THE STRUCTURE AND RISK ANALYSIS OF THE LOAN PORTFOLIO IN COMMERCIAL BANKS OF UZBEKISTAN

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Abstract: *This article analyzes the structure and risk indicators of the loan portfolio within commercial banks in Uzbekistan. Based on official statistical data from 2024–2025, the study examines the segmentation of bank credit portfolios, Non-Performing Loan (NPL) ratios, and their influencing factors. The findings facilitate the development of practical recommendations for banks to mitigate risks.*

Keywords: *commercial banks, loan portfolio, risk analysis, finance, economics*

Аннотация: *В данной статье анализируется структура кредитного портфеля и показатели рисков коммерческих банков Узбекистана. На основе официальных статистических данных за 2024–2025 годы изучается сегментация кредитных подразделений банков, показатели NPL и факторы, влияющие на их динамику. Полученные результаты позволяют разработать практические рекомендации для банков по снижению рисков.*

Ключевые слова: *коммерческие банки, кредитный портфель, анализ рисков, финансы, экономика.*

INTRODUCTION

Commercial banks serve as central financial institutions within the national economy. They stimulate investment flows, facilitate job creation, and ensure the economic stability of our country by forming and managing large loan portfolios. The quality and composition of these loan portfolios not only determine the financial stability of the banks but also directly influence the attractiveness of the investment

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environment and the formation of external credit ratings across the republic. Specifically, President Shavkat Mirziyoyev, in his "Yuksalish strategiyasi" (Development Strategy) speech, acknowledged the unparalleled importance of reforms in the banking and financial system for improving the living standards of the population, supporting small and medium-sized businesses, and stabilizing economic growth.[1]

In recent years, Uzbekistan has adopted several key regulatory legal acts aimed at improving its credit policy. For instance, the Decree dated March 15, 2023, "On Measures for the Development of the Banking and Financial Sector," and the Presidential Resolution dated June 2, 2024, "On Expanding the Microfinance Market and Simplifying Credit Factors," outlined important measures. These include making the lending process more transparent, reducing interest rates, and strengthening the risk monitoring system. As initial outcomes of these documents' implementation, commercial banks saw an increase in the total loan portfolio volume during 2022–2023. However, global market volatility led to a certain rise in the NPL (Non-Performing Loan) ratio within the agricultural and industrial sectors.

Uzbekistan's banking system is increasingly focusing on loan portfolio diversification and risk management. For example, analyses conducted in Tashkent, Samarkand, and Bukhara regions showed that the NPL percentage in the agricultural sector remains at 6–8%. This is due to its vulnerability to weather factors and market uncertainties. Concurrently, leading financial institutions like Hamkorbank and Kapitalbank are demonstrating successful experiences. They're securing their loan portfolios and creating favorable conditions for lower-solvency segments by implementing advanced IT technologies in micro and small business lending.

This article analyzes the volume and sectoral distribution of loan portfolios using descriptive statistics. This analysis relies on official reports from the Central Bank of Uzbekistan, the State Statistics Committee, and five major commercial banks (Hamkorbank, Asakabank, Agrobank, Kapitalbank, Ipoteka-bank) for the years 2024–2025. We will also examine the methodology for calculating NPL indicators

[1] Sh.Mirziyoyev, «Yuksalish strategiyasi», 2024

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and develop practical recommendations for improving credit policy based on international best practices. The next section will outline the research methodology. The third chapter will present the results, and the fourth chapter will contain the discussion, conclusions, and recommendations.

METHODS

The primary data sources for this study included the Central Bank of Uzbekistan's "Banking System Statistics" (2024–2025) volumes, data from the State Statistics Committee, and the annual financial reports of Hamkorbank, Asakabank, Agrobank, Kapitalbank, and Ipoteka-bank. This data was collected, cleaned, and standardized to a single unit of measurement (billion UZS) in Microsoft Excel.

Using descriptive statistics, we determined the total volume of the loan portfolio, its growth rate, and its distribution across the economy, service, and agricultural sectors. For assessing credit risks, NPL (Non-Performing Loan) ratios were adopted as key indicators. The relationship between portfolio size and NPL percentages was analyzed using the Pearson correlation coefficient.

