European Journal of Business Startups and Open Society

Vol. 5 No. 3 (Mar - 2025): EJBSOS

http://innovatus.es/index.php/ejbsos

Prudential and Macroprudential Measures Utilised to Ensure the Financial Stability of Banks

Kholmamatov Farkhodjon Kubayevich
Tashkent State University of Economics, DSc, Professor
fkholmamatov@gmail.com

Mamurov Samadjon Igamnazarovich
International Islamic Academy of Uzbekistan, PhD, Associate Professor
mamurov.samadjon1988@gmail.com

Abstract: Financial stability is the ability of a financial system, i.e., financial institutions, markets, and market infrastructure, to withstand possible shocks and imbalances, thus reducing the likelihood of disruption of financial intermediation functions. The goal of financial stability is not the stability of a single financial institution but the stability of the entire financial system. Financial stability is a cornerstone for the sustainable development of an economy.

A financial system is considered stable when banks, other lenders, and financial markets can provide households and businesses with the financing they need to invest, grow, and participate in a well-functioning economy—and can do so without making the system more vulnerable to sharp downturns. In contrast, in an unstable system, an economic shock is likely to adversely impact the real economy, disrupting the flow of credit and leading to larger-than-expected declines in employment and economic activity.

Key words: Financial System, Economic Activity, Non-Performing Loans, Vertical Control System, Coverage Level, Macroprudential Measures, Mitigate Risks, Loan-To-Collateral Ratio, Creditworthiness, State-Owned Enterprises, Subordinated Borrowed Funds, Investments, Debt Burden of Households, Diversification, Liquidity, Reserves, Loan Portfolio, Capital Tools, Liquidity Tools.

Introduction. Financial stability is a critical aspect of a well-functioning economy, and banks play a central role in ensuring systemic resilience. Prudential and macroprudential measures are key regulatory tools designed to mitigate risks and ensure the stability of banking institutions. This literature review explores existing research on prudential and macroprudential policies, their effectiveness, and their role in preventing financial crises.

One of the main goals of the Central Bank of Uzbekistan (CBU) is to ensure the stability of the banking system (Law on the CBU, Article 5). To meet this goal, the CBU uses a number of macroprudential tools adopted and enforced to limit systemic risk in the banking system. These tools are capital tools, liquidity tools, and borrower-based tools.

The banking system in Uzbekistan showed substantial resilience to systemic risks and went through the Global Financial Crisis of 2007/08, the pandemic crisis of 2020/21, and the consequences of shocks caused by changes in the external economic conditions in 2022 without any major bank problems or bankruptcies that could trigger the materialization of systemic risk. By its capital and liquidity positions, the banking system stayed sound constantly, capable of persisting shocks that could otherwise trigger the crisis. These result from the Central Bank's

sound and proactive policy that, in good times, builds necessary capital and liquidity reserves to be available during the systemic risk materialization phase.

Literature Review.

1. Prudential Measures

Prudential measures primarily focus on the safety and soundness of individual financial institutions. These measures include capital adequacy requirements, liquidity regulations, risk management guidelines, and supervisory frameworks.

1.1 Capital Adequacy Requirements

The Basel Accords (Basel I, II, and III) provide a foundation for capital regulation. Basel III, implemented after the 2008 financial crisis, introduced stricter capital requirements, including the Capital Conservation Buffer and Countercyclical Capital Buffer (BCBS, 2010). Studies (Admati & Hellwig, 2013; Berger et al., 2016) suggest that higher capital ratios improve banks' resilience but may also lead to reduced lending capacity.

1.2 Liquidity Regulations

Liquidity management is another critical prudential measure. The Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) were introduced under Basel III to ensure banks maintain adequate high-quality liquid assets (BCBS, 2013). Empirical studies (Vazquez & Federico, 2015) show that liquidity regulations reduce systemic risks but may impact banks' profitability.

1.3 Risk Management and Supervision

Regulatory frameworks, such as the Comprehensive Capital Analysis and Review (CCAR) and the European Banking Authority's stress tests, assess financial institutions' ability to withstand economic shocks (Hanson, Kashyap, & Stein, 2011). Research suggests that stress testing enhances risk assessment but is limited by model assumptions (Schuermann, 2014).

2. Macroprudential Measures

Macroprudential policies aim to address systemic risks and prevent financial instability at a broader economic level. These measures include countercyclical buffers, leverage ratios, loan-to-value (LTV) ratios, and systemic risk surcharges.

2.1 Countercyclical Capital Buffer (CCyB)

The CCyB requires banks to hold additional capital during economic booms to absorb potential losses during downturns. Empirical evidence (Jordà, Schularick, & Taylor, 2013) suggests that countercyclical buffers mitigate credit booms and enhance banking stability.

