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Credit risk management in commercial banks

Abstract. *Development of the banking sector in Kazakhstan is characterized by a rapid pace. This growth is combined with increased competition, access to foreign markets, and the birth of new banking products. Most banking services fall on credit activities. In this regard, it is relevant to build an effective risk management of the loan portfolio. The purpose of the study is to develop proposals for improving the management of credit risks in the banking sector. The research methodology is based on the use of such methods as generalization, statistical methods, comparative analysis and statistical method.*

The authors analyzed the loan portfolio of the banking segment and based on this, conclusions and suggestions were made to improve the quality of lending. It is noted that over the past few years there has been a tendency to increase loans to individuals in the structure of the loan portfolio. The article outlines a number of proposals aimed at improving and enhancing the quality of credit risk management in the current economic conditions.

Keywords: *bank, credit risk, loan portfolio, portfolio approach, overdue debt, credit policy, retail lending.*

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Introduction. Commercial banks pursue optimal values of risk and profitability. Success lies in the designation of the reasonableness of the risks taken, their assessment and subsequent possible management. Relevance of this problem for Kazakhstani banks is due to fierce competition in the market and the introduction of risk-based supervision to control second-tier banks, which includes supervisory stress testing. Banks, regardless of their current state, should work out orderly certain action plans and implement them in the situation of various kinds of negative scenarios. The main activity of the bank, which brings substantial income, is lending to the economy. Therefore, banks' credit risks occupy the largest share and special attention.

According to the Resolution of the National Bank of the Republic of Kazakhstan, the bank ensures the availability of an effective credit risk management system that corresponds to the present market condition, strategy, amount of assets, level of difficulty of the bank's operations and ensures effective identification, dimension, monitoring and control of the bank's credit risk to ensure the sufficiency of equity to cover it [1].

Therefore, the purpose of the study is to consider the nature and classification of credit risks, evaluate the effectiveness of credit risk management in the STB RK and develop recommendations for its improvement.

The information basis was the textbooks of G.S. Seitkasimov, O.I. Lavrushina, N.I. Valentseva, publications in scientific journals and the Internet. The data of the National Bank of the Republic of Kazakhstan and the Agency for Regulation and Development of the Financial Market were also used.

Methodology. The following general scientific research methods were used in this study: generalization, statistical methods, comparative analysis. A statistical method was used to analyze the dynamics of assets and loan portfolio of banks in Kazakhstan. To assess the current state of the loan portfolio of the banking sector, a comparative analysis method was used.

Discussion. The concept of risk for everyone is associated with a loss that can lead to a damage. But for banks, due to the specifics of their products and operations, this is an integral and necessary part of their work. The specifics are determined by the case that the bank's capital consists of borrowed funds. However, bank risk is defined as a property not inherent in the bank internally, namely an activity that can cause a negative result [2].

Credit risk is the risk of losses incurred by a credit institution because of non-fulfillment, incomplete or untimely fulfillment by the debtor of financial obligations to the credit institution in accordance with contractual terms [3].

A characteristic feature of credit risk is that the source of its occurrence is not only the activities of credit organizations, but also the work of economic entities in the real segment of the economy. Hence, on the part of the business entity, the risk of losses because of the borrower's non-repayment of the amount of borrowed funds or non-repayment of interest on the debt is defined as credit risk [4].

To accessibility, efficiency, sustainability, and reproducibility of the credit risk management procedure, it is necessary to combine the flows of information about credit risks into certain groups. The main criteria for the classification of credit risk are its factors. Depending on the scope of the factors, credit risks are divided into internal and external ones. Also, considering the connection of factors with banking activity there are credit risks dependent and independent of banking activity. Meanwhile, credit risks dependent on banking activity, in accordance with its scale, are divided into:

- Fundamental credit risks. These are the risks associated with decision-making by management managers;
- Commercial credit risks. These include risks associated with credit policy in relation to individuals, legal entities, and small businesses;
- Individual credit risks imply the risk of a credit transaction, product and borrower risk;
- Total credit risks or credit portfolio risks [2].

The use of a portfolio approach to the bank's credit management helps to maximize the income from credit investments and minimize credit risk at the identical time. The loan portfolio is explained because of the bank's credit operations. The loan portfolio is considered most fully from the observation point of two aspects: qualitative and quantitative characteristics. The first characteristics presents the systematization of credit investments according to the established criteria. The other characteristics discloses general information about the loans being placed, the composition and structure of credit investments [5].

