations		
Management of gold and foreign exchange reserves, including foreign exchange interventions		
Operations with securities on the open market		
Import and export of capital		

banking system; the effectiveness of the functions of the banking system; financial relations between the subjects of the IBC market. Based on the definition of "system", there are relationships between the main elements of the system of organizational and economic support of financial stability of the banking system. Their nature can be determined by constructing a scheme of interdependence between the purpose, tasks, subjects, objects, functions, principles and tools of banking regulation in the context of achieving financial stability of the banking system.

#### 4. Results

For the first time, the concept of monitoring was proposed by a special commission of the Scientific Committee on Environmental Problems, according to which monitoring was defined from the standpoint of three main provisions: systematic monitoring of the state of the environment; identification of possible changes in environmental conditions; control of such changes and implementation (determination) of measures to manage



the state of the environment. The concept of “monitoring” entered the scientific literature relatively recently (early 70’s of XX century), but took an important place in the process of socio-economic research, became a method of creating tools for monitoring, evaluation, forecasting and management of all sectors.

Monitoring in modern conditions serves as a method of studying and analyzing socio-economic situations, a way to carry out organized systematic monitoring of the course and qualitative changes in the country as a whole or its components (eg regions), their impact on specific research objects, identifying critical points growth and prevention or elimination of the latter and the development on this basis of mechanisms for further development of society, its individual elements. Thus, monitoring is a universal tool of strategic management and can be used in relation to various spheres of public activity, which ultimately determines the object of observation, goals and list of tasks. According to researchers L.K. Voronovoyi and M.P. Kucheryavenka, the concept of “monitoring” is identified with the concept of “observation”. They emphasize that observation (monitoring) is a general tracking of the financial activities of a controlled entity. Savchenko L.A. notes that monitoring involves the systematic collection of information that can be used to improve the management process of the controlled entity, decision-making as a feedback tool. According to O.P. Orlyuk, monitoring is a method of financial control, which involves constant acquaintance with the general state of financial and economic activities of the object of control, the implementation of management decisions. Its main purpose is to identify signs that may indicate the presence of financial or other violations, and to draw the attention of the object of control to cause violations in any form. Observations – Monitoring acquires economic nuance in the English-Russian dictionary, ed. I.F. Zhdanovoyi as current control, monitoring of the technological process, the inflow of resources. In this case, we are talking not only about pure observation, but also about the possibility and necessity of control measures to maintain quantitative and qualitative parameters of management. After all, they are the ones who, in the end, make it possible to increase the efficiency of business entities by conducting thorough observations.

In general, monitoring can be carried out at two levels: at the lower level – as a system of information about the state and potential of the object

of study; at the top – as a control system, which provides for the addition of the lower level of the functions of regulating the state of the object, ensuring its certain necessary state.

T.A. Burova notes that monitoring is a universal tool for generating information about the object of study, including control, which allows it to be used in relation to various economic objects.

The research of I.O. Blanka, which defines monitoring as a mechanism for continuous monitoring of controlled performance of the enterprise, determining the size of deviations of actual results from those expected and identifying the causes of these deviations. Based on this definition, I.O. Blank proposes to consider monitoring as the basis of financial controlling (its active part), as the monitoring methodology is limited to determining the deviation of the main parameters of the financial activities of the enterprise and identifying the causes of such deviations. This methodology is aimed at implementing the control function and needs to be supplemented, as it does not reveal such aspects of monitoring as the interpretation of research results in order to better perceive them and short-term forecast, which is the basis for effective management decisions.

Based on a critical analysis of various approaches, V.Ya. Vovk proposed the following definition of the economic category “environmental monitoring” – a permanent system of monitoring the state of environmental factors, their assessment, forecasting trends in the studied object or its activities due to their impact and justification of management decisions aimed at adaptation to change the external conditions of operation.

The variety of interpretations of the essence of the concept of “monitoring” is explained by the use of this tool in various spheres of public activity. As banking is a rather complex and multifaceted area in the economic system of relations, the use of monitoring in the banking sector, in particular in the context of ensuring the financial stability of the banking system, is necessary and relevant in today’s economic and political imbalances.

Features of the use of monitoring in the banking sector are reflected in the concept of “banking monitoring”.

Kyrychenko O.A. and Mishchenko V.I. complement the definition and interpret “banking monitoring” as a system of continuous monitoring of all controlled limits and standards, determining the size and causes of

deviations from actual standards, the reasons for these deviations and management decisions.

It is advisable to consider monitoring from the standpoint of functionality and from an organizational point of view. According to the first approach, monitoring the stability of the banking system should be understood as an information system that covers monitoring (the main characteristic of monitoring is its continuity) the level of stability of the banking system, analysis, evaluation and forecasting of long-term stability. From the organizational point of view, monitoring the stability of the banking system is considered as a system. Therefore, like any system, monitoring should cover certain elements that interact and are influenced by internal and external factors.

Haryahoyu L.O. the term “credit risk monitoring” is proposed to mean the procedure of systematic monitoring of changes in credit risk at the level of the bank’s loan portfolio and individual borrowers and other indicators of credit risk in order to minimize, manage and control, identify dynamics and forecast credit developments. It is proposed to monitor not only the risk indicators, but also to take into account what factors affect its dynamics.

Zinchenko V.O. in its study, monitoring the stability of the banking system is considered from a functional and organizational point of view. Monitoring the stability of the banking system within the first approach, the author considers as an information system that includes continuous monitoring of the level of stability of the banking system, its analysis, evaluation and forecasting to make effective decisions to ensure the stability of the banking system; within the second – defines it as a system with a certain set of elements, which includes: purpose, object, subject, subject and mechanism. Thus V.O. Zinchenko notes that the main purpose of monitoring the stability of the banking system is to prevent crises. It is based on constant monitoring of the banking system in order to identify factors that affect or may affect its stability, determine the relationship and interdependence of these factors and take appropriate and timely corrective action. Issues of monitoring the financial stability of the bank were considered in the work of H.M. Azarenkovoyi and O.H. Holovko. The authors note that the economic orientation of monitoring the financial stability of the bank should reflect qualitative changes in the development of the bank, be a means of comparing the functioning of the bank, both

in terms of different time intervals and in terms of the selected system of banking indicators. The economic orientation of monitoring the financial stability of the bank should reflect qualitative changes in the development of the bank, be a means of comparing the functioning of the bank, both in terms of different time intervals and in terms of the selected system of indicators.

Thus, the analysis of the considered definitions of the concept of “monitoring” in different areas of activity, in particular, in banking, allows us to note that in the considered interpretations there are no fundamental differences, they complement each other. The next is the principle of multifunctionality, which takes into account the complexity and versatility of banking and involves monitoring the various components of assessing financial stability. At the same time, it should be borne in mind that monitoring should be based on the principle of economy and ease of construction, ie the number of indicators for assessing financial stability should be limited in order to obtain more timely, operational and quality information. The analysis of the given interpretations of monitoring in various spheres also allowed us to conclude that most scientists reveal the peculiarities of its implementation through the main stages, which are the assessment, control and forecast of the condition of objects. However, depending on the objects of monitoring, some economists provide some suggestions for improving this process. V.Ya. Vovk draws attention to the fact that in the process of forming the information base of monitoring it is necessary to clearly understand the directions and relationship of information flows that describe the state of the object of study, which, in turn, will develop a system that will ensure accurate and operational primary information on the state of the object of monitoring.

