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AN ANALYSIS OF CURRENT RISK ASSESSMENT PRACTICES IN COMMERCIAL BANKS

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Abstract

Modern banking is based on maintaining an appropriate balance between risk and return. Rather than seeking to eliminate risk entirely, commercial banks aim to identify risks promptly, assess them quantitatively and qualitatively, and accept them within their established risk appetite. Risk assessment is therefore an integral part of lending, asset and liability management, new product development, capital and liquidity planning, and strategic decision-making.

Financial market volatility, the expansion of digital banking services, remote lending, and the implementation of automated decision-making systems are changing both the ways in which banking risks materialise and the speed at which they spread. Alongside credit, liquidity, market, and operational risks, increasing importance is being attached to cyber risk, model risk, data quality issues, and dependence on third-party technology service providers.

Under these conditions, the effectiveness of risk assessment cannot be determined solely by the accuracy of calculations. The timely availability of results, a clear understanding of their economic implications, and their use in practical management decisions are equally important. Accordingly, examining current risk assessment practices in commercial banks, identifying their limitations, and establishing priorities for improvement are matters of considerable relevance.



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Risk assessment and risk management are closely related but conceptually distinct processes. Risk assessment focuses on identifying sources of risk, estimating the likelihood of their occurrence, and determining the magnitude of potential losses. Risk management involves using these assessments to decide whether to accept, limit, mitigate, or transfer a risk, or refrain from undertaking a particular transaction. Risk assessment thus provides the informational and methodological basis for management decisions.

A modern risk assessment process should encompass the collection and verification of relevant data, the identification of risk drivers, quantitative and qualitative analysis, comparison of the results with risk appetite and limits, and assessment of potential outcomes under alternative scenarios. Subsequent monitoring of the outcomes of management decisions makes it possible to evaluate the effectiveness of the approaches applied. Risk assessment should therefore be viewed as a continuously updated process rather than a one-off calculation.

One of the key regulatory foundations for this process in Uzbekistan is the Regulation on Requirements for the Risk Management Systems of Banks and Banking Groups, approved by Resolution No. 4/11 of the Board of the Central Bank dated 7 March 2023 and registered with the Ministry of Justice under No. 3427. The Regulation requires risk appetite to be aligned with a bank's strategy and planning processes, risk limits to be monitored, and breaches to be reported to the relevant governing bodies. It also requires stress testing to be conducted at least annually and its results to be incorporated into capital, liquidity, budget, and strategic planning. [1]

In light of these requirements, linking risk assessment outcomes to day-to-day banking operations is an important methodological task. For example, when the risk associated with a particular product, economic sector, or customer segment



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approaches an approved limit, this should be reflected in the terms of new lending, exposure limits, and monitoring frequency. Otherwise, risk appetite may remain a formal document with little influence on practical decisions.

Credit risk assessment is particularly important for commercial banks. A borrower's failure to meet contractual obligations on time reduces a bank's cash inflows and income, increases provisioning needs, and places pressure on capital and liquidity. Credit risk assessment should therefore extend beyond an examination of the borrower's current financial position and collateral. It should also consider prospective cash flows, debt burden, credit history, account turnover, and developments in the borrower's industry.

Internal credit ratings and scoring models enable banks to classify borrowers by risk level and support lending decisions. Model outputs may inform loan amounts, maturities, pricing, and monitoring requirements. However, a favourable credit score does not guarantee that a borrower will avoid default. It represents a probabilistic assessment derived from a particular set of data and assumptions.

Quantitative credit risk assessment uses parameters such as probability of default (PD), loss given default (LGD), and exposure at default (EAD). The reliability of these parameters depends on data quality, clearly defined default criteria, and an appropriately specified assessment horizon. Moreover, the objectives and assumptions of a model developed for credit origination may differ from those of the estimates used to calculate expected credit losses. These assessments should therefore not be used interchangeably without appropriate adjustments.

Monitoring a credit portfolio solely through the non-performing loan (NPL) ratio is insufficient. This indicator captures adverse developments that have already become evident in credit quality. Early risk identification also requires monitoring short payment delays, restructuring events, declining account



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turnover, increasing debt burdens, and deteriorating credit ratings. Such information enables banks to intensify monitoring and determine appropriate borrower engagement measures before problems become more severe.

Liquidity risk assessment examines a bank's ability to meet its obligations as they fall due. In addition to the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR), this assessment should consider cash flows, maturity mismatches between assets and liabilities, and dependence on major funding sources. Strong aggregate ratios do not guarantee that a funding shortfall will not arise in a particular currency or time bucket.

Market risk assessment examines how changes in exchange rates, interest rates, and financial instrument prices affect a bank's earnings and asset values. This analysis may be supported by assessments of open foreign exchange positions and sensitivity to price movements. Operational risk assessment, in turn, focuses on potential losses arising from internal processes, human actions, information systems, and external events. In addition to assessing these risks individually, banks need to examine their interactions.