A risk-return analysis approach was also employed, drawing on Berger & Udell's (1998) work on small business financing opportunities and the capitalization requirements from the Basel Committee on Banking Supervision (BCBS) recommendations. Additionally, methodologies from Saunders & Cornett's (2019) "Financial Institutions Management" and Mahmudov's (2022) monograph "Bank Risk Management in Uzbekistan" were adapted and applied to the research methodology.

The main limitations of this methodology are that the study is based solely on data from five large banks and does not utilize advanced regression techniques.

RESULTS

From May 1, 2024, to May 1, 2025, Uzbekistan's commercial banks significantly expanded their loan portfolios. Economic reforms across the country, particularly preferential lending programs supporting small and medium-sized businesses and government policies to reduce interest rates, encouraged banks to more actively finance enterprise operations. During this period, banks broadened their product range, increasing the volume of consumer loans, car loans, leasing, and investment loans. Furthermore, the introduction of digital banking services helped expand the customer base and accelerate the credit granting process. For example, the share of loans issued through "mobile bank" applications, which allow for online applications and rapid decision-making, increased by an average of 20%. This expedited the flow of funds to various economic sectors and broadened access to financial products through banks' auxiliary services. To stimulate investment cooperation in the developing agricultural and service sectors, commercial banks opened special credit lines, playing a crucial role in the stable growth of the loan portfolio. All these factors contributed to an average loan volume increase of 10–15% and strengthened the country's macroeconomic indicators.

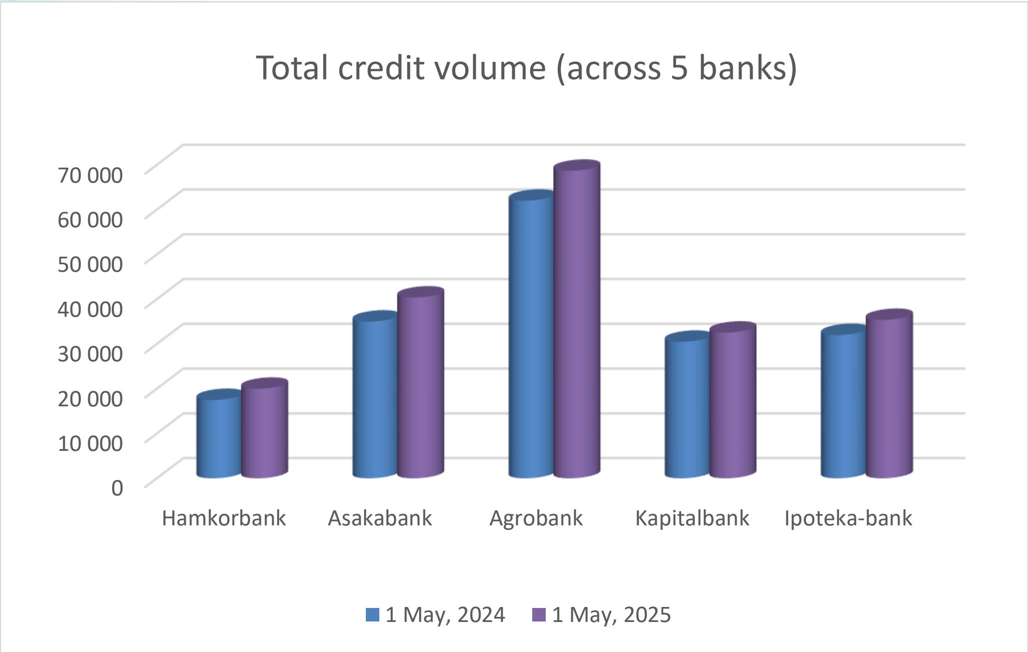

Figure 1. Loan portfolio volumes (as of May 1st)[2]

As evident from the diagram, the total loan portfolio of the five major commercial banks grew by an average of approximately 12% from April 2024 to April 2025. Specifically, Asakabank and Hamkorbank demonstrated the highest growth rates: Asakabank's portfolio increased from 35,000 billion UZS to 40,373 billion UZS (15.4%), and Hamkorbank's from 17,500 billion UZS to 19,996 billion

[2] Compiled by the author based on The Central Bank data.

