



## Monitoring System and Instruments for Risk Management in Commercial Banks

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### **Abstract**

As social practice shows, shortcomings in the system of management and control of the banking system can cause not only a worsening of the crisis state of the country's banking system but also the emergence of a systemic crisis at the national level due to the transfer of financial resources to other segments. In particular, as a result of allowing an unreasonable increase in the amount of non-performing loans (NPL) in the case of NPL in the case of loans from developed countries, US commercial banks and mortgage organizations led to a sharp increase in the number of non-performing loans in the group of unsecured borrowers, a sharp decrease in the investment attractiveness of mortgage securities on a financial basis, and the global financial and economic crisis has led to its expansion around the world. In the course of the study, the effective organization and implementation of the “monitoring of a bank account” activity, which is an integral part of the activity of a bank account, as well as the scientific and theoretical foundations of the concept of “bank account” were studied scientifically and conceptually.

**Keywords:** *Economic Risk; Risk Appetite; Risk Limits; Liquidity Risk Management; Stress Test*

### **Introduction**

Currently, in ensuring the financial stability of financial institutions, including commercial banks, the main attention is paid to risk analysis, systematization of these risks according to the results of risk monitoring, and elimination of the factors that cause them.

In the world, there are cases of the financial system facing a crisis at a certain time. But, even in the absence of a crisis, the extraordinary growth of loans over the past 20 years has led to an increase in non-performing loans (NPLs). This can put the economy at risk. If the problem is not solved, the growth of problem assets can even reach critical levels, which in turn can reduce the rate of economic growth and increase unemployment. According to the World Bank, “problem assets in 2019 were 9.3 percent in the Russian Federation, 0.9 percent in the United States, 5 percent in Turkey, 1.1 percent in Great Britain, 1.3 percent in Germany, 1.9 percent in China, 9.5 percent in Kazakhstan percent, and in Ukraine, it is 48.4 percent”. As can be seen from these data, accounting and auditing of problem assets in the banking system in the world today is of particular importance and is considered one of the most urgent issues.

## **Literature Review**

It should be noted separately that the category of “risk” is closely related to banking activity. However, we have seen that although the above-mentioned rates and comments on the concept of risks are related to bank risks, they do not fully reflect the content of this concept.

In addition, it should be noted that the report and relevant document of the Basel Committee on Banking Supervision paid great attention to banking risks in various forms. However, the definition of “risk” is not clearly defined here.

The bank risk is that the credit organization will suffer damage due to negative events related to internal factors (complexity of the organizational structure, skill level of employees, organizational changes, employee turnover, etc.) and external factors (changes in the economic situation of the credit institution, used technologies, etc.) and refers to a specific feature of the bank's activity associated with the deterioration of its liquidity.

Based on the general interpretation of the concept of “monitoring”, we will consider the content of this category within the framework of its specific features regarding “bank risks”.

In this sense, it can be seen that the “risk monitoring systems” used and developed in the USA in the 60s of the last century are based on the collection of historical data on the activity of banks, their analysis, and the identification of current trends regarding existing changes. After this period, that is, in the 1980s, in the process of monitoring risks in banks, primary warning about risk and countermeasures, empirical and pre-calculated analytical, quantitative and qualitative characteristics began to be used more widely. Nowadays, modern trends in risk monitoring focus on applying this mechanism to the application of the “do factum” system rather than the “post factum” system in determining the risks arising in the financial activities of banks.

It can be seen from the research that the scientific views in the field of modern banking and finance, the existing stated theories, there are several approaches related to the context of risk monitoring in banks, which are as follows:

- monitoring of banks activity is manifested as an information-analysis system;
- monitoring reflects the current form of control;
- through monitoring, it is considered as a means of “diagnosing” the current state of risks in financial activities in banks.

According to the above-mentioned bank risk monitoring approaches, the third approach can be evaluated as an integrative approach. Such opinions can be seen in the following research results of scientists such as T.Barton and G.Kaminsky, S.Lizondo, K.Reichart:

- monitoring based on a certain system of risk indicators;
- consider risk monitoring as a complex integrative system that does not correspond to any stages of the risk management process;
- defining the process of “monitoring” as a type of independent control, it is a mechanism for diagnosing the state of risk based on its parameters and its main characteristics.

