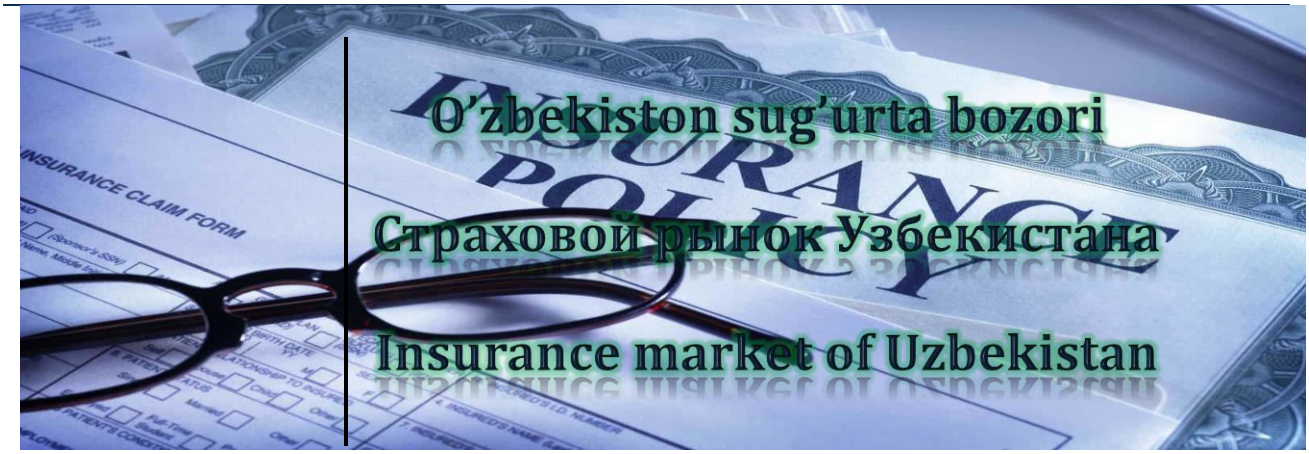

CREDIT RISKS AND MANAGEMENT STRATEGIES OF COMMERCIAL BANKS IN UZBEKISTAN

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ABSTRACT

This study looks at the credit risks and risk management techniques used by Uzbek commercial banks. The study investigates a number of management techniques to reduce these risks, including strengthening loan monitoring systems, refining credit risk assessment frameworks, and moving state-owned banks toward more commercially oriented business models. This thorough study offers insightful information about the difficulties and approaches associated with credit risk management in the developing financial environment of Uzbekistan.

KEYWORDS

Credit risk, risk management strategies, credit scoring models, diversification, credit derivatives, securitization, regulatory frameworks, Basel accords, borrower creditworthiness, macro-economic factors.

Kirish (Introduction/Введение)

Credit risk remains a paramount concern for commercial banks, as it directly impacts their financial health and stability. Defined as the risk of a borrower failing to meet their obligations as per the agreed terms, credit risk can lead to significant financial losses and, in severe cases, threaten the survival of banking institutions. The dynamic and interconnected nature of the global economy further exacerbates the complexity of managing credit risk, necessitating sophisticated strategies and robust frameworks. This study aims to provide a comprehensive analysis of credit risks faced by commercial banks and the management strategies employed to mitigate these risks. It begins by exploring the fundamental sources of credit risk, which include macroeconomic conditions, borrower-specific characteristics, and industry trends.

Understanding these sources is crucial for developing effective risk assessment and management techniques. In response to the multifaceted nature of credit risk, commercial banks have adopted various tools and methodologies to safeguard their assets. These include credit scoring models that evaluate the creditworthiness of borrowers, risk-based pricing to adjust the interest rates according to the risk profile, and diversification strategies to spread risk across different sectors and geographies.

Additionally, credit derivatives and securitization offer ways to transfer and manage risk more effectively.