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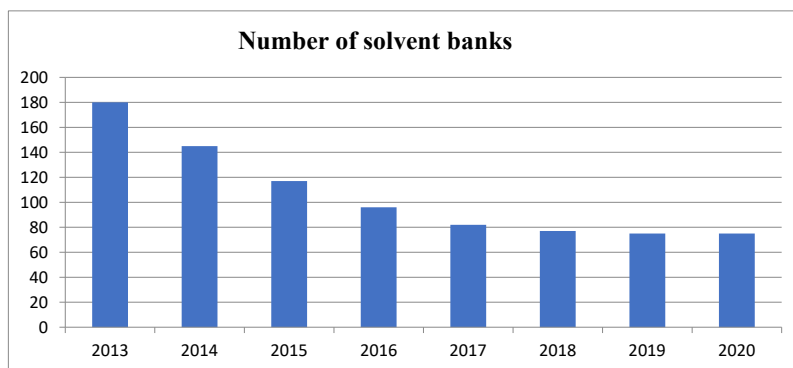
micro-levels – banks as structural elements of the banking system. The peculiarities of the functioning of the developed system of organizational and economic support of the financial stability of the banking system are taken into account and specified in its elements: goals, objectives, subjects, objects, principles, functions, tools.

According to the study of the essence of monitoring and the specifics of its use in banking practice, it is determined that monitoring the financial stability of the banking system is a process of continuous monitoring (collection and accumulation of information), processing and analysis of financial stability indicators at macro and microeconomic levels. decisions and forecasting the future development of the banking system, its dynamic movement. The following stages of monitoring the financial stability of the banking system are identified: formation of the analytical basis of the study (collection of information and calculation of partial and consolidated indicators for assessing the financial stability of the banking system and banks separately); comparison of actual evaluation results with data from previous years; comparison of calculated values of partial indicators with critical (threshold) ones, signaling the presence of crisis tendencies; analysis of the causes and consequences of the identified deviations of indicators; substantiation of dominants in ensuring the financial stability of the banking system, identifying prospects for its improvement and changing the levels of financial stability of banks.

### **5. Status and current trends in the functioning of the banking system of Ukraine**

Effective functioning of the banking system is one of the main conditions for economic development. Ukraine's banking system has already survived serious crises: 1998, 2004, 2008 and 2013–2015. Today, banks are showing good profitability, but the quality of their loan portfolio, especially in state-owned banks, is extremely low. Given the instability of Ukraine's economic development, the global economic slowdown, there is a risk of a new crisis in Ukraine's banking sector. That is why it is important to regularly analyze the financial condition of banks, in order to timely identify the crisis-causing factors of the banking system. 2018–2020 were successful for the banking system. The profitability of banks in 2020 was the highest for the entire period of its operation. Return on capital in the sector reached

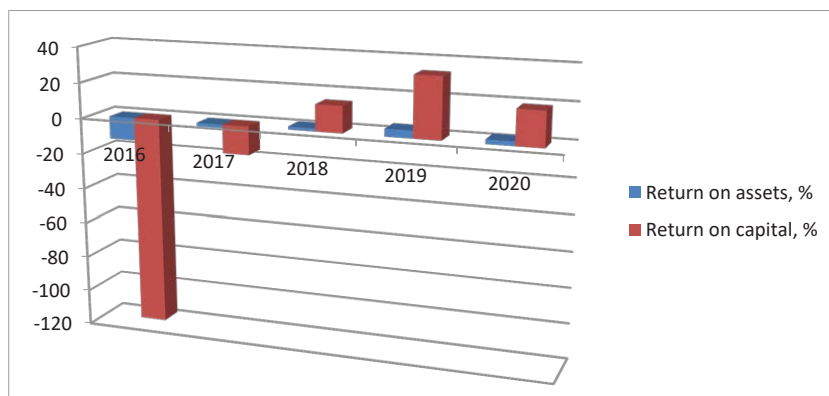
34%. This was made possible both by the rapid growth of operating income and the lowest allocation to reserves for assets in decades. Last year, due to a slowdown in inflation, a cycle of reducing the key NBU rate began. Commercial rates on hryvnia deposits and loans also began to decline. After the financial crisis of 2008–2009, the largest number of operating banks was in 2009 – 184 institutions, but in the following years their number gradually decreased. Since 2014, under the influence of the devaluation of the hryvnia, as well as political instability in the country, a significant number of banks have faced problems, many of them according to the NBU decision to liquidate, so as of 01.01.2018 the number of operating banks was 82 units., which is 93 financial institutions less than in 2008. Currently, there are 75 banks in Ukraine – more than twice less than 10 years ago. At present, the cleansing process has been completed and the situation has returned to a new state of equilibrium.



**Figure 1. Number of solvent banks**

As of the end of 2020, there were 75 solvent banks in Ukraine. 4 of them are state-owned – Privatbank, Ukrgasbank, Ukreximbank, Oschadbank. It should be noted that among this number are 20 banks with 100% foreign capital. The banking system has undergone more than just quantitative changes. Analysis of the profitability of banking institutions in Ukraine as a whole over the past ten years shows that the total income of banks during 2010–2020 increased by UAH 82 billion, which was due to an increase in interest income by UAH 52.4 billion, and at the expense of

commissions – by UAH 31.3 billion. The total increase in income was accompanied by an increase in all its components. Thus, we can conclude that the overall assessment of the dynamics of bank income was positive. The most negative financial result in the banking system was in 2016 and on 01.01.2017 amounted to UAH – 159.3 billion. But since 2018, the banking system has been showing profitability. The net financial result as of January 1, 2020 amounted to UAH 17.3 billion. This was facilitated not only by the NBU’s tight monetary policy and high interest rates, but also by a more prudent credit policy of the banks themselves. A significant increase in the profitability of the banking system was made possible by reducing contributions to reserves with a steady increase in interest and commission income. The main evaluation indicator of the activity of banking institutions is the relative indicator – return on assets and return on capital.



**Figure 2. Efficiency of the banking system of Ukraine**

Systemic risks to the financial stability of the banking system are at a medium level. This is confirmed by the dynamics of indicators of financial stability of banks. There is a decrease in the ratio of non-performing loans in banks’ portfolios from 58% in 2018 to 49.3% in 2020. In previous years, 2016–2018, the value of this indicator increased to 60.2% and was the reason for the deterioration of the quality of banks’ assets, as a result, the NBU declared a significant number of banks insolvent. The reasons that led to the emergence of problem assets in the banking system are the

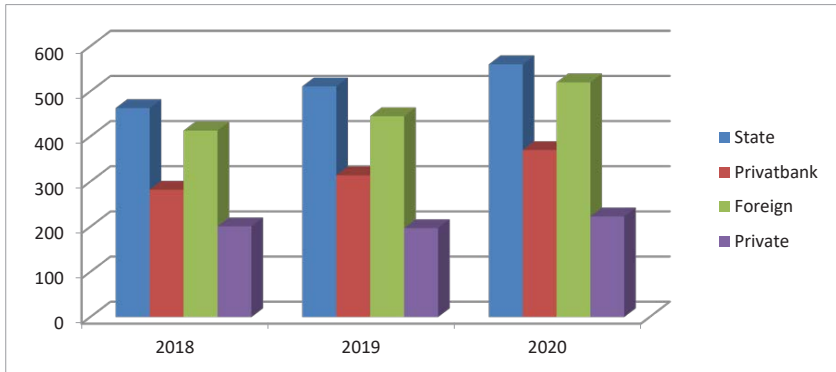


devaluation of the hryvnia, which led to a nominal recalculation of problem loans and a real decline in the financial condition of borrowers and others.

