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SECURITY MANAGEMENT OF UKRAINIAN BANKS

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Abstract. *The purpose* of the study is the current state and trends in the development of the banking system of Ukraine. The main problems of functioning of banking institutions at the present stage of reforming the state economy were revealed. The essence and content of the category of banking security is analyzed, the role and importance of guaranteeing the safety of banks in the system of financial security of the state is shown. The main threats and risks to banking security in general are described, the principles of improving the level of banking security are outlined. The category of banking security is characterized by: the state of security of banking activities and resources of a financial institution, the ability to develop effectively in the strategic dimension, the ability to withstand threats, protect the economic interests of participants and the ability to increase the overall financial and economic potential. *Methodology*. Improvement of the mechanism of banking security is the implementation of measures at the level of the bank and the banking system as a whole. The measures include: improving regulatory support, bringing activities closer to international standards of banking services, introduction of conceptual approaches to strategic management of banks' financial security, improving the quality of corporate governance and bank management, etc. *Results*. To ensure the sustainable development of the national financial system, it is necessary to "improve" the management systems of banks, ensuring full economic protection from external and internal factors, which is one of the main directions of state policy in the field of economic security. *Value/originality*. Ensuring stability of the banking system, prevention of systemic banking crises is the most important task of authorized government bodies in the field of financial sector regulation. Considering the notion of banking supervision, it can be noted that "banking supervision" is a monitoring system consisting of state, international, inter-bank, intrabank, intra-bank supervision in the form of preliminary, introductory and current supervision from the establishment until liquidation of a bank or its subdivisions. It should be noted that banking supervision is a systemic system that comprises several closely intertwined elements. The components of banking supervision are control proper, which boils down to study or observation of compliance with legislation in the activities of banking institutions, as well as active actions by the National Bank of Ukraine to apply appropriate enforcement measures. The mechanism for ensuring the smooth functioning of the country's banking system is a set of tools used by government agencies and providing for regulatory and supervisory measures.

Key words: Ukraine, economic security, security management, bank, financial stability of banks.

JEL Classification: G17, G21, G28

1. Introduction

As the development of the global financial crisis shows, despite the fact that it started in the banking sector, in a short period of time its impact was felt by all other sectors of the economy. This is due to the fact that today there is a close connection between all sectors of the economy. Therefore, special attention should be paid to methods of ensuring financial security, as well as scientific and methodological approaches to forming a comprehensive system of financial security at the level of an individual bank.

With the acceleration of human development, the periods between the onset of global economic crises are shortening, their scale is increasing, and most importantly, they are shifting from the sphere of production to the sphere of finance. In its turn, the accent in this sphere is shifting towards the banking sector. Thus, the problem of providing financial security for banks is today a crucial factor not only in the national but also in the international economy (Prylutskyi, 2020).

As far as Ukraine's banking system is concerned, as our country's economy enters the world, increasing

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the degree of its integration into the global financial system, its dependence on the instability of global financial markets is growing. The consequences of the recent global crisis are increasingly affecting Ukraine's banking system. In particular, liquidity problems begin to arise, the cost of resources for banks increases, promising projects are curtailed due to the lack of financial resources and the inability to obtain them in foreign markets (Ruda, 2021).

Banking security is part of the financial security of the country. It should be noted that the banking system is the most important component of the financial and credit sphere of the state. In fact, it is the state of the banking sector that determines the level of financial and credit security, and therefore, to some extent, the level of financial security of the state.

2. The impact of the economic crisis on consumer behavior

The modern world economy is unthinkable without the active integration and globalization of the economies of different countries, which strive to take their place in the business world, providing a certain effect of cooperation with the economies of different countries. The crisis fluctuations that began in the modern world have exacerbated the problems associated with the economic security of many countries. To confront the negative consequences of the crisis, it is necessary to take a comprehensive approach to the study of economic security.

Economic security is an integral and integral part of the country's national security, the core of which is the banking sector. The period from 2013 to 2014 and early 2015 was marked for the banking sector of the Russian economy by mass revocation of licenses from banks for banking operations, which indicates the systemic nature of the problems in the banking sector of the economy. Challenges and threats to the banking system of Ukraine are 25 challenges and threats to economic security, including exposure of the financial system of Ukraine to global risks (including at the expense of speculative foreign capital), the vulnerability of the information infrastructure of the financial banking system.