The regulatory environment plays a significant role in shaping credit risk management practices. Banks must adhere to stringent regulatory standards, such as those outlined in the Basel Accords, which provide guidelines on capital adequacy and risk management. Compliance with these regulations ensures that banks maintain sufficient capital buffers to absorb potential losses.

By examining the intricacies of credit risk and the strategies to manage it, this study contributes to the broader discourse on enhancing financial stability and resilience in the banking sector. As the financial landscape continues to evolve, the ability of commercial banks to effectively manage credit risk will remain a critical determinant of their success and sustainability.

Мавзуга оид адабиётлар таҳлили (Review/Литературный обзор).

Credit risk is a critical concern for commercial banks, as it directly impacts their financial stability and profitability. According to Basel Committee on Banking Supervision (BCBS) documents, credit risk is defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. Academic studies, such as those by Saunders and Allen (2010) [1], emphasize the importance of managing credit risk to prevent financial distress and ensure the smooth functioning of banking institutions.

There are several sources of credit risk, which can be broadly categorized into macroeconomic factors, borrower-specific factors, and industry-specific dynamics: As a macroeconomic factors economic conditions such as recessions, changes in interest rates, and inflation significantly influence credit risk [2]. Studies by Altman and Saunders (1998) [3] highlight how economic downturns can lead to higher default rates due to reduced borrower income and increased financial strain. Factors such as the borrower's credit history, financial health, and repayment capacity are critical in assessing credit risk [4]. Research by Merton (1974) [5] introduces the concept of credit scoring models, which use statistical methods to evaluate these factors and predict default probabilities. Certain industries may be more susceptible to economic cycles or specific risks. For example, the real estate sector is highly influenced by property market fluctuations. Industry-specific risk assessments, as discussed by Acharya et al. (2007) [6], are essential for understanding these dynamics.

Various strategies are employed by commercial banks to manage credit risk. The literature provides extensive insights into the effectiveness of these strategies: Credit scoring models, such as those developed by Altman (1968) [2,7] and Ohlson (1980) [8], are widely used to assess the creditworthiness of borrowers. These models analyze historical data and borrower-specific variables to assign credit scores, which help banks make informed lending decisions. Risk-based pricing adjusts the interest rates and terms of loans based on the assessed risk profile of the borrower. According to research by Rosenberg and Schuermann (2006) [9], this approach compensates for higher risk by charging higher interest rates, thereby protecting banks from potential losses. Diversification is a fundamental risk management strategy that involves spreading credit exposure across different sectors and geographies. Markowitz's (1952) [10] portfolio theory underpins this strategy, suggesting that diversification reduces overall risk by minimizing the impact of localized economic downturns. Credit derivatives, such as credit default swaps

(CDS), and securitization allow banks to transfer credit risk to other parties. Duffie and Singleton (2003), [11] discuss how these financial instruments provide additional tools for risk management, though they also introduce complexity and potential systemic risk.

Regulatory frameworks play a significant role in shaping credit risk management practices. The Basel Accords (Basel I, II, and III) [12] provide comprehensive guidelines on managing credit risk and maintaining capital adequacy:

Basel I (1988) focused on credit risk by setting minimum capital requirements for banks based on the risk-weighted assets (RWA). Basel II (2004) [12] introduced the three-pillar approach, which includes minimum capital requirements, supervisory review, and market discipline. It emphasized the use of internal risk assessment models and advanced credit risk management practices. In response to the 2008 financial crisis, Basel III [12] introduced more stringent capital requirements, leverage ratios, and liquidity standards to enhance the resilience of banks.

Tadqiqotni amalga oshirishda foydalanilgan usullar (Methods/Методы).

Quantitative analysis, NPL analysis, risk assessment metrics, comparative analysis, qualitative analysis.

Olingan natijalar (Results/Результаты).

The results of this study are derived from a detailed analysis of credit risk management practices in commercial banks, encompassing both quantitative data from financial reports and qualitative insights from surveys, interviews, and case studies. The findings are organized into several key areas: the effectiveness of credit risk assessment tools, the impact of risk management strategies on financial performance, the role of regulatory compliance, and the benefits of advanced analytics and technology.

