



**National Bank
of the Kyrgyz Republic**

**THE FINANCIAL SECTOR
STABILITY REPORT OF THE
KYRGYZ REPUBLIC**

according to the results of 2021

June 2022

Bishkek

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Other Publications of the National Bank of the Kyrgyz Republic

Annual Report of the National Bank of the Kyrgyz Republic

This publication is a complete report on the activity of the National Bank for the previous year. It contains assessment of changes in the real, financial and external sectors of economy, the description of decisions and actions of the National Bank in the monetary sphere, in the banking and payment systems, in the non-banking financial-credit organizations; it includes financial statements and general information on the National Bank, as well as the statistical appendices. It is published in the state, official and English languages.

Bulletin of the National Bank of the Kyrgyz Republic

The publication contains the statistical data on key macroeconomic and financial indicators of the Kyrgyz Republic. It is published on the official website of the National Bank in the state, official and English languages.

Monetary Policy Report

The Report informs the public of the decisions made by the National Bank in the monetary policy area based on the analysis and forecast of the key inflation factors and assessment of the economic development in the external and internal environment of the Kyrgyz Republic. It is published on the official website of the National Bank in the state, official and English languages.

Balance of Payments of the Kyrgyz Republic

The publication describes the recent development trends in the external sector and contains the data on the balance of payments, external trade, international reserves, external debt, and the international investment position, as well as the metadata and the information base to draw up the balance of payments. It is published quarterly – in February, June, August, and November in the state, official and English languages.

Regulatory Acts of the National Bank of the Kyrgyz Republic

These are the regulations, instructions and other regulatory legal acts adopted by the National Bank of the Kyrgyz Republic. The estimated frequency of the journal publication is once a month in the state and official languages.

The publications of the National Bank are distributed according to the approved list, and are also posted on the official website of the National Bank at: www.nbkr.kg/Publications.

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PREAMBLE

National Bank of the Kyrgyz Republic has been publishing the Financial Sector Stability Report of the Kyrgyz Republic since 2012. The objective of the Report is to inform the public on the general assessment of the stability and soundness of the financial system of the Kyrgyz Republic.

Financial Stability in this publication means smooth and continuous functioning of financial institutions, financial markets and payment systems enabling to perform functions of the financial intermediation even in conditions of financial imbalances and shocks.

Results of the monitoring and analysis of financial stability are considered by the National Bank in forming the main directions of the National Bank's monetary policy, regulating the banking activity and development of the strategy for financial-credit organizations of the Kyrgyz Republic.

The Financial Sector Stability Report of the Kyrgyz Republic is oriented to financial market participants and the audience interested in the financial stability issues.

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MAJOR CONCLUSIONS

In 2021, economic activity in the Kyrgyz Republic demonstrated a restrained trend towards recovery after a significant decline in 2020.

Economy demonstrated acceleration of inflationary processes mainly due to an increase in prices for socially important goods in the country, as well as rise in prices for petroleum, oil and lubricants.

In the reporting period, there was an increase in the main indicators of the banking sector: assets, loan portfolio, deposit base and capital.

The systemic risks of the banking sector were present and assessed as “moderate”. The banking sector has a high level of capital adequacy, which indicates that there is potential for further increasing the level of financial inter mediation, the efficiency of functioning and ensuring the stability of the banking sector in the future.

The level of risks was within the acceptable limits in the systemically important and significant payment systems and was conditioned by the risk management mechanisms provided for by the legislation of the Kyrgyz Republic and the rules of payment systems, the current high level of liquidity, the system of insurance deposits and prepayment.

Development of the regulatory framework regulating the activity of financial-credit organizations was mainly focused on mitigating the consequences of the crisis in the banking system due to the coronavirus infection spread, creating the opportunities for provision of the banking services and equal legal environment for the financial-credit organizations.

I. MACROECONOMIC AND FINANCIAL ENVIRONMENT

1.1. Macroeconomic Conditions and Risks

In 2021, economic activity in the Kyrgyz Republic demonstrated a restrained trend to recovery amid the consequences of the COVID-19 pandemic and the negative dynamics in the production output of the gold mining sector.

In 2021, an increase in world prices for food products and, as a consequence, high prices for socially important goods in the country, as well as rise in prices for petroleum, oil and lubricants were the main drivers of relatively high growth of CPI.

In the public finance sector, there was an increase in revenues and expenditures amid economic recovery to provide an opportunity to conduct a more balanced budget policy. The existing deficit was financed from the external and internal sources.

External Conditions

In 2021, economic recovery was observed in the countries-main trading partners of the Kyrgyz Republic due to the government support measures and significant easing of the fiscal and monetary policies in 2020. At the same time, active rise in demand in the global financial markets had a significant impact on strengthening of inflationary processes in the countries to result in tightening of their monetary policies in the reporting year.

At the end of 2021, economic indicators of Kazakhstan demonstrated a strong recovery growth, having reached the pre-pandemic level. In the reporting year, GDP growth in Kazakhstan made 4.0 percent. Resumption of economic activity in the country was provided by revival of the world economy, anti-crisis measures taken by the government, reduction of quarantine restrictions, stimulation of investments in non-extractive sectors of economy and increase in salaries of the population. On the other hand, rapid economic recovery and increased domestic consumer demand were accompanied by a high inflation rate in the country. Taking into account the above-mentioned facts, the policy rate of the National Bank of the Republic of Kazakhstan was systematically increased from the beginning of the second half of the year and reached 9.75 percent by the end of the year.

At the end of 2021, the Russian economy demonstrated stable growth by 4.7 percent, which fully compensated the decline by 2.7 percent in 2020. Significant growth acceleration was observed in most sectors of the economy. Thus, the real and consumer demand-oriented sectors made a positive contribution to economic growth in 2021. In the reporting year, high oil prices, acceleration of the economic growth in the developed countries, as well as the absence of a sharp increase in sanctions pressure were the positive factors for the Russian economy. Domestic factors included a recovery in demand supported by consumer lending. Accelerated growth in lending, growth of real wages and the low propensity of households to save due to higher inflation expectations supported the growth of consumer activity. Growing domestic and external demand and high corporate profits supported investment activity. At the same time, rapid intensification of demand created a stable inflationary pressure. Taking into account the current trends, the key rate was increased during the year from 4.25 percent up to 8.50 percent.

In 2021, economic growth rates in China, despite slowdown due to the negative impact of the pandemic and due to the low base effect in 2020, was the highest during the last 10 years and constituted 8.1 percent.

Internal Conditions

Gross Domestic Product

Indicators of economic development of the Kyrgyz Republic demonstrated slow positive trend only by the end of the reporting period – in Q4 2021. At the end of the year, the GDP growth rate reached a positive value of 3.6 percent after a significant decline by 8.4 percent in 2020. At the end of the year, the recovery trend was mainly due to the increase of industrial output observed by the end of the reporting period and consistent growth in the services sector. At the same time, the unfavorable situation in the sectors such as agriculture and construction had a restraining influence on the GDP final growth rates.

The GDP deflator was formed positive at 16.0 percent, having increased by 9.9 p.p. compared to 2020.

The services sector, which demonstrated a sustainable positive trend during almost whole 2021, made the largest contribution to GDP growth. Amid easing of the COVID-19 pandemic, there was improvement in transportation activities (+18.0 percent), information and communication (+12.9 percent), wholesale and retail trade (+11.4 percent), and others.

Demonstrating the negative development trend during the reporting year, the industry achieved a positive growth at 7.2 percent by the end of the period. The mining sector showed steady growth from January-June of the current year, having increased by 21.2 percent by the end of the year. At the end of the year, the processing industry indicator (+7.0 percent) was significantly worsened by the production output of the enterprises for the development of gold mining “Kumtor”, which, being in the negative dynamics during the year, reached the indicator of (+)1.0 percent only in December of the reporting period. Thus, in 2021, excluding the enterprises for the development of gold mining “Kumtor”, the processing industry output increased by 17.7 percent. In 2021, excluding the enterprises for the development of gold mining “Kumtor”, GDP constituted 3.9 percent (a decrease by 8.9 percent in the same period of 2020).

In 2021, decrease of production output in the agricultural sector (by 5.0 percent) was due to the natural and climatic factors: drought, problems in irrigation systems and, consequently, shortage of irrigation water, which together expectedly resulted in a decrease in yield of certain crops. Thus, crop growing demonstrated a decrease by 11.6 percent. Decline in the construction sector (by 4.8 percent) was due to reduction of investments in fixed assets due to contraction of internal (by 4.9 percent) and external (by 10.0 percent) sources of financing amid rise in prices for construction materials.

