4. Aktuar salohiyatni kuchaytirish: Murakkab stoxastik modellarni tatbiq etish uchun xalqaro malakaga ega aktuar-tahlilchilar rolini oshirish hamda ta'lim integratsiyasini kengaytirish muhim ahamiyat kasb etadi.

Foydalanilgan adabiyotlar ro‘yxati

1. Artzner, P., Delbaen, F., Eber, J. M., & Heath, D. (1999). Coherent measures of risk. *Mathematical Finance, 9*(3), 203–228.
2. Cummins, J. D., & Phillips, R. D. (2005). Estimating the cost of equity capital for property-liability insurers. *Journal of Risk and Insurance, 72*(3), 441–478.
3. Jorion, P. (1997). *Value at risk: The new benchmark for controlling market risk*. McGraw-Hill.
4. Rockafellar, R. T., & Uryasev, S. (2000). Optimization of conditional value-at-risk. *Journal of Risk, 2*(3), 21–42.
5. Sandström, A. (2006). *Solvency: Models, assessment and regulation*. Chapman and Hall/CRC.
6. Шахов, В. В. (2003). *Страхование: Учебник для вузов*. ЮНИТИ-ДАНА.
7. O‘zbekiston Respublikasi Istiqbolli loyihalar milliy agentligi (NAPP). (2024). *O‘zbekiston Respublikasi sug‘urta bozorining asosiy ko‘rsatkichlari va moliyaviy barqarorlik sharhi*. https://napp.uz/

CREDIT RISK AND INTERNAL AUDIT IN REDUCING NON-PERFORMING LOANS IN UZBEKISTAN

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Annotation: This paper examines mechanisms for reducing non-performing loans (NPLs) in the commercial banks of Uzbekistan through credit risk management and a more effective internal audit. Using Central Bank and Accounts Chamber data for 2024–2026, the study shows that the NPL ratio fell from 4.0% (1 January 2025) to 2.99% (end of 2025) but rose again to 3.8% by 1 October 2026, with state-owned banks now holding the higher ratio. A seven-stage model that embeds internal audit in every stage of the credit process is proposed, and each proposed mechanism is linked to a measurable performance indicator.

Keywords: commercial banks, credit risk, internal audit, non-performing loans, NPL, loan portfolio, risk management, internal control, digital monitoring

Commercial banks play a key role in financing the economy. Lending is their main source of income and, at the same time, the source of credit risk: the possibility

that a loan will not be repaid on time. The Central Bank's Financial Stability Review for 2025 reports an NPL ratio of 3 percent as of 1 January 2026 and notes that credit risks related to microloans require particular attention [1]. Credit risk management should therefore not be limited to assessing solvency at issuance; it should cover monitoring, internal control, and the recovery of non-performing loans as a single system.

The aim of the study is to examine mechanisms for reducing NPLs in Uzbekistan's commercial banks through credit risk management and improved internal audit effectiveness. The object is the credit operations of commercial banks and the processes of controlling them; the subject is the economic relations related to credit risk management, internal audit, and the reduction of NPLs.

Scientific novelty. Basel principles and IFRS 9 define how credit risk should be identified and provisioned, while internal audit is usually described as an after-the-fact check of documents and reserves. The novelty of this study is a model in which internal audit evaluates the controls at each of seven stages of the credit cycle, and the results of the final stage feed back into lending policy and limits. In addition, each proposed mechanism is tied to a measurable indicator, so its effectiveness can be assessed.

Literature review. The Basel Committee's principles require banks to build a comprehensive system for identifying, assessing, monitoring, and controlling credit risk, integrated into the bank's overall management system rather than left to the lending department alone [2]. IFRS 9 adds a forward-looking approach based on expected credit losses [3]. In Uzbekistan, loan portfolio and NPL indicators of state-owned banks have been analyzed [4], and the audit of banks' financial statements and the classification of bank-specific risk factors have been covered [5]. These works treat assessment, monitoring, audit, and recovery mostly separately, which leaves open how internal audit should be built into the whole credit cycle.

Research methodology. The study is based on secondary data: Central Bank statistics on the loan portfolio and NPLs of commercial banks for seven reporting dates between 1 January 2024 and 1 October 2026, Accounts Chamber audit information (17 September 2025), and published Central Bank reviews. Four methods were applied. Statistical analysis: the NPL ratio, NPL ratio = (non-performing loans / total loan portfolio) × 100%, percentage-point changes, and the growth of NPLs compared with the growth of the portfolio. Comparative analysis: NPL indicators across the seven dates, and state-owned banks versus other banks (1 January 2025, 1 August 2026, 1 October 2026). Systemic analysis: the credit process divided into stages of issuance, monitoring, control, and recovery. Logical generalization: used to formulate the model and recommendations. The effectiveness of internal audit is assessed in five areas: loan documentation, borrower assessment, regularity of monitoring, remediation of deficiencies, and adequacy of loss reserves. A limitation is that bank-level internal audit reports are not public, so conclusions rely on aggregate data.