2.2 Leverage Ratio Requirements

A non-risk-based leverage ratio, introduced under Basel III, limits excessive leverage in banking institutions. Studies (Coffinet, Pop, & Tiesset, 2018) highlight that leverage restrictions reduce financial system vulnerabilities but may constrain bank lending during economic expansions.

2.3 Loan-to-Value (LTV) and Debt-to-Income (DTI) Limits

LTV and DTI limits are widely used to manage household credit growth and reduce financial imbalances. Research (Cerutti, Claessens, & Laeven, 2017) indicates that such measures are effective in reducing excessive credit expansion, particularly in housing markets.

2.4 Systemic Risk Surcharge and Too-Big-To-Fail (TBTF) Policies

Systemically Important Financial Institutions (SIFIs) are subject to additional capital requirements due to their potential impact on financial stability. Studies (Haldane, 2012) suggest that TBTF policies reduce moral hazard but may also lead to regulatory arbitrage.

Analysis and results. The financial system in Uzbekistan is undergoing significant reforms, especially the privatization of major state-owned banks that currently dominate the banking system and that has already started. The reforms will lead to increased competition, which may increase risk-taking in the banking system. Also, future climate change implications for financial stability would become more challenging. The CBU is aware that it is time to formalize its macroprudential policy approach. Also, the International Monetary Fund (IMF) recommends the publication of the MPP strategy. To act proactively and successfully respond to new developments and risk trends, the CBU decided to affirm the Macroprudential Policy Framework2 . Additionally, the CBU intends to ensure that its MPP Framework is in accordance with the widely accepted international standards regarding macroprudential policy, especially IMF, BIS, and FSB standards.

In 2023, as part of prudential control measures, significant efforts were made to improve the loan portfolio of the banking system and reduce the share of non-performing loans. Services were tailored to consider the debt burden of individuals, potential credit risks were mitigated through the analysis of the financial situation of large debtors, and access to financial services for self-employed individuals was expanded.

In particular, during 2023, to prevent the negative impact of non-performing loans on the financial stability of the banking system and reduce their weight, bank loan portfolios were regularly analyzed by banks, regions, and segments.

Based on the results of the analysis, the management of the relevant banks were given instructions to address shortcomings and existing vulnerabilities in the system.

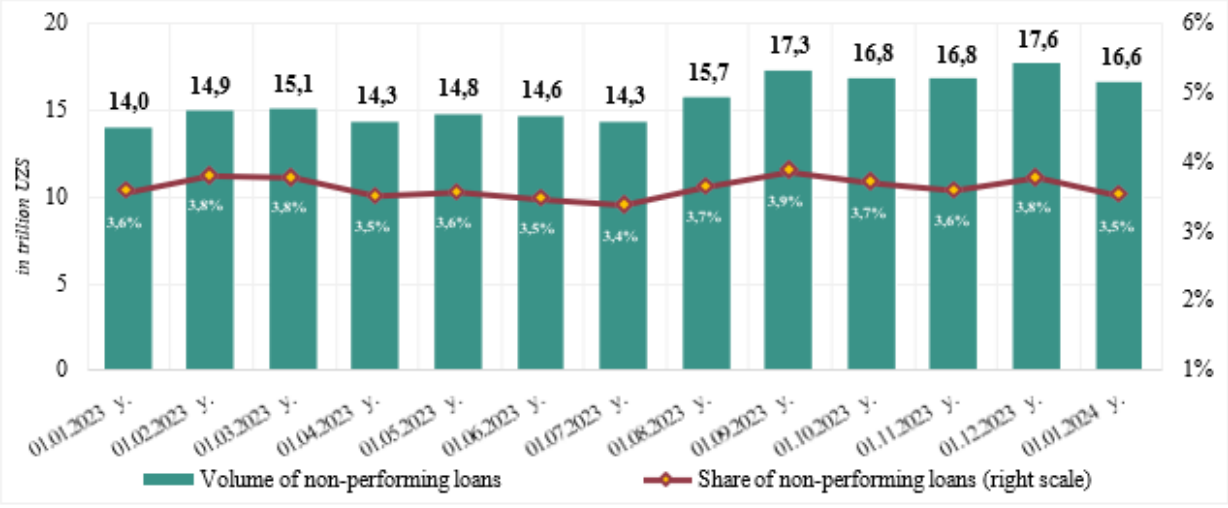
Research and methods.

In addition, to increase the efficiency of non-performing loans collection in the regions, working groups consisting of senior staff of commercial banks, led by deputy chairmen of the Central Bank, were established to study the state of non- performing loan collection locally. Furthermore, the Cabinet of Ministers, the General Prosecutor's Office, the Central Bank, and the Accounts Chamber approved a package of joint instructions and created a vertical control system to organize, coordinate, and evaluate the activities of responsible officials in the regions.