In addition, this category of risks can be divided into risks for corporate and retail customers, mortgage, consumer, etc. based on the type of loans of a particular bank.

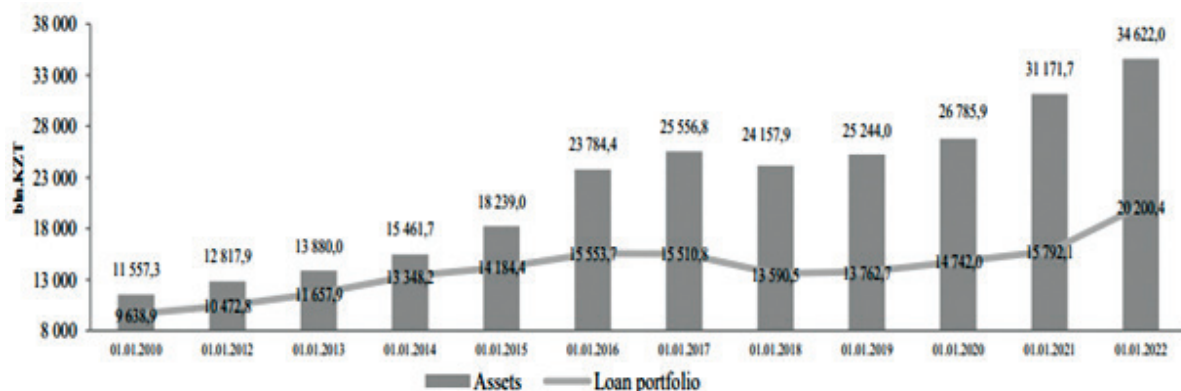
At the same moment, it is significant to indicate that credit risk management consists in creating a mechanism to provide an optimized ratio between the level of accepted risks and the profitability of banking activities, which are built on the principle of break-even transactions.

The elements of building a credit risk management system are:

- The process of identifying risk;
- Risk measurement;
- Risk control and monitoring [2].

The following credit risk management methods are generally utilized, such as analysis of the credit quality and solvency of the client, identification of the debtor's creditworthiness rating, hedging of currency risks, reservation to cover damages, stress testing of the loan portfolio, monitoring of limits and regulatory conditions. According to the authors, an effective credit risk management model contains a detailed history of credit transactions at all stages of lending, the introduction of special management tools to prevent negative consequences of credit transactions, the formation of an effective lending system.

Results. As of January 1, 2022, the country's banking segment is comprised by twenty-two second-tier banks, including fourteen banks with foreign participation, of which eleven subsidiary banks and one bank with 100% state participation. At the beginning of this year, the assets of the country's second-tier banks totaled 37,622 billion tenge, which raised by 20.7% compared to the beginning of 2021 [6]. It is essential to consider the dynamics and the relation of assets and credit portfolio of STB (Figure 1).



Note: Compiled by the authors according to the data [6].

Figure 1 – Movements of assets and credit portfolio of STB RK

Judging by Figure 1, a significant part of the banking sector's asset structure is occupied by a loan portfolio in the amount of KZT 20,200.4 billion, or 51.6% of total assets. Compared to the beginning of 2021, this indicator increased by 4,408.3 billion KZT or by 27.9%.

For understanding the reason for the growth of loan amounts and evaluate the effectiveness of the credit risk management system, it is necessary to analyze the quality of the loan portfolio of the banking sector of the Republic of Kazakhstan over the past 3 years, Table 1.

Table 1 – The quality of the credit portfolio of the banking segment of Kazakhstan

| | on 01.01.2019 | | on 01.01.2020 | | on 01.01.2021 | | on 01.01.2022 | |
|--|---------------|------|---------------|------|---------------|------|---------------|------|
| | billion tng. | % | billion tng. | % | billion tng. | % | billion tng. | % |
| Loans for which there is no overdue debt | 11 766,3 | 85,5 | 12 936,8 | 87,7 | 14 263,3 | 90,3 | 19 136,5 | 94,7 |
| Loans with overdue debts from 1 to 30 days | 504,8 | 3,7 | 405,8 | 2,8 | 265,0 | 1,7 | 264,8 | 1,3 |
| Loans with overdue debts from 31 to 60 days | 350,0 | 2,5 | 81,6 | 0,6 | 105,9 | 0,7 | 82,8 | 0,4 |
| Loans with overdue debts from 61 to 90 days | 125,3 | 0,9 | 118,7 | 0,8 | 75,7 | 0,5 | 47,4 | 0,2 |
| Loans with overdue debts over 90 days | 1 016,3 | 7,4 | 1 200,1 | 8,1 | 1 082,1 | 6,8 | 668,8 | 3,3 |
| Provisions under IFRS | 1 776,6 | 12,9 | 1 979,6 | 13,4 | 1 830,8 | 11,6 | 1 406,8 | 7,0 |
| Provisions for loans with overdue debts over 90 days | 762,8 | 5,5 | 948,6 | 6,4 | 840,8 | 5,3 | 494,2 | 2,4 |
| Loan portfolio | 13 762,7 | 100 | 14 743,0 | 100 | 15 792,1 | 100 | 20 200,4 | 100 |

