Z. Iskakova ¹ Zh. Gusmanova ² A. Kurmanalina ³

¹L.Gumilyov Eurasian National University, Astana, Kazakhstan ²Karaganda University of Kazpotrebsoyuz, Karaganda, Kazakhstan ³E.A. Buketov Karaganda University, Karaganda, Kazakhstan (e-mail: ¹izd1944@mail.ru, ²gusmanova78@mail.ru, ³anar68@mail.ru)

Loan portfolio management of commercial banks of the Republic of Kazakhstan in conditions of increasing cross-border impact of sanctions on the economy

Abstract. In this article, we have considered the main aspects of managing the loan portfolio of commercial banks of the Republic of Kazakhstan in the context of increasing cross-border impact of sanctions on the economy. Factors such as high credit risks, non-repayment of the loan, inefficiency of banks' lending activities, deterioration of the quality of the loan portfolio, the degree of riskiness of credit policy require optimization of the process of managing the loan portfolio of a commercial bank.

The trends of gradual growth of the loan portfolio since the beginning of 2019 are considered. The quality of the loan portfolio of commercial banks in Kazakhstan was analyzed. The role and importance of credit portfolio management in the development of the country's economy and the well-being of the population is determined. The article discusses the theoretical aspects of the management of the loan portfolio, its role in the development of the economy of Kazakhstan, for the analysis of the current state and trends in the development of lending, official statistical data of the National Bank of the Republic of Kazakhstan were used.

The analysis of the loan portfolio in the context of the regions of Kazakhstan, as well as its structure by economic sectors, is carried out. The main problem areas in the effective management of the loan portfolio are identified. The author's recommendations on improving the areas of improving the quality and management of the loan portfolio are proposed.

Keywords: credit, loan portfolio, credit risk, risk management, securitization, problem loans.

DOI: https://doi.org/10.32523/2789-4320-2023-1-275-284

Introduction

In conditions of fierce competition, a modern commercial bank is forced to constantly fight for its customers and their resources, offer new banking products and services that provide it and its customers with the necessary profit, demonstrate its reliability, stability and ability to respond quickly to changes in market conditions.

The main income item of a commercial bank is the profit from credit operations, which makes up to 70% of the total profit, which undoubtedly indicates the importance of high-quality management of the bank's loan portfolio.

Thus, the quality of the loan portfolio becomes crucial for the normal functioning of the bank as a commercial enterprise. It is known from world banking practice that if the share of bad loans in assets exceeds 5-7%, that the future of the bank is problematic. Therefore, banks should achieve an adequate level of loan portfolio quality by implementing a set of organizational and technological measures.

In the conditions of a possible scenario of the development of the second wave of the global economic crisis, issues related to the formation of a loan portfolio, as well as the quality of loan portfolio management require detailed research and in-depth analysis, which is primarily due to high credit risks, non-repayment of the loan, inefficiency of credit activity of banks, deterioration of the quality of the loan portfolio, the degree of riskiness of credit policy. All these factors require optimization of the credit portfolio management process of a commercial bank. Thus, the identified problems in the management of the loan portfolio predetermined the practical significance and relevance of this research topic.

Kazakh banks have experienced an acute phase of the financial crisis, which revealed a layer of acute problems of credit institutions. This is a low level of corporate governance, weak risk management, high concentration of risks, low transparency of activities, as well as the use of gray schemes that allow manipulating reporting, circumventing the requirements of the regulator, including limiting credit risks and liquidity risks.

Methodology. The years 2020-2021 were successful for the banking system. Despite the license reviews and shocks affecting individual sector participants, overall, the main indicators have increased significantly.

Figure 1 shows the trend of gradual growth of the loan portfolio since the beginning of 2019. This increase occurred against the background of events in the banking system: mergers of banks and the corresponding revaluation of assets, recognition of problem loans, revaluation of the active part of a number of other banks, etc.