At the end of 2023, the share of non-performing loans in the total volume of loans in the banking system decreased to 3,5% *(3,6% at the end of 2022).*

As of January 1, 2024, 80% of the loan portfolio of commercial banks is classified as "standard", 16% as "substandard" and 3,5% as problematic *(1,5% as "unsatisfactory", 1,1% as "doubtful" and 0,9% as "hopeless").*

Figure 1. Dynamics of the share of non-permorming loans in the total volume

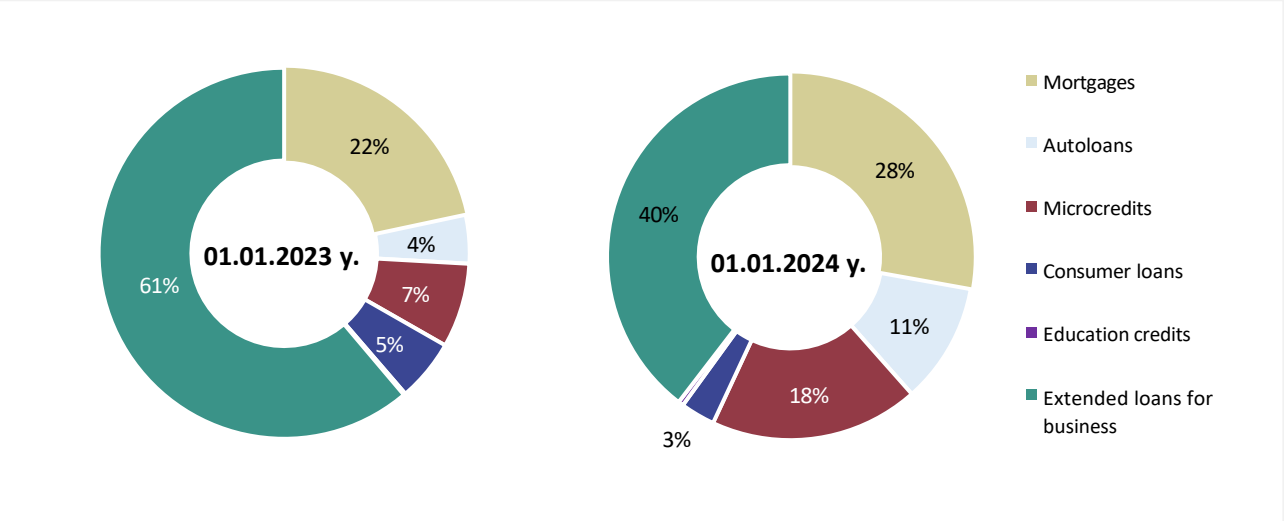


Source: Central Bank data

In 2023, banks created additional reserves for assets (*excluding the "standard" loan portfolio*) amounting to 2,4 trillion UZS, and the coverage level of non-performing loans by reserves increased from 80% in the corresponding period of last year to 82% as of January 1, 2024.

85% *(14,1 trillion UZS)* non-performing loans belongs to business entities, while 15% *(2,5 trillion UZS)* to individuals.

Figure 2. Non-performing loans of individuals



Source: Central Bank data

In the structure of non-performing loans of households, 1,0 trillion UZS *(40%)* were loans for the development of entrepreneurship, 709 billion UZS *(28%)* – mortgages, 470 billion UZS *(18%)* – microloans, 271 billion UZS *(11%)* – auto loans, and 89 billion UZS *(3%)* were classified as other consumer loans.

To mitigate the adverse effects of foreign economic risks on banking stability, the Central Bank conducted stress tests to assess the liquidity impact of risks related to the early fulfillment of financial obligations by commercial banks to foreign counterparts.

Macroprudential measures were strengthened to ensure the diversification of banking assets and prevent an escalation in the debt burden of the population.

In particular, to mitigate risks associated with the concentration of auto loans, a practice has been introduced to assess the risk level of auto loans based on the value of their collateral.

As a result, while an average of 3,4 trillion UZS of auto loans were allocated per month during the first 8 months of 2023, the monthly allocation decreased to 2,4 trillion UZS from September to December.

Additionally, it has been established that risk levels for issuing loans to individuals *(excluding those issued under family business development programs)* are assessed based on the loan-to-collateral ratio and the debt burden of households.

The introduction of this norm will further encourage accurate assessment of the creditworthiness of individuals by banks when providing loans, thereby helping to mitigate the risk of increasing the debt burden of individuals.