Note: Compiled by the authors according to the data [7].

According to Table 1, the loan portfolio of the banking segment as of January 1, 2022 amounted to 20,200.4 billion tenge, from 2019 to 2021 increased from 13,762.7 billion tenge to 15,792.1 billion tenge. The indicator of 2022 in comparison with 2019 increased by 6,437.7 billion tenge, and in comparison with 2021 increased by 4,408.3 billion tenge.

Loans for which there is no overdue debt have increased in 2022 by 7,370.2 billion tenge or 9.2% in the structure of the credit portfolio since 2019 and amount to 19,136.5 billion tenge or 94.7% of the credit portfolio.

At the same time, loans with overdue debts from 1 to 30 days, amounting to 264.8 billion tenge in 2022, decreased by 240 billion tenge in comparison with 2019, and decreased by 0.2 billion tenge in comparison with 2021.

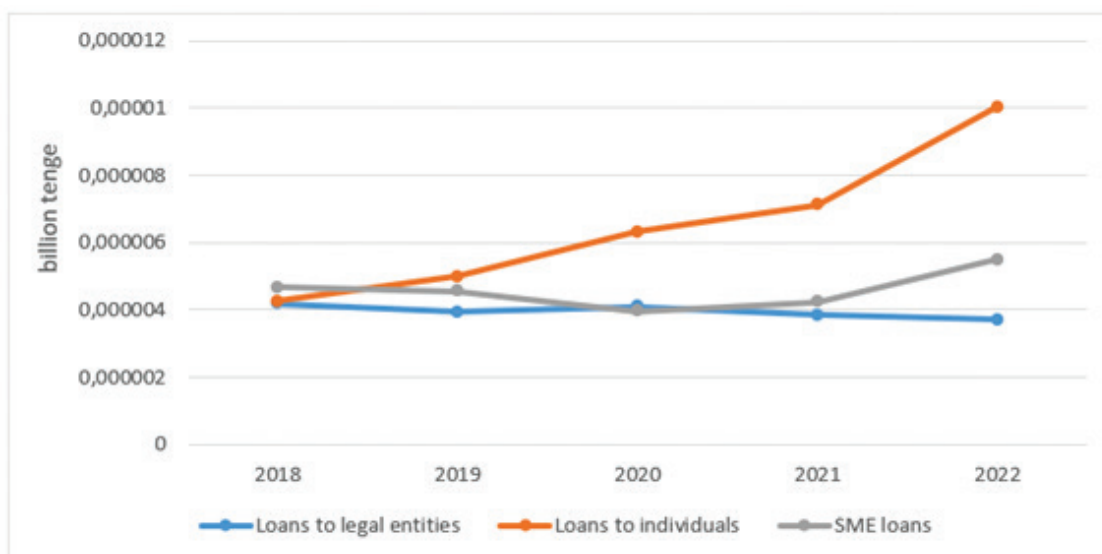
Loans with overdue debts from 31 to 60 days in 2022 amount to 82.8 billion tenge and in comparison with 2019 the indicator decreased by 422.7%, and in comparison with 2021 by 127.9%.

Loans with overdue debts from 61 to 90 days in 2022 amount to 47.4 billion tenge, and if we compare the indicator with 2019, it decreased by 264.4%, and in comparison with 2021 showed a decrease of 159.7%. As a result of the analysis of the loan portfolio indicators of the banking sector of the Republic of Kazakhstan, it is worth noting that this group of loans has been declining every year.

Non-performing loans (with overdue debts over 90 days) in 2022 amount to 668.8 billion tenge and in comparison with 2019, the indicator decreased by 151.9%, and compared with 2021 by 161.8%. From 2019 to 2021, the level of loans of this group varied, then increased, then decreased and in 2022 went to decline. Accordingly, provisions from 2019 to 2022 have the same volatility.

