

## **COMPREHENSIVE STRATEGY FOR OVERCOMING THE CONSEQUENCES OF SYSTEMIC RISK REALIZATION IN UKRAINE**

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**Introduction.** Considerable socio-economic losses due to systemic risk during the systemic crisis of 2014-2015, as well as the low rate of post-crisis recovery during 2016-2020 require a strategic rethinking of chronic problems in the banking sector in the context of the entire financial system within the limits of development of updated Development Strategy for financial market of Ukraine until 2025 [1]. In the process of this document preparation, which aims to identify the priority areas for system development and coordination mechanisms between regulators, key financial regulators such as the NBU, the Ministry of Finance, DGF, NSSMC have joined affords actively involving professional associations of market participants and specialists from the academic sphere.

Based on conducted empirical studies of the processes of formation, accumulation and implementation of systemic risks in the banking sector of Ukraine, the author suggests a set of recommendations on the banking system financial stability strategy.

**Review of recent sources of research and publications.** The issues of scientific substantiation of strategic reform effective mechanisms of the banking system in the process of anti-crisis policy are of interest for such Ukrainian scientists as Zherdetska L.V. [2], Koziuk V.V. [3], Naumenkova S.V. [4] and others. From the above scientific works it follows that taking into account the national specifics of systemic problems and imbalances that have been formed over the decades is the key to building a financially stable banking system. This article attempts to supplement and systematize existing research on anti-crisis banking regulation.

**Setting the objectives.** The aim of the article is to develop a set of recommendations for the banking system financial stability strategy, arising from previous empirical research on the processes of formation, accumulation and implementation of systemic risks in the banking sector of Ukraine.

**Basic material and results.** Among the key areas of the strategy for minimizing systemic vulnerabilities and overcoming the consequences of systemic risk, the following areas of banking market reform should be singled out:

- 1) overcoming systemic imbalances in the structure of banks' assets;
- 2) overcoming systemic imbalances in the structure of banks' liabilities;
- 3) dedollarization and currency imbalances overcoming;
- 4) monitoring and minimization of sectoral imbalances;
- 5) development of modern corporate governance systems;
- 6) strengthening the institutional capacity and supervisory functions of banking regulators;
- 7) strategic solutions to the problem of state-owned banks.

Detailed proposals for each of the strategic areas are given below.

**Overcoming systemic imbalances in the structure of banks' assets.** Beginning from 2014-2015, experts from international financial organizations note significant achievements of the NBU in stimulating improvement of the banking system's assets by clearing the banking system of insolvent banks, as well as strengthening the regulatory and supervisory system as for adequately reflected credit risk. As a result of reforms, including regular asset quality reviews and stress testing, banks with high levels of lending to related parties have been forced to leave the market or have succeeded in reducing such credit risks. Nevertheless, there are serious barriers to the full financial recovery of the banking system in the form of a high share of non-performing loans (NPL Ratio), which account for about half of the total loan portfolio in

the system. Chronic problems with big business lending continue to affect the modern credit market due to mistrust caused by a history of numerous defaults and weak pre-crisis risk management standards.

Positive aspect of the situation is that in the private banks segment the share of problem loans is much lower, while most of these toxic assets are concentrated in state-owned banks, stability of which is provided by budget support. However, such financial stability of the banking sector does not remove the pressure of non-performing assets on fiscal sector of the economy, and therefore the objective of reducing non-performing portfolios on the balance sheets of state banks remains a priority in implementing the Strategy of Ukraine and the Financial Stability Board.

Returning to consideration of credit risks in private banks, the author believes that the problem of lending to related parties by domestic banks can be solved not only by regulatory methods such as reducing regulatory capital by excess insider lending in excess of regulatory limits, but also by strengthening technical and institutional capacity of the Department of Banking Supervision and other divisions of the NBU in the direction of providing automated RegTech-tools for identifying related parties and identifying business groups related to banks. It is also worthwhile to continue increase in the efficiency of the Governance of Banking Monitoring of the NBU, recommended in cooperation with the IMF, in particular through the formation of a register of aggregated data based on state registers of the Ministry of Justice and NSSMC.