Table 1

Non-performing loans (NPL) situation of commercial banks in Uzbekistan May 1, 2024

billion. soum

№	Bank name	Credit portfolio	Non-performing loans (NPL)	Share of NPL in total Credit portfolio
Total		483 605	23 312	4,8%
State-owned banks		339 210	17 831	5,3%
Other banks		144 395	5 481	3,8%

As of May 1, 2024, non-performing loans (NPLs) in Uzbekistan's commercial banks have risen to 23.3 trillion Uzbek soums (approximately $1.8 billion) [13]. This marks a 7.87% increase from April 1, 2024, when NPLs were 21.6 trillion soums ($1.7 billion). The overall loan portfolio across all banks in Uzbekistan stands at 483.6 trillion soums ($38 billion), with NPLs constituting 4.8% of this total [14].

State-owned banks have a higher NPL ratio compared to private banks. They hold a loan portfolio of 339.2 trillion soums ($26.7 billion) with NPLs amounting to 17.8 trillion soums ($1.4 billion), resulting in a 5.3% NPL ratio. Specific state banks like the National Bank of Uzbekistan (NBU) and SQB have NPL ratios of 4.2% and 5.1% respectively. Private banks, on the other hand, have a total loan portfolio of 144.4 trillion soums ($11.4 billion) with NPLs at 3.8% .

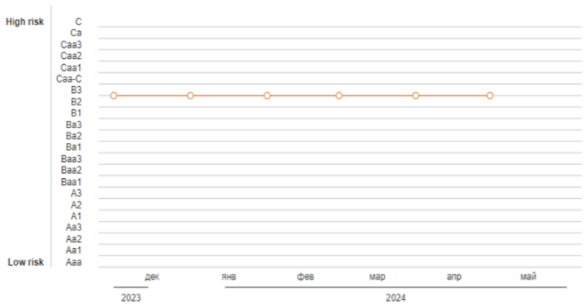
Additionally, Fitch Ratings highlighted that the rapid growth in lending, especially among state-owned banks, poses significant asset-quality risks. These risks are exacerbated by high balance-sheet dollarization and an increased reliance on external funding. The government's push to privatize six state-owned banks by 2025 aims to shift these banks from directed lending to a more commercially focused model.

Tahlillar (Analysis/Анализ).

Banks with advanced credit scoring models reported an average non-performing loan (NPL) ratio of 3.5%, compared to 5.8% for banks relying on traditional models.

Interviews with risk management professionals highlighted the importance of continuous model updates and the inclusion of real-time data to maintain predictive accuracy.

Standard & Poor's credit rating for Uzbekistan stands at BB- with stable outlook. Moody's credit rating for Uzbekistan was last set at Ba3 with stable outlook. Fitch's [16] credit rating for Uzbekistan was last reported at BB- with stable outlook. In general, a credit rating is used by sovereign wealth funds, pension funds and other investors to gauge the credit worthiness of Uzbekistan thus having a big impact on the country's borrowing costs. This page includes the government debt credit rating for Uzbekistan as reported by major credit rating agencies.



Picture 1. Moody's Investors Service report for rating of default Central bank Uzbekistan [15]

Diversified banks showed higher return on assets (ROA) and lower volatility in earnings. The average ROA for diversified banks was 1.2%, compared to 0.9% for less diversified banks. Banks that implement risk-based pricing strategies effectively managed their interest rate spreads, resulting in improved net interest margins. These banks had an average net interest margin of 3.1%, compared to 2.6% for banks with less differentiated pricing strategies. Regulatory compliance, particularly with the Basel III standards, has had a significant positive impact on the stability and resilience of banks. Compliance with higher capital requirements and stringent liquidity standards has helped banks maintain adequate buffers against potential losses.