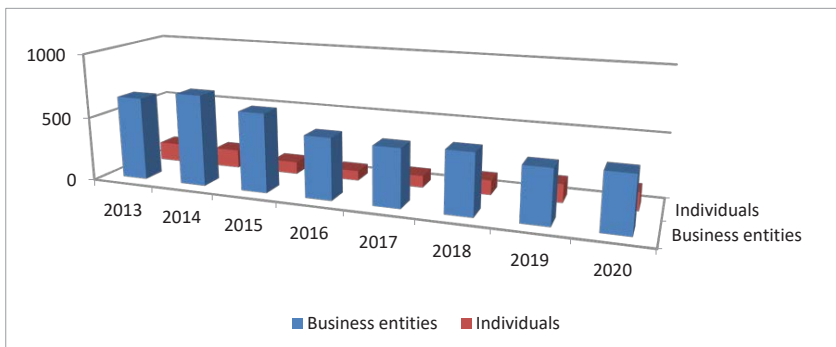
To confirm the existence of systemic risks, the Z-score was calculated, which is used by experts from the World Bank and the IMF as an indicator of the stability of the banking system due to the ratio of losses of the banking system due to internal or external shocks and equity. The calculated data show the duration of the crisis in the banking system of Ukraine. The period from 01.01.2005 to 01.01.2009 can be defined as pre-crisis, when the value of the indicator was constant with the maximum value of 0.9 as of 01.01.2008. During 2009, the development of crisis phenomena of such an intense nature took place that the value of the Z-score decreased to -2.3 units. Starting from 2010, the gradual recovery of the banking system began under the influence of a number of external favorable factors and internal cleansing, as a result of which as of 01.01.2013 the indicator became positive and amounted to 0.3. This value was lower than the pre-crisis one, but at the same time it showed positive tendencies of post-crisis recovery. In 2013, the banking system of Ukraine, which only partially overcame the effects of the banking crisis, suffered significant external shocks, which led to a significant decrease in the value of the Z-score to -6.8 as of 01.01.2017. The data on the dynamics of this indicator confirm the conclusions about systemic risks, and we can see that the banking crisis of 2014–2015 was much deeper and longer, and its effects are just beginning to recover, as the value of the indicator on 01.01.2019 returned to pre-crisis levels. Current trends in the development of the banking system of Ukraine are most fully revealed in the process of analyzing the main indicators of the banking sector. In Figure the dynamics of distribution of net assets by groups of banks in UAH million is presented. for 2018–2020.

In 2018–2020, state and foreign banks accounted for the largest share in the structure of net assets of the banking sector. Net assets of state-owned banks increased from UAH 463 billion. up to UAH 569 billion; foreign banks from 413 billion UAH. up to UAH 525 billion As of 01.01.20, there was an increase in total and net assets. During this period, the increase in total assets amounted to UAH 707 billion; net assets – UAH 430 billion.

The gradual increase in the total assets of banking institutions in Ukraine is due to the resumption of lending to the country's economy.



**Figure 3. Dynamics of net assets of the banking sector of Ukraine, billion UAH**



**Figure 4. Net loans of the banking sector of Ukraine, UAH billion**

During the study period, the amount of borrowed funds from individuals (by UAH 378 billion) and individuals (by UAH 239 billion) increased. This is a sign of financial stabilization of the banking system of Ukraine, as it indicates the gradual restoration of confidence of economic entities and individuals in financial institutions of Ukraine. The growth of the net hryvnia loan portfolio of individuals in 2020 slowed sharply due to quarantine restrictions in the first half of the year. In the second half of the year, lending for the purchase of housing increased significantly, growing at a faster rate than consumer lending. The average monthly volumes of new

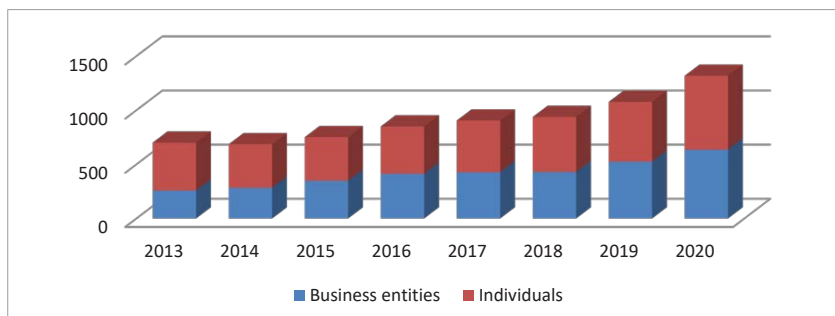
Table 4  
Dynamics of total assets of the banking sector of Ukraine, UAH billion

Indicator	2013 p.	2014 p.	2015 p.	2016 p.	2017 p.	2018 p.	2019 p.	2020 p.	Absolute deviation of 2020 from 2013, (+ ; -)
Total assets	1409	1477	1571	1737	1840	1911	1982	2205	+796
Including in foreign currency	513	667	800	788	755	719	718	745	+232

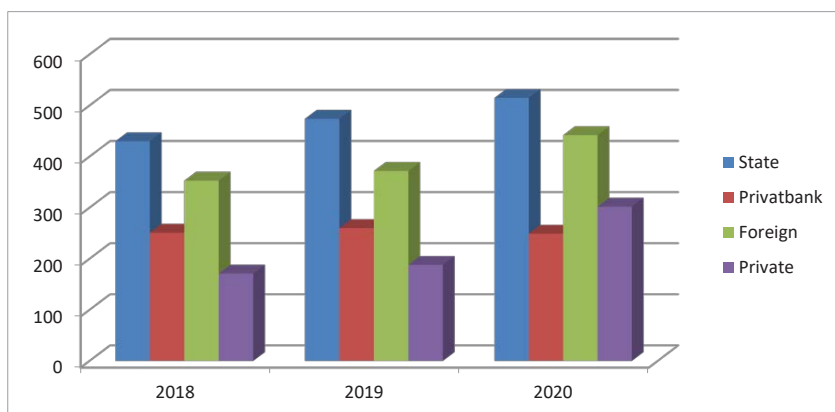
loans more than doubled compared to the first half of 2020 and 2019.

According to Figs. we see that within the study period for the overall structure of liabilities of the banking sector is characterized by an increase in the share of liabilities of state-owned banks. The share of liabilities of state-owned banks increased the most, by UAH 430 billion to UAH 515 billion (by UAH 85 billion) and foreign banks by UAH 112 billion.

Banks' liabilities increased during the period under review at the expense of customers and liquidity support from the NBU. At the same time, funds of economic entities and individuals remained the main source of funding for banks – 84.6% of liabilities. In 2020, hryvnia deposits grew rapidly. However, in the conditions of uncertainty caused by the pandemic, demand drivers were the driver of growth – their volumes increased by 49%. Funds of economic entities in hryvnia grew quite rapidly – 34.5%. The increase in hryvnia funds of business in banks with private capital was the highest. The level of dollarization of clients' funds decreased to 38.0%. One of the main conditions for ensuring the stable functioning of the banking system is a sufficient amount of equity, so consider the impact of capitalization on financial stability. Regulatory capital is one of the most important indicators of banks' activity, the main purpose of which is to cover the negative consequences of various risks that banks take in the course of their activities, and to ensure deposit protection, financial stability and stability of banking. It consists of fixed and additional capital.