Reduction of credit risks in the process of providing corporate loans can also be ensured under the conditions of interdepartmental cooperation in the following areas:

- strengthening the requirements and quality control of audit reporting of borrowers, especially those belonging to large business groups;
- continuing to develop legislative initiatives to protect the rights of creditors regarding the elimination of existing loopholes for unscrupulous borrowers and their implementation in judicial practice;
- elimination within the BEPS package of existing schemes of so-called end-to-end financing, which distort the structure of balance sheets and the accuracy of assessing the creditworthiness of enterprises in the real sector of the economy by dominance in liabilities of accounts payable and financial assistance.

At the current stage of post-crisis growth, the need to reduce lending rates and resume corporate and mortgage lending is becoming particularly acute in order to establish the viability of banks' business models. In our opinion, simple recipes for reducing the cost of funding, such as lowering the discount rate or providing sectorial benefits, will not become effective tools for the above purposes until there exist problems of long-term sources of liquidity of a private market nature and most importantly - minimize credit and legal risks related to the actual lack of sanctions for non-compliance with credit obligations by the largest borrowers due to gaps in the institutional structure of the economy, which is expressed in the low sovereign credit rating of the country. On the other hand, excessively high interest rates despite important anti-inflationary effects have side effects in the form of systemic risks associated with a significant share of high-yield government bonds in banks' investment portfolios, which partially reduce the motivation of banks, especially government, to operate on lending to the real sector of the economy.

**Overcoming systemic imbalances in the structure of banks' liabilities.** Among the main strategic problems of the passive part of the balance sheet of Ukrainian banks, we suggest paying special attention to the following:

1) high share of current and short-term liabilities: after the crisis of 2014-2015, household deposits in banks increased mainly on current accounts and short-term deposits (in mid-2019, 72.4% of all the banks liabilities were demand deposits and time deposits for up to 3 months), while the share of long-term deposits remains insufficient, which hinders the development of lending and increases the risk of liquidity loss;

2) weak pace of bank savings post-crisis recovery of the population, which requires strengthening the effectiveness of communication policy of banks and regulators in order to restore confidence in the banking sector, because according to surveys of GfK Ukraine in the I quarter of 2019, "the share of people who can save without limiting consumption was at a low level - 17%. The share of citizens who have time deposits or plan to invest was only 3%" [5];

3) high banks dependence on external borrowing during crises (until 2009 they were loans from non-residents, and during the crises of 2009 and 2014-2015 - refinancing by the NBU), which in contrast to borrowed funds is more concentrated, dependent on the discrete decisions of one or more creditors, not protected by the deposit insurance system, and therefore characterized by greater volatility and a stronger impact on the banks viability;

4) liquidity risks require close monitoring at macroprudential level, so it is necessary to continue the chosen path to calculation of more accurate LCR and NSFR liquidity ratios, and liquidity risk in the methodology of stress testing of banks in addition to credit risk should also be included;

5) capital adequacy ratios of the largest state-owned banks are too close to the normative values and the need for recapitalization of some private domestic banks, identified as a result of stress testing, requires extremely close supervision by the regulator to banks' liabilities in terms of equity adequacy.

Most of the solutions to the problems outlined above are in the plane of the complex task of ensuring macrofinancial stability, restoring confidence in banks and government institutions, creating conditions for longer-term planning of financial flows by bank customers.

**Dedollarization and overcoming currency imbalances.** Dedollarization aims to minimize currency risks and strengthen the economic role of the hryvnia as the national currency. The importance of this strategic challenge is in the fact that in such a small open economy as Ukraine is, it is almost impossible to protect against the effects of currency shocks. At the same time, coordinated efforts of banks and the regulator make it possible to significantly increase stability and reduce internal vulnerability of the banking system to currency risk.