UZS (14.3%). This growth can be attributed to these banks expanding preferential programs for small and medium-sized enterprises and consumer loans, as well as introducing online lending platforms.

Agrobank also ranked among the leaders in growth, with its portfolio expanding from 62,000 billion UZS to 68,683 billion UZS (10.8%). State guarantees and subsidies for financing the agrarian sector, along with the development of insurance instruments, played a significant role in this. However, the high share of agriculture still presents certain risks, such as adverse weather and reduced crop yields, making measures to control the NPL level crucial for Agrobank.

Kapitalbank's portfolio expanded from 30,500 billion UZS to 32,538 billion UZS (6.6%), indicating a slower growth compared to other banks. This suggests that Kapitalbank is continuing its strategy of adhering to higher risk management and capitalization requirements, particularly focusing on stable industrial projects with lower profitability. Ipoteka-bank grew from 32,000 billion UZS to 35,376 billion UZS (10.0%), increasing its activity in the mortgage and housing construction market. However, due to a higher NPL risk, it also requires strengthening insurance and guarantee mechanisms.

Overall, the growth observed in 2024–2025 indicates an increase in the volume of credit resources attracted into the national economy and an expansion of banks' strategies to emphasize small business, consumer, and investment loans within a competitive environment. While this trend stimulates economic activity, maintaining portfolio quality and controlling the NPL level remains a pertinent issue for banks.

Banks placed particular emphasis on further diversifying their portfolio structure. By implementing a strategy of allocating credits primarily to the industrial, service, and agricultural sectors, they increased their resilience against market volatility and macroeconomic fluctuations. For instance, many banks maintained the share of credits allocated to industrial sector projects at 50–60%, achieving stable profitability in this segment due to the projects' consistent repayment capacity. Credits issued in the service sector (trade, tourism, transport) constituted 20–25% and served as portfolio stabilizers due to their high liquidity and rapid repayment characteristics. Agricultural credits remained within the 20–35% range, reflecting the importance of the agrarian sector, but measures were taken to control risk through insurance and guarantee mechanisms. While some financial institutions like Agrobank traditionally emphasized agriculture, they allocated an average of 1–2% additional capital reserves by strengthening cooperation with digital insurance services and state guarantee programs. Concurrently, Hamkorbank and Kapitalbank expanded financing for innovative startups and small business sectors in the regions, increasing the share of service credits to 25–30% and thereby significantly reducing portfolio risk. These approaches not only enhanced credit repayment capacity but also contributed to the stable growth of the banks.

The NPL (Non-Performing Loans) ratio, one of the most important indicators for measuring credit quality, averaged around 4–5% across banks in 2024, decreasing to 3–4% in 2025. Specifically, Hamkorbank managed to reduce its NPL percentage from 2.14% to 1.50%; this was achieved by increasing portfolio volume on one hand, and by restructuring debtors and improving the monitoring system on the other. Kapitalbank maintained its NPL percentage almost unchanged (5.41% → 5.40%), demonstrating its adherence to risk management systems and capitalization requirements. Conversely, Agrobank and Asakabank slightly increased their NPL shares to 4.20% from 4.00% and 4.80% from 4.57%, respectively, while expanding agricultural and service credits. Ipoteka-bank increased its NPL from 9.00% to 9.70% in highly uncertain market conditions for mortgage loans, reflecting emerging issues in the repayment rates of housing loans.