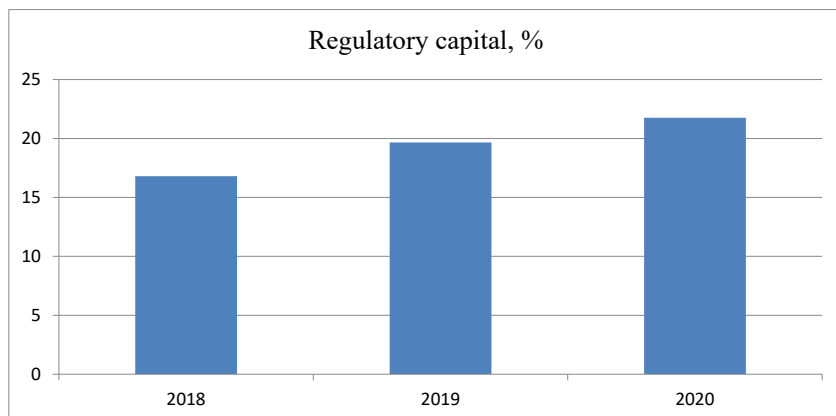


**Figure 5. Let's analyze the dynamics of liabilities of Ukrainian banks during 2018–2020**



**Figure 6. Dynamics of liabilities of the banking system by groups of banks, UAH billion**

According to Figures 2-7 we see that in 2018 the regulatory capital of Ukrainian banks was at its lowest level and amounted to 126.11 billion UAH, but in the following years its volume increased by 54.62 billion UAH, as of 01.12.2020 is 180 737, UAH 3 million. The regulatory capital adequacy (H2) within the studied years ranges from 16.18% to 21.76%, ie corresponds to the NBU normative values of this indicator. The high value of this ratio is of course positive, but does not provide full capital adequacy in the process.



**Figure 7. Regulatory capital, %**

### **6. Evaluation of the efficiency of the banking system of Ukraine**

An important indicator that characterizes the stability of the banking system is the direct receipt of profits in the course of its activities. The effective functioning of the banking system of Ukraine depends on ensuring stable profitability of banks in the process of their activities, because profit is one of the main components of the reliability of the banking sector. According to the NBU report, the banking system during 2016–2017 was in a state of unprofitability, and from 2018. gets positive results. According to the NBU's estimates of banking institutions, their profitability reached its highest level in 2019 and amounted to UAH 58,356 million. For the period 2018–2020, banking institutions of Ukraine, despite the crisis, show positive results. Thus, during the study period, the positive values of return on assets ranged from 1.69% in 2018 to 2.44% in 2020; return on capital, respectively, from 14.67% in 2018 to 19.33 in 2020.

The profit of the banking sector in 2020 is almost a third lower than in 2019 and amounted to UAH 41.3 billion. The annual growth rates of net interest and commission income were the lowest in the last four years. Contributions to reserves were three times higher than in 2019. These factors are due to the reduction of lending in the first half of 2020 and the deterioration of the solvency of certain sectors and companies amid the unfolding crisis related to the pandemic.

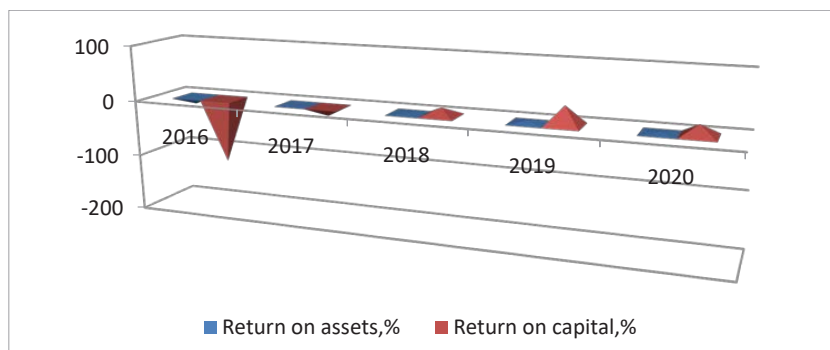
Table 5

**Estimation of profitability of the banking system of Ukraine,  
billion UAH**

Indicator	2016 p.	2017 p.	2018 p.	2019 p.	2020 p.	Absolute deviation 2016 from 2020, +/-
Net interest income	44,2	53,0	73,0	20,8	22,4	-21,8
Net commission income	24,2	27,7	37,8	11,7	14,2	-10
Deductions to reserves	198,3	49,2	23,8	3,6	9,0	-189,3
Net profit /loss	-159,4	-26,5	22,3	58,35	41,3	+200,7

Assessing the return on bank assets allows you to determine the effectiveness of managers of the banking institution, as its sufficient importance indicates the implementation of effective and efficient management of assets and liabilities of banks, but may be one of the consequences of high risk operations. Its use makes it possible to assess the effectiveness of the bank's investments in the base for the formation of profits of its assets.

The rate of return on capital is the ratio of the bank's net profit to the average value of the bank's capital over the period and characterizes the



**Figure 8. Efficiency of the banking system of Ukraine**

efficiency of capital invested in the bank's business. The value of the ROE indicator is to determine the level of return (in the form of net profit) from the shareholders' funds invested in the bank, as well as retained earnings directed by the bank to business development.

Thus, as a result of research we can conclude that the healthiest and strongest banking system in Ukraine was in 2019, because the banking sector was capitalized, profitable and without any bankruptcy in the market, which was the main reason that Ukraine's banking system has the ability to confront the effects of the COVID-19 pandemic.

### **7. Finding**

The properties of controllability and controllability of the process of interaction between the banking and real sectors of the economy, highlighted in the theoretical part of the work, are most evident when the ability to manage the accumulation, redistribution and efficient consumption of resources by private business begins to slip. In this situation, the role of state regulation as a direction in solving problems has grown. Today, many scientists and experts believe that in the new environment of financial and economic instability, solving a complex problem of transforming savings into investments with their reorientation in the field of expanded reproduction and modernization of fixed assets in the real sector is impossible without embedding incentives macro-regulation. Moreover, the experience of a number of countries in America, Asia and Europe (1997–2009) shows the effectiveness of such a regulatory paradigm. In 2010, the Basel Committee published the Third Basel Accord, which is a key piece of legislation aimed at improving the quality of risk management and capital management of financial institutions. This document establishes new minimum capital requirements, new liquidity ratios and leverage, as well as new methods and approaches to measuring and assessing risks. In addition, the document introduces stricter standards of banking supervision, as well as increased requirements for information disclosure and risk management. A recent study by Ya. Putnis on banking supervision emphasizes that banking regulation has never had such a high profile and has never been as important as it is today. The subject of banking regulation has affected the agenda, as politicians have realized the damage that insolvent banks can do to national and regional economies. YA. Putnis states that national banks often face the problem of

lack of portfolio supervision in all banks in their country, and therefore do not potentially identify the concentration of risks in the country's banking system. According to Dzh. Barsa i Dzh. Hana, "regulation refers to a set of laws and regulations applicable to banking, and supervision is defined as the monitoring of banks and the implementation of banking regulations". At the same time, the authors point out that the role of the banking business has changed, and therefore the way in which banks are regulated and controlled has changed. Kherrinh ta Karmasi, authors of *The Structure of Cross-Sector Financial Supervision*, analyze changes in banking supervision and focus on an integrated approach and show that crisis management may not be an adequate replacement for the traditional model in which prudential supervision takes place within the central bank. According to analysts at KPMG, the supervisory pressure has hit Central and Eastern European countries hardest, trying to make adequate profits and demonstrate that they have a viable and stable business regime. Withdrawal of assets and risks of balance sheet deficits push most banks to comply with existing regulatory requirements for capital and liquidity in the EU. However, there are also problems with the profitability of banks, the increase in costs, which affects the maintenance of a stable future. The authors of the article "Financial Supervision in Central and Eastern Europe" define financial supervision strategies, one of which is comprehensive supervision, the effectiveness of which is associated with the establishment and unification of procedures to reduce the cost of supervision, facilitate contacts with supervised entities. There are also various forms of criticism of the integrated model, which they believe serves the multifunctional service of the financial group and remarks that by integrating all financial supervision into one supervisory body, the latter becomes too big, too unmanageable and too powerful. Foreign scientific work on the formation of the regulatory environment of the European Union, as well as on the study of banking management belong to Western practicing analysts Timoti Kokhu i Skotu Makdonal'du.