Thus, there is a noticeable trend towards a decline in the part of overdue loans and an increase in loans for which there is no debt. The level of provisions under IFRS decreased in accordance with the improvement in the quality of the credit portfolio and as of January 1, 2022 was 7.0% of the total loan portfolio of the banking sector.

Also, according to the loan portfolio of the second-tier banks of the Republic of Kazakhstan, it is possible to see an increase in the amount of loans issued. Therefore, it is reasonable to examine and analyze the structure of the STB credit portfolio in the context of debtors from 2018 to 2022 (Figure 2).



Note: Compiled by the authors according to the data [7].

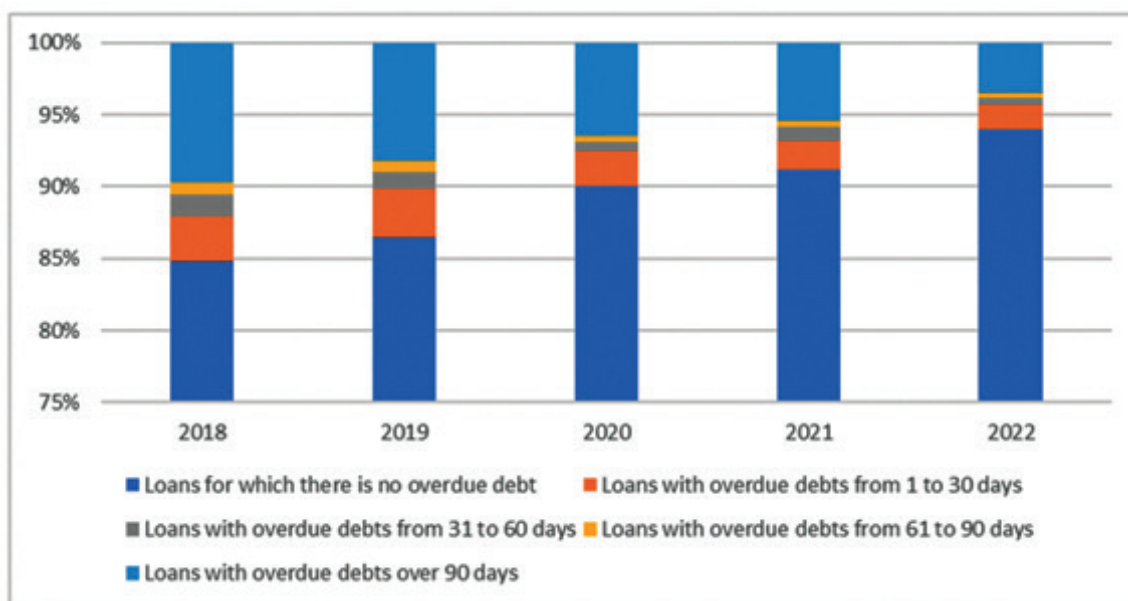
Figure 2 – Loan portfolio by institutional units

As can be seen in Figure 2, there is a clear trend of increasing loans to individuals. In this regard, the growth in the volume of loans issued is caused by the high level of lending to individuals. This indicator has increased by 40.9% since the beginning of 2021.

The share of lending to individuals in 2018 is 31.3%, in 2019 – 36.2%, in 2020 – 42.9%, in 2021 – 45.1%, in 2022 – 49.7%. That is, in 2022, almost half of the credit portfolio of the STB RK falls on retail loans.

The largest increase in 2021 was loans from individuals - 40.9%, compared with an increase in SME loans – 29.2%, and a decline in loans from legal entities – 3.4% [6]. It is worth pointing out that in the second quarter of 2021, the increase of retail loans was 11%, in the third quarter - 12%. Analysts of Fitch Ratings noted that the rapid growth of retail lending in the country in the medium term may lead to a deterioration in asset quality. This is since the growth of retail lending has overtaken the nominal growth of household incomes over the past couple of years, as a result, increasing the debt burden on borrowers and causing risks of overheating of the market [8]. At the identical time, the creditworthiness of middle- and low-income borrowers is deteriorating due to increased workload, which leads to credit risk.

It is worth considering the quality of loans from individuals and analyzing the dynamics (Figure 3).



Note: Compiled by the authors according to the data [7].

Figure 3 – The quality of loans to individuals

Looking at Figure 3, loans of individuals without overdue debts tend to increase. The increase in this indicator since the beginning of 2021 has been 45.2%. It is also worth noting an increase in loans with overdue debts from 1 to 30 days – 22.7%.