To ensure the sustainable development of the national financial system it is necessary to "improve" the management systems of banks, ensuring full economic protection from external and internal factors, which is one of the main directions of state policy in the sphere of economic security. August 2021 "On the Strategy of Economic Security of Ukraine until 2025". Consider the components of state policy to ensure economic security, see Table 1.

Solving any problem in financial circulation is impossible without effective management support and detailed systematic analysis of large volumes of data. Any information leakage, staff misinformation.

The intensity of bank regulation is proposed to assess with the author's index of intensity of bank regulation (IBRR), the mechanism for calculating which allows to take into account such components of the mechanism of regulation as functional, reflecting the methodological basis of regulation of the BR (in particular, the intensity of monetary policy). Indicative and administrative instruments, organizational, which reflects the cost of regulatory measures and is measured by the cost of regulatory activity based on the number of personnel involved, and institutional, which characterizes the institutional environment of banking through the rule of law and financial freedom. The indicator is calculated on the basis of normalized values of the outlined indicators by the method of minimum depending on the direction of influence on the intensity of banking regulation (Prylutskyi A., 2020).

3. Differences in consumer behavior between age groups

The study of banking regulation intensity in the context of bank financial stability was carried out using the statistical package STATA, in particular, the built-in module Longitudinal / panel data, which allows processing panel data, and special operators xtreg and areg. Panel data were chosen as the initial data for the study, rather than the usual set of data with univariate structure, because the panel data have a number of advantages over univariate data:

– Panel data avoids the phenomenon of "aggregation bias" because the study covers a long period of time, which is tracked by a particular indicator;

– Panel data always include a large number of observations in the context of different objects (countries, enterprises, etc.), so the number of degrees of freedom increases, which allows to reduce the degree of collinearity between the factor variables. This allows us to be confident in the efficiency of the constructed model;

– When analyzing similar or related objects grouped by a certain criterion, panel data allow you to trace the evolution of changes in the criterion and identify the causes of these changes;

– Using panel data, individual characteristics between different economic actors can be analyzed and taken into account.

To build a model, in addition to the dependent and independent variables, we need to add several control variables that allow us to unify the results (i.e., align them for different countries). In this case, the control variables will be: GDP and the share of foreign banks in the banking system, Foreing bank. The results of the panel analysis of the impact of the intensity of bank

Table 1
Components of state policy to ensure economic security

Components	Characteristics
Challenges and threats	The state of development of the economy of Ukraine over the past 10 years has not allowed to ensure the national economic interests. During 2010-2019 the state of economic security was assessed as unsatisfactory with deterioration of almost all components to a dangerous level in 2012 and 2014–2015. According to the calculations of the Ministry of Economy of Ukraine, conducted in accordance with the Methodological Recommendations for calculating the level of economic security of Ukraine, approved by the Order of the Ministry of Economic Development and Trade of Ukraine from October 29, 2013 № 1277, the average level of economic security in this period was 40 percent – the zone of unsatisfactory condition (according to the results of recalculation of the economic security of Ukraine by the main components of economic nature). In 2019, the level of economic security of Ukraine was 43 percent, and in the first half of 2020 – 41 percent. Over the last 10 years the state of financial security (with average value of financial security assessment for this period of 42 percent of optimal value) was assessed as unsatisfactory, which is caused by constant state budget deficit and significant debt load of investment crediting of economy and stock market. Due to structural problems, the financial system of Ukraine could not adequately withstand the challenges of armed aggression from the Russian Federation and temporary occupation of part of the territory of Ukraine and has been in crisis for several years already. In 2019, the level of financial security decreased by 4 percentage points (compared to 2018) to 42 percent and by 3 percentage points to 38 percent in the first half of 2020 compared to the level in the first half of 2019. However, the results of the Financial Stability Report prepared by the National Bank of Ukraine showed that the level of financial security was sufficient for the financial sector to properly perform its functions and successfully overcome the crisis caused by the SAR coronavirus pandemic (hereinafter referred to as COVID-19).
Objectives	1. Strengthening the economic sovereignty of Ukraine. 2. Ensuring economic growth. 3. Increasing the economy's resistance to external and internal threats; 4. Supporting .he scientific and technical potential of economic development at the global level and increasing its competitiveness. 5. Ensuring the military and economic defense of the country. 6. Improving the quality of life of the population.
Tasks in the field of financial security	Building an effective model of combating crimes in the economic sphere through the activities of the Economic Security Bureau of Ukraine; Improving the efficiency of planning activities of the main administrators of the State Budget of Ukraine in accordance with the priority areas of state development, taking into account budget indicators for the medium term, increasing budgetary discipline; Gradual reduction of the state budget deficit and strengthening of cooperation with international financial organizations; Implementation of the minimum standard of the Plan to Combat Tax Base Erosion and Profit Shifting (BEPS Action Plan) and implementation of effective tax rules for controlled foreign companies; Encouraging the banking sector to channel credit funds primarily to the development of the real sector of the economy, small and medium-sized businesses; Creation of conditions for increasing the attractiveness of long-term financing and expansion of long-term and investment lending; Reducing the level of non-performing loans and increasing the stability of the banking system; Preserving the institutional independence of the National Bank of Ukraine; Intensification of national stock market development to ensure its efficiency and competitiveness; Protection of the national financial system from money laundering, terrorist financing and the financing of proliferation of weapons of mass destruction; Minimization of investor risks by ensuring effective protection of investor rights on the stock market; Ensuring the reduction of the cost of borrowing for the needs of the state (through optimal coordination of monetary and debt policy); Further alignment of the provisions of the Customs Code of Ukraine with the provisions of the EU customs legislation for the implementation of the Association Agreement between Ukraine and the EU; Reforming the Ukrainian insurance market through the widespread introduction of life insurance, medical and other types of personal insurance, legislative consolidation of the rights of insureds; Ensuring the functioning of the three-tier pension system without increasing the burden on the payroll with an increase in revenues to the budget of the Pension Fund of Ukraine; Development of the sphere of public procurement by further aligning Ukraine's public procurement system with EU standards as defined in the EU directives on public procurement.
Indicators of the state of economic security	1. Money supply index (monetary aggregates M2) 2. Net import (export) of capital)