D. Noyberher identifies competition policy in the banking sector as an additional group of supervisory banking measures and identifies measures for preventive supervision, which are aimed at avoiding bankruptcy of the bank. They include capital requirements, liquidity and diversification, provision of information, prohibition of certain types of banking operations, instructions on reporting. This also includes licensing conditions, which



are crucial in the supervision. K. B'orner believes that for this reason, discretionary regulation, which provides some freedom of action both in initiating sanctions and in their choice, should be equated with qualitative regulation, which is associated with the method of risk assessment (causes). According to V. Hryuninha, traditional banking analysis is based on quantitative methods of assessing the state of the bank, including relative indicators such as liquidity ratios; capital adequacy; quality of the loan portfolio; shares of the loan provided to persons authorized and related to the bank; credit risk of potential losses and open currency positions. The method of banking supervision of the Basel Committee on Banking Supervision, which is implemented in the Basel II agreement, is an example of popularizing indicative regulation instead of administrative regulation.

The analysis of literature sources devoted to the study of banking supervision in Central and Eastern Europe shows that the banking supervision system consists of elements of the regulatory environment; availability of banking supervision institutions; formed requirements of banking supervision in accordance with the development of the banking system (standards, indicators, ratios, rules, licenses); forms of banking supervision. Elements of the banking supervision system are interconnected, as they work to achieve a common goal: the analysis and management of bank risks and compliance with prudential standards of banking supervision. The main directions of development of European supervision remain the unification of European banking rules, which simplify the procedure for conducting banking supervision within the European Union. Theoretical and practical questions about the evolution of banking supervision in Central and Eastern Europe in the concept of risk-based approach remain relevant. According to the Law of Ukraine “On the National Bank of Ukraine” in Art. 1 states that “banking supervision is a system of control and active and orderly actions of the National Bank of Ukraine aimed at ensuring compliance by banks and other persons in respect of which the National Bank of Ukraine supervises the legislation of Ukraine and established standards to ensure stability of the banking system and protection of interests depositors and creditors of the bank; Banking regulation is one of the functions of the NBU, which is to create a system of rules governing the activities of banks and determine the general principles of banking, the procedure for banking supervision and liability for violations of banking laws. A similar definition

of banking supervision is given in Art. 67 of the Law of Ukraine “On Banks and Banking”. This article states that “the purpose of banking supervision is the stability of the banking system and the protection of the interests of depositors and creditors of the bank regarding the security of storage of customers’ funds in bank accounts.”

According to the provisions of Art. 4 of the Law of Ukraine “On Banks and Banking” the National Bank of Ukraine regulates and supervises banking in accordance with the Constitution of Ukraine, this Law, the Law of Ukraine “On the National Bank of Ukraine”, other legislative acts of Ukraine and regulations of the National Bank of Ukraine. The National Bank of Ukraine determines the features of regulation and supervision of a systemically important bank, a bank that has the status of a Settlement Center for servicing contracts in financial markets, taking into account the specifics of such banks. Domestic scientific approaches in the interpretation of banking supervision generally adhere to the above-mentioned legal provisions. Disagreements arise primarily when defining the essence of the concepts of banking regulation and supervision. In particular, in the textbook authored by V. Mishchenko and other authors, the regulation of banking is understood primarily as the creation of an appropriate legal framework, ie the development and adoption of laws governing banks, as well as the adoption of relevant institutions authorized by the state, regulations governing banks in the form of regulations, instructions, directives. Legislation and regulations define the limits of banks’ behavior that contribute to the reliable and efficient functioning of the banking system. Banking supervision is defined as “monitoring of processes taking place in the banking sector at various stages of the functioning of banks, namely: the creation of new banks and their institutions, the activities of banks, reorganization and liquidation of banks. To this end, the supervisory authority has the power to apply coercive and non-coercive measures of influence to banks”.

An analysis of research on banking regulation and supervision suggests that these are interrelated concepts that have several important components. First of all, they are mandatory for banks and banking groups in the rules of banking operations, accounting and reporting, organization of internal control, preparation and submission of accounting and statistical reporting. The second element is these two interrelated processes, which set special

standards for banks in their activities and which are aimed at limiting their risks and protecting the interests of customers and depositors, as well as society as a whole. Such standards include the minimum amount of regulatory capital; regulatory capital adequacy ratio; regulatory capital ratio to the bank's liabilities; liquidity standards. The development of banking systems has been carried out for a long time under the influence of historical, economic and political factors, as well as legal and judicial practices.

E. Keyn described the relationship between banking regulators and banks as a dialectic of regulation or a model of struggle. His idea is the Hegelian concept, which consists of a three-stage structure of any process of change: the first stage – the thesis; another – the antithesis; the third is synthesis. The collision of thesis and antithesis leads to synthesis. Synthesis then becomes a new thesis in the fight against the next antithesis, which gives a new synthesis. In the area of finance, the struggle is also continuous, as regulation can be seen as taxes that banks seek to avoid. The reason for the struggle is the inconsistency of the goals set by regulators and banking structures. The purpose of regulators is to maintain security, stability and a viable (competitive) financial system; The task of bankers is to increase the value of certain variables – capital, profits, etc. Banks are trying to overcome the restrictions of regulators, trying to find ways to avoid the implementation of regulations and laws. In response, supervisors are stepping up and the fight begins again. This confrontation stimulates the emergence of financial innovation (as a way to avoid constraints), and also explains the process of innovation in the financial system. The benefits of regulatory measures from the point of view of their costs are difficult to measure, as the benefits are often short-term, while the costs are very long-term.

The experience of the financial crisis of 2007–2009 showed that there is a relationship between the structure of compensation of financial firms and excessive risk-taking by their employees. The main problem was that modern banks tend to reward managers for risky strategies, but do not charge penalties for decisions that lead to bank failures, the destruction of the financial system and government infusions, and the loss of taxpayers. Ethical failures and systematic shortcomings in the context of the 2007–2009 financial crisis suggest that the forthcoming dialogue of regulators on banking regulation policy is unlikely to ignore the importance of corporate culture. The latter's problem in the banking business has arisen

in connection with the resumption of discussions on resolving two issues of restoring public confidence in the banking system and improving financial stability.

One of the key areas for the formation of risk-oriented banking supervision and regulation in CEE countries is the introduction of capital requirements. The main focus in this direction remains the provisions of the Basel Committee, Basel III, published in December 2010 and revised in June 2011. At European level, the implementation of these standards was planned for 2013-2019. The implementation consisted of the so-called CRDIV package: – CRR – Capital Requirements Regulation (EU) 575/2013; – CRD – Capital Regulation Directive 2013/36 / EU – CRDIV.

CRR is direct legislation, ie this provision is fully implemented and applied in all EU member states, extends the norms that have not been regulated by the CRDIV and applies to Pillar I Basel. CRDs are principles and norms that reflect the Basel II and Basel III norms on capital standards and are implemented through the adoption of national laws.

The main purpose of these two documents is to strengthen capital requirements in response to global financial crises, promote the sustainability of financial institutions and the banking sector. The tasks of ensuring the stability and reliability of the banking system must be addressed at both the macroeconomic and microeconomic levels. At the macroeconomic level, an important component of economic activity (in terms of monetary theory) is the amount of money in circulation. Other mechanisms that ensure the coordinated functioning of components at the macroeconomic level are interest rates and the volume of bank loans. Despite the fact that in the modern economic system, commercial banks are not the only ones that perform the function of financial intermediation in financial markets, but their role in this process is still extremely important.

Thus, the regulation of banking activities protects the money supply and gives central banks the lever with which they influence bank reserves, interest rates and lending activities of banks. The socio-economic nature of banking supervision is to promote banking supervision of the financial system, which is achieved through the formation of requirements for banking supervision by individuals and households (insurance and lending, profitability and regularity of the banking system) and the state through macroeconomic requirements (economic and social protection, ie laws,

rules, national definitions), control over the national system of financial policy (macroeconomic policy, the creation of an appropriate regulatory environment for banks). The solution of such requirements by banking supervision should be based on the world experience of banking supervision through the involvement of the best methods and practices of banking supervision.