Excessive dollarization of bank assets and liabilities remains a source of systemic risk, despite the fact that relative share of foreign currency on both sides of the banks' balance sheet decreased from the maximum values for the period 2015-2019 by more than 10 percentage points, accounting for about 40% of the balance sheet currency. At the same time, significant part of corporate borrowers who took loans in foreign currency, mostly receive income in national currency, and therefore the target natural level of dollarization, according to the NBU, should be 20%, i.e. be twice lower than existing values. Achieving such an ambitious goal is possible under the following conditions:

- maintaining ban on foreign currency lending to individuals receiving income in the national currency;
- maintaining a high spread between hryvnia and foreign currency deposit rates;
- increased reserve requirements for foreign currency deposits;
- strengthening the requirements for credit risk assessment on foreign currency loans of banks and increasing the weight of risk for assets in foreign currency;
- increase in normative values of LCR and NSFR in foreign currency;
- and, paradoxically, continuation of the trend towards currency liberalization, which is a strong signal to businesses about the stable position of the national currency and the existence of a prudent monetary policy, and this contributes to the demand for the hryvnia.

An additional source of systemic currency risk outside the banking market is dollarization of public debt, two-thirds of which is denominated in foreign currency. Thus, the author considers concerted actions of the Ministry of Finance, MEDT and the NBU, aimed at creating favorable conditions for non-residents to invest in IGLBs in the national currency to be the main method of dedollarization of public debt. It is clear that the key factor in demand for these hryvnia financial instruments is the stability of the national currency value over time, which in Ukraine will be enabled only by comprehensive structural reforms and inflation targeting.

**Monitoring and minimization of sectorial imbalances.** In the banking market of Ukraine, signs of a "bubble" formation in the consumer lending sector began to appear in 2018-2019. To prevent further formation of systemic risk in this market segment, the regulator should provide opportunities and develop ready-made methods to increase the sectorial weight of credit risk, which will reduce the desire of bank managers to lend excessively to the population without adequate financial anti-crisis reserves.

Excessive development of the consumer lending market is occurring against the background of weak recovery of mortgage lending market, which, in contrast to the first, requires much longer financial resources and opportunities to expand the horizon of long-term planning, still may give better side effects in the construction sector development, corresponding increase in work places, as well as the redirection of credit banking resources to finance consumer imports to the domestic market. If the necessary conditions for macro-financial stabilization and economic growth are given in parentheses, then from the standpoint of macroprudential stimulation of the mortgage lending sector it is appropriate to study in detail the critical links in the chain of this business process and make efforts to remove barriers to its development:

- to strengthen protection of creditors' rights not only at the legislative level, but also in the practice of litigation with unscrupulous borrowers, including those on the basis of the new Code of Ukraine on Bankruptcy Procedures and lifting the moratorium on foreclosure of customers who refused to repay mortgages;
- to ensure state control over compliance with technical norms of housing construction to minimize the risks of creditors in case of receiving collateral in improper condition;
- to form a liquid market of financial instruments covered by collateral in the form of mortgages;

- to develop the segment of the market of long-term deposits or the issue of corporate bonds in order to generate a long-term resource base;

- the NBU can somewhat relax the regulatory requirements for credit risk assessment in the mortgage lending segment;

- on the part of the government, if there are free funds, it is possible to stimulate the demand for mortgage loans in the form of compensation of loan rates or guarantee the return of funds to banks and investors in mortgage securities under youth housing programs.

Sectorial risks of a significant part of the non-banking sector of the financial market in 2020 will be supervised by the NBU from National Committee on Financial Services, as provided by the Law on “Split” [6]. The main challenge for the regulator will be to ensure effective integration of financial intermediaries into the existing banking supervision system, which demonstrates good risk management. The difficulty is that opportunities for regulatory arbitrage will remain, as the non-banking sector will receive less stringent regulatory requirements than banks. The priority tasks in the process of extending microprudential and macroprudential regulation to new sectors of the financial market will remain as follows:

- internal transformation of units responsible for the supervision of non-bank intermediaries;

- increase in special professional expertise of supervisors;

- stimulating the construction of quality risk management systems;

- protection of the rights of consumers of financial services;

- development of financial inclusion and financial awareness among clients.