Table 2

The results of the impact of the intensity of bank regulation on the financial stability of banks

Dependent variables	Independent variables	Control variables		Adequacy models	
	IBRR*	GDP	Foreign_bank	F-test	R^2cor.
Share of problem loans in the bank	-0,067	-0,187	-0,08	0,0281	0,40
The ratio of banks' regulatory capital to their risk-weighted assets	0,001	0,146	-0,060	0,0125	0,61
The ratio of banks' capital and reserves to their assets	0,090	0,067	0,005	0,5158	0,71
Return on capital of banks	-0,001	-0,116	-0,032	0,0267	0,70
Return on assets of banks	0,010	-0,089	-0,027	0,3862	0,50
The ratio of banks' administrative costs to their assets	0,115	0,071	0,022	0,0459	0,77

IBRR – aggregate indicator of the intensity of banking regulation
GDP – gross domestic product; Foreign_bank – share of foreign banks in the banking system
F-test – Fisher's test; R^2cor. – adjusted coefficient of determination

regulation on the financial soundness of banks for 23 countries (including Ukraine) for 2008–2020 are presented in Table 2.

It should be noted that the greatest and most significant impact of the aggregate indicator of banking regulation intensity has on the amount of overhead costs of banks to total assets of the banking system. As the IBRR increases by one, the cost of banking business will increase by 0.108, with a p-level of 0.0155, the t-test value is less than 1.96 (with a significance level of 0.05) and is 2.44, with an R^2 coefficient of determination showing a moderate level of relationship between the independent and dependent variables.

Also, as the intensity of bank regulation increases by one, there is a tendency for the ratio of non-performing loans to the total loan portfolio in the banking system to decrease by 0.067 (p-level equals 0.0281, $R^2 = 0.4$), but the low coefficient of determination is not confirmed. This relationship indicates the need for the regulator to find and take into account the real causes of asset deterioration, not only related to aggressive policies of banks, but also those associated with the relationship of the bank with insiders, as well as their lending on more favorable terms than other market participants.

The positive relationship between the intensity of regulation and the cost of banks can be explained by the fact that over-regulation of banking activities can overburden the bank, forcing it to incur additional overhead costs.

In the author's opinion, it is necessary to supplement the proposed classification of banking supervision by stages of bank existence with another important type, namely special supervision of troubled and insolvent banks (Figure 1).

The inability of a banking institution to meet certain requirements places it in the category of a problem bank. One of the important measures of NBU influence on activity of such banks in Ukraine is introduction of provisional administration as well as support – introduction of moratorium on satisfaction of creditors' claims. This method was quite actively used by the NBU during the aggravation of the banking crisis in Ukraine.