It should be noted that in the regulatory environment and, in particular, in the EU Directives there is no definition of financial stability. Economists also differ on a common approach to its interpretation. However, there are common elements that can be used to understand financial stability, namely: a safe and well-functioning financial environment, no shocks or no financial instability. In this regard, everything that helps to make financial structures safer and less vulnerable to shocks is aimed at financial stability. In this sense, it is banking supervision that contributes to achieving this goal, because it monitors financial instruments and indicators that are aimed at preventing or resolving problems of financial instability of banks. In order to increase the resilience of banks in times of financial and economic instability, creating a reserve of capital to increase the ability to withstand risks, the National Bank of Ukraine sets requirements for banks to form capital buffers, which was supplemented by a new chapter of the Instruction which came into force on January 1, 2020, namely: buffer of stock (conservation) of capital (planned to be introduced from 01.01.2020) and countercyclical buffer (by decision of the regulator). It is said that the bank forms capital buffers, namely the capital reserve (conservation) buffer, countercyclical buffer.

Banks must form capital buffers above the normative value of the fixed capital adequacy ratio (H3). The capital reserve (conservation) buffer is calculated from the total risk. The bank forms a buffer of stock (conservation) of capital, starting with: January 1, 2020 – in the amount of 0.625%; January 1, 2021 – in the amount of 1.25%; January 1, 2022 – in the amount of 1.875%; January 1, 2023 – in the amount of 2.5%. The countercyclical capital buffer is calculated from the total amount of risk in the amount of 0–2.5%. The size of the countercyclical capital buffer is set by the decision of the Board of the National Bank in the case of significant lending activity of banks, taking into account the risks associated with excessive credit growth. This information is posted in advance on the page

of the official website of the National Bank and should contain information, in particular on the size of the buffer, the date of introduction of the buffer in the prescribed amount. Comparative characteristics of capital structures of banks in Ukraine and EU countries are presented in table 6.

Table 6

**Comparative characteristics of capital structures  
of banks in Ukraine and EU countries**

Capital structure of Ukrainian banks (H2> 10%). The ratio of OK to DC, as 50/50			EU capital structure (minimum value 8% + preservation buffer = 10.5%). Capital ratio 1 year. to the capital of 2 years, as 75/25		
1. Tier 1 capital (fixed capital). <b>Components:</b> authorized capital, issue difference, fin. help of shareholders, funds created at the expense of profit 2. Level 2 capital (additional capital). <b>Ingredients:</b> – profits of previous years. – income for the current year, reduced by overdue and uncollected > 30 days accrued income, – subborg. Capital = OK + DK reduced by direct investment in other institutions more than 10% and other securities (issued by out-of-listing banks that are not listed on the stock exchange), sub-debt.			1. Tier 1 capital (Tier 1) (OK1r. + DK1r.) <b>Components:</b> fixed capital (ordinary shares), issue income from ordinary shares, retained earnings, funds (reserve and others) created by profit. Additional level 1 capital – perpetual capital instruments, sub-debt (in the case of a trigger event OK less than 5.125%) is converted into instruments OK1, or written off, 2. Tier 2 capital. <b>Components:</b> authorized capital (preferred shares), issue income on preferred shares, term capital instruments (more than 5 years without long-term repayment incentives)		
NBU capital ratios,%			Capital ratios for BCBS,%		
Instruction № 368					
<i>Types of capital</i>	<i>Current standard, %</i>	<i>Planned standard for January 1, 2019, %</i>	<i>Types of capital</i>	<i>Standards in Basel II, %</i>	<i>Standards in Basel III, %</i>
Level 1 capital	5	7	Fixed capital, 1 year	–	4,5
Level 2 capital	5	3	Level 1 capital	4	6
Capital	10	10	Level 2 capital	4	2
			Capital	8	8
			Conservation buffer	–	2,5

As can be seen from table. 6, there are fundamental differences between the capital structure of EU banks and Ukrainian banks. The main differences are as follows.

1. Capital structure. In the EU, the share of tier 1 capital, which plays a key role in the preservation of the bank, has increased (75/25), ie the ability of banks to absorb losses has been increased. In Ukraine, this show is at 50/50 at the level of Basel II. According to the NBU Instruction № 368, it was planned to raise the ratio of OK to DK from January 1, 2019 to 70/30. In our opinion, such changes will not affect the overall picture, as there are differences that are more fundamental.

2. According to the legislation of Ukraine, capital is reduced by the amount of direct investment only from the total amount of capital (OK + DK). In the EU countries, according to the norms of the Basel Committee, direct, indirect and synthetic investments are deducted from each relevant level of capital, both from Tier 1 capital and Tier 2 capital.

According to experts, in Ukraine there are strict approaches to valuation and capital instruments: for example, there are no hybrid instruments. However, the introduction of the accounting standard IFRS9 is gradually changing the psychology of reserve calculation. The main elements of the calculation become similar to the Basel standards – these are indicators of PD, LGP, EAD. The approach to the classification of financial instruments is also undergoing changes. These are instruments that measure depreciation and instruments that measure fair value. Each of the instruments has an assessment of impairment based on credit risk.

Shows the main stages of capital reform – in the EU countries introduced on January 1, 2016 conservation buffer (0.625%) with a gradual increase to 2.5% on January 1, 2019. In Ukraine, the conservation buffer in accordance with Instruction № 368 activated from January 1 2020 at the level of 0.625.

The legislation of Ukraine and regulations of the NBU of Ukraine do not provide for the use of tools of the 1st level of the SC in the event of a trigger event. A trigger event is a decrease in the Tier 1 adequacy ratio below 5.125%, or another value (over 5.125%), as determined by the bank in the relevant regulations and agreements. In the EU, Tier 1 instruments include perpetual instruments, the principal amount of which must be written off or converted into Tier 1 instruments in the event of a trigger event. After the

crisis of 2008, the countries of Central Europe (Great Britain, Switzerland) began to use these tools.

On June 3, 2016, the Board of the National Bank of Ukraine adopted Resolution № 338, which amended the Instruction on the Procedure for Regulating the Activities of Banks in Ukraine, approved by the NBU Board Resolution № 368. These changes determine the procedure for including financial assistance to shareholders. Thus, financial assistance of shareholders is included in the fixed capital of the bank with the permission of the National Bank of Ukraine provided that the funds received in cash and are non-refundable, non-credit, and the bank's ownership structure meets its transparency requirements set by the National Bank of Ukraine. In addition, the calculation of certain economic standards in terms of reducing credit risk by the amount of acceptable collateral has been clarified.