## **Data Source and Research Methodology**

Analysis and synthesis, scientific abstraction deduction, classification, generalization, comparative, theoretical interpretation, and analytical methods were used in the methodology of this

article. The information used in the article is mainly obtained through two sources: the official web pages of the Central bank of the Republic of Uzbekistan and commercial banks.

### **Discussion**

The purpose of risk management and monitoring in the bank is defined as the creation of appropriate conditions for taking risks wisely and eliminating risks arising during the banking activity under legal requirements, and the expectations of bank shareholders and investors. The bank sequentially implements risk appetite management measures based on the structure of decision-making on risk reduction, identification and discussion of risk appetite indicators, and risk profile indicators, which consist of interrelated stages.

<b>Risk appetite</b>	Based on its goals and strategic plans, the bank determines the amount of risk it will accept
<b>Acceptance of risk</b>	Acceptance of the maximum level of risk that the bank can absorb
<b>Target risk profile</b>	Establishing risk limits
<b>Current risk profile</b>	Current situation

Figure 1. The process of developing and managing risk appetite

Liquidity risk is the risk that arises as a result of not being able to fulfill obligations on time, regarding the current or projected financial condition and stability. Liquidity risk also occurs due to failure to recognize or take into account changes in market conditions, adversely affecting the bank's ability to convert its assets into cash quickly and with minimal losses.

The main objectives of liquidity risk management are:

- a creation of an organizational structure for liquidity risk management;
- determining the liquidity risk management strategy and limits of risk appetite indicators;
- proper and effective management of assets and liabilities;
- market conditions, risks, liquidity buffer

And continuous monitoring of usage limits;

- review on a collegial basis the conclusion of large transactions that may change the liquidity risk profile;
- drawing up an emergency plan in case of stress test results and market risk limit violations;
- ensuring compliance with prudential limits.

Based on the above, it can be said that liquidity risk management and monitoring, which is considered important by commercial banks, consists of the following elements (Figure 2).



Figure 2. Elements of effective liquidity risk management and monitoring in commercial banks

Operational liquidity management is a continuous assessment of the bank's current and expected demand for funds and taking measures to ensure that sufficient funds or such funds can be obtained to meet these requirements when necessary.

Emergency liquidity management is the creation of a sufficient "cushion" to meet the unexpected cash flow requirements arising from the occurrence of high probability and low impact events, which are low probability and high impact events that may occur in day-to-day operations, which in rare cases can significantly reduce the safety and resilience of the bank.

### Findings

Currently, like many commercial banks, Uzsanotkurilishbank JSCB is paying special attention to the management and monitoring of the liquidity risk that occurs during banking activity. In particular, the integrated monitoring process related to the identification, assessment, and effective management of this risk consists of the Bank's Supervisory Board, Risk Control Committee, Bank Management, Assets and Liabilities Management Committee, Treasury, Accounting and Financial Management, Risk Management and Compliance Control Departments, based on a pyramidal structure.



Figure 3. The pyramidal structure of liquidity risk management and monitoring (in the case of Uzsanotkurilishbank ATB)

Of course, the above structure is not considered to have a general standard appearance. Each commercial bank uses its own approaches to risk management and monitoring. In particular, every commercial bank revises strategies and policies for risk (risk) management and monitoring and develops and implements policies for managing risks such as liquidity, operational, and market, taking into account transformational processes.