Another tool for early diagnosis of bank problems is the rating systems of banking supervisors, which are used to obtain information on the assessment of

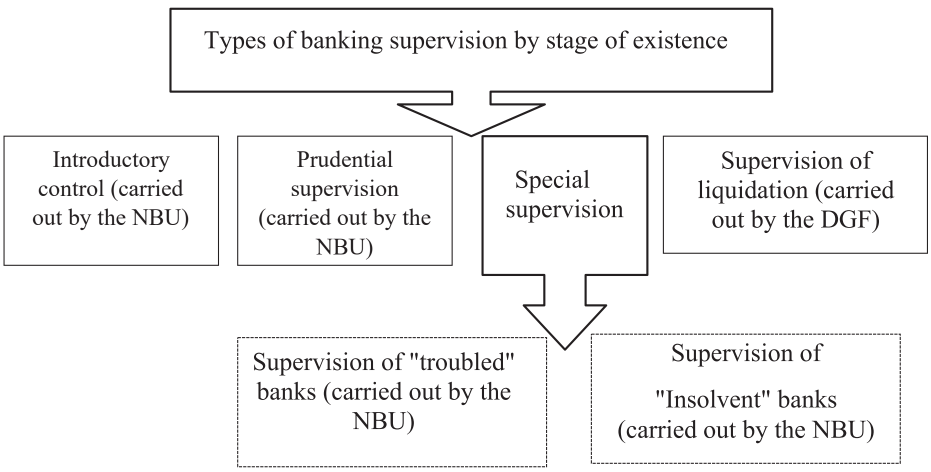

Figure 1. Classification of types of banking supervision in Ukraine

various components that form an overall picture of the financial condition of a banking institution. Common assessment components include capital, asset quality, management, earnings, liquidity, and sensitivity to market risk.

The objectives of state policy to ensure economic security are: 1) strengthening the economic sovereignty of Ukraine; 2) increasing the resilience of the economy to external and internal threats; 3) ensuring economic growth; 4) support of scientific and technical potential of economic development at the world level and increase of its competitiveness; 5) support of the potential of the domestic defense-industrial complex at the level necessary for solving the tasks of military-economic support of the state defense; 6) raising the level and improving the quality of life of the population. The state policy on economic security has 8 directions, one of which is the sustainable development of the national financial system. The financial system is a set of different groups of financial relations through which the state forms, distributes and uses centralized funds.

The main tasks are: 1) reducing the critical dependence of the national monetary system on fluctuations in international financial and commodity markets; 2) reduction of the use of foreign currency in the course of economic activity in the Russian jurisdiction; 3) development of internal (national) sources of long-term financial resources, ensuring the rate of accumulation sufficient for sustainable development of the national economy; 4) development of mechanisms and instruments of investment-oriented public financial policy, which provides in particular for increasing the rate of accumulation, as well as attracting savings for the implementation of investment projects; 5) improvement of specialized tools to support lending to strategic sectors of the economy, knowledge-intensive and high-tech industries; 6) development of the infrastructure of the national financial market, the national payment system, the national system of payment cards and the system of transfer of financial connections; 7) improving the regulation of financial organizations, development of prudential supervision and stress testing methods; 8) counteracting the transfer of non-cash funds into the shadow circulation of cash and legalization of proceeds from criminal predicate economic crimes; 9) ensuring the stability and balance of the budget system of Ukraine, in particular state extra-budgetary funds; 10) improving the management of public financial assets and debt obligations (Ruda, 2021).

The main indicators of the state of economic security are the money supply index and net import (export) of capital. The money supply index includes the monetary aggregate M2, which includes M0, M1 and time deposits, balances in national currency on term deposit accounts and 13 other funds of the population attracted for time, non-financial and financial (except credit) organizations that are residents Of Ukraine. An effective state policy aimed at improving the economic security of the banking system can increase the susceptibility of the economy and the financial national system in general to innovative development, external and internal factors and increase the country's competitiveness in the world economy.

4. Findings

One of the most important components of the economy of any modern state is the banking system. The importance of the banking system in ensuring stable and full development of the modern economy is very great. At the present stage, its special role is to ensure stable economic growth, expand the ability of enterprises to attract financial resources, and preserve and augment citizens' savings. The banking system is the "blood" mechanism of the market economy. It is the most important institution that ensures the redistribution of capital across different sectors in accordance with their needs, investment attractiveness and a number of other factors of internal and external environment. The banking system can act as a single (sole) institution and as a set of different types of banking institutions that perform the functions of lending and receiving deposits, as well as other operations that have arisen in the development of monetary relations between economic entities. The characteristics of the banking system as a set of regional banking systems are relevant for large states (first of all, arranged on the federal principle). The regional aspect is especially important because it affects the problems of formation of a single economic space of the country, as well as spatial socio-economic differentiation.