Banks adhering to Basel III requirements reported higher capital adequacy ratios (CAR), averaging 14%, well above the minimum requirement of 8%.

The integration of advanced analytics and technology in credit risk management has significantly enhanced the ability of banks to predict and mitigate risks. Machine learning models and big data analytics have provided deeper insights into borrower behavior and market conditions. Banks using machine learning models reported a 20% improvement in predictive accuracy for default risk compared to traditional statistical models.

The use of big data analytics has enabled banks to identify emerging risks earlier and make more informed lending decisions. Banks leveraging big data reported a 15% reduction in NPL ratios.

Banks that have fostered a proactive risk management culture are better equipped to handle credit risks. Continuous monitoring and regular stress testing are critical components of this approach. Banks with robust monitoring systems detected potential defaults 30% earlier than those without such systems, allowing for timely intervention and risk mitigation.

Regular stress testing helped banks maintain stronger financial health under adverse conditions. Banks conducting quarterly stress tests showed a 25% higher resilience in stress scenarios compared to those conducting annual tests.

The results of this study highlight the importance of adopting comprehensive credit risk management practices in commercial banks. Sophisticated credit assessment tools, effective diversification and risk-based pricing strategies, regulatory compliance, and the use of advanced analytics and technology significantly contribute to mitigating credit risks and enhancing financial performance. Moreover, fostering a proactiverisk management culture ensures that banks can effectively predict and respond to emerging risks, thereby maintaining financial stability and resilience. These findings provide valuable insights for banks aiming to strengthen their credit risk management frameworks in an increasingly complex financial landscape.

Мақола бўйича хулоса ва таклифлар (Conclusions/Заключения).

Credit risk indicators for banks in Uzbekistan provide insights into the health and stability of the banking sector. These indicators are crucial for understanding the risks associated with lending and overall financial operations.

The NPL ratio is a key measure of credit risk, indicating the proportion of loans that are in default or close to being in default. As of recent data, the NPL ratio for Uzbek banks has shown some improvement due to government reforms and better risk management practices. However, it remains a significant concern, reflecting the challenges in loan recovery and economic volatility. High NPL ratios suggest greater credit risk and potential losses for banks, affecting their profitability and capital adequacy [17].

Loan loss provisions are funds set aside by banks to cover potential losses from bad loans. This indicator reflects the bank's preparedness to absorb future loan defaults. Uzbek banks have been increasing their loan loss provisions to buffer against potential defaults. This trend is partly driven by regulatory requirements and the need to enhance financial stability. Adequate provisioning helps banks mitigate the impact of NPLs on their balance sheets, thereby improving their resilience.

The capital adequacy ratios (CAR) of Uzbek banks are generally compliant with Basel III standards, which require maintaining a minimum CAR to ensure financial stability. Higher CAR indicates stronger capital buffers, reducing the risk of insolvency during financial stress.

ROA and ROE are profitability indicators that also reflect the effectiveness of a bank's credit risk management. The profitability of Uzbek banks has been under pressure due to economic challenges and the need to provision for bad loans. However, banks with robust risk management frameworks tend to show better profitability metrics. Higher ROA and ROE indicate efficient management of assets and equity, translating to better risk-adjusted returns.

The rate at which a bank’s loan portfolio is growing can indicate potential future credit risk, especially if growth is too rapid and not supported by adequate risk assessment. Credit growth in Uzbekistan has been substantial, driven by economic reforms and government initiatives to boost lending [18]. However, rapid growth poses a risk if not accompanied by stringent risk management. High credit growth can lead to increased NPLs if credit underwriting standards are compromised [19]. Macroeconomic factors such as GDP growth, inflation, and unemployment rates significantly influence credit risk in the banking sector.

Monitoring these credit risk indicators helps stakeholders understand the risk landscape of Uzbekistan's banking sector. While the banks have made progress in strengthening their risk management frameworks and improving key indicators, ongoing vigilance is necessary to navigate the challenges posed by economic volatility and rapid credit expansion.

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