To effectively manage significant risks which is crucial for the banking system's operation and assess its efficiency, a methodology was introduced to analyze the financial condition of the top-50 debtors within the banking system's credit portfolio. This includes establishing risk levels, preparing individual information *(dashboard)* for each debtor, and studying their impact on the financial condition of banks.

As of January 1, 2024, according to preliminary analysis, loans extended by commercial banks to 50 large borrowers constituted 24% *(112 trillion UZS)* of the loan portfolio of the banking system, within this, 70% *(77 trillion UZS)* were attributed to state-owned enterprises and 30% *(35 trillion UZS)* to private enterprises.

Considering that 77% of these loans *(86 trillion UZS)* were allocated in foreign currency, and recognizing that currency depreciation can escalate the credit burden for borrowers and increase the risk of timely repayment, commercial banks have instituted a practice of regular monitoring for 20 largest borrowers.

In addition, the risk level for microfinance services provided to self-employed individuals and small businesses with regular income and turnover of funds in bank accounts for at least 6 months has been reduced from 100% to 75%.

The main objective of the CBU MPP framework is to define MPP, its goals, instruments, and implementation. In addition, one of the significant aspects of the development of the CBU MPP framework is that it is publicly available. In this way, it contributes to understanding the role that MPP plays in the financial system in Uzbekistan. Moreover, the CBU MPP framework secures clear and candid communication and accountability of the CBU.

Conclusion. Prudential and macroprudential measures play a vital role in ensuring the financial stability of banks by mitigating systemic and institutional risks. Capital adequacy requirements, liquidity regulations, and supervisory frameworks enhance the resilience of individual banks, while macroprudential policies address broader financial stability concerns. While these measures have proven effective in preventing financial crises, their implementation must be carefully balanced to avoid unintended consequences such as reduced credit availability or regulatory arbitrage. Future research should focus on optimizing these policies to strengthen financial stability while supporting sustainable economic growth.

This adjustment lays the groundwork for expanding bank lending opportunities to self-employed individuals and small businesses in the future.

Also, efforts are underway to align the methodology for calculating capital adequacy with the standards set by the Basel Committee:

- the requirements for determining the risk level of assets in banks have been revised, and specifically, the risk level of investments in the capital of business entities engaged in non-financial activities has been set at 200%;
- the distribution of shares of Tier I and II capital in the structure of regulatory capital of banks is now equal, with each comprising 50% *(previously, Tier II capital was limited to a maximum of 25% under the old requirement);*
- accounting for subordinated borrowed funds is now limited to an amount not exceeding 100% of Tier I capital after settlements.
- investments in the capital of business entities engaged in non-financial activities are now accounted for without deductions from regulatory capital.

References:

1. Admati, A. R., & Hellwig, M. (2013). *The Bankers' New Clothes: What's Wrong with Banking and What to Do About It*. Princeton University Press.
2. Basel Committee on Banking Supervision (BCBS) (2010). *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*.
3. Borio, C. (2014). The financial cycle and macroeconomics: What have we learnt? *Journal of Banking & Finance*, 45, 182-198.
4. Cerutti, E., Claessens, S., & Laeven, L. (2017). The use and effectiveness of macroprudential policies: New evidence. *Journal of Financial Stability*, 28, 203-224.

5. Haldane, A. G. (2012). The dog and the frisbee. *Federal Reserve Bank of Kansas City Economic Policy Symposium*.
6. Jordà, Ò., Schularick, M., & Taylor, A. M. (2013). When credit bites back: Leverage, business cycles, and crises. *Journal of Money, Credit and Banking*, 45(s2), 3-28.
7. Schuermann, T. (2014). Stress testing banks. *International Journal of Forecasting*, 30(3), 717-728.
8. Chartayev Asqar, & Xolmamatov Farhod. (2022). THE PROFITABILITY INDICATORS OF COMMERCIAL BANKS IN THE REPUBLIC OF UZBEKISTAN AND THEIR MODERN STATE. World Economics and Finance Bulletin, 8, 141-148. Retrieved from https://www.scholarexpress.net/index.php/wefb/article/view/710
9. Kholmamatov, F., Khannaev, S., & Ruzimoratov, O. (2021). Assessment Of The Competitive Environment In The Bank Market Of Uzbekistan Through" Bun" Indicator. Turkish Online Journal of Qualitative Inquiry, 12(7).
10. Kubayevich, K. F. . (2024). Current Analysis and Current Issues of Ensuring the Financial Stability of the Banking System in Uzbekistan. EUROPEAN JOURNAL OF BUSINESS STARTUPS AND OPEN SOCIETY, 4(3), 169–176. Retrieved from https://inovatus.es/index.php/ejbsos/article/view/2681