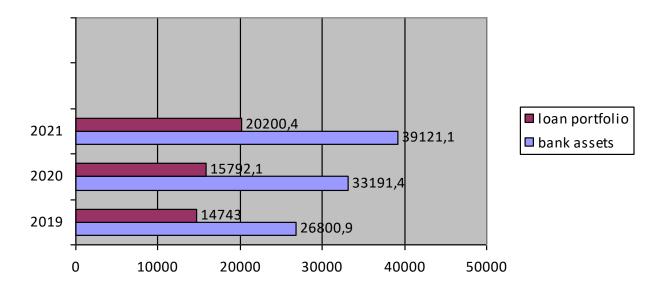


Figure 1. Dynamics of assets and loan portfolio of the banking sector of the Republic of Kazakhstan in billion tenge

As of 01.01.2022, the amount of the loan portfolio is 20,200.4 billion tenge (at the beginning of 2019 - 14,743 billion tenge), for three years -37%. At the same time, according to the National Bank, the volume of loans to individuals increased to 10.0 trillion.tenge, and legal entities - up to 9.2 trillion tenge. This means that the STB issued more retail loans.

Loan portfolio, including:	01.01.2019		01.01.2020		01.01.2021		Growth	
							rate	
	The	Speci	The	Specifi	The	Speci	Absolut	%
	amount	fic	amount	c	amount	fic	ely	
		gravi		gravit		gravi		
		ty in		y in %		ty in		
		%				%		
Loans to banks and	53,6	0,4	84,0	0,5	114,3	0,6	60,7	2,1
organizations engaged in								раза
banking operations								

Table 1 - Loan portfolio of commercial banks in Kazakhstan, billion tenge

Loans to legal entities	3 928,0	28,5	3 838,8	24,3	3 709,6	18,4	-218,4	-5,6
Loans to individuals	4 993,4	36,3	7 124,8	45,1	10 038,7	49,7	5 045,3	2,0
								раза
SMB loans	4 567,1	33,2	4 246,2	26,9	5 246,2	26,9	679,1	14,9
Reverse REPO	220,6	1,6	498,3	3,2	850,2	4,2	629,6	3,9
operations								раза
total	13 762,7	100	15 792,1	100	20 200,4	100	6 437,7	46,8

Source – compiled on the basis of the Statistical Bulletin of the National Bank of the Republic of Kazakhstan [1]

Table 1 shows that the loan portfolio of commercial banks in Kazakhstan in 2021 increased by KZT 6,437.8 billion or by 46.8% over three years. The largest share in the loan portfolio was loans to individuals 49.7%, in second place – loans to small and medium-sized businesses - 26.9%. If we look at it from the point of view of growth, loans to individuals are increasing every year. The increase in 2019 to 2021 at the reporting date for loans to individuals amounted to 2.0 times, loans to other credit institutions – 2.1 times, loans to SMEs - 14.9 times, Reverse repo operations - 3.9 times. While loans to legal entities decreased by - 5.6% [1].

Table 2 - Classification of loans to the economy by type of currency

	01.01	01.01.2020		.2021	01.01	.2022	Cha	nges
	million	s	million	s	millio	s	milli	5
	tenge	pecific	tenge	pecific	n tenge	pecific	on tenge	pecifi
		gravit		gravit		gravit		С
		y		y		y		gravi
		i		i		i		ty
		n %		n %		n %		i
								n %
in	13 984	9	13 594	9	20 05	9	6 075	4
national	745	2,0	091	2,8	9 945	3,3	200	3,4
currency								
in	1 218	8	1 043	7	1 427	6	209	-
foreign	217	,0	286	,2	971	,6	754	7,2
currency								
Total	15 202	1	14 637	1	21 48	1	6 284	4
	962	00,0	377	00,0	7 916	0,00	954	1,3

Source – compiled on the basis of the Statistical Bulletin of the National Bank of the Republic of Kazakhstan [1]

Table 2 shows that by type of currency, loans in national currency issued in 2019-2021 occupy 93%. This indicator characterizes the implementation of de-dollarization in the country. The share of loans in the national currency is growing every year. By terms, long-term loans exceed the indicators over short-term ones, they amount to more than 58% as shown in Table 3.