However, a crisis in one credit institution can cause a crisis in the regional banking system as a whole, due to the effect of "deleterious influence" or "contagion". This means that the problems of one bank affect the functioning of others through a network of inter-bank connections (inter-bank markets, payment systems, derivatives). And the example of the global financial crisis of 2008 made it clear that the problems of one credit institution can lead to an economic downturn of the state and the world economy.

In this situation, there is an obvious need to create a regional banking system for institutions that could use tools that can reduce the risks of the crisis, and in case of its onset – to provide the necessary forms of support to the system (including financial). Regulation at the state (national) and international levels should be considered as such institutions. State regulation is understood as a system of legislative, administrative and economic measures carried out by state institutions of various levels in order to influence the socio-

economic system. State regulation of the banking system by its nature can be divided into two main types: 1) general regulation of the banking system. Subjects of the banking system, as a rule, in many areas of activity (labor law, civil law) are guided by the same rules and regulations as subjects of other industries and sectors of the economy; 2) state regulation of the banking system in terms of its functions and responsibilities related to the specifics of banking activities and enshrined in the legislation of the country. The activity of institutions of state regulation is a process characterized by either a weakening of influence or its strengthening up to the nationalization of the banking system at the national and regional levels. Nationalization of the banking system can take the following forms:
– strengthening the state as a regulator (in terms of controlling and supervisory functions of the state through institutions – the central bank, etc.);
– strengthening the state as a participant in the banking market (increasing the state's share in the capital of commercial banks and managing them through their representatives).

The banking system as an object of management is divided into levels. Allocation of a higher level implies compliance with the following conditions:
1) the presence of vertical relations of subordination between levels. This means the regulation of commercial banks by the central bank.
2) lack of competition between central and commercial banks in terms of performing their functions, which provides a clear division of administrative and operational tasks related to servicing economic relations. Otherwise, the central bank, directly lending to enterprises and accepting deposits from citizens, is a commercial credit organization functions related to the implementation of public policy, which usually has certain privileges. In other words, a one-tier banking system can be a system in which:
– banking operations are carried out only by commercial credit institutions, and the central state banking institution is absent;
– the central bank, being the leader of the monetary policy of the state, which is also engaged in attracting deposits and lending (along with commercial banks);
– the central bank has a monopoly on banking activities in the country. Based on the institutional definition of the banking system mentioned earlier, we can conclude that the central bank is a component of it, while acting as an institution of state regulation due to the fact that many functions are implemented in the form of banking operations. Other (non-banking) institutions of state regulation form the infrastructure economy – the legal field within which the banking system operates. At the first level of the banking system is the country's central bank – a key institution for regulating the entire system. The exclusive role of the central bank is due to the fact that it performs regulatory functions at all stages of the "life cycle" of the credit institution. At the regional level, NBU territorial institutions are responsible for regulation.

The functioning of the elements of the regional banking system is strictly tied to international standards of control and regulation in the banking sector. The Basel Committee on Banking Supervision (BCBS, Committee) is the main institution whose documents largely determine the policy of national central banks in the field of capital regulation and liquidity. Its main objectives are:
– implementation of uniform principles, standards and rules of regulation of the banking system;
– Dissemination of best supervisory practice;
– Ensuring cooperation between banking supervisors of different countries;
– creating conditions for the exchange of information between supervisory authorities. Despite the advisory and advisory nature of the documents developed by the Committee, they are actively implemented by central banks as participating countries, as well as countries not included in the BCBS (through banking legislation).

All the Committee's materials can be divided into three major groups (agreements): Basel 1, Basel 2 and Basel 3. The new Basel 4 regulatory standards are still in the process of being assessed for potential impact by the international community.

Basel 1 was launched in 1988 and was the first agreement to reduce credit risk and set common standards for regulating equity adequacy. Despite the fact that the document was signed by the heads of central banks of the "Group 10" (G-10 – Canada, France, Belgium, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, Britain, USA), even then BCBN aimed to attract much more countries: yes, the materials of the agreement were sent to the supervisory authorities of other countries in order to encourage the adoption of this procedure to non-G-10 countries and for banks leading significant international business.

This leads to the disappointing conclusion that Basel 1 was aimed not so much at strengthening banking legislation at the national level through the introduction of international standards (although strengthening the system is usually accompanied by strengthening norms), but rather at the emergence of a unified methodology applicable to any – which country that would assess the competitiveness of an individual bank and the national banking system in general at the international level.