According to the Instruction on the Regulation of Banks in Ukraine, to measure liquidity risk, Ukrainian banks use the structure of assets and liabilities, which is built taking into account the terms of the transaction for each currency. To assess liquidity risk, a cash flow calendar is built – a schedule of interest payments and the principal amount of debt. It is similar to the revaluation calendar used to control interest rate risk, except that in the latter the date of the price change is of primary importance, in the cash flow calendar the emphasis is on the date of interest payment and the principal amount of debt. In order to monitor the liquidity of banks, the National Bank sets liquidity ratios: instantaneous liquidity (H4), current liquidity (H5) and short-term liquidity (H6). The instantaneous liquidity ratio (H4) is defined as the ratio of highly liquid assets to current liabilities of the bank, ie sets the minimum required amount of highly liquid assets to ensure the fulfillment of current liabilities during one transaction day. This indicator is calculated taking into account the balance on correspondent accounts opened with other banks and on correspondent accounts of other banks. The current liquidity ratio (H5) is defined as the ratio of assets with a maturity of up to 31 days (inclusive) to the liabilities of the bank with a maturity of up to 31 days (inclusive). This standard sets the minimum required amount of bank assets to ensure the fulfillment of current liabilities within one calendar month and is calculated taking into account the balance of placed and attracted funds on correspondent accounts opened with other banks and on correspondent accounts of other banks and interbank loans /



deposits placed with other banks and received from other banks. The short-term liquidity ratio (H6) is defined as the ratio of assets to liabilities with a maturity of up to one year. This standard sets the minimum required amount of assets to ensure the fulfillment of its obligations for one year and is calculated taking into account the balance of placed and attracted funds: on correspondent accounts opened with other banks and on correspondent accounts of other banks; on interbank loans / deposits placed with other banks and received from other banks. It should be noted that these indicators have not changed or reformed radically, although the banking system has gone through liquidity crises. The new capital requirements for banks were approved by the Resolution of the NBU Board dated 12.05.2015 № 312 “On Approval of Amendments to the Instruction on the Procedure for Regulating the Activities of Banks in Ukraine”. According to the Instruction, the minimum amount of regulatory capital of the bank (H1), which received a banking license before July 11, 2014, should be UAH 120 million – until June 17, 2016 and UAH 200 million – from July 11, 2017.

The Instruction also establishes the regulatory capital adequacy ratio (H2), which reflects the bank’s ability to pay its liabilities on time and in full. The higher the value of the regulatory capital adequacy ratio, the greater the share of risk borne by the bank’s owners and the lower the share of risk of creditors / depositors of the bank. The value of H2 is defined as the ratio of regulatory capital and weighted risk and solvency ratios of total assets and off-balance sheet instruments.

The normative value of the H2 coefficient for existing banks must be at least 10%. For banks that start operating, this standard should be: a) during the first 12 months of operation from the date of obtaining a license – not less than 15%; b) during the next 12 months – not less than 12%; c) in the future – not less than 10%.

Fixed capital adequacy ratio (H3) is defined as the ratio of fixed capital to the sum of assets and off-balance sheet liabilities, weighted by the relevant credit risk ratios. The normative value of the H3 standard must be at least 7%. The main reason for the global crisis of 2008–2009 was the underestimation of banks’ liquidity risks. In order to overcome and prevent these risks, the EU, together with the Basel Committee, has developed standards that have helped to overcome these problems – Basel III and the Directive – CRR and CRD. Until 2008, Ukraine did not use elements of

macroprudential policy in its financial policy, unlike in Central Europe, where, for example, in the United Kingdom in 1996 the first review of financial stability was published.

The implementation of these instruments in Central European countries has been quite problematic, as, for example, the deficit of highly liquid assets for LCR amounted to 1.7 trillion euros, and for stable financing – 2.9 trillion euros. But after the crisis, the share of highly liquid assets in internationally active banks increased. And the BCBS published its conclusions in 2016, six years after the launch of these instruments, which are important for the Ukrainian banking system. These findings are that, first, LCR requirements are more difficult for retail banks to meet and NSFR requirements for investment banks; second, LCR, unlike NSFR, is sensitive to assumptions; third, in the pursuit of a high LCR, a bank may worsen its risk profile. Finally, the implementation of the LCR does not mean that banks are resistant to liquidity shocks.

Banking regulation is the process of promoting financial stability through the use of special methods, tools, by establishing specific rules and regulations. Therefore, the functions of banking regulation are closely related to the conduct of monetary policy and the organization of the settlement system and have historically been carried out by central banks. Supranational banking regulation is a regulatory process carried out by world-class international organizations (IMF, IBRD, EBRD, BCBS).

Banking supervision is the control over the stability and stability of the banking system, which must adequately respond to global trends and reassess supervisory policy. From the standpoint of methodology, banking supervision should be understood as a set of methods, techniques, tools used by banking supervisors to monitor the performance of banks, the application of measures of influence and so on. Banking supervision is based on a constant analytical survey of banks and serves socio-economic needs, as there is a close relationship between risk analysis and banking supervision. In Western and domestic scientific sources, the issue of banking supervision is often identified with the analysis of the causes of banking risks and methods of their study. An analysis of the literature has shown that the study of risks has a long history, but the active study of financial risks began relatively recently – in the late nineteenth – early twentieth century.

Liquidity monitoring tools such as stress testing, debt concentration analysis and GAP analysis (liquidity gaps) are important for the formation of risk-oriented banking supervision. In Ukraine, the current liquidity standards are quite static and do not meet the requirements of the Basel Committee. The NBU planned to introduce LCR from 2018 in the test calculation mode (without requirements). In developing the LCR, the NBU takes into account the requirements of Basel and national characteristics – underdeveloped market of securities and highly liquid deposit assets (there are no quality corporate bonds and mortgage bonds). This is taken into account in the components of the liquidity buffer. The NBU took into account the stress scenario of 2014 as the basis for calculating the indicator, ie higher outflow rates for retail and corporate deposits than envisaged by the Basel Committee.

According to the Comprehensive Action Plan for the Implementation of the Financial Development Program in Ukraine, it is planned to improve the systems of regulation and supervision of the financial sector, continue the transition from compliance based supervision to risk-based supervision and oversight. preventive monitoring (from April 1, 2015 to December 31, 2016), as well as the introduction of new capital requirements for banks in accordance with the principles of Basel III and EU requirements (from January 1, 2015 to December 31, 2019).

These measures are possible only by complying with the requirements of the European Parliament and the Council of Europe, which aim to create a level playing field in the financial sector, strengthen the solvency and liquidity requirements of financial sector participants, introduce special requirements for capital, liquidity and other financial institutions, as well as improving the system of regulation and supervision of the financial sector.

According to international principles, an effective banking supervision system must have specific responsibilities and goals, operational independence, transparency, reliability, and resource base. Therefore, the implementation of these principles in the work of the national banking system is extremely important.

Currently, the analysis of the current state of the banking sector and the main regulatory aspects indicates the presence of problems that indicate a crisis in the banking system of Ukraine, in particular, in the system of banking regulation and supervision. Thus, according to the regulatory framework,

banking supervision in the system of the National Bank of Ukraine has a sufficient level of independence, but during the financial crisis, problematic issues regarding its functional and institutional components were identified.

## **8. Conclusions**

The paper solves an important scientific and practical task of developing theoretical principles and methodological approaches, developing scientific and practical recommendations for improving the monitoring of financial stability of the banking system. The main conclusions and results obtained during the study are as follows.

Based on the systematization of theoretical aspects of financial stability of the banking system, which have been studied in the works of domestic and foreign experts on the subject, its content has been deepened. Under the financial stability of the banking system is proposed to understand the complex characteristics of its state, which determines the ability of the banking system over time to absorb the negative effects of external and internal factors, constantly and effectively perform its functions while maintaining its integrity and organization, financial stability. The revised definition takes into account a set of key features that reveal the content of financial stability – relative nature (resistance to financial instability, shock, panic), the relationship with the functional purpose of the system, dynamism (taking into account the impact of time on maintaining structure and functionality) and emphasizes attention to the internal organization of the banking system.

As a result of the study of economic categories “financial stability” and “financial stability” it was concluded that their essence is close in terms of determining the ability of the banking system to fully perform its functions, ability to absorb shocks, overcome shocks, recover from shocks and imbalances. implies a change in financial performance) and return to equilibrium.

According to the criteria of taking into account the identification features of the system and the aggregation of analytical data, a critical analysis of approaches to assessing the financial stability of the banking system. Emphasis is placed on the fact that none of the considered approaches to assessing the financial stability of the banking system fully takes into account the presence of complex links between its elements, features of the

internal organization, place in the economy, main functions. Based on the deepening of the content of banking regulation, its impact on ensuring the financial stability of the banking system has been proven.