	01.01.2020		01.01.2021		01.01.2022		Изменени	
							Я	
	million	S	millio	S	million	S	mil	
	tenge	pecific	n tenge	pecific	tenge	pecific	lion	%
		gravit		gravity		gravity	tenge	
		y		i		i		
		i		n %		n %		
		n %						
sho	8 147	5	7 952	5	8 942	4	79	
rt-term	461	3,6	384	4,3	956	1,6	5 495	,8
lon	7 055	4	6 684	4	12 544	5	5 4	
g-term	501	6,4	992	5,7	960	8,4	89 459	7,8
Tot	15 202	1	14 637	1	21 487	1	6 2	
al	962	0,00	377	00,0	916	00,0	84 954	1,3

Source – compiled on the basis of the Statistical Bulletin of the National Bank of the Republic of Kazakhstan [1]

Consider the loan portfolio for 01.01.2022 in the context of the regions of Kazakhstan, shown in Figure

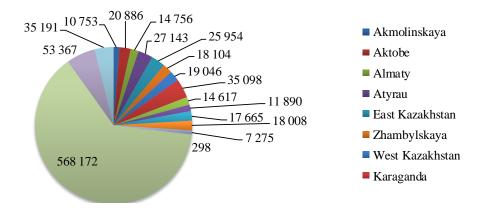


Figure 2. Loans issued by banks in the regional context as of 01.01.2022

From Figure 2, we observe that as of January 1, 2022, the first place in the amount of loans issued in the regional context is the city of Almaty -568,172 million tenge, it occupies 63% of the total share. The second place with a share of 6% is occupied by the city of Nur-Sultan - 53,367 million tenge, followed by the city of Shymkent - 35,191 million tenge - 4%. The share of the Karaganda region is 2%, which is 35,098 million tenge. The reason for this concentration is high demographic indicators, indicators of the standard of living of the population, the concentration of the country's labor potential, finances, and enterprises. And also, that almost 40% of small active businesses in Kazakhstan are concentrated in the cities of Almaty and Nursultan. The number of registered small companies in Kazakhstan increased by 4.3% over the year and amounted to 426.4 thousand at the beginning of 2022.

Let's consider the sectoral structure of the loan portfolio of the STB RK, presented in Table 4.

2.

Table 4 - Structure of the loan portfolio by economic sectors, billion tenge.

Table 4 - Structure of the loan portfolio by economic sectors, billion tenge.								
	01.01	.2020	01.01	.2021	01.01.	2022	Из: ия	менен
Industries		9 pecifi		peci		pecif	Th	
	The amount	c gravit	The amount	fic	The amount	ic grav	e amount	
		у		ity		ity		
Total for the	15 20	1	14 63		21 487		6	4
republic, including:	2,9	00	7,4	00	,9	00	285	1,3
industry	2 161	1	2 361		2 777,		61	2
maustry	,9	4,2	,3	6,1	2	2,9	5,3	8,5
agricultural industry	135,7	,9	169,2	,2	279,3	,3	14 3,6	; ,1 раза
construction	476,7	.1 ,1	455,9	,1	575,4	,7	98 ,7	0,7
transport	413,4	,7	448,0	,1	460,2	,1	46 ,8	1,3
connection	131,8	,9	82,9	,6	103,3	,5	- 28,5	21,6
	5 207	3	4 867		6 111,		90	:
trading	,6	4,3	,9	3,3	9	8,4	4,3	7,4
other	6 675	4	6 252		11 180		4	
industries	8,	3,9	0,	2,7	,7	2,0	504,9	7,5

Source – compiled by the author according to data from the official website of the National Bank of the Republic of Kazakhstan [1]

Table 4 shows that loans issued by banks in the context of economic sectors, taking into account the final turnover of the entire Republic of Kazakhstan, are growing every year. The increase in 2021 amounted to 41.3% or 6 285 billion tenge. The volume of lending increased due to an increase in lending to agriculture – 2.1 times or 143.6 billion tenge, other industries – 67.5% or 4,504.9 billion tenge and industry - 28.5% or 615.3 billion tenge, while the decrease in lending was shown only by the communications industry – 21.6% or 28.5 billion tenge.

The largest share by industry in 2021 is trade – 28.4%, industry – 12.9%. It should be noted that the share of loans in trade is decreasing every year (from 34.3% to 28.4%), and the increase was due to other industries – by 8.1 percentage points and agriculture – by 0.4 percentage points.

Consider the quality of the loan portfolio of the banking sector in Table 5.