Analysis and results. As of 1 August 2025, the loan portfolio of commercial banks was UZS 576.247 trillion, NPLs were UZS 22.554 trillion, and the NPL ratio was 3.9 percent [6]. By the end of 2025 the ratio had fallen to 2.99 percent, with

NPLs at UZS 18.1 trillion and the portfolio at UZS 604 trillion [7]. A year earlier, on 1 January 2025, NPLs stood at UZS 21.18 trillion, or 4.0 percent of a UZS 533.12 trillion portfolio [8]. Table 1 shows the full dynamics.

Table 1. Dynamics of NPLs in commercial banks, 2024–2026

Date	NPLs, UZS trillion	NPL ratio, %
1 January 2024	16.62	3.5
1 January 2025	21.18	4.0
1 August 2025	22.55	3.9
1 January 2026	18.1	2.99
1 June 2026	23.6	3.7
1 August 2026	23.93	3.71
1 October 2026	25.04	3.8

Source: compiled by the authors based on [6]–[11].

The trend is not linear. The ratio rose in 2024, fell by about 1 percentage point in 2025, and then rose again. Between 1 January and 1 October 2026, NPLs grew from UZS 18.1 trillion to UZS 25.04 trillion, about 38 percent, while the portfolio grew from UZS 604 trillion to UZS 659.1 trillion, about 9 percent (authors' calculation based on [7], [11]). NPLs are therefore growing much faster than lending, and the 2025 improvement has not proved lasting.

Table 2. NPL ratio in state-owned banks and other banks, %

Date	State-owned banks	Other banks
1 January 2025	3.9	4.1
1 August 2026	3.98	3.2
1 October 2026	3.98	3.47

Source: compiled by the authors based on [8], [10], [11].

In early 2025 the ratio was slightly lower in state-owned banks (3.9 percent) than in other banks (4.1 percent); by October 2026 the position had reversed, with 3.98 percent against 3.47 percent. State-owned banks hold about two-thirds of the portfolio, so their weight in the system's NPLs is large (UZS 16.9 trillion of 25.04 trillion in October 2026) [11]. At the same time, the ratio of other banks is also rising (3.2 to 3.47 percent in two months), and in some banks it is far above average, for example 13.4 percent in TBC Bank and 43.4 percent in Madad Invest Bank [11].

The available data point to several likely drivers of the 2026 growth, although causality cannot be proved with aggregate data. First, rapid growth of microloans to individuals, which rose by 19.1 percent to UZS 48.2 trillion in January–September 2026 [12], in line with the Central Bank's warning about microloan risks [1]. Second, concentration of problem loans in specific institutions: Microcreditbank's ratio reached 11.4 percent [11]. Third, faster expansion of the portfolio of other banks (22.2 percent in 2026) [12], which tends to outpace risk controls. Fourth, weaknesses in control: the Accounts Chamber's remote audit found shortcomings in

the recovery of NPLs, insufficient reserves for probable credit losses, and conflicts of interest in some banks [13].

These findings define the role of internal audit. It must confirm that the borrower's income, liabilities, credit history, collateral, and future cash flows were properly assessed, monitor portfolio risks, establish the causes of overdue debt, and report to management. The audit findings in [13] show that these functions need to be strengthened.

Proposed model and its effectiveness. Traditional inspections alone are no longer sufficient. A seven-stage model integrating credit risk management and internal audit is proposed (Figure 1). Its key feature is that internal audit evaluates the controls at every stage, not only at the end, and the reassessment of results returns to the lending policy.

