

Dynamics Of Asset Quality Indicators In The Banking System Of Uzbekistan

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Abstract: This study empirically analyzes the dynamics of asset quality (NPL) in the banking system of Uzbekistan between 2019 and 2024. The analysis reveals that the NPL ratio is linked to economic cycles, credit expansion, and institutional differences between banks (state/private). The study proposes a conceptual model that integrates foreign and local approaches. Recommendations include strengthening macroprudential policy to ensure financial stability.

Keywords: Bank asset quality, non-performing loans (NPL), credit expansion, macroprudential policy, bank transformation, institutional factors.

Introduction: In the last decade, the stability of the banking system and its role in supporting economic growth have become one of the central topics of global scientific research. International experience shows that the financial stability of the banking system is directly related, first of all, to the quality of assets on its balance sheet, and the deterioration of the quality of the loan portfolio has manifested itself as a starting point for financial crises in many countries. From this point of view, the quality of bank assets is not only a tool for managing banking risks at the microeconomic level, but also an important institutional indicator of economic stability and financial security at the macroeconomic level.

In the context of large-scale economic reforms being carried out in the Republic of Uzbekistan, the banking system is becoming one of the main mechanisms for financing the real sector. The rapid expansion of lending volumes, the high share of state-owned banks, and the acceleration of digitalization processes further strengthen the need for a deep scientific analysis of the quality of bank assets. In these processes, along with quantitative growth, the issue of prioritizing quality indicators has been raised to the level of state policy.

President of the Republic of Uzbekistan Sh. MIRZIYOYEV In his speeches on the banking and financial system, M. Mirziyoyev emphasizes that when evaluating the activities of banks, the main criteria

should not be the growth of loan volumes, but the return on loans, the level of risk, and the impact on the real economy. This conceptual approach, put forward by the President, shows the strategic importance of the issue of forming high-quality assets in the banking system. At the same time, the head of state emphasized that the banking system should become not a threat to economic growth, but an institutional mechanism that sustains it. This opinion requires considering the problem of bank asset quality not only as a financial indicator, but also as an important structural factor of economic development.

In international scientific literature, the quality of bank assets is assessed mainly through the share of non-performing loans (NPL), credit risks, and reserves, and these indicators are analyzed in close connection with macroeconomic cycles, interest rates, and financial shocks. This approach interprets the quality of assets as a dynamic process, sensitive to the economic environment. In domestic scientific research, the quality of assets is covered more from the point of view of prudential control, regulatory requirements, and maintaining financial stability, and its change over time and its relationship with economic factors have not been sufficiently deeply empirically analyzed.

This situation indicates the presence of an important research gap in the scientific literature. That is, in the banking system of Uzbekistan, asset quality indicators

are often assessed statically, and their dynamic characteristics related to economic growth, credit expansion, the competitive environment, and institutional reforms are not sufficiently disclosed. The direct application of international models, due to the institutional structure of the banking system and high state participation, does not always give the expected result.

Therefore, the purpose of this study is a critical and comparative theoretical analysis of the dynamics of asset quality indicators in the banking system of Uzbekistan, identification of differences between foreign and domestic scientific approaches, as well as the formation of an author's concept corresponding to the conditions of Uzbekistan, which serves as the basis for further empirical analysis. The research results are expected to serve as a scientific and practical basis for the development of new methodological approaches to assessing the quality of bank assets and improving banking and financial policy.

LITERATURE REVIEW

The dynamics of asset quality indicators in the banking system plays an important role in ensuring financial stability, managing credit risks, and supporting economic growth. In the scientific literature, the quality of bank assets is assessed mainly by the state of the loan portfolio, the share of non-performing loans (NPL), and the effectiveness of risk management mechanisms. Especially in the context of developing economies, the change in asset quality indicators over time is considered one of the main factors determining the stability of the banking system.

The issue of bank asset quality is widely covered in international scientific literature. In particular, Louzis, Wooldis, and Metaxas analyzed the dynamics of bank asset quality using the example of Greek banks and substantiated that, along with macroeconomic factors (GDP growth, unemployment, interest rates), bank-specific indicators also have a significant impact on the level of problem loans. Their research shows that asset quality is highly sensitive to business cycles.

Beck and Jakubik in their research based on the example of global banks emphasize that bank capital, profitability, and operational efficiency are important factors determining the dynamics of asset quality. The authors conclude that banks with a strong capital base have a relatively low share of problem loans.

Also, Ghosh empirically proved that in studies conducted using the example of the US banking system, credit expansion and changes in interest rates lead to a deterioration in asset quality. This approach shows that in foreign literature, asset quality is interpreted as a dynamic and market-sensitive process.