Table 5 - Quality of the loan portfolio of the banking sector for 2019-2021, billion tenge

Table 5 - Quality of the	ne ioan portrolio	of the bank	ing sector for 201	9-2021, DIIII	on tenge			
Indicator name / date	01.0	01.2020	01.0	1.2021	01.0	1.2022		
	am	%	amo	%	am	9/		
	ount,	to	unt, billion	to	ount,	to		
	billion	total	tenge	total	billion	total		
	tenge		G		tenge			
Loans for which there is no	12 9	8	14 26	9	19 1	9		
overdue debt	36,8	7,7	3,3	0,3	36,5	4,7		
arrears from 1 to 30 days	405,	2	265,0	1	264,	1		
•	8	,8		,7	8	,3		
arrears from 31 to 60 days	81,6	0	105,9	0	82,8	0		
•		,6		,7		,4		
arrears from 61 to 90 days	118,	0	75,7	0	47,4	0		
·	7	,8		,5		2,		
Over 90 days	1 20	8	1 082	6	668,	3		
•	0,1	,1	,1	,9	8	,3		
Total	147	1	15 79	1	20 2	1		
	43,0	00,0	2,1	0,00	00,4	00,0		
Source – compiled on the basis of data from the National Bank of the Republic of Kazakhstan [1]								

The data in Table 5 show that the main share of the share is occupied by loans for which there is no overdue debt, the share of which is 94.7% at the end of 2021 and the share of these loans has increased by 7 percentage points over three years. At the beginning of 2022, it can be noted that the share of debt on loans from 1 to 30 days takes 1.3%, this is the lowest figure in 3 years. The amount of problem loans (over 90 days) decreased by 4.8%, which was caused by an improvement in the quality of the loan portfolio of the banking sector, as well as the transfer of problem loans to JSC "Problem Loans Fund".

Discussion Results. Thus, it can be noted that the National Bank of the Republic of Kazakhstan has implemented a set of measures aimed at the rehabilitation of loan portfolios of second-tier banks. Within the framework of the approved Concept of improving the asset Quality of second-tier banks, which assumed the adoption of a number of measures aimed at clearing the balance sheets of non-performing loans, the NBK created a subsidiary that will buy back problem loans (according to the Concept, loans classified as fifth category loans and non-performing loans, with the exception of loans secured by real estate) from banks in order to subsequent restoration of their value – JSC "Problem Loans Fund" (PLF) [2,3].

The NBK additionally introduced a number of amendments to regulatory legal acts regulating the banking sector, in particular concerning the loan portfolio, in order to stimulate the processes of balance sheet rehabilitation from substandard assets. Thus, these changes provided for the provision of tax incentives for the recognition of losses on problem debts through the deduction from taxable income of income from the restoration of provisions when writing off bad loans for the balance sheet. In addition, as a temporary measure, the maximum ratio of the total amount of forgiven bad debts on loans to the aggregated indicator and the procedure for forgiveness of bad debts were introduced.

The measures taken to improve the state of the loan portfolio included:

- the introduction of a ban on the provision of bank loans to persons registered in offshore zones, the list of which is established by the authorized body;
- clarification of the methodology for determining the factors affecting the deterioration of the financial situation of the bank and borrowers;
- strengthening the requirements for risk management and corporate governance of banking institutions.

Thus, in our opinion, due to the implementation of the measures taken by the state, as well as the possibility of the proposed creation of separate special purpose subsidiaries in order to buy out low-quality assets and carry out measures to restore their value by the banks themselves, and normalize the financial condition of the past, there has been an improvement in the quality of the loan portfolio and an increase in its volume of most large and medium-sized banks [4].

It should also be noted that crisis phenomena in a commercial bank often begin with a sharp increase in problem debt in loan portfolios, accompanied by an increase in losses and a decrease in the real value of assets. This situation leads to a massive deterioration in the solvency of banks and, as a consequence, to the inability of the banking system to effectively allocate financial resources.