Monitoring and limiting the concentration of risks is another important aspect of macroprudential regulation of structural systemic risk. After all, after a significant cleansing of the banking market of Ukraine, its structure has been changed dramatically, and despite a slight increase in the overall concentration of banks by assets, there may be an increase in local concentration problems in some of its geographical and product segments. Building a system of timely detection of anomalous values of sectorial market concentration based on the calculations of its various indicators, as well as productive cooperation of the NBU with the AMCU to address the excessive concentration of segments opens opportunities to effectively prevent the accumulation of structural systemic risk.

**Development of modern corporate governance and risk management systems.** According to the NBU, “corporate governance is a system of relations between the participants, the board, the bank's board and other stakeholders, which provides the organizational structure and mechanisms through which the bank's goals are determined, ways to achieve these goals and monitored. Corporate governance determines the method of distribution of powers and responsibilities between management bodies, as well as the procedure for their decision-making” [7]. The quality of the corporate governance system of financial market participants in Ukraine requires coordinated efforts of financial regulators, top managers and other stakeholders of banks, aimed at bringing it to the best international standards. In this regard, the process of communication between the regulator and all stakeholders regarding the implementation of regulatory innovations aimed at improving corporate governance is important:

1) bring recommendations for corporate governance of banks to EU standards in the framework of the Association Agreement between Ukraine and the EU;

2) strengthen the requirements for assessing collective compliance of supervisory boards, especially in terms of qualification requirements, the availability of regular access to management reporting and communication with bank management;

3) develop an effective mechanism for assessing the qualifications of the bank's board on the basis of ensuring high ethical and professional standards and avoiding conflicts of interest;

4) increase the transparency of the provisions and reports on the remuneration of members of the board or board of the bank;

5) develop standardized mechanisms for the formation of committees by bank councils, as well as unify methodological recommendations for their operation and composition;

6) at the level of the NBU, the Ministry of Finance and other responsible parties to conduct a joint critical review and consultations on the problematic situation around the appointment of members of the Supervisory Board of Oshchadbank in 2019 to improve future processes of forming councils, including interdepartmental coordination of possible candidates at the primary stage of its formation to avoid misunderstandings and manifestations of forced discrediting of decisions of previous authorized bodies of state power;

7) at the level of each bank to develop corporate culture, transparency of information, remuneration system and internal control with proactive involvement in this process of members of supervisory boards;

8) legalize powers on the basis of formal fixation in internal documents, in particular, in the code of ethics and policy of conflict of interest management;

9) to develop systems of checks and balances, mutual control in the process of distribution and implementation of powers, as well as confidential notification of unacceptable behavior in the bank.

On the basis of a high-quality corporate governance mechanism, the risk management system of banks should be formed and constantly improved as a second line of protection in the bank's organizational structure, aimed at constant identification, assessment, monitoring and control of risks generated by operational units of the first line of business performing business functions and support functions. The third line of defense is the internal audit department, which is responsible for the independent assessment of the quality of internal control, compliance and corporate governance. As a result of these transformations, the goals of improving the efficiency of fiscal risk management, development of social responsibility and environmental orientation of banks, strengthening the efficiency of management and sale of non-performing loans can be achieved.

**Strengthening the institutional capacity and supervisory functions of banking regulators.** Despite a significant increase in the institutional independence of the NBU after the adoption of the Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine on Institutional Capacity Building of the National Bank of Ukraine" of 18.06.2015, the issue of its actual provision in the future remains on the agenda by individual representatives of various state regulatory bodies. Any violation of the principle of the NBU independence in the regulatory decision-making process can have significant negative consequences in the form of additional inflationary pressures and violation of the financial stability of the banking system. On the other hand, the NBU should not avoid the obligation of accountability to society, which should be the sole ultimate beneficiary of the positive effects of banking regulation.