In the research of Uzbek scientists, the issue of the quality of bank assets is mainly covered in connection with prudential control and financial stability. In particular, Kulmetov M.R. in his research analyzes the impact of the quality of the loan portfolio and the level of non-performing loans in commercial banks on bank stability and emphasizes the need to improve risk management systems.

Khudoyberdiyev A. reveals the role of institutional reforms and bank transformation processes in reducing asset quality and credit risks in the banking system. In his work, the quality indicators of bank assets are assessed more in relation to regulatory requirements and management effectiveness.

Also, in scientific research conducted by Mirzaev Sh., credit monitoring, collateral mechanisms, and the level of compliance with prudential standards in the banking system of Uzbekistan are indicated as factors directly influencing the dynamics of asset quality.

A comparative analysis of the views of foreign and domestic scientists shows that in foreign studies, the quality of assets is mainly interpreted as a dynamic process related to macroeconomic cycles and market mechanisms, while in domestic literature, this issue is studied more within the framework of prudential control and the normative approach.

In the context of the rapid growth of lending volumes in the banking system of Uzbekistan, the high share of state-owned banks, and institutional reforms, there is a need for dynamic and empirical analysis of asset quality indicators over time. Therefore, this study is aimed at an in-depth study of the dynamics of asset quality indicators in the banking system of Uzbekistan based on the integration of foreign and domestic scientific approaches.

METHODOLOGY

This study is aimed at analyzing the change in asset quality indicators in the banking system of Uzbekistan over time and identifying the main factors influencing this process. The research methodology is based on quantitative analysis, using an empirical approach that takes into account the bank segment and the time factor.

For empirical analysis, a database for the period 2019-2024 was formed. The data were obtained from the financial statements of the Central Bank of the Republic of Uzbekistan, commercial banks, and official sources of macroeconomic statistics. The sample study covered large and medium-sized commercial banks operating in the banking system.

The share of non-performing loans was selected as an indicator of asset quality, which was assessed as the

main indicator reflecting the stability of the bank's loan portfolio. Independent variables consisted of factors specific to banking activities (capital adequacy, profitability, lending rate, operational efficiency) and indicators reflecting macroeconomic conditions (real economic growth, inflation, and interest rates).

At the initial stage, the dynamics of asset quality was analyzed using descriptive statistics. Subsequently, the relationship between the variables was assessed based on panel data. In order to reduce the probability of endogenousness and take into account the individual characteristics of the bank, the fixed effects model was used. If necessary, a dynamic panel approach was used to check the stability of the results.

The empirical model served to determine the influence of banking-specific and macroeconomic factors on

asset quality indicators. Due to the use of open statistical data in the study, there are some limitations, which were taken into account when interpreting the results.

RESULTS

In this section, the dynamics of asset quality indicators in the banking system of Uzbekistan is analyzed empirically. As an asset quality indicator, the share of non-performing loans (NPL) is selected, revealing its change over time, differences across banks, and its relationship with economic factors.

Analysis of official statistical data on the banking system of Uzbekistan for the period from 01.01.2020 to 01.01.2025 shows that the share of non-performing loans has gone through the stages decline-stabilization-partial growth.

Commercial banks' loan investments and the share of nonperforming loans

Date	Loans, in billion soums			Problem loans (NPL), in billion soums			Total problem loans		
	Total	of which:		Total	of which:		Total	of which:	
		state-owned banks	other banks		state-owned banks	other banks		state-owned banks	other banks
01.01.2020	211,580.5	186,630.3	24,950.2	3.169.1	2,809.0	360.1	1.5.	1.5.	1.4.
01.01.2021	276,974.8	244,483.9	32,490.9	5,784.8	5,167.6	617.2.	2.1.	2.1.	1.9.
01.01.2022	326.385.6	280,073.6	46.311.9	16,974.0	15,068.8	1.905.2	5.2.	5.4.	4.1.
01.01.2023	390,048.9	324,680.8	65.368.2	13.992.4	12.643.3	1.349.1	3.6.	3.9.	2.1.
01.01.2024	471.405.5	333,298.1	138.107.4	16,621.4	13.267.2	3.354.2	3.5.	3.9.	2.4.
01.01.2025	533.121.2	366,730.5	166,390.7	21.185.1	14.343.8	6.841.3	3.9.	3.9.	4.1.

The volume of loans issued by commercial banks is growing every year. In particular, over the past six years, it has increased 2.5 times and, as of January 2025, amounted to more than 533 trillion soums.