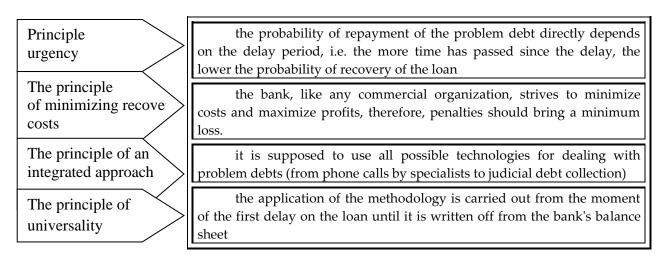


Figure 3. Principles of managing problem loans of a commercial bank

When developing a universal methodology for working with a portfolio of problem loans, it is necessary to take into account a number of principles. We propose to create a methodology based on the following principles shown in Figure 3.

Thus, following the principles in working with the bank's portfolio, it is possible to come to its effective management and reduce the share of problem loans in it.

As part of the analysis of foreign experience of working with problem loans of the banking system, two approaches are used – centralized and decentralized. In the first case, the leading role in debt restructuring is assigned to state agencies created for the redemption and management of bad debts, in the second – by the bank itself [5,6].

Earlier it was noted that in order to minimize the risks of the banking system, JSC " PLF" was created - an organization specializing in improving the quality of credit portfolios of second-tier banks, where the main criteria for the acquired rights requirements, according to the regulatory legal act, are loans issued to legal entities residents of the Republic of Kazakhstan with the availability of appropriate collateral [7].

Thus, the government measures taken to improve the quality of the loan portfolio of banks, in our opinion, will have prospects in the near future. Thus, banks will be able to clear their loan portfolio of "bad" loans and resume financing the country's economy.

But, it should be noted that the centralized method will only be able to improve some part of the problem portfolio of banks, since only certain loans with good collateral will be redeemed. That is, the question remains how to improve the remaining part of problem loans in the loan portfolio of banks. In this case, it is necessary to resort to a decentralized method, that is, banks should strengthen and improve their own measures for managing problem loans (negotiations, debt restructuring, judicial recovery, etc.) [8].

Conclusions. During the analysis, we identified the following problems:

- the decline in the volume of lending by commercial banks in the Republic of Kazakhstan due to the

strengthening of sanctions by the world community on the Russian Federation;

- a significant amount of amounts issued to a narrow circle of borrowers or industries, i.e. the concentration of the bank's lending activities in any area sensitive to changes in the economy;
- a large proportion of loans and other banking contracts falling on customers experiencing certain financial difficulties;
- a large proportion of loans issued to persons associated with special relationships and non-resident borrowers.

In relation to banks, the following actions can be recommended to improve the management of the loan portfolio:

- 1. Improving the risk management of banks by creating an effective and highly qualified group of risk managers with a division of responsibilities, that is, it is impossible to allow the same employees of the bank to determine the risk strategy and monitor the compliance of the bank's activities with it and at the same time initiate decisions on risk acceptance and management;
- 2. Rating of borrowers for whom it is necessary to use a continuous series of historical data on borrowers with a length of at least 3-5 years;
 - 3. Using the method of securitization of the loan portfolio and its ranking.

Thus, when banks use all the proposed ways to improve the quality and management of the loan portfolio, it can be assumed that the problem debt will be cleared, the quality of the loan portfolio will improve and new financing of the economy will resume, which in turn will help the banking sector get back on its feet.

References

- 1. Статистический бюллетень НБК. 2019, 2020, 2021. [Электрон.ресурс] URL: www.nationalbank.kz (дата обращения: 05.04.2022).
- 2. Концепция улучшения качества активов банков второго уровня. [Электрон.ресурс] URL: www.online.zakon.kz /Document/?doc_id=31060381 (дата обращения: 08.05.2022).
- 3. Основная деятельность АО «Фонд проблемных кредитов». [Электрон.ресурс] URL: www.fpl.kz/ru/main-info (дата обращения 08.05.2022).
- 4. Пронская Н.С., Астахова В.Б. Роль кредитных бюро в управлении кредитными рисками. // Банковское дело. 2008. № 11. С.82-85.
- 5. Kalkabayeva G.M., Kurmanalina A.K., Gusmanova J.A. Current State and Forecasting of the Development of Bank Crediting in Kazakhstan//Journal of Advanced Research in Law and Economics. 2017. Vol. 8. P.1161-1167.
- 6. Гусманова Ж.А., Курманалина А.К., Ермекова К.А. Bank lending of innovations in the real sector of the Republic of Kazakhstan: current trends and problems // Известия НАН РК. 2020. №2.- С.49-57. doi: 10.32014/2020.2224-5294.36
- 7. Rakhmetova A.M., Kalkabayeva G.M., Kurmanalina A.K., Gusmanova Zh.A., Serikova G.S., Aimurzina B. Financial credit and innovative economic sectors: evaluation of macroeconomic effects regulation and interaction sectors//Entrepreneurship and sustainability issues. 2020. Vol. 8.– P.1224-1237.
- 8. Гусманова Ж.А., Курманалина А.К. Проблемы и тенденции развития активных операций отечественных коммерческих банков в условиях пандемии // Финансы. 2021. №2 (52). С. 68-76.