As already mentioned, the main provisions of the agreement concerned the regulation of capital adequacy. Therefore, BCBN divided the bank's equity into 2 groups (categories):

– capital I category, which included share capital and declared reserves, distributed from income after tax;

– capital of the II category – other elements of capital, in particular additional capital, undeclared reserves, reserves for revaluation.

Its sufficiency was assessed on the basis of a system of risk assessment of capital tied to different types of assets using a special ratio. This ratio could take one of five values – 0%, 10%, 20%, 50% and 100% (the higher the ratio, the greater the risk).

The main significant position of "Basel 1" was the definition of the minimum standard of sufficient capital: the ratio of capital to risk-weighted assets should be at least 8%, while the capital of the first category – at least 4%.

It is obvious that a significant part of regional banks will not be able to approach this level at the expense of profits. At the same time, the analysis of the Basel Accords shows that despite the strengthening and complexity of the methodology for calculating capital adequacy, the minimum level of capital ratio to risk-weighted assets remains unchanged (4%) from 1988 to the present planned for 2019); the ratio of total capital to assets also changed. Moreover, in implementing the minimum standard set by Basel I, the authors set an intermediate level, which was to reach 7.25% by the end of 1990. These facts reflect the desire of the initiators of the document to ensure smooth and painless implementation of international standards on such a key indicator as capital adequacy of the bank.

Basel 2 was adopted in 2004. The following changes were made: creation of a system of balanced calculation of regulatory capital most sensitive to risks, based on quantitative risk assessments conducted by banks themselves; the greatest recognition of credit risk mitigation instruments; improved capital requirements to cover operational risk; increasing the role of supervisory bodies; disclosure of information and methodology by banks.

The release of new BCBS materials consolidated a long-term trend towards strengthening banking regulation and complicating the methodology for calculating minimum capital standards. Representatives of the regional banking community repeatedly expressed concern about the possibility of doing business in accordance with the specifics of the Basel agreements.

The innovation of Basel 2 was the transition from focusing on equity adequacy as a key component of banking system regulation to a comprehensive three-element approach: minimum capital requirements; supervision procedures; market discipline.

Basel 2 has expanded the list of uncertainties, highlighting additional operational and market risks. Operational risk involves the possibility of incurring losses due to deficiencies in internal banking procedures and systems, which may arise due to the influence of both external and internal factors. Thus, operational risk also includes legal risk due, for example, to possible sanctions by regulators; potential damages here may be fines, penalties, etc. Market risk reflects possible losses due to changes in the market value of financial instruments in the bank's portfolio.

There are 4 basic principles of banking supervision:

1) banks must have procedures for assessing capital adequacy in relation to the nature of their risk and a strategy for maintaining the level of this capital.

This principle establishes the responsibility for the correct rationing of capital for the management of the bank. However, the example of a sharp increase in the minimum capital level of Ukraine raises a certain contradiction: the guidelines are planned not by top management (as noted in the materials of the Committee), but by the state.

2) banking supervisors should analyze and assess the adequacy of domestic capital adequacy, as well as their ability to ensure compliance with capital standards. Banking supervisors should take the necessary supervisory measures if they are not satisfied with the outcome of this process.

Despite the existence of certain standards and calculation methods, many of the Committee's recommendations can be implemented using a tool of reasoned judgment. For example, verification of all risk factors in determining the benchmark for the level of capital, including environmental factors: estimates of the supervisory authority and bank management may differ significantly, but have justification in the form of reports of various qualified expert organizations.

3) banking supervisors expect banks to maintain capital levels above minimum regulatory requirements and should require banks to sustainably maintain capital above this minimum. For this purpose, in addition to the minimum level of capital, the bank must create a reserve, which will allow the bank to avoid sanctions from the supervisory authority in case of a small drop in capital, previously unaccounted risks and other factors. This solves for the regulator the problem of banks that go beyond capital adequacy.

4) banking supervisors should take preventive measures to prevent the decline of capital below the minimum level necessary to ensure the risks inherent in the bank and should take urgent corrective action if the amount of capital is not maintained and not restored at a sufficient level.The Committee does not restrict regulators in the measures taken, noting that they should have the powers that best suit the state of the bank and its operating environment. The use of Basel II was expected to dramatically improve the quality of risk management in most banks. In addition to applying a more risk-sensitive credit risk assessment, many of them will for the first time pay increased

attention to operational risk – one of the main risks of commercial banks (along with credit, liquidity and market); in addition, it was later expected to have the greatest impact on medium and small financial institutions in developed markets (including most European banks), most markets and developing countries. However, practice has shown that the use of Basel II standards is more likely to provoke a slowdown in the economy and bring the stagnation of industries closer.