Thus, development of transparency of the central bank and increasing the effectiveness of its communication policy becomes extremely important in the current political and economic system, in which the largest business groups of the country and representatives of non-residents have a significant impact on media and public opinion. Successful resolution of the problem of non-transparent ownership structure of banks after 2014-2015 does not eliminate the need to continue effective monitoring of the ultimate beneficial ownership, activities of banking groups, and careful implementation of high-level licensing functions. At the present stage, we also consider it expedient to improve the process of publishing stress test results of the largest banks, in particular in terms of greater detail and argumentation of analysis methodology, formation of stress scenarios, as well as choosing more appropriate timing to cover these socially important results not before Christmas holidays, but during a more active business season with involvement of professional media.

Raising financial awareness of bank customers is another guarantee of preserving institutional capacity of the central bank, as increasing rationality in financial decision-making and risk assessment can curb the scale of the credit boom and inflationary pressures. The NBU should continue to play an active role in solving the problem of register quality (credit, public figures, etc.). It is appropriate to use the obtained powers of the central bank to strengthen the system of consolidated banking supervision, taking into account the related parties of banks and their counterparties, as well as to develop, together with the DGF, the system of settlement of troubled banks.

An important function of supervision and regulation of the NBU, in addition to monitoring risks, is to encourage banks to form viable business models, among which the share of captive, scheme, non-transparent banks, and those that focus on corporate (and even insider) lending for with the help of attracted deposits of individuals should be reduced. In addition, high dependence of individual banks' assets on IGLBs investments and certificates of deposit, which instead of performing the ancillary function of supporting market liquidity, acquire the features of a full-fledged source of interest income and reduce banks' interest in traditional lending. At the same time, the problem of operational inefficiency and immaturity of the culture of traditional banking must also continue to be addressed.

**Strategic solutions to the problem of state-owned banks.** After the banking system cleansing and nationalization of Privatbank in 2016, the share of the state in the banking sector of Ukraine doubled. Excessively high share of state-owned banks in the system (55% of total assets) remains a key problem in the banking market in 2019. State-owned banks, which are among the top 5 banks in the system, are characterized by:

- a large ballast of toxic loans, which makes up the majority of NPLs on the market;
- low indicators of operational efficiency and profitability;

- significant volumes of the portfolio of government bonds in revenues that depend on the state budget, the income on which is ultimately paid to banks by taxpayers;
- tendency to distort competition in the market (including the obligation of state-owned enterprises and local governments to be serviced in state-owned banks, unlimited deposit insurance or a significant impact on the level of deposit rates);
- lack of progress in the implementation of the announced plan for privatization of state-owned banks.

In addition, there is uncertainty of court decisions regarding Privatbank, which in the event of a sharp change in its existing status quo may cause banking panic and the effect of infection throughout the banking system, in addition, depending on the situation around the implementation of the rule of law with the IMF, which continues to be a guarantee of macro-financial stability and a necessary condition for the inflow of foreign direct investment and European integration processes.

Thus, in the complex of solutions to the problem of state-owned banks, according to the author, it is appropriate to include the following main elements:

- 1) methods of eliminating unequal conditions for competition in the form of a wide range of benefits and preferences, in particular the abolition of the full state guarantee of deposits in the OshchadBank and ban on municipalities to make deposits in private banks;
- 2) ensuring the quality of corporate governance, in particular, eliminating conflicts of interest and confirming qualification requirements among top management and members of the supervisory boards of state-owned banks;
- 3) resumption of lending instead of financing from the state budget;
- 4) clearing the balance sheets of state-owned banks from the burden of non-performing loans;
- 5) implementation of the principles of strategic reform of the public banking sector in the direction of ensuring the entry of IFC and the EBRD into the capital of Oshchadbank and Ukrgasbank.