Table 1.1.1. Contribution of Individual Activities in GDP

	2020			2021		
	Share, percent	Growth rate, percent	Contribution in growth, p.p.	Share, percent	Growth rate, percent	Contribution in growth, p.p.
GDP	100.0	-8.4	-8.4	100.0	3.6	3.6
Agriculture, forestry and fishery	13.6	0.9	0.1	14.7	-5.0	-0.7
Industry	19.2	-7.0	-1.3	18.3	7.2	1.4
Mining	1.2	-18.5	-0.3	1.9	21.2	0.3
Processing sectors (Processing industry)	14.5	-7.1	-1.0	13.5	7.0	1.0
Provision (supply) of electric energy, gas, steam and conditioned air	3.3	2.6	0.1	2.7	1.2	0.0
Water supply, waste treatment and processing, receipt of recyclable materials	0.3	-1.9	0.0	0.3	28.3	0.1
Construction	10.0	-15.6	-1.5	8.3	-4.8	-0.5
Services	46.4	-9.8	-4.6	45.2	6.5	3.0
Wholesale and retail trade; repair of cars and motor-cycles	16.4	-14.8	-2.6	17.5	11.4	1.9
Transportation activity and storage of cargo	3.1	-30.4	-1.2	3.5	18.0	0.6
Information and communication	2.7	-4.0	-0.1	2.6	12.9	0.4
Other	24.2	-2.9	-0.7	21.6	0.9	0.2
Net (exclusive of subsidies) taxes on products	10.8	-8.4	-1.1	13.5	3.6	0.4

Source: NSC KR

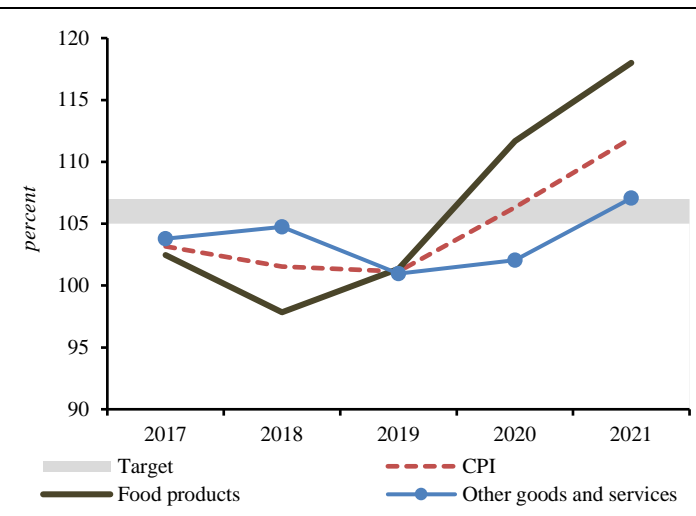
Inflation

In 2021, prices were at a relatively high level and constituted 11.2 percent in December in annual terms (in June – 14.2 percent). This is mainly due to the upward trend in the global price growth in the world and in the EAEU countries, as well as the gradual recovery of consumers' activity.

Growth of the world prices for oil and, as a consequence, the selling price for petroleum products at the Russian refineries made an additional contribution into growth of non-food inflation. Based on these growth factors, as well as taking into account all the production and logistics chains, CPI was formed at a rather high level. At the same time, amid increased excise tax on alcohol drinks and tobacco products there was an increase in prices in the relevant group.

During the crisis resulted from the spread of coronavirus infection, the National Bank's activities, as before, were focused on ensuring price stability through appropriate monetary policy.

Chart 1.1.1. CPI in the Kyrgyz Republic (cumulatively year-to-date to the corresponding period of the previous year)



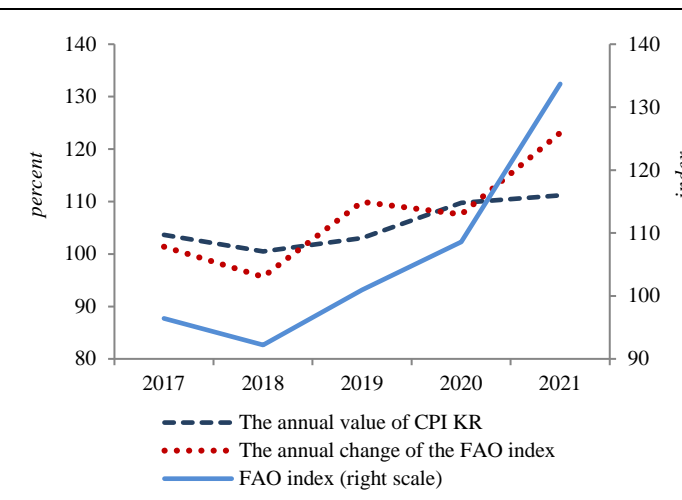
Source: NSC KR

Taking into account the situation in the world food markets and ambiguous geopolitical situation in the region, in 2022, there are risks of rise in prices for food products.

Upsurge in food prices in the first half of 2021 (in annual terms) (in December 2021 against December 2020, prices increased by 13.3 percent) was the main reason for escalation of inflation.

In the economy of Kyrgyzstan, a large share of food products is imported, in this regard, the increase in food prices is significant. The products such as fruits and vegetables, bakery products and cereals, meat, oils, fats and sugar made the main contribution to CPI (total contribution – 5.5 p.p.) mainly amid increased export of meat to the neighboring countries, difficulties with insufficient irrigation of agricultural fields in summer due to dry winter, dry hot period in June-August and increased prices for hay.

Chart 1.1.2. Dynamics of the Kyrgyz CPI and the FAO Index

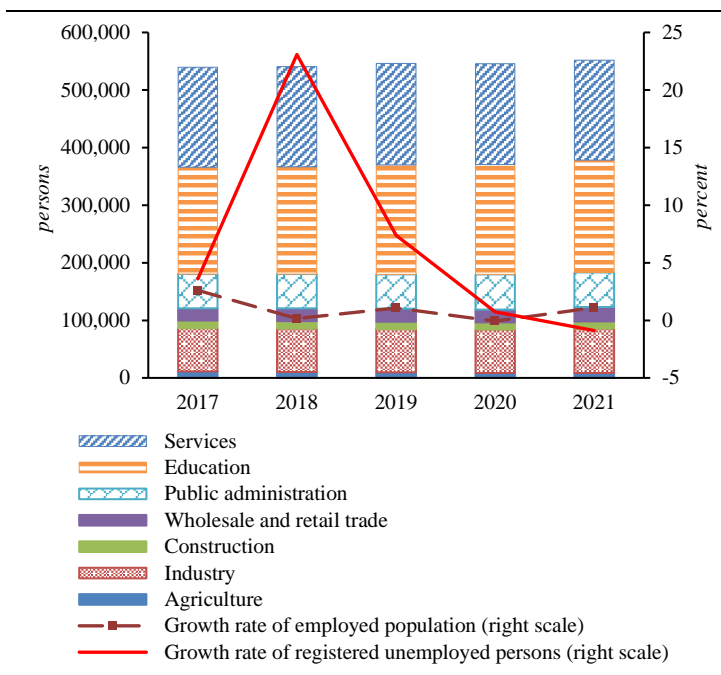


Source: NSC KR, www.fao.org

In the reporting period, increased inflationary pressure was observed worldwide, including Kyrgyzstan. An increase in the world prices for food products was the main driver of global inflation, as well as additional pressure on food was provided by large-scale government support measures in most countries of the world. In 2021, the acceleration of price growth was observed in all main commodity groups of the FAO. At that, increase in prices for cereals, vegetable oils, dairy products, meat and sugar was the most significant.

Labor Market and Wages

Chart 1.1.3. Number of Officially Employed and Unemployed People



Source: NSC KR

indicator of 2020 due to the economic recovery and made 2.9 percent of the economically active population. Practically in all sectors of the economy there was an increase in the number of workplaces created at the end of the period.

Education (35.3 percent), services (31.5 percent) and industry (14.0 percent) remained the main employment sectors of the able-bodied population in the reporting period. It should be noted that the official data do not indicate that the number of employed population has significantly changed over the past five years.