Basel 3 was released in December 2010. The main ideas laid down in the new materials, which were determined by the crisis in the world economy, in particular related to the bankruptcy of the largest banks. Thus, the above list of objectives of the Basel Accords can be supplemented by the need to prevent future crises. It should be noted the trend of further strengthening of banking regulation, as well as the introduction of new standards of the bank: raising the minimum level of capital 1 category from 4% (this figure has not changed since the first Basel materials to 6%; introduction of basic capital adequacy introduction of a financial leverage ratio equal to the

ratio of capital to assets and off-balance sheet instruments, not weighted by the level of risk (3% for capital 1 category), the establishment of a countercyclical buffer – a special reserve of capital in economic crises (2.5%). The development of this ratio reflects the Committee's concerns about the prospects for new crises: in fact, the bank must have sufficient reserves of high quality assets in the event of a 30-day outflow.

A controversial point of strengthening standards is its impact on economic growth. According to experts, each percentage increase in the capital adequacy threshold leads to a decrease in global GDP growth by 0.04% per year for 4.5 years.

Thus, international regulatory standards play an important role in the development of the banking system by defining standards for a number of key indicators of a credit institution and shaping approaches to developing methods of risk assessment. Changes in indicators of the Basel Accords are reflected in Table 3.

Based on the generalization of the analysis, we note a downward trend in the potential for self-development of the regional banking system. This is due to the fact that it is currently under pressure from changing national macroeconomic parameters, on the one hand, and internal institutional conditions of development, on the other. In the first case it is about the objective deterioration of market conditions, which affects the assets of the credit institution. This refers to the growth of overdue and non-performing debt, the depreciation of investments in securities, and the decline in consumer activity. At the same time, the institutional environment for the development of the banking system in the regions is strengthening. Thus, territorial institutions of the central bank are gradually losing their supervisory functionality, transferring it to the central office.

The second major trend in the development of the regional banking system under the growing influence of international supervisory standards is to restrain the growth of its assets due to lack of capital. The strengthening of regulation is largely determined by the use of instruments developed by the Basel Committee. Thus, it can be seen that the introduction of international standards extends the goals of banks from primary business growth to primary control over the quality of available assets.

State regulation is one of the main institutional factors in the development of the regional banking system, mass revocation of licenses from Ukrainian banks in recent years, the formation of a number of programs to support liquidity in the banking sector, other parameters of functioning in the banking sector are determined by state institutions and, above all, the central bank.

The key role of state regulation of the banking system and the institution of the central bank suggests the need for more detailed study. This will allow in the practical part to form practical recommendations for state institutions to improve the efficiency of regulation of the regional banking system of Ukraine.

At the current stage of development of the banking system one of the important factors affecting the mechanisms of state regulation of banking activity is the policy of the NBU, which is the main subject of ensuring the stability of the banking system of Ukraine. Regulation is carried out with the use of appropriate tools. The development and stability of the banking

Table 3
Changing basic parameters and standards in the development of the Basel agreements

Indicator	Basel 1	Basel 2	Basel 3
Category 1 Capital adequacy ratio	4 %	4 %	6 %
Category 2 capital adequacy ratio	8 %	8 %	8 %
Basic capital adequacy ratio	Not provided	Not provided	4,5 %
Reserve capital buffer	Not provided	Not provided	2,5%
Leverage (financial leverage)	Not provided	Not provided	3%
Short-term standard liquidity	Not provided	Not provided	≥1
The coefficient of net stable financing	Not provided	Not provided	≥1

sector depend on the choice of priority directions of banking regulation. At the same time, a particularly important task of the state banking system should be to attract funds and concentrate them on priority areas of economic development, prevent inflation and crisis processes, increase credit and investment activity, stabilize the economy and the state as a whole. Currently, the main instrument of macroprudential regulation and supervision of the NBU are the requirements of the Basel Accords, which are developed and regularly improved. Prudential regulation, monetary regulation and economic standards are considered as instruments (see Table 4).