According to the Central Bank's Financial Stability Review for 2025, as of 1 January 2026, the banking system's total regulatory capital adequacy ratio stood at 18.3%, while non-performing loans accounted for 3% of total loans. At the same time, the macro stress test presented in the review indicates that capital ratios could decline substantially under an adverse scenario. [2]

The principal analytical implication is that a bank's current financial position should not be equated with its resilience to future shocks. Similarly, aggregate banking system indicators do not fully reveal the risks within individual banks or portfolio segments. Stress test results should be interpreted as estimates of potential outcomes under specified adverse assumptions, rather than as predictions of inevitable developments.



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Risk assessment should therefore incorporate adverse scenarios tailored to a bank's risk profile alongside a baseline scenario. Slower economic growth, exchange rate movements, rising interest rates, or declining asset prices may affect credit losses, earnings, and liquidity simultaneously. Scenario analysis should integrate these effects and help determine the management actions and additional resources that may be required.

Digital technologies expand the scope for collecting and processing risk data promptly and detecting adverse developments at an early stage. Integrating information from credit bureaus, bank accounts, card transactions, tax records, and payment histories can provide a more comprehensive assessment of a borrower's financial position. However, a greater volume of data does not necessarily imply higher quality or reliability. Data refresh frequency, completeness, and consistency of customer identifiers require separate controls. Artificial intelligence and machine learning algorithms can be used to identify complex relationships within large datasets. They may improve the prediction of credit default, fraud, or deterioration in a customer's financial position. Nevertheless, algorithmic complexity does not in itself demonstrate superiority over a simpler model. Model selection should take account of predictive performance, interpretability, stability, and the feasibility of effective monitoring in practice.

The Basel Committee on Banking Supervision's report on the digitalisation of finance examines both the benefits of new technologies and the challenges associated with dependence on technology service providers and banking supervision. [3] From this perspective, assessments of digitalisation should extend beyond faster transaction processing to consider service continuity, information security, and the consequences of disruptions at third-party providers.



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Assessing cyber risk and digital fraud is particularly important in the provision of remote banking services. Unauthorised access, disclosure of customer information, or disruption of payment services may cause direct financial losses and undermine customer trust. Assessment should therefore consider not only incident frequency but also the scale of potential losses, the time required to restore critical processes, and the effectiveness of existing controls.

As the use of credit scoring, internal rating, and fraud detection models expands, the need for model risk management also increases. Model risk may arise from inaccurate data, unsupported assumptions, algorithmic errors, inappropriate calibration, or the use of model outputs beyond their intended scope. Changes in customer composition, product terms, and economic conditions may weaken the predictive performance of a previously effective model.

Banks should therefore maintain a centralised model inventory and define an accountable owner, intended purpose, and limitations for each model. Model development and independent validation responsibilities should be separated, while monitoring findings should inform decisions on recalibration or replacement. The frequency of oversight should be proportionate to the model's risk level and its influence on banking decisions.

Monitoring metrics should be selected according to the model's purpose. In credit scoring, for example, the Gini coefficient, area under the receiver operating characteristic curve (AUC), and Kolmogorov–Smirnov (KS) statistic assess the model's ability to discriminate between borrowers with different risk levels. Calibration analysis evaluates the consistency of predicted default probabilities with observed outcomes. The population stability index (PSI) and characteristic stability index (CSI) identify changes in data distributions; however, stable values do not, on their own, establish that predictive performance has been maintained.



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Several potential constraints should be considered when improving risk assessment practices. In the absence of bank-level empirical investigation, these should be treated as areas requiring internal review rather than as confirmed deficiencies common to all banks.

First, fragmented data and data quality problems may limit assessment reliability. The storage of credit, deposit, card, and accounting information in separate systems makes it difficult to establish a unified customer risk profile. Addressing this issue requires not only data integration but also consistent definitions, identifiers, and quality control rules.

Second, excessive reliance on lagging indicators may weaken the ability to identify emerging risks. Early warning indicators should do more than appear in reports: each signal should be linked to an accountable officer or unit, a review deadline, and an appropriate course of action. Otherwise, the number of alerts may increase without producing a corresponding improvement in risk management.

Third, a disconnect may exist between risk appetite and operational decisions. Addressing this requires translating portfolio-level constraints into limits for products, sectors, and customer segments and embedding them in lending workflows. Separate response procedures should be established for situations in which limits are approached and those in which they are breached.

Fourth, model oversight and the assessment of interactions among risks may be insufficient. Independent validation, documentation of model changes, and integrated stress testing can help address these limitations. Clear allocation of responsibilities and accountability among risk management, data analytics, and information technology functions is also essential.

The outcomes of these improvements should be evaluated using practical criteria. These may include a lower incidence of data errors, shorter response times to risk



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alerts, timely corrective action following limit breaches, and closer alignment between model predictions and observed outcomes. The success of digitalisation should therefore be measured by improvements in risk identification and management quality, rather than simply by the number of software solutions implemented.

Overall, the development of risk assessment practices in commercial banks should combine the analysis of current indicators with forward-looking assessment of potential adverse developments. Digital technologies expand these capabilities, but their effectiveness depends on data quality, model reliability, and sound controls. Risk assessment contributes to financial stability when its results are closely integrated with credit policy, risk appetite, capital and liquidity planning, and day-to-day management decisions.

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