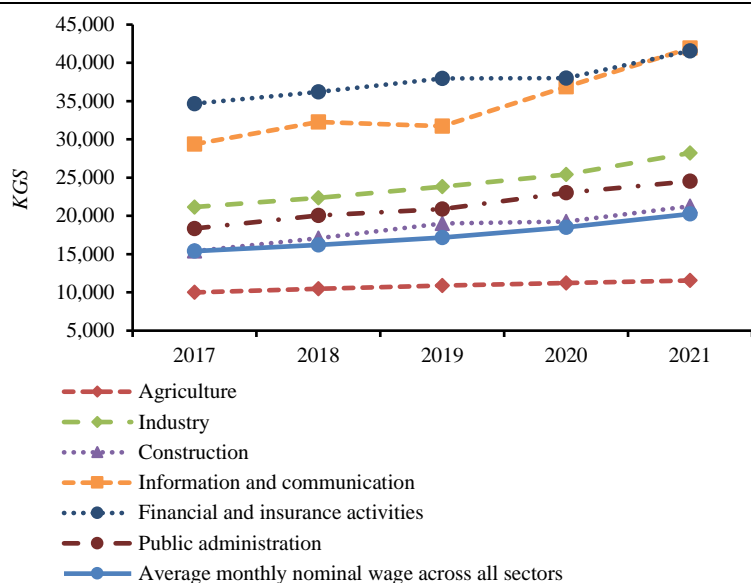
According to the Ministry of Labor, Social Security and Migration of the Kyrgyz Republic, as of January 1, 2022, the number of unoccupied people in search of work registered at the state employment service increased by 0.6 percent compared to the similar date in 2021 and constituted 99.3 thousand people, the number of registered unemployed people thereof decreased by 0.9 percent and constituted 76.0 thousand people. The difference between unoccupied people in search of work registered at the state employment service and registered unemployed people is represented by the persons who refused twice from offered job, as well as those who did not attend the authorized state agencies within 10 calendar days from the date of their registration.

The registered unemployment rate decreased by 0.1 p.p. compared to the

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Chart 1.1.4. Average Monthly Nominal Wages of the Employees at the Enterprises and Organizations by Economic Activity



In the reporting period, there was a positive dynamics of wage growth in all types of economic activity. At the end of 2021, the average monthly nominal wage per one employee increased by 9.6 percent compared to the indicator of 2020 and amounted to KGS 20.2 thousand. The largest increase in the average monthly wage growth rate was observed in transport activities and cargo storage (27.9 percent), health care and social services (18.4 percent), as well as professional, scientific and technical activities (15.7 percent). Real wages in 2021 decreased by 2.1 percent compared to the corresponding period of 2020.

Source: NSC KR

State Budget

In the reporting period, the state budget revenues from operating activities grew in the context of emerging economic recovery due to easing of restrictions related to the pandemic. At the same time, acceleration of consumer price growth in the country, as well as measures actively conducted by the Ministry of Finance of the Kyrgyz Republic on improvement of tax administration and introduction of digital technologies in tax and customs procedures contributed to growth of tax revenues. The share of tax revenues in the structure of state budget revenues increased from 70.3 percent in 2020 up to 72.1 percent in 2021. Generally, in 2021, revenues from operating activities increased by 38.0 percent compared to the previous year and amounted to KGS 209.8 billion (29.0 percent to GDP).

The state budget expenditures for operating activity also increased by 12.2 percent compared to the previous year and amounted to KGS 165.3 billion (22.9 percent to GDP). The main items of expenditures were “public services of general purpose”, “education” and “defense, public order”. The highest growth rates were observed in the direction “economic issues” (+57.1 percent) and “health care” (+49.7 percent).

Net outflow of budget funds for operations on purchase of non-financial assets increased by 1.9 times compared to 2020 or by KGS 21.9 billion and amounted to KGS 46.3 billion (6.4 percent to GDP).

At the end of 2021, the state budget deficit decreased down to 0.2 percent to GDP from 3.3 percent to GDP in the previous year. The budget deficit financing was conducted from the internal and external sources. Net financing from the internal sources amounted to KGS 5.3 billion, from the external sources – KGS 12.5 billion.

Table 1.1.2. Main Parameters of the State Budget of the Kyrgyz Republic

	2020		2021	
	<i>billions of KGS</i>	<i>% to GDP</i>	<i>billions of KGS</i>	<i>% to GDP</i>
Total incomes (including sales of non-financial assets)	152.1	25.3	209.9	29.0
including incomes from operational activity	152.1	25.3	209.8	29.0
sale of non-financial assets	0.1	0.0	0.1	0.0
Total expenditures (including purchase of non-financial assets)	171.9	28.6	211.7	29.3
including expenditures for operational activity	147.4	24.5	165.3	22.9
purchase of non-financial assets	24.5	4.1	46.4	6.4
Deficit(-) / Profit (+)	-19.7	-3.3	-1.8	-0.2
Primary deficit (-) / profit (+)	-11.3	-1.9	6.7	0.9
Budget financing	29.2	4.8	17.8	2.5
External financing	20.1	3.3	12.5	1.7
Internal financing	9.1	1.5	5.3	0.7

Source: MF KR

As of the end of 2021, the public debt amounted to KGS 436.6 billion or 60.4 percent to GDP, while as of the end of 2020 the similar indicator was KGS 407.1 billion or 67.6 percent to GDP. The share of external borrowings (83.4 percent) remained high in the structure of public debt.

China, the International Development Association (IDA) and the Asian Development Bank (ADB), representing 72.6 percent of the total public external debt portfolio, are the largest creditors. They are followed by the IMF and Japan with 7.9 and 5.1 percent, respectively.

The internal debt portfolio consists of government securities (GS) represented by the State Treasury Bonds (ST-Bonds) – 97.7 percent and the State Treasury Bills (ST-Bills) – 1.3 percent. The rest part (0.9 percent) falls on the liabilities of the Cabinet of Ministers of the Kyrgyz Republic on index-linked savings.

Macroeconomic Risks

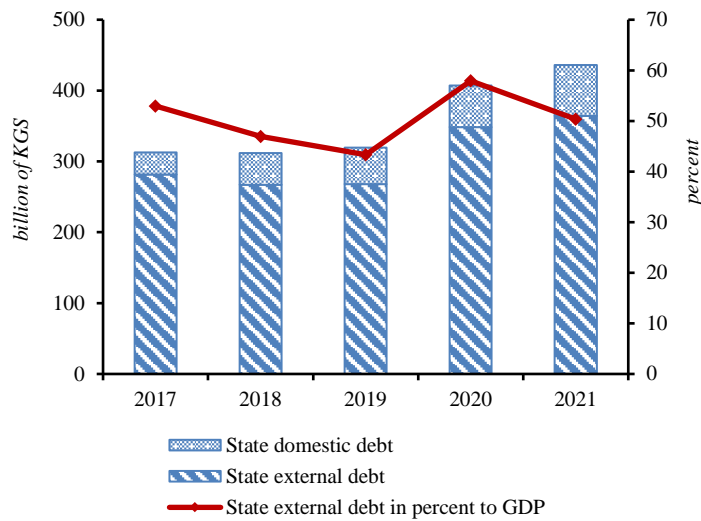
In the reporting period, the economy of the Kyrgyz Republic and the main trading partners of the country was in a state of uncertainty due to the spread of the COVID-19 pandemic and an increase in the geopolitical risks. A reduction in production output at the country's largest gold-mining enterprise, Kumtor and the risk of further reduction of production volumes (together with the planned reduction) make a negative contribution to GDP formation in the Kyrgyz Republic. In the external economic environment, the existing geopolitical risks in the region and pro-inflationary risks in the world markets will also have a restraining effect on stabilization of the macroeconomic environment in the country.

In 2022, the world quotations for energy products, metals and agricultural products are expected to be high to have a direct great impact on the global inflation.

The high share of imported goods in the structure of the economy is among the most important factors influencing food inflation. Thus, there are risks of high food prices.

Additionally, inflation risks associated with the discussed increase in tariffs for public transport, electricity, hot water and heating will influence prices during 2022. In addition, there are risks of rise in prices in Kyrgyzstan amid the current global trend of increase in prices for food products, as well as the tense geopolitical situation in the region.

Chart 1.1.5. Status of the state debt



The government actively works to improve tax administration and attract concessional loans from the international financial institutions in order to finance the accelerated economic recovery. The share of external borrowings in the structure of public debt is still high. In this regard, the sensitivity of external public debt to changes in the KGS exchange rate in the future may have a significant negative impact on the public debt sustainability.