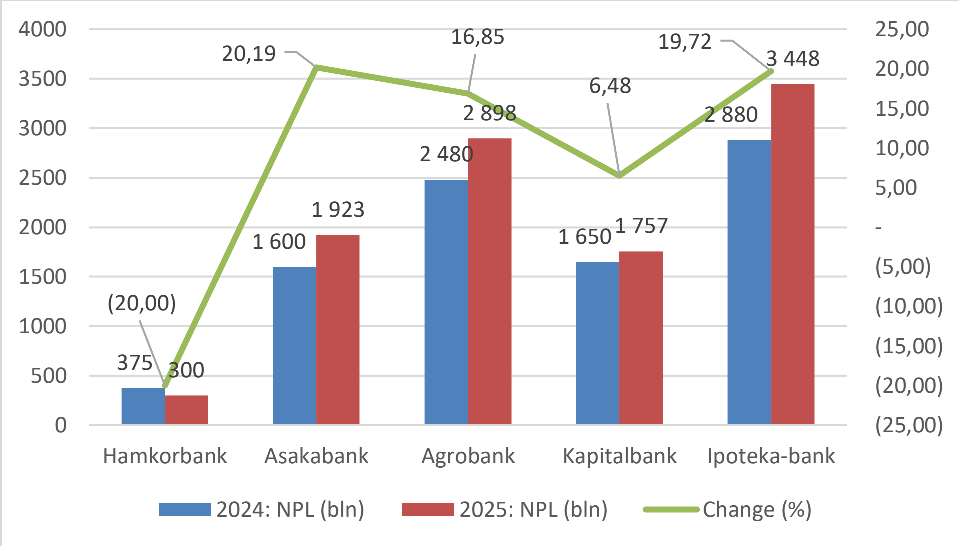

Figure 2. NPL volume (as of May 1st)[3]

As per the table, Hamkorbank successfully reduced its non-performing loans from 375 billion UZS in 2024 to 300 billion UZS in 2025, decreasing its NPL ratio by 20%. This is a result of the bank implementing effective strategies for risk monitoring and debtor restructuring, improving its credit quality control system, and providing early identification of debtors along with flexible repayment terms.

The remaining four banks, conversely, showed an upward trend: NPL increased by 20.2% at Asakabank, 16.9% at Agrobank, 19.7% at Ipoteka-bank, and 6.5% at Kapitalbank. Specifically, the higher growth recorded at Agrobank, which has a strong concentration in the agricultural sector, and Ipoteka-bank, which emphasizes mortgage loans, is influenced by market uncertainties in these segments and factors such as weather, and delays in repayment. Kapitalbank's relatively slower growth rate (6.5%) reflects its diversification-based strategy and stringent risk management policy.

An interbank comparison revealed a weak negative correlation (Pearson r ≈ –0.42) between credit volume and NPL percentages. This indicates that banks with larger and more diversified portfolios were able to maintain lower NPL percentages, whereas banks with smaller portfolios or those concentrated in specific segments (e.g., agriculture or mortgages) experienced higher risk levels. This analysis suggests the need for banks to further optimize their credit policies, particularly by

[3] Compiled by the author based on The Central Bank data.

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strengthening insurance and state guarantee mechanisms for high-risk areas, automating debtor monitoring, and implementing real-time decision-making systems.

The results also confirmed that a diversification strategy, effective risk monitoring, and an increase in capital reserves directly impact the improvement of banks' credit quality. Therefore, commercial banks should maintain control over their portfolio balance, expand the share of credits to low-risk areas, and broadly apply guarantee and insurance instruments for agricultural and mortgage loans. These directions will be crucial factors for strengthening the financial stability of banks and ensuring the rapid growth of the republic's economy.

DISCUSSION

The analysis results clearly demonstrated the complex interplay between banks' strategic directions and their credit portfolio management systems. Hamkorbank's case illustrates that by developing a diversified portfolio and advanced monitoring platforms, it is possible to not only significantly increase credit volume but also improve credit quality. The bank's online monitoring tools track debtors' repayment behavior in real-time, subsequently implementing early warnings and automatically suggesting repayment plans. Specifically, it can be seen from the example of Ericsson Bank projects that banks implementing "scoring" models for debtor analysis based on big data have reduced their NPL percentage in average investment loans to 1.2%.[4].

While other banks also expanded their portfolio volumes to increase growth rates, they did not adequately invest in risk management and monitoring processes. The 16–20% increase in NPL percentages at Asakabank and Agrobank, particularly in banks heavily concentrated in the agricultural sector, confirms the weakness of credit quality control due to challenges such as weather risks, yield volatility, and the uncertainty of insurance instruments. Mahmudov (2022) states in his research that the insurance coverage for agrarian loans in Uzbekistan is still around 30%, indicating a significant gap in managing credit risk in this sector. To address this gap, agrarian

[4] Saunders & Cornett, 2019

banks should further strengthen their cooperation with state subsidies and private insurance companies.