Conclusion. The conducted research allowed us to conclude that there has been an improvement in the indicators of the banking segment in recent years. Also, despite the decrease in the level of NPL in the STB RK, there is a noticeable increase in retail lending, which leads to an imbalance in the loan portfolio. Many banks in Kazakhstan operate in the segment of high-risk lending, subsequently receiving higher interest income. Despite this, even the most risk-averse bank aims to minimize the risks taken within the scope of the adopted credit policy, using the tools available to it.

Based on the above research and previously obtained results, the following ways are proposed to improve the bank's credit risk management:

- Timely development or revision of the bank's existing credit policy in order to adapt it to the new realities of the economy in the country and the world;
- Development of methods for monitoring the borrower's solvency at all stages of lending and implementation into work;
- Improving the methodology for assessing the quality of collateral and conducting an adequate assessment of it, taking into account the risks of changes in internal and external economic situations;
- Introduction of a methodology for studying complex information on the borrower, for an effective assessment of the client;
- Credit insurance, to compensate for the bank's risk [9];

- Monitoring the quality of collateral during the term of the loan debt, if necessary, to provide additional collateral;
- Ensuring that banks provide timely and reliable information on borrowers to the first credit bureau for the formation of high-quality credit histories [9];
- Setting limits on the counterparty depending on the type of credit transaction or product and their practical application;
- Diversification of the loan portfolio to reduce the concentration of risk associated with one borrower or sector, that is, the formation of a balanced loan portfolio;
- In the context of a changing global economy on the basis of its current and forecast trends, timely restructuring of credit debt;
- Monitoring of the loan portfolio to determine reduction in the quality of loans at an early stage, identify the causes and develop the necessary measures to improve the situation;
- Maintaining adequate reserves to cover potential losses.

If the above measures are implemented, credit risks will be significantly reduced, which will enhance the quality of the loan portfolio and the yield of the bank's activities.

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Екінші деңгейлі банктердегі несиелік тәуекелді басқару

Аңдатпа. Бүгінгі таңда Қазақстанның банк секторының дамуы қарқынды қарқынмен сипатталады. Бұл өсім бәсекелестіктің күшеюімен, сыртқы нарыққа шығуымен және жаңа банк өнімдерінің дүниеге келуімен үйлеседі. Банктік қызметтердің көпшілігі несиелік қызметке түседі. Осыған байланысты несиелік портфельін тиімді басқаруды қалыптастыру өзекті болып табылады. Зерттеудің мақсаты – банк секторындағы несиелік тәуекелдерді басқаруды жетілдіру бойынша ұсыныстар әзірлеу. Зерттеу әдістемесі аналитикалық әдісті, салыстырмалы талдауды және статистикалық әдістерді қолдануға негізделген.

Авторлар банк секторының несиелік портфелін талдап, соның негізінде несиелеу сапасын арттыру бойынша қорытындылар мен ұсыныстар жасады. Соңғы бірнеше жылда несиелік портфелінің құрылымында жеке тұлғаларға берілген несиелердің өсу үрдісі байқалғаны атап өтілген. Ағымдағы экономикалық жағдайларда несиелік тәуекелді басқару сапасын жетілдіруге және жақсартуға бағытталған бірқатар ұсыныстар берілген.

Кілт сөздер: банк, несиелік тәуекел, несиелік портфель, портфельдік тәсіл, мерзімі өткен берешек, несиелік саясаты, бөлшек несиелендіру.

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Управление кредитными рисками в банках второго уровня

Аннотация. На сегодняшний день развитие банковского сектора Казахстана характеризуется быстрыми темпами. Этот рост сочетается с усилением конкуренции, выходом на зарубежные рынки, рождением новых банковских продуктов. Большинство банковских услуг выпадает на кредитную деятельность. В связи с этим актуальным является построение эффективного управления рисками кредитного портфеля. Целью исследования является разработка предложений по совершенствованию управления кредитными рисками банковского сектора. Методология исследования основана на применении аналитического метода, сравнительного анализа, методов статистики.

Авторами проанализирован кредитный портфель банковского сектора и на базе этого сделаны выводы и предложения по улучшению качества кредитования. Отмечено, что за последние несколько лет имеется тенденция к росту кредитов физических лиц в структуре ссудного портфеля. Обозначен ряд предложений, направленных на совершенствование и улучшение качества кредитного риск-менеджмента в нынешних условиях экономики.

Ключевые слова: банк, кредитный риск, ссудный портфель, портфельный подход, просроченная задолженность, кредитная политика, розничное кредитование.

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