Source: MF KR

1.2. Structure of the Financial Sector

Institutional structure of the financial sector in the Kyrgyz Republic is represented by the commercial banks and other financial institutions.

Table 1.2.1. Institutional Structure of the Financial Sector (number of the financial institutions)
(number of the financial institutions)

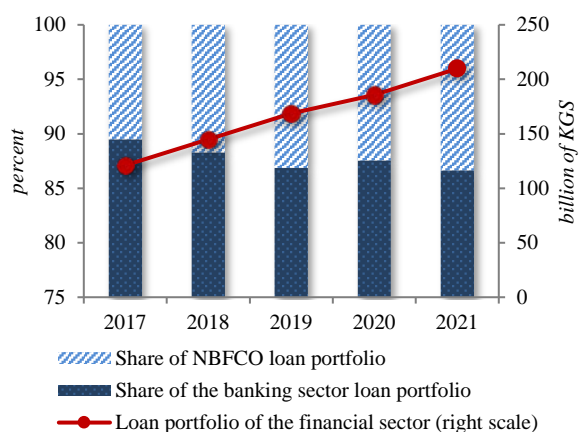
Financial institutions	2017	2018	2019	2020	2021
Commercial banks	25	25	24	23	23
Other financial companies, including:	688	689	660	637	607
Non-banking financial-credit organizations (NBFCO), including:	657	665	637	617	604
Microfinance organizations, including:	150	142	137	134	133
microcredit companies	96	95	89	87	86
microcredit agencies	47	39	39	38	37
microfinance companies	7	8	9	9	10
Specialized Financial-Credit Organization	1	1	1	1	1
Credit offices		2	2	2	2
Credit unions	110	106	95	92	88
Exchange offices	396	413	401	387	379
OJSC "Guarantee fund"		1	1	1	1
Insurance companies	19	17	17	17	-
Investment funds	9	4	3	-	-
Stock exchanges	1	1	1	1	1
Pension funds	2	2	2	2	2

Sources: CBs, NBFCOs, NSC KR, State Financial Supervision Service

As of the end of 2021, assets of the banks and NBFCOs constituted KGS 394.0 billion or 54.5 percent to GDP.

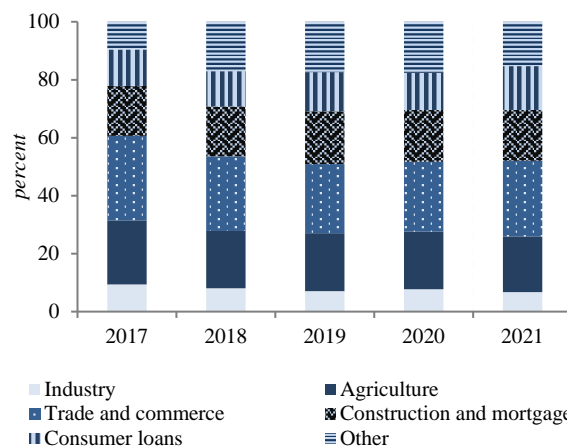
At the end of 2021, the total loan portfolio of the financial sector constituted KGS 209.8 billion or 29.0 percent to GDP. The share of the banks' loans in the loan portfolio of the financial sector decreased by 0.9 p.p. and by the end of 2021 made 86.6 percent (Chart 1.2.1).

Chart 1.2.1. Structure of the Loan Portfolio



Source: CBs and NBFCOs

Chart 1.2.2. Sectoral Structure of the Loan Portfolio in the Financial Sector



Source: CBs and NBFCOs

The high concentration of loans was still observed in the trading sector and in the NBFCOs' consumer loans. The aggregate share of the loan portfolio in the financial sector of the aforementioned sectors of the economy at the end of 2021 constituted 41.2 percent of total issued loans and amounted to KGS 86.5 billion (Chart 1.2.2).

1.3. Financial Markets

In 2021, the situation in the foreign exchange market remained stable. The National Bank, in accordance with the current floating exchange rate regime, conducted foreign exchange interventions to smooth out sharp fluctuations in the exchange rate in some periods when the demand for foreign exchange exceeded its supply. The volume of operations in the money market was higher compared to 2020. The long-term securities were still more attractive for the domestic and foreign investors compared to the short-term ones in the government securities market. In the reporting period, the market of the National Bank's notes demonstrated expansion.

1.3.1. Currency and Money Market

Currency Market

Chart 1.3.1.1. Dynamics of Interventions of the NBKR in the US Dollar Market

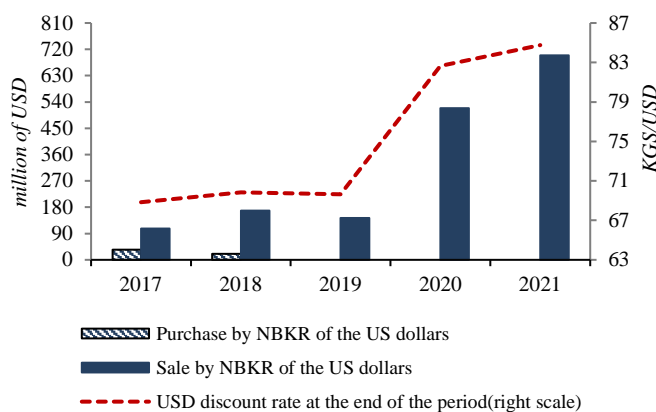
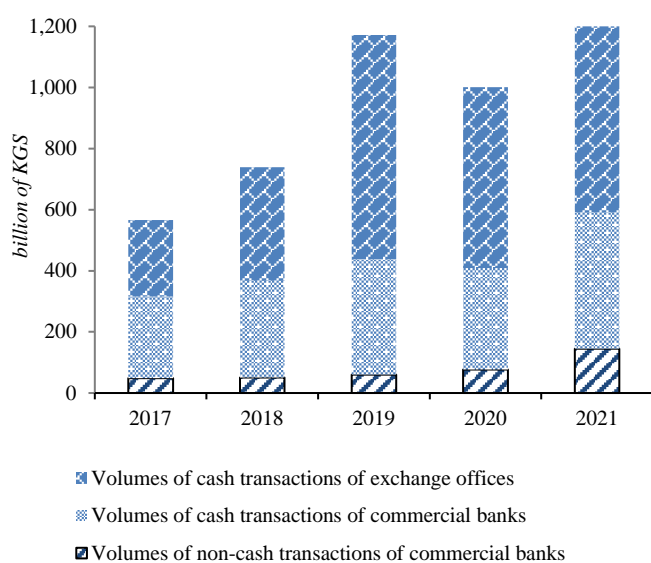


Chart 1.3.1.2. The volume of purchases and sales of foreign currency by type of transactions (in equivalent of KGS)



The situation in the domestic foreign exchange market remained relatively stable, despite the excess of demand for foreign currency over supply thereof. In the reporting year, the exchange rate of KGS fluctuated within the range from 82.6498 to 84.8113 KGS/ USD and increased by 2.6 percent compared to the exchange rate as of December 31, 2020, up to 84.7586 KGS/USD. In the reporting period, the coronavirus pandemic and the following economic crisis, coupled with the risks of new variants of COVID-19, put pressure on the exchange rate.

The National Bank conducted foreign exchange interventions for sale of foreign currency in the amount of KGS 699.0 million, aimed at smoothing sharp exchange rate fluctuations in the foreign exchange market, in order to prevent significant fluctuations in the exchange rate. The National Bank did not conduct interventions to purchase foreign currency.

The total volume of operations for purchase and sale of foreign currency in the foreign exchange market, including operations with non-residents, increased by 53.1 percent in the reporting period up to KGS 1,533.3 billion. An increase in the volume of operations was observed in all currencies.

Source: NBKR

The bulk of operations is still conducted in cash (90.5 percent as of the end of 2021), since 2019, the share of foreign exchange operations which are conducted in the non-cash segment increased from 5.1 to 9.5 percent. In terms of currencies, the volumes of operations on foreign currency purchase and sale increased in all types of currencies.

Money Market

The money market is part of the financial market, where financial resources are traded with a maturity of 12 months or less. It provides the lenders with the opportunity to receive profit by placing their money, and the borrowers – with the opportunity to manage liquidity.

In 2021, activity in the interbank credit market increased compared to the previous year, and the interest rates were higher compared to the previous years. The interest rates in the money market are among the factors of their interest rates formation in the capital market.