Prudential regulation – the establishment of requirements, financial standards, reporting requirements for the bank, aimed at minimizing risks. Prudential regulation has the following functions: decision-making on state registration of credit institutions and licensing of banking operations; presentation of qualification requirements to the heads of credit organizations; establishing rules of activity (banking, accounting, statistical reporting); establishing requirements for combating money laundering; organizations of the deposit insurance system.

Monetary regulation instruments aimed at minimizing the risk of liquidity loss: interest rates on NBU operations; reserve requirements; open market operations; deposit operations; refinancing of credit institutions; currency interventions.

Economic standards of credit institutions. In order to ensure economic conditions for the sustainable functioning of the banking system, protect the interests of depositors and creditors, the NBU sets the following mandatory standards: the minimum amount of authorized capital for newly established banks; minimum amount of own funds (capital) for existing banks; capital adequacy ratios; capital liquidity ratios; the maximum amount of risk of one borrower or group of related borrowers; the maximum amount of large credit risks; maximum amount of risk per creditor (depositor); standard for the use of banks' own funds for the purchase of shares (stocks), etc. jur. persons.

Standards set the definition of the dynamics of the bank, assessment of liquidity, recognition of the bank's problems at different stages, the possibility of prompt decision-making to remedy the situation in the bank. Liquidity ratios determine the bank's ability to repay existing liabilities as soon as possible. As for the minimum reserves ratio, mandatory reserves are part of the borrowed resources as a percentage, which is placed on an interest-free account with the NBU. It depends on the type of resource and currency.

5. Conclusions

Ensuring the stability of the banking system and preventing systemic banking crises is the most important task of authorized government bodies in the area of financial sector regulation. Considering the concept of banking supervision, it can be noted that "banking supervision" is a system of monitoring, consisting of state, international, interbank, intrabank, intra-bank

Table 4
Banking regulation tools

Tools	Characteristics
Prudential regulation	– decision-making on state registration of credit institutions and licensing of banking operations; – presentation of qualification requirements to the heads of credit organizations; – establishment of rules of activity (banking, accounting, statistical reporting); – establishing requirements for combating money laundering; – organizations of the deposit insurance system.
Monetary regulation	Instruments aimed at minimizing the risk of liquidity loss: – interest rates on NBU transactions; – reserve requirements; – open market operations; – deposit operations; – refinancing of credit institutions; – currency interventions.
Economic standards	In order to ensure the economic conditions for the sustainable functioning of the banking system, protect the interests of depositors and creditors, the NBU sets the following mandatory standards: – the minimum amount of authorized capital for newly established banks; – the minimum amount of own funds (capital) for existing banks; – capital adequacy ratios; – capital liquidity ratios; – the maximum amount of risk of one borrower or group of related borrowers; – the maximum amount of large credit risks; – the maximum amount of risk per creditor (depositor); – standard for the use of banks' own funds for the purchase of shares (stocks), etc. jur. persons.

supervision in the form of preliminary, introductory and current supervision from the establishment until the liquidation of the bank or its subdivisions. It should be noted that banking supervision is a systemic system that comprises several closely intertwined elements. The components of banking supervision are control proper, which boils down to study or observation of compliance with legislation in the activities of banking institutions, as well as active actions by the National Bank of Ukraine to apply appropriate enforcement measures. The mechanism for ensuring the smooth functioning of the country's banking system is a set of tools used by government agencies and providing for regulatory and supervisory measures. The main tools for the implementation of supervisory functions by authorized bodies include the following actions: establishment and supervision of compliance with regulatory requirements (economic standards, quality of corporate governance and risk management, management requirements); continuous monitoring, examination of reports and analysis of the financial condition of the bank; periodic on-site inspections of banks; application of sanctions against banking institutions.

An effective banking supervision system should meet such conditions as clear goals, independence and accountability of the regulator and sufficiency of its resources for effective performance of regulatory functions, availability of legislation and authority to impose sanctions. The main purpose of banking supervision is to protect the interests of depositors from mismanagement of banks, to create a competitive environment in the banking sector, to ensure transparency of the policy of the banking sector in general and banking institutions in particular.

Functions of banking supervision are embodied in organizational structures of banking supervision. Experience of banking supervising in developed countries shows prevailing fulfillment of supervising functions by central banks. According to current legislation, the supervisory function is performed by the National Bank of Ukraine, in particular, the Main Department of Banking Supervision. The results of the study show that effective for Ukraine will be a system of banking supervision, which combines partial delegation of certain functions of control and supervision to certain financial market participants with the use of rules and principles in the process of supervision with a significant predominance of rules in the structure of supervision.

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