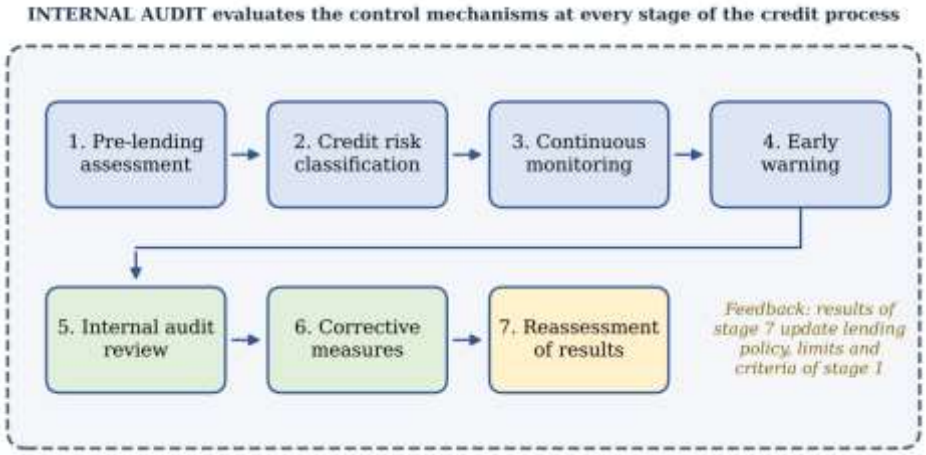

Figure 1. Seven-stage model of credit risk management and internal audit (developed by the authors)

Table 3 links each mechanism to the problem it addresses and to an indicator by which its effect can be measured.

Table 3. Proposed mechanisms, problems addressed, and performance indicators

Mechanism	Problem addressed	Indicator of effectiveness
Risk-based internal audit	Audit resources not focused on high-risk loans and large borrowers	Share of high-risk loans covered by audit; deficiencies found per audited loan
Early warning and digital monitoring	Late detection of deterioration in borrowers' condition	Share of loans flagged before 30 days overdue; rate of migration of loans into NPLs
Audit of loan loss reserves	Insufficient reserves for probable losses [13]	NPL coverage ratio (reserves / NPLs)
Independent control of lending	Conflicts of interest in lending [13]	Number of related-party lending exceptions
Oversight of remediation	Identified deficiencies not eliminated	Share of audit findings closed on time

Portfolio diversification	Concentration in microloans and a few borrowers	Share of top-10 borrowers and of microloans in the portfolio

Source: developed by the authors.

Conclusion

The analysis shows that the decline of the NPL ratio to 2.99 percent at the end of 2025 was not sustained: NPLs grew about 38 percent in the first nine months of 2026, four times faster than the portfolio, and state-owned banks now have the higher ratio. This confirms that credit risk management and internal audit must work as one system from issuance to full repayment.

The expected practical effect of the proposed model is to detect deterioration earlier, to direct audit resources to the riskiest loans, and to ensure that reserves reflect real losses. The target indicator for banks is that NPL growth does not exceed portfolio growth, and that the system ratio returns to the level of about 3 percent reached at the end of 2025. The effect should be verified on bank-level data in further research.

References:

1. Central Bank of the Republic of Uzbekistan. Financial Stability Review for 2025. Tashkent, 2026.
2. Basel Committee on Banking Supervision. Principles for the Management of Credit Risk. Basel: Bank for International Settlements, 2000.
3. IFRS Foundation. IFRS 9 Financial Instruments. London, 2014.
4. Eshboyev Sh. Assessing the state of the loan portfolio and credit risks in commercial banks of Uzbekistan (based on the example of state-owned banks) // Green Economy and Development. – 2026. –
5. Ibragimov N. The essence and specific features of the independent audit of commercial banks' financial statements: classifying risk factors specific to banking activity // Green Economy and Development. – 2026.
6. Central Bank of the Republic of Uzbekistan. Statistical data on non-performing loans (NPLs) of commercial banks. As of 1 August 2025.
7. G'aybullayev, S. (2022). O'ZBEKISTONDA ISTE'MOL SAVATCHASI HOZIRGI HOLATINI VA UNI SHAKILLANTIRISH YO'NALISHLARI
8. G'aybullayev S. The place of the digital economy today //Journal of Academic Research and Trends in Educational Sciences. – 2022. – Т. 1. – №. 11. – С. 116-126.
9. G'aybullayev Sarvar O. et al. O 'ZBEKISTONDA ISTE'MOL SAVATCHASI HOZIRGI HOLATINI VA UNI SHAKILLANTIRISH YO 'NALISHLARI //Talqin va tadqiqotlar ilmiy-uslubiy jurnali. – 2022. – Т. 1. – №. 4. – С. 119-125.
10. G'aybullayev S. THE ROLE OF MARKETING ACTIVITIES IN INCREASING THE POTENTIAL OF TEXTILE ENTERPRISES //Talqin va tadqiqotlar. – 2023. – Т. 1. – №. 7.
11. Sarvar G. AHOLI ISTE'MOL DARAJASI SAMARADORLIGINI IQTISODIY STATISTIK BAHOLASH //International Journal of Contemporary Scientific and Technical Research. – 2023. – С. 130-136.