In 2021, the volume of operations in the interbank credit market increased by 13.1 percent compared to 2020 and amounted to KGS 34.0 billion. In the reporting period, one standard operation was conducted in foreign currency to the amount of KGS 57.2 million. The standard operations in the national currency were not conducted, and all other operations were conducted on repo terms. The average weighted rate in the interbank market was 5.7 percent to be significantly higher than the 3.7 percent registered in 2020. The volatility of rates was generally low and comparable to 2020. The weighted average terms decreased from 7.0 days in 2020, down to 4.5 days.

In the reporting period, the volume of overnight loans provided by the National Bank to support the banks' short-term liquidity increased by more than 5 times compared to 2020 and amounted to KGS 20.8 billion. The volume of funds placed by the commercial banks on overnight deposits amounted to KGS 1,591.2 billion (+35.4 percent compared to 2020).

1.3.2. Securities Market

In the reporting period, the short-term segment of government securities was characterized by low activity of participants and was represented only by ST-Bills with a maturity of 12 months¹.

According to the results of auctions, as well as additional placements, the sales of ST-Bills amounted to KGS 973.2 million with the weighted average yield of 7.20 percent (in 2020 – KGS 1.1 billion with the weighted average yield of 5.87 percent).

In the reporting period, operations on purchase/sale of ST-Bills were not conducted in the secondary market.

Long-term government securities are still more attractive for the domestic and foreign investors compared to the short-term ones. In addition, at the end of 2021, the Ministry of Finance offered securities with longer maturities: 15-year and 20-year ST-Bonds. As a result, at the end of 2021, the volume of ST-Bonds supply at the auctions increased by 45.0 percent (up to KGS 26.2 billion). According to the results of auctions, the total volume of sales of ST-Bonds taking into account additional placements amounted to KGS 22.3 billion (in 2020 – KGS 16.2 billion).

The rates in the long-term segment grew amid negative consequences of the pandemic, the current expectations of the possible spread of COVID-19 new variants and accelerated inflation. In the reporting period, the total weighted average yield of ST-Bonds increased by 0.1 percentage point compared to the same indicator in 2020 and constituted 11.1 percent.

In the reporting period, the operations of participants in the secondary market of ST-Bonds decreased by 9.9 percent (down to KGS 228.7 million in nominal terms).

¹ The Ministry of Finance of the Kyrgyz Republic offers only 12-month ST-Bills since February 2020.

The market of the National Bank's notes demonstrated expansion under the conditions of high level of excess liquidity in the banking system, which was characterized by growth of demand, supply and sales of these securities. Thus, in the reporting period, the total demand for the National Bank's notes increased by 1.2 percent (up to KGS 311.0 billion), the supply increased by 3.8 percent compared to the same period of 2020, up to KGS 305.8 billion, the sales – by 1.3 percent, up to KGS 280.2 billion. In the reporting period, the market of the National Bank's notes was represented by 7-, 14-, 28-, and 91-day notes. The largest volume of sales fell on the National Bank's notes with a maturity of 28 days (34.7 percent). The sales of 7- and 14-day notes constituted 31.5 and 32.5 percent, respectively, and 91-day notes – 1.3 percent. In the reporting period, the weighted average yield of the National Bank's notes was relatively stable; there were no significant fluctuations (they varied within 4.36-6.96 percent). The weighted average yield of notes increased by 1.6 p.p., up to 5.7 percent compared to the indicator of 2020.

1.4. Real Estate Market

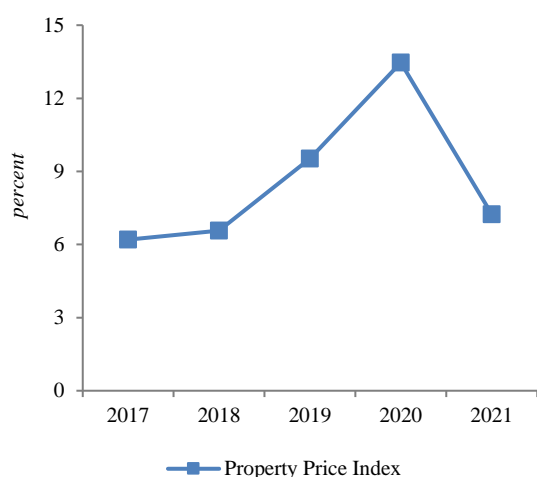
At the end of 2021, there was a decrease of the price index² growth rate in the real estate market of the Kyrgyz Republic due to a slowdown in growth of prices for individual houses (an increase in prices by 5.7 percent) and apartments (an increase in prices by 8.7 percent) compared to 2020.

At the same time, the housing affordability index including the minimum consumer budget in the Kyrgyz Republic increased from 10.6 to 11.1 years compared to 2020 due to the growth rate of the minimum consumer budget outstripping the growth rate of the average monthly nominal wage.

Risks to the financial sector from the real estate market remain moderate, which was conditioned by a low share of mortgage loans³ in the total loan portfolio of the banks.

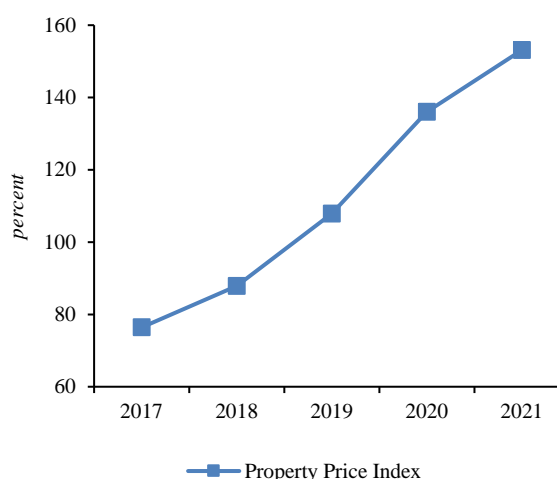
At the end of 2021, slowdown in the property price index from 13.5 to 7.2 percent was observed in the Kyrgyz Republic, while the property basis price index demonstrated an increase from 136.0 to 153.1 percent. Slowdown in the growth rate of property price index was due to a decrease in the growth rate of prices for individual houses in Osh city by 9.5 percent and a slowdown in the growth rate of prices for apartments in Bishkek city by 6.3 percent compared to 2020.

Chart 1.4.1. Price Index Growth Rate in the Real Estate Market



Source: SALR GKR, NBKR calculations

Chart 1.4.2. Basis Price Index Growth Rate in the Real Estate Market⁴



Source: SALR GKR, NBKR calculations

As of December 31, 2021, the average price for 1 square meter of housing (apartments) in Osh increased by 15.6 percent, up to KGS 43.4 thousand and in Bishkek – by 6.3 percent, up to KGS 58.5 thousand compared to 2020. The average price for 1 square meter of individual houses in Osh decreased by 9.5 percent, down to KGS 60.3 thousand, and in Bishkek, on the contrary, it increased by 14.9 percent, up to KGS 66.2 thousand.

² The Laspeyres index method was used in developing price index for the real estate. In general, the Laspeyres index is computed as follows:

$$L = (\sum_{i=1}^K QoiPti / \sum_{i=1}^K QoiPoi) * 100,$$

where

K = number of real estate types;

Qoi = number of real estate of type i in the base period;

Poi = price of real estate of type i in the base period;

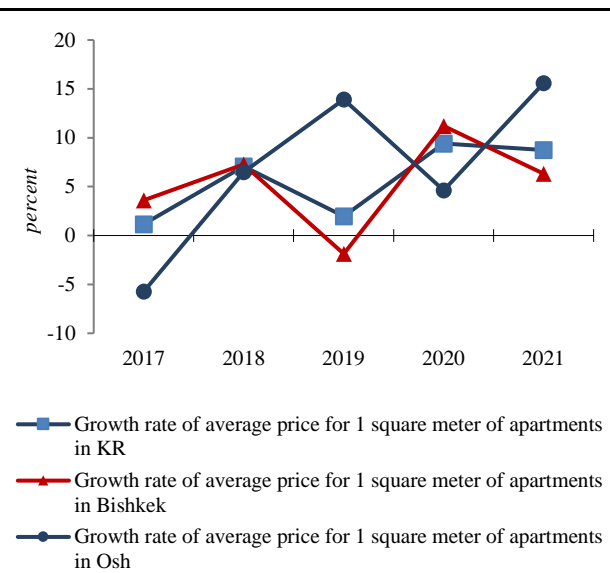
Pti = price of the real estate of type i in the current period.

³ Currently, a mortgage loan is usually a long-term loan extended on security of the title to real estate in the Kyrgyz Republic.