3. Искакова¹, Ж. Ғұсманова², А. Құрманалина³

¹Л. Гумилев атындагы Еуразия ұлттық университеті, Астана, Қазақстан ²Қазтұтынуодагы Қараганды университеті, Қараганды,Қазақстан ³ Е. А. Бөкетов атындагы Қараганды университеті, Қараганды,Қазақстан

Санкциялардың экономикаға трансшекаралық әсерін күшейту жағдайында Қазақстан Республикасы коммерциялық банктерінің несиелік қоржының басқару

Аннотация. Бұл мақалада біз санкциялардың экономикаға трансшекаралық әсерін күшейту жағдайында Қазақстан Республикасының коммерциялық банктерінің несие қоржының басқарудың негізгі аспектілерін қарастырдық. Жоғары несиелік тәуекелдер, несиені қайтармау, банктердің несиелік қызметінің тиімсіздігі, несиелік қоржын сапасының нашарлауы, несиелік саясаттың тәуекел дәрежесі сияқты факторлар коммерциялық банктің несиелің қоржының басқару үрдісін оңтайландыруды талап етеді.

2019 жылдың басынан бастап несие қоржының біртіндеп өсу үрдісі қаралды. Қазақстанның коммерциялық банктерінің несие қоржынының сапасына талдау жасалды. Несиелік қоржынды басқарудың ел экономикасы мен халықтың әл-ауқатын дамытудағы рөлі мен маңызы анықталды. Мақалада несие қоржынын басқарудың теориялық аспектілері, оның Қазақстан экономикасын дамытудағы рөлі, несиелеудің қазіргі жай-күйі мен даму үрдістеріне талдау жүргізу үшін Қазақстан Республикасы Ұлттық Банкінің ресми статистикалық деректері пайдаланылды.

Қазақстан өңірлері бөлінісінде несиелік қоржынға, сондай-ақ оның экономика салалары бойынша құрылымына талдау жүргізілді. Несие қоржының тиімді басқарудағы негізгі мәселелік орындар анықталды. Несие қоржының сапасын жақсарту және басқару бағыттарын жетілдіру бойынша авторлық ұсыныстар ұсынылды.

Түйін сөздер: несие, несиелік қоржын, несиелік тәуекел, тәуекел-менеджмент, секьюритилендіру, мәселелі несиелер.

3.Д.Искакова 1, Ж.А.Гусманова 2, А.К.Курманалина 3

¹Евразийский национальный университет им. Л. Гумилева, Астана, Казахстан ²Карагандинский университет Казпотребсоюза, Караганда, Казахстан ³Карагандинский университет им. Е.А. Букетова, Караганда, Казахстан

Управление кредитным портфелем коммерческих банков Республики Казахстан в условиях усиления трансграничного воздействия санкций на экономику

Аннотация. В данной статье мы рассмотрели основные аспекты управления кредитным портфелем коммерческих банков Республики Казахстан в условиях усиления трансграничного воздействия санкций на экономику. Такие факторы, как высокие кредитные риски, невозврат кредита, неэффективность кредитной деятельности банков, ухудшение качества кредитного портфеля, степени рискованности кредитной политики требуют оптимизации процесса управления кредитным портфелем коммерческого банка.