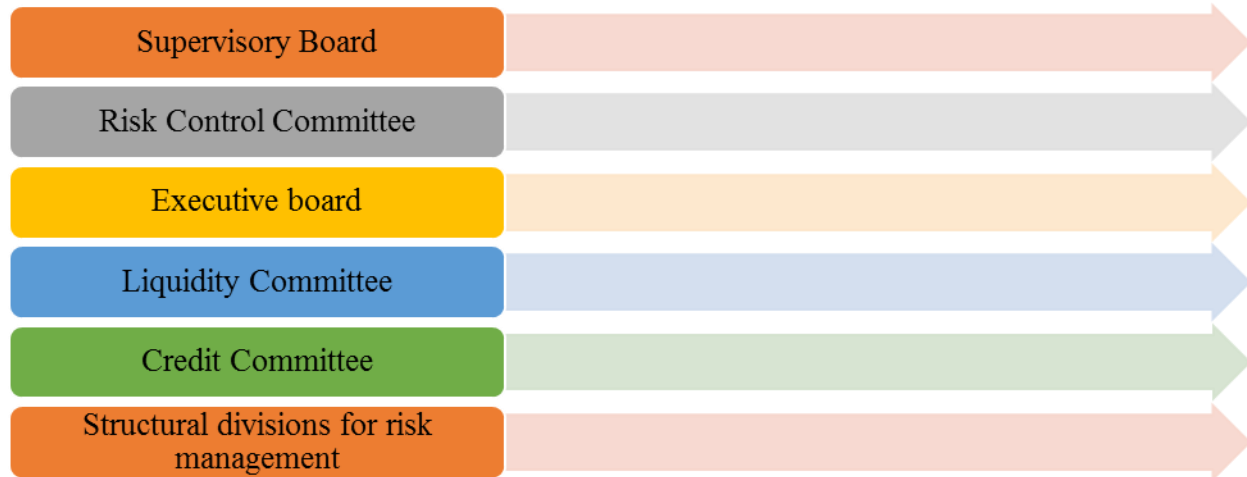


Figure 4. Risk management system in the bank

Special attention is paid to the following:

- 1) taking appropriate measures to identify, prevent and eliminate the factors affecting the decline of the bank's financial position by regularly stress-testing the bank's liquidity positions based on a single method;
- 2) implementation of the new recommendations of the Basel Committee, which envisages wide use of SWOT, GAP analyses, strengthening of requirements for capital adequacy, and formation of reserves for possible losses based on the model of expected losses. Following the international Basel-II requirements, commercial banks should be exposed to a risk of more than 100 percent by total assets (Table 1).

Table 1. Assets subject to the highest risk according to Basel-II requirements

№	Assets	Level of risk-taking
1.	Requirements for countries with a rating below B, government institutions, banks, as well as securities firms	150 %
2.	Requirements for legal entities with a rating lower than B	150 %
3.	Non-performing loans with special reserves of less than 20% of the outstanding loan portion	150 %
4.	National regulatory authorities risk capital investments and private equity investments	150 %
5.	Securitization tranches rated BB+ to BB-	350 %

Based on the above, it is advisable to implement the following in order to apply the standards set by the International Basel Committee on assets at risk:

- compliance with the requirements of the International Basel Committee in diversifying the capital structure of commercial banks;
- “upgrade” in the sovereign credit rating provided by international rating organizations;

- developing determination of local credit ratings and ensuring their transparency, taking into account the recommendations of international credit rating agencies and aspects taken into account by them;
  - taking into account possible market and operational risks when determining the regulatory requirements for the total capital of commercial banks.
- 3) creation of an accurate assessment system for identifying and managing existing risks in the bank;
  - 4) improvement of corporate management methods, including methods of improving risk management and internal control, based on an in-depth study of the management organization system in leading foreign banks and financial institutions;
  - 5) to increase their responsibility for the timely and full repayment of loans allocated by branches and to strengthen remote monitoring, at the same time, to widely establish mechanisms for assessing credit risk, its impact on the bank's capital and overall financial stability, and to ensure the use of insurance mechanisms in risk management;
  - 6) to strengthen the monitoring of the credit portfolio and to introduce the practice of programmatic analysis of the occurrence of problematic credit debts and the ability of customers to service the credit, and to take measures to extinguish loans that are likely to become a problem before their due date;
  - 7) expansion of the system of credit allocation by analyzing their credit history when lending to clients, in particular, the introduction of programmatic implementation of this process;
  - 8) control the creation of reserves for possible losses of bank assets. Anticipating possible losses on bad loans and making sufficient reserves;
  - 9) improvement of the operational risk management system of loan officers using software to change loan interest rates and graphs to clients by bank branches or to implement project financing without fully formed loan documents;
  - 10) Improvement of the credit policy, credit risk assessment and management system, determination of loan and deposit percentages and repayment periods based on banks' liquidity;
  - 11) strict adherence to the approved loan repayment schedules, taking measures to prevent overdue debts; taking effective measures to improve the structure of bank assets and the state of the loan portfolio, as well as reducing the share of non-performing loans issued in foreign currency, from the point of view of protecting the interests of bank shareholders;
  - 12) strict adherence to loan repayment terms and approved schedules, taking all necessary measures to prevent loan debtors from incurring overdue debts, setting loan terms and interest rates based on the bank's solvency, and practicing lending for loss-making organization's termination and management.

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