⁴ The year 2010 was taken as the base period.

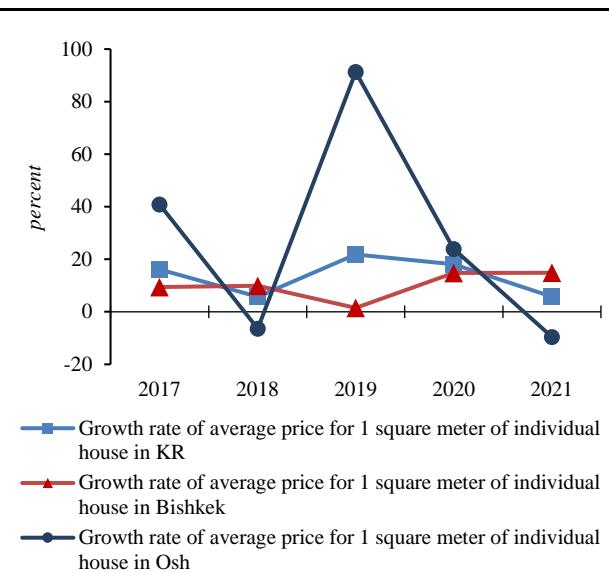
In 2021, the number of transactions on the real estate purchase and sale increased by 42.8 percent and amounted to 56,742. In particular, the transactions on purchase and sale of the apartments increased by 51.7 percent and the transactions on purchase and sale of the houses increased by 31.8 percent compared to 2020 and amounted to 33,349 and 23,393, accordingly.

Chart 1.4.3. Dynamics of Price Changes for Apartments



Source: SALR GKR, NBKR calculations

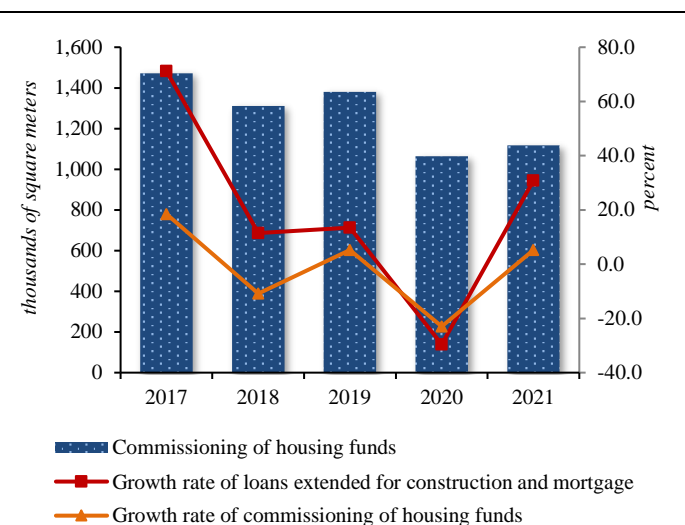
Chart 1.4.4. Dynamics of Price Changes for Individual Houses



Source: SALR GKR, NBKR calculations

There was an increase in the level of commissioning of housing funds. At the end of 2021, the increase in the aggregate level of commissioning of housing funds constituted 5.2 percent compared to 2020 due to the growth in the volume of housing funds commissioning in the regions of the country such as Osh, Jalal-Abad, Talas and Batken regions (Table 1.4.1).

Chart 1.4.5. Dynamics of Housing Commissioning and Loan Extended for Construction and Mortgage⁵



Source: SALR GKR, NSC KR, NBKR calculations

⁵ Data for the period.

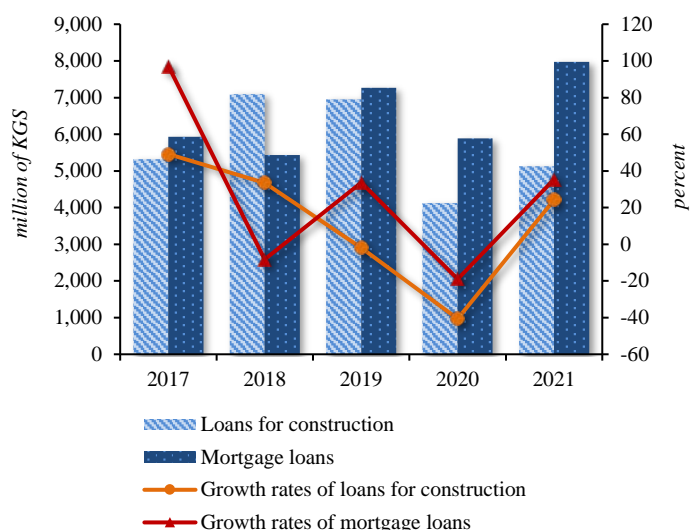
Table 1.4.1. Geographic Structure of Commissioned Housing

	2020		2021	
	Total commissioned area thous. sq.m	Share of total area, %	Total commissioned area thous. sq.m	Share of total area, %
Bishkek city and Chui region	445.5	41.9	407.3	36.4
Osh city and Osh region	209.0	19.7	271.0	24.2
Other regions of KR	408.8	38.4	439.9	39.3
Total	1,063.3	100.0	1,118.2	100.0

Source: NSC KR

As of December 31, 2021 there was an increase in the volume of loans to finance construction and mortgage loans compared to the same period of 2020. Thus, in the reporting period, the volume of loans extended for construction increased by 24.2 percent, up to KGS 5.1 billion, and the volume of mortgage loans increased by 35.4 percent, up to KGS 8.0 billion. The sector of construction and mortgage demonstrated growth in the volume of loans extended in the national and foreign currency.

Chart 1.4.6. Loans Extended for Construction and Mortgage⁶



Source: CBs, NBKR

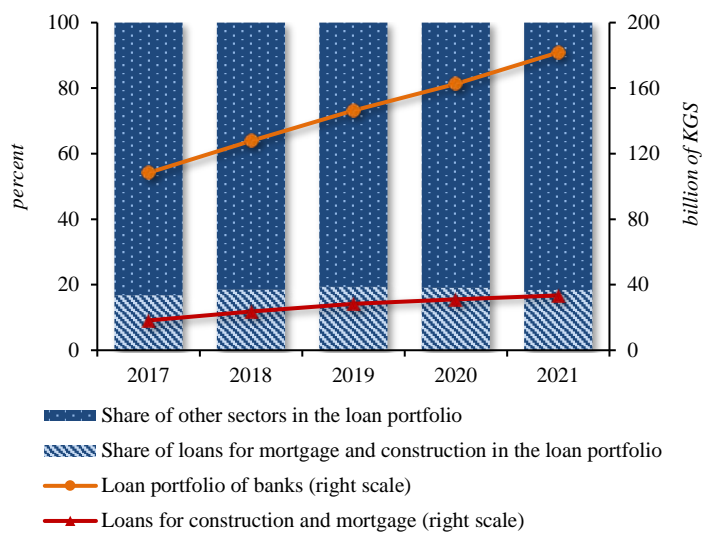
At the end of 2021, residential houses are generally constructed and commissioned at the expense of the population (92.0 percent of the total commissioning)⁷.

As of December 31, 2021, the share of loans for construction and mortgage decreased by 0.7 p.p. and constituted 18.4 percent (Chart 1.4.7) in the total loan portfolio of the commercial banks.

⁶ Data for the period.

⁷ "Social and economic situation of the Kyrgyz Republic (January-December 2021)", NSC KR.

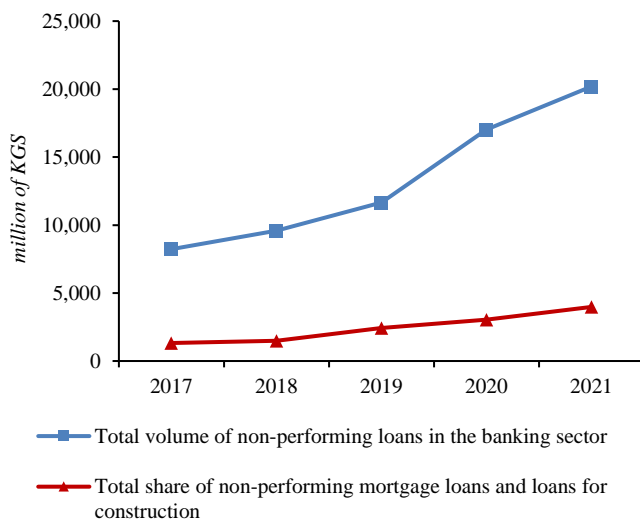
Chart 1.4.7. Total Share of Loans for Mortgage and Construction in the Loan Portfolio of Commercial Banks⁸



Source: CBs, NBKR

The total volume of non-performing loans for mortgage and construction increased by 31.1 percent and amounted to KGS 3,980.2 million. Therefore, the aggregate share of non-performing loans in the aforementioned sectors increased by 1.9 p.p. as of the end of 2021 and constituted 19.7 percent of the total volume of non-performing loans of the banking sector (Chart 1.4.8). Moreover, the volume of non-performing loans for mortgage and construction in foreign currency increased by 25.5 percent and amounted to KGS 2,464.1 million.