Рассмотрены тенденции постепенного роста ссудного портфеля с начала 2019 года. Было проанализировано качество кредитного портфеля коммерческих банков Казахстана. Определена роль и значение управления кредитного портфеля в развитии экономики страны и благополучия населения. В статье рассмотрены теоретические аспекты управления кредитного портфеля, его роль в развитии экономики Казахстана, для проведения анализа современного состояния и тенденций развития кредитования были использованы официальные статистические данные Национального банка Республики Казахстан.

Проведен анализ кредитного портфеля в разрезе регионов Казахстана, а также его структура по отраслям экономики. Определены основные проблемные места в эффективном управлении кредитного портфеля. Предложены авторские рекомендации по совершенствованию направлений улучшения качества и управления портфеля кредитов.

Ключевые слова: кредит, кредитный портфель, кредитный риск, риск-менеджмент, секьюритизация, проблемные кредиты.

References

- 2. Statisticheskij byulleten' NBK [NBK Statistical Bulletin]. 2019, 2020, 2021. [Electronic resource]. Available at: http://www.nationalbank.kz (Accessed: 05.04.2022).
- 3. Koncepciya uluchsheniya kachestva aktivov bankov vtorogo urovnya [The concept of improving the quality of assets of second-tier banks]. [Electronic resource]. Available at: http://www.online.zakon.kz/Document/?doc_id=31060381 (Accessed: 08.05.2022).
- 4. Osnovnaya deyatel'nost' AO «Fond problemnyh kreditov»[The main activity of JSC "Problem Loans Fund"]. [Electronic resource]. Available at: http://www.fpl.kz/ru/main-info (Accessed: 08.05.2022).
- 5. Pronskaya N.S., Astakhova V.B. Rol' kreditnyh byuro v upravlenii kreditnymi riskami [The role of credit bureaus in credit risk management], Bankovskoe delo [Banking]. (11), 82-85 (2008).
- 6. Kalkabayeva G.M., Kurmanalina A.K., Gusmanova J.A. Current State and Forecasting of the Development of Bank Crediting in Kazakhstan, Journal of Advanced Research in Law and Economics, 8, 1161-1167(2017).
- 7. Gusmanova Zh.A., Kurmanalina A.K., Ermekova K.A. Bank lending of innovations in the real sector of the Republic of Kazakhstan: current trends and problems, Izvestiya NAS RK, 2, 49-57(2020).
- 8. Rakhmetova A.M., Kalkabayeva G.M., Kurmanalina A.K., Gusmanova Zh.A., Serikova G.S., Aimurzina B. Financial credit and innovative economic sectors: evaluation of macroeconomic effects regulation and interaction sectors. Entrepreneurship and sustainability issues, 8, 1224-1237(2020).
- 9. Gusmanova Zh.A., Kurmanalina A.K. Problems and trends in the development of active operations of domestic commercial banks in a pandemic, Scientific journal: «Finance», 2(52), 68-76(2021).

Сведения об авторах:

Искакова 3.Д. – экономика ғылымдарының докторы, Λ .Н. Гумилев атындағы Еуразия ұлттық университетінің қаржы кафедрасының профессоры. Қажымукан көш.11, Астана, Қазақстан

Ғұсманова Ж.А. - экономика ғылымдарының кандидаты, доцент, Қазтұтынуодағы Қарағанды университетінің банктік менеджмент және қаржы нарығы кафедрасының доценті, Академическая көш.9, Қарағанды, Қазақстан

Құрманалина А.К. - экономика ғылымдарының кандидаты, профессор, Е. А. Бөкетов атындағы Қарағанды университетінің қаржы кафедрасының профессоры, Университетская көш.28, Қарағанды, Қазақстан.

Iskakova Z.D. – Doctor of Economics, Professor of Finance Department, L.N. Gumilyov Eurasian National University, Str. Kazhymukan, 11, Astana, Kazakhstan

Gusmanova Zh..A. - Candidate of Economic Sciences, Assoc.Professor, Department of Banking Management and Financial Markets, Karaganda University, Kazpotrebsoyuz, Str. Academic, 9, Karaganda, Kazakhstan.

Kurmanalina A.K. - Candidate of Economic Sciences, Professor of Finance Department, E.A. Buketov Karaganda University, Universitetskaya str., 28, Karaganda, Kazakhstan.