A system of organizational and economic support for the financial stability of the banking system has been developed. The current system provides for the financial stability of the banking system at two levels: macro-level – the banking system as an object with systemic properties; micro-levels – banks as structural elements of the banking system. The peculiarities of the functioning of the developed system of organizational and economic support of the financial stability of the banking system are taken into account and specified in its elements: goals, objectives, subjects, objects, principles, functions, tools.

According to the study of the essence of monitoring and the specifics of its use in banking practice, it is determined that monitoring the financial stability of the banking system is a process of continuous monitoring (collection and accumulation of information), processing and analysis of financial stability indicators at macro and microeconomic levels. decisions and forecasting the future development of the banking system, its dynamic movement. The following stages of monitoring the financial stability of the banking system are identified: formation of the analytical basis of the study (collection of information and calculation of partial and consolidated indicators for assessing the financial stability of the banking system and banks separately); comparison of actual evaluation results with data from previous years; comparison of calculated values of partial indicators with critical (threshold) ones, signaling the presence of crisis tendencies; analysis of the causes and consequences of the identified deviations of indicators; substantiation of dominants in ensuring the financial stability of the banking system, identifying prospects for its improvement and changing the levels of financial stability of banks.

As a result of the analysis of the functioning of the banking system of Ukraine as a whole and on a separate example of Oschadbank JSC, we draw the following conclusions: 1. having analyzed the structure of the banking system of Ukraine, it is established that in Ukraine the existence of a two-tier structure of the banking system, the construction of which is similar to the European model, is enshrined at the legislative level. The main financial and economic indicators of the banking system of Ukraine

and Oschadbank JSC for the period from 2018 to 2020 are analyzed. It is established that during this period there was a stabilization of the number of banking institutions that demonstrated stable profitability. At the same time, banking institutions increased their assets, both national and in foreign currency. During the study period, the amount of lending to the banking system has not changed, although the amount of borrowed funds from individuals (from 508 to 683 billion UAH) and legal entities (from 430 to 635 billion UAH) has increased, which indicates confidence in the banking system Ukraine; The increase in certain indicators has led to profitable activities over the past 3 years, although the previous years 2017-2018. were unprofitable. Return on assets and return on capital of the banking system of Ukraine amounted to 2.44% and 19.22%. Features of functioning of JSC Oschadbank which is one of the systemically important banks of Ukraine, ranks first in terms of net loan portfolio and second among banks in Ukraine in terms of assets, and is the largest in Ukraine in terms of liabilities in the corporate sector and second in terms of liabilities in the retail sector. In 2020, compared to 2018, Oschadbank JSC increased its assets by 7.26%. The structure of assets was as follows: 46% – investment portfolio; 26% – loan portfolio; 28% – other assets.

The share of Oschadbank's loan portfolio in total assets is declining every year, due to the unstable financial situation in the country and the pandemic of coronavirus infection, which has a negative impact on economic activity, which leads to lower incomes and legal entities. provides opportunities to increase the volume of credit operations and expand the range of customers. In the structure of liabilities, the largest share is occupied by customer accounts, which during this period increased by 20.78%. This is due to the fact that Oschadbank JSC is one of the leaders in the domestic banking market in the dynamics of the retail deposit portfolio . Thus, in 2019 the bank maintained its market position (1st place in the market of liabilities of legal entities) and constantly worked on diversifying the customer base, primarily by attracting new customers from the private sector.

Oschadbank JSC received a net profit of UAH 2.8 billion, which is UAH 2.5 billion. more than in 2019. The profit was generated primarily from net interest income of UAH 8 billion, which is UAH 2.5 billion or 45.3% more than in 2019. Net commission income amounted to UAH 5 billion, which is UAH 0.8 billion or 18.1% more than in 2019. Trading

income of UAH 3.6 billion was generated mainly from transactions with financial instruments measured at fair value. Return on assets (ROA) of Oschadbank JSC as of 01.01.2020 has the highest indicator, which meets the recommendations and is 1.16. This indicates that the Sberbank's implementation of the strategy and tactics of asset growth is correct. The ROE (stability indicator) of Oschadbank JSC is 12.64% in 2020, and is close to the recommended one (15%). All these indicators have maintained a positive trend, despite the economic situation associated with the pandemic. According to the Comprehensive Action Plan for the Implementation of the Financial Development Program in Ukraine, it is planned to improve the systems of regulation and supervision of the financial sector, continue the transition from compliance based supervision to risk-based supervision and oversight, preventive monitoring (from April 1, 2015 to December 31, 2016), as well as the introduction of new capital requirements for banks in accordance with the principles of Basel III and EU requirements (from January 1, 2015 to December 31, 2019).

These measures are possible only by complying with the requirements of the European Parliament and the Council of Europe, which aim to create a level playing field in the financial sector, strengthen the solvency and liquidity requirements of financial sector participants, introduce special requirements for capital, liquidity and other financial institutions, as well as improving the system of regulation and supervision of the financial sector. According to international principles, an effective banking supervision system must have specific responsibilities and goals, operational independence, transparency, reliability, and resource base. Therefore, the implementation of these principles in the work of the national banking system is extremely important. Currently, the analysis of the current state of the banking sector and the main regulatory aspects indicates the presence of problems that indicate a crisis in the banking system of Ukraine, in particular, in the system of banking regulation and supervision. Thus, according to the regulatory framework, banking supervision in the system of the National Bank of Ukraine has a sufficient level of independence, but during the financial crisis, problematic issues regarding its functional and institutional components were identified.

The National Bank of Ukraine should put in place a methodology for assessing the level of corruption in banking institutions as part of protecting

the bank's economic security. According to Art. 55 of the Law of Ukraine "On the National Bank of Ukraine" the main purpose of banking regulation is defined as security and financial stability of the banking system. Protecting the interests of depositors and creditors. The security system must be constantly changed to take into account all risks. The NBU is no exception. Its oversight system must also be constantly changed and updated. In order to perform its functions, the National Bank of Ukraine has the right to receive free of charge from banks, banking associations and legal entities licensed by the National Bank of Ukraine, as well as from persons in respect of which the National Bank of Ukraine supervises in accordance with the Law of Ukraine banking activities", information about their activities and explanations regarding the information received and transactions. The main difference of the proposed approach is that the author proposes to exercise control not only at the level of control over the economic standards of the bank, but also at the level of building a bank management system. This should include: control over the organizational structure of the bank; increase control over the appointment of bank officials (not only at the level of goodwill, but also at the level of determining the bank's family ties; verification of the bank's economic security system, depending on the type of bank, its activities, volume of operations, number of branches, etc. Table 1 shows the stages of creating a security model for a banking institution. Monitoring the frequency and occurrence of incidents of corruption risk – allows for ongoing control, monitoring, supervision of corruption risks, events related to their implementation directly in the course of operational work. Monitoring involves continuous, systematic and consistent monitoring and prevention of corruption risks. Corruption risk is monitored both at the level of structural units and in the bank as a whole. Ongoing risk monitoring is the internal operational ongoing control and risks that are inherent in the activities of the unit that performs operational monitoring. Continuous monitoring facilitates the prompt detection and implementation of measures to minimize the consequences of corruption risks.

The National Bank should tighten control over the distribution of powers within a commercial bank, the presence of conflicts of interest among bank officials, the construction of critical business processes of the bank, identifying areas where corruption risks are possible. At the legislative level, the NBU needs to consolidate and strengthen control



over the work of the following departments in the Bank and control the distribution of functions and powers of collegial bodies and departments of the Bank, which ensure the economic security of the bank and participate in corruption risk management.

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