Chart 1.4.8. Dynamics of Non-performing Loans



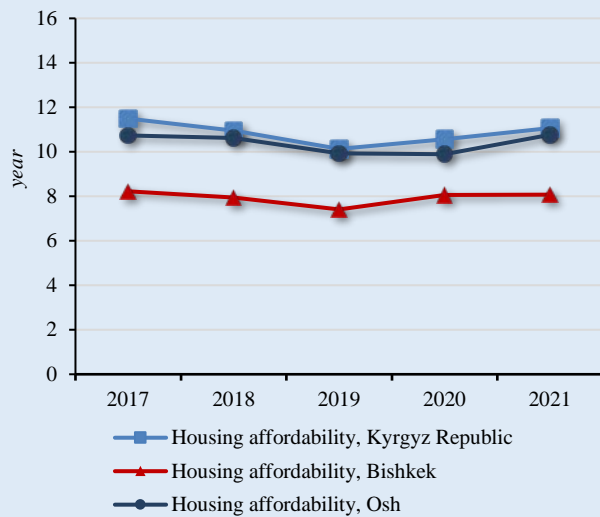
Source: CBs

⁸ Data as of the end of period.

Box 1. Housing Affordability Index

As of December 31, 2021, the housing affordability index taking into account the minimum consumer budget in the Kyrgyz Republic increased by 0.5 p.p. compared to 2020 and amounted to 11.1 years (Chart 1). This is due to the growth rates of the minimum consumer budget (17.0 percent) outrunning the growth rate of the average monthly nominal wages (9.5 percent).

Chart 1. Housing (Apartments) Affordability Index including Minimal Consumer Budget



According to the results of 2021, to purchase an apartment of 54 square meters in the Kyrgyz Republic, one should save the average monthly nominal wage of the family consisting of three people (KGS 20,249.0), where the income is received by two people, and the minimum consumer budget of KGS 18,804.9 (46.4 percent of total family income), for 11.1 years with other conditions being equal.

Sources: NSC KR, SALR GKR, NBKR

Box 2. Stress Testing of Impact from Price Changes in the Real Estate Market on the Banking Sector⁹

As of December 31, 2021, the share of loans, secured by pledged real estate, constituted 30.3 percent of the total volume of loans in the loan portfolio of the banks. The volume of pledged real estate (at collateral value) constituted 68.0 percent of the total collateral of the loan portfolio.

Credit risks of the banking sector are conditioned by possible decrease in the value of the pledged real estate below the loan repayment balance and further potential refusal of the borrower from loan repayment.

Stress testing is focused on quantitative assessment of possible losses from outstanding loans and identification of the most vulnerable banks (groups of banks).

Scheme 1. Results of Stress Testing of Impact from Price Changes in the Real Estate Market on the Level of Credit Risk of the Banking Sector

Scenario	Potential losses of the banking sector	Potential losses of large banks	Risk of capital adequacy ratio violation
"Historical" scenario* (decrease in price for real estate by 23% per a year)	-----	-----	-----
"Alternative" scenario (decrease in price for real estate by 40% per 2 years)	KGS -4.6 billion	KGS -5.7 billion	3 banks
"Negative" scenario (decrease in price for real estate by 50% per a year)	KGS -18.3 billion	KGS -14.9 billion	7 banks

* At the end of 2008, prices for real estate in Kyrgyzstan decreased by 23 percent.

In addition to stress test, the threshold level of decrease in prices for real estate, when there is a risk of a decrease in the profits of the banking sector and when the banks potentially suffer losses, was calculated. The banking sector may face the risk of a decrease in profits and losses of individual banks if prices for the real estate decrease by 35.9 percent, large banks – by 30.1 percent. There is a risk of violation of the capital adequacy ratio by the banking sector, as well as by the large banks when prices for real estate are likely to decrease by 54.8 and 44.9 percent, respectively.

The possible difference between the estimated value of collateral accepted by the banks as collateral for loans and its market value was not taken into account in calculations of the stress test. Taking into account aforementioned facts, the threshold level of decline in prices for real estate can be increased.

⁹ Stress test was conducted on the basis of the commercial banks' data provided in the course of the survey as of December 31, 2021.

II. BANKING SECTOR

At the end of 2021, despite economic slowdown, there was an increase in the main indicators of the banking sector: assets, capital, deposit base and loan portfolio.

At the same time, despite the growth of the loan portfolio in the banking sector, the level of financial intermediation in the Kyrgyz Republic decreased compared to 2020.

At the end of the reporting period, systemic risks of the banking sector are estimated as moderate. The banking sector is characterized by a high level of capital adequacy, indicating the availability of the potential to further increase the level of financial intermediation, efficiency and sustainability of the banking sector in the future.

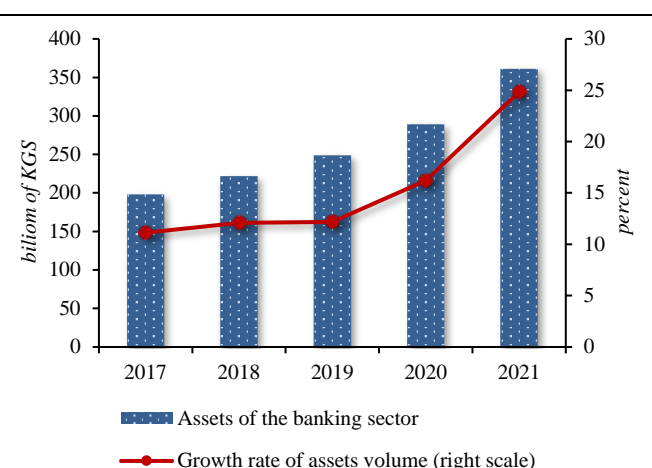
2.1. Major Trends of the Banking Sector Development

As of December 31, 2021¹⁰, 23 commercial banks (including the Bishkek branch of the National Bank of Pakistan) and 312 of their branches worked in the territory of the Kyrgyz Republic, among which there were 16 banks with foreign participation in the capital, including 11 banks with foreign participation in the amount of more than 50 percent. All banking institutions of the country are universal by the type of business.

Assets

Generally, the growth in the volume of the banking sector assets of the Kyrgyz Republic was observed at the end of 2021. Assets of the banking sector amounted to KGS 361.1 billion, having increased by 24.8 percent compared to 2020 (Chart 2.1.1).

Chart 2.1.1. Dynamics of Assets in the Banking Sector



The growth of assets was mainly provided by increase of:

- the loan portfolio by 11.8 percent or KGS 19.2 billion;
- securities by 52.0 percent or KGS 11.5 billion;
- liquidity in the form of cash and funds on the correspondent accounts by 42.6 percent or KGS 33.3 billion.

The share of loan portfolio in the structure of assets constituted 50.3 percent, having decreased by 5.8 p.p. compared to 2020.

Source: NBKR

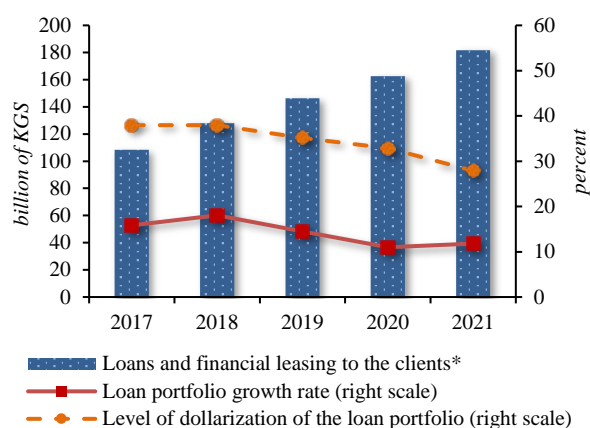
Loan Portfolio

In 2021, growth of the loan portfolio was observed in all sectors of economy, exclusive of the sectors of industry and construction.