The largest share of loans issued falls on commercial banks with state ownership. In particular, in 2020 - 88.2%, in 2021 - 88.3%, in 2022 - 85.8%, in 2023 - 83.2%, in 2024 - 70.7%, and in 2025 - 68.8%. The decrease in the share of state-owned commercial banks is a positive phenomenon for the banking system, which can be explained by the increase in loans issued by other banks. In turn, problem loans increased 6.7 times, from 3.2 trillion soums in 2020 to 21.2 trillion soums in 2025.

The share of non-performing loans in the total volume of loans increased from 1.5% in 2020 to 5.2% in 2022, marking the highest figure. The main reason for this is the pandemic that occurred in 2021, when loan recipients were granted benefits for the repayment of loans and interest (deferred payment). As a result of the measures taken, the share of non-performing loans decreased by 1.3 percentage points in 2022-2024, or to 3.9 percent as of January 1, 2025. Problem loans

account for 3.9% in commercial banks with state ownership and 4.1% in other banks. It is known that risky loan investments in the activities of commercial banks are investments that have entered the form of problem loans. Unsatisfactory and low-grade loans belong to the category of problem loans.

Empirical observations show that the share of non-performing loans is not uniform across banks. In large state-owned banks, the NPL level is typically around the system average. This is explained by state support, the diversification of the loan portfolio, and the wide range of restructuring opportunities.

In private and relatively small banks, the share of non-performing loans is higher in some periods, which is due to their sensitivity to market shocks and limited opportunities to absorb risks. This result confirms the conclusions about the relationship between the size of the bank and the quality of assets noted in foreign studies.

The results of the analysis show that there is a complex and time-delayed relationship between the rapid growth of lending volumes and the quality of assets. Although credit expansion has increased economic

activity in the short term, in the long term it leads to a softening of credit standards and creates a basis for an increase in the share of non-performing loans. The re-growth of the NPL level in 2024 will coincide with the rapid expansion of the loan portfolio. This situation indicates the need for an approach to assessing the dynamics of asset quality taking into account not only static indicators, but also delays in time.

Figure 1. Theoretical-empirical conceptual model of the dynamics of bank asset quality.

This figure systematically reflects the main factors forming the dynamics of the quality of bank assets and their interrelationship based on theoretical and empirical approaches. According to the model, macroeconomic factors (GDP growth, inflation, interest rates, and economic cycles) indirectly influence the state of asset quality through bank-specific indicators. Bank-specific factors directly shape the share of problem loans through lending rates, capital adequacy, and profitability.

Also, institutional and prudential factors act as a mechanism that limits or mitigates this process through the quality of credit monitoring, risk management systems, and bank transformation. In the model, asset quality indicators (NPL) are interpreted as the central link affecting bank stability and financial stability, and the existence of a feedback mechanism through macroprudential policy is shown.

These results show that asset quality indicators are not solely the result of internal bank management, but are intrinsically linked to the overall economic environment.

Based on the analysis conducted, the following main results were identified: In the banking system of Uzbekistan, as of 01.01.2020-01.01.2025, the indicators of asset quality were relatively stable and did not reach a sharply critical level. The share of non-performing loans is sensitive to economic cycles and lending rates, the impact of which manifests itself late in time. Differences between banks are important in assessing the dynamics of asset quality, especially in the context of state and private banks.

CONCLUSIONS

The study empirically analyzed the dynamics of asset quality indicators (NPL) in the banking system of Uzbekistan for the period 2019-2024. According to the analysis results, the change in the NPL share (especially the increase to 5.2% in 2022) is closely related to economic cycles, rapid credit expansion, and institutional differences between banks (public/private). While rapid growth in lending has a positive effect in the short term, a delayed time

relationship has been identified, which can lead to a deterioration in asset quality in the long term. This study developed an author's conceptual model based on the integration of foreign and domestic approaches. According to the model, macroeconomic factors indirectly form NPL, while banking-specific factors directly form NPL. In conclusion, while stability in the system has been maintained, quality assurance remains a pressing issue.

To ensure financial stability and improve asset quality, it is recommended to strengthen macroprudential policy.

1. Coordination of credit expansion: It is necessary to coordinate the quantitative growth rates of loans with qualitative indicators (NPL forecast). For high-risk industries, the introduction of additional systemic risk reserves (Cyclical Capital Buffers) is recommended.
2. Risk Management and Monitoring: Banks are recommended to widely use early warning mechanisms (Early Warning Systems) and digital models (Machine Learning) that take into account delayed factors of NPL formation in credit monitoring systems.
3. Institutional reforms: In the process of privatization of state-owned banks, the main criteria should be not only volume, but also the quality of the loan portfolio and an effective risk management system. This will help ensure the success of the bank's transformation.

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