**Conclusions.** The above proposals for each of the outlined areas of response, although not exhaustive, still allow the regulator to systematize strategic decisions from the standpoint of the main classes of problems faced by the banking system following the systemic crisis of 2014-2015, which was a manifestation of chronic accumulation of structural imbalances that continue to affect the structural vulnerability of the banking sector. Without eliminating the existing consequences of systemic risk, the transition to any system of preventive identification of signals of future financial instability will remain only a partial solution to the general problem of building macroprudential regulation. After all, only constant efforts to minimize the systemic vulnerability of the banking sector are the key to the successful use of modern macroprudential instruments in the future.

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**Корнилюк Роман Васильович**, кандидат економічних наук, доцент. ДВНЗ «Київський національний економічний університет імені Вадима Гетьмана». **Комплексна стратегія подолання наслідків реалізації системного ризику в Україні.** Надано комплекс рекомендацій для удосконалення процедур макропруденційного регулювання, які можна згрупувати за блоками: подолання системних дисбалансів у структурі активів і пасивів банків, дедоларизація та подолання валютних дисбалансів, моніторинг та мінімізація секторальних дисбалансів, розвиток сучасних систем корпоративного управління, посилення інституційної спроможності та наглядових функцій

банківських регуляторів, стратегічні рішення проблеми державних банків. Сформовано пропозиції щодо удосконалення регулювання банків у контексті подолання наслідків системного ризику, реалізованих під час кризових періодів. Визначено шляхи посилення стратегії макропруденційної політики як у частині превентивного, так і антикризового інструментарію з метою забезпечення фінансової стійкості та підвищення рівня прозорості на банківському ринку.

**Ключові слова:** банківська система, системний ризик, фінансова криза, державні банки, доларизація, стратегія.

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**Roman Kornyluk**, Ph.D. in Finance, Associate Professor, Banking department. Kyiv National Economic University named after Vadym Hetman. **Comprehensive Strategy for Overcoming the Consequences of Systemic Risk Realization in Ukraine.** The article provides a set of recommendations for improving macroprudential regulation procedures, which can be grouped into blocks: overcoming systemic imbalances in the structure of banks' assets and liabilities, dedollarization and overcoming currency imbalances, monitoring and minimizing sectoral imbalances, development of modern corporate governance systems and strengthening corporate governance functions of banking regulators, strategic solutions to the problem of state-owned banks. Proposals for improving the regulation of banks in the context of overcoming the effects of systemic risk implemented during crisis periods have been formulated. The ways of strengthening the macroprudential policy strategy in terms of both preventive and anti-crisis tools in order to ensure financial stability and increase the level of transparency in the banking market have been identified.

**Key words:** banking system, systemic risk, financial crisis, state-owned banks, dollarization, strategy.

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**Корнилюк Роман Васильевич**, кандидат экономических наук, доцент. ГБУЗ «Киевский национальный экономический университет имени Вадима Гетьмана». **Комплексная стратегия преодоления последствий реализации системного риска в Украине.** Предоставлен комплекс рекомендаций для совершенствования процедур макропруденциального регулирования по следующим направлениям: преодоление системных дисбалансов в структуре активов и пассивов банков, дедолларизация и преодоление валютных дисбалансов, мониторинг и минимизация секторальных дисбалансов, развитие современных систем корпоративного управления, усиление институциональной способности и надзорных функций банковских регуляторов, стратегические решения проблемы государственных банков. Сформированы предложения по совершенствованию регулирования банков в контексте преодоления последствий системного риска, реализованных во время кризисных периодов. Определены пути усиления стратегии макропруденциальной политики как в части превентивного, так и антикризисного инструментария с целью обеспечения финансовой устойчивости и повышения уровня прозрачности на банковском рынке.

**Ключевые слова:** банковская система, системный риск, финансовый кризис, государственные банки, долларизация, стратегия.