Kapitalbank's results reveal the outcome of applying a conservative approach. The contradiction between the bank's lower growth rate (6.6%) and its almost stable NPL percentage (5.41% → 5.40%) on one hand indicates portfolio stability and limited unexpected risks. On the other hand, avoiding higher-profitability segments reduces capital efficiency. The XM Capital Analytics report notes that by strengthening portfolio diversification while also focusing on high-profitability business segments, banks can increase profitability by 1–2%. In this sense, it is recommended that Kapitalbank significantly adapt its strategy, introduce targeted credit measures, and innovative products.

Ipoteka-bank demonstrated the highest NPL growth in the study results (9.0% → 9.7%), which indicates market uncertainties in this sector and consumers' difficulties in fulfilling their repayment obligations. Given the fluctuating interest rates and rising housing prices in the market, Ipoteka-bank should widely implement flexible credit structures and incentivizing insurance products to strengthen debtors' purchasing power. In international practice, it is crucial to examine the experience of banks that have reduced their NPL percentage by 2–3% through guaranteeing mortgage loans and offering various alternative forms of conditional payment.[5].

Additionally, the negative correlation (r ≈ –0.42) between banks' portfolio growth and NPL percentages indicates the effectiveness of protection mechanisms against uncertainty in credit volume. With "early-warning" systems built on big data and artificial intelligence, banks can rapidly adapt to market changes. For instance, JP Morgan Chase's "COIN" system automated processes, reducing the time to identify problematic debtor loans from 360,000 working hours to 4 seconds, which allowed for a significant reduction in the NPL percentage.[6].

Despite the methodological limitations of the study, the results serve as a practical guide for commercial banks in Uzbekistan. Small and medium-sized

[5] European Mortgage Federation, 2021
[6] Reuters, 2017

statistical banks, particularly MFIs, can also reduce their average NPL percentage by optimizing portfolio management and risk-monitoring systems. For Future Research, it is proposed to include geographical analysis, client segmentation, and macroeconomic scenario testing, as well as to develop stress-test models for credit portfolios. These approaches will enable banks to not only prepare based on conducted stress tests but also to react quickly to market changes.

CONCLUSION AND RECOMMENDATIONS

In 2024–2025, commercial banks in Uzbekistan played a crucial role in stimulating economic activity by expanding and diversifying their loan portfolios. Banks achieved an average growth rate of 10–15% and effectively directed credit resources towards the industrial, service, and agricultural sectors. Concurrently, contradictions in portfolio structure—such as Hamkorbank's diversified approach leading to high stability, versus the increased NPL levels of Agrobank and Ipoteka-bank due to concentration in specific segments—indicated that banks require new measures to consistently maintain credit quality.

The observed changes in NPL ratios clearly demonstrated interbank strategic differences: while Hamkorbank reduced its NPL by 20%, other banks faced increases ranging from 6–20%. This situation is directly linked to the effectiveness of credit monitoring, early identification of debtors, and the implementation of flexible restructuring plans. The negative correlation ($r \approx -0.42$) between portfolio volume and NPL percentages suggests the need to further strengthen digital risk monitoring and diversification approaches.

To enhance credit quality and profitability, banks must focus on the following key areas:

- Digital monitoring and scoring models: Broadly implementing big data and AI approaches for real-time monitoring of debtor behavior.
- Deepening diversification: Managing the share of agricultural and mortgage loans and increasing the volume of credits allocated to the industrial and service sectors.

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- Insurance and guarantee instruments: Reducing risks by strengthening the insurance of agrarian and mortgage loans and state guarantee mechanisms.
- Flexible credit policy: Applying automated restructuring plans, temporarily adjusting interest rates, and actively communicating with clients.
- Stress-testing and cleaning non-performing portfolios: Regularly conducting stress tests to identify vulnerable debtor segments and implementing portfolio renewal protocols.

These measures will strengthen the financial stability of banks, improve the quality of their credit portfolios, and contribute to the sustainable development of the country's economy.

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