At the end of the reporting period, the level of dollarization of the loan portfolio in the banking sector decreased by 5.0 p.p. compared to 2020 and amounted to 27.9 percent (Chart 2.1.2).

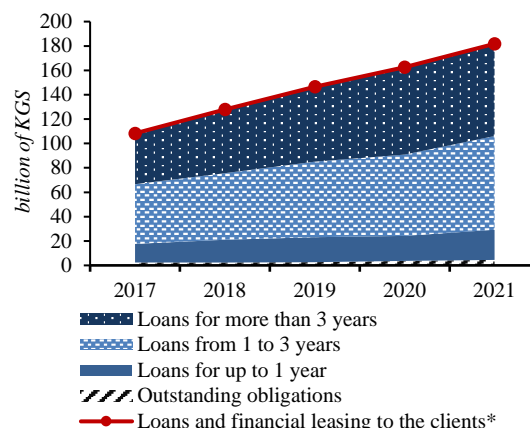
¹⁰ The data are submitted according to periodic regulatory reporting of the commercial banks (PRBR).

Chart 2.1.2. Dynamics of Loan Portfolio in the Banking Sector



* Exclusive of loans provided by FCO and special loan loss provisions
Source: NBKR

Chart 2.1.3. Structure of Loan Portfolio by Maturity



* Exclusive of loans provided by FCO and special loan loss provisions
Source: NBKR

In the structure of loan portfolio by maturity, the major shares are accounted for medium-term loans¹¹ – 42.3 percent or KGS 77.0 billion and long-term loans¹² – 41.6 percent or KGS 75.5 billion (Chart 2.1.3).

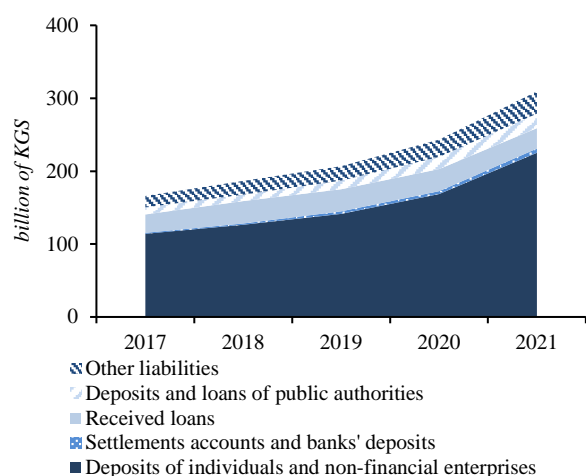
Liabilities

At the end of 2021, liabilities of the banking sector of the Kyrgyz Republic increased by 27.1 percent compared to 2020 and amounted to KGS 309.4 billion.

At the end of reporting period, deposits of individuals and non-financial enterprises increased by 33.6 percent and amounted to KGS 225.1 billion (Chart 2.1.4). The share of individuals' and non-financial enterprises' deposits in the banks' liabilities increased by 3.6 p. p. and amounted to 72.8 percent.

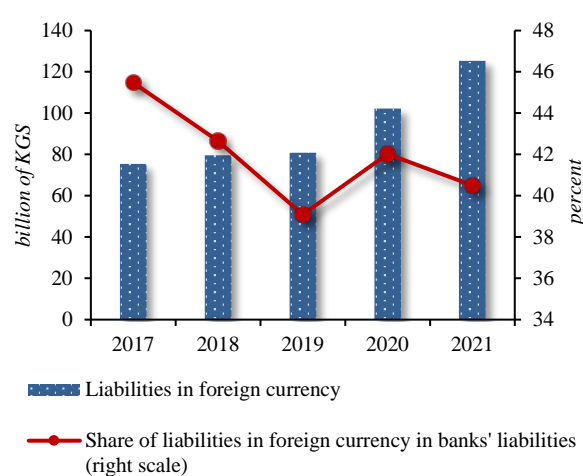
The share of liabilities in foreign currency in the total volume of attracted funds decreased by 1.5 p.p. and amounted to 40.5 percent (Chart 2.1.5).

Chart 2.1.4. Structure of Banks' Liabilities by the Reserve Sources



Source: NBKR

Chart 2.1.5. Banks' Liabilities in Foreign Currency



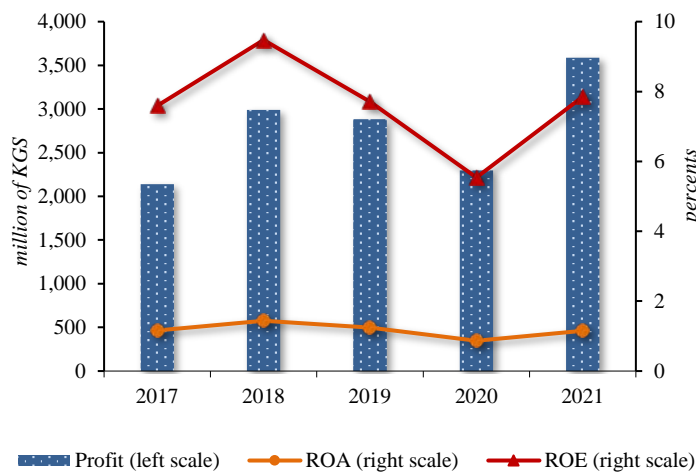
Source: NBKR

¹¹ Medium-term loans are the loans issued for a period from 1 to 3 years.

¹² Long-term loans are the loans extended for a period of more than three years.

Financial Results

Chart 2.1.6. Profitability Indicators of the Banking Sector



At the end of 2021, an increase of the banking sector’s profitability indicators was observed compared to 2020 due to profitability large growth rates compared to the commercial banks’ assets and capital:

- ROA constituted 1.2 percent;
- ROE formed at 7.8 percent.

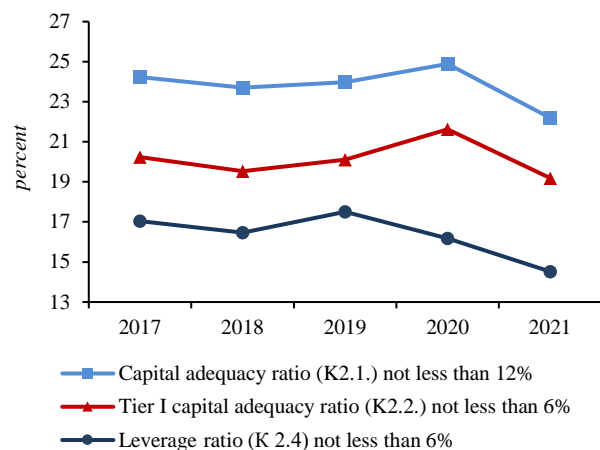
Net profit of the banking sector increased by 56.2 percent and amounted to KGS 3.6 billion (Chart 2.1.6).

Source: NBKR

Capital Adequacy

With statutory minimum capital adequacy at 12.0 percent, at the end of 2021, this figure decreased by 2.7 p.p. compared to 2020 and amounted to 22.2 percent (Chart 2.1.7).

Chart 2.1.7. Dynamics of Capital Adequacy Ratios



At the same time, despite a decrease in the level of capital adequacy of the banking sector formed at the end of 2021, its value was almost two times higher compared to set standard (at least 12 percent), which indicates relative resilience of the banking sector to negative shocks, as well as the potential to increase the level of financial intermediation and efficiency of the banking sector in the future.

Source: NBKR

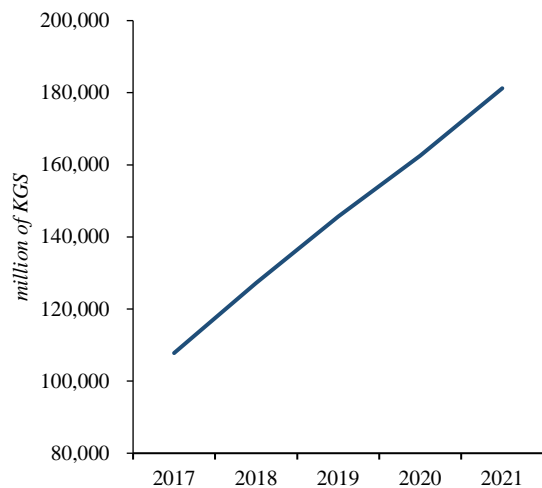
2.2. Banking Sector Risks

2.2.1. Credit Risk

A credit risk is one of the main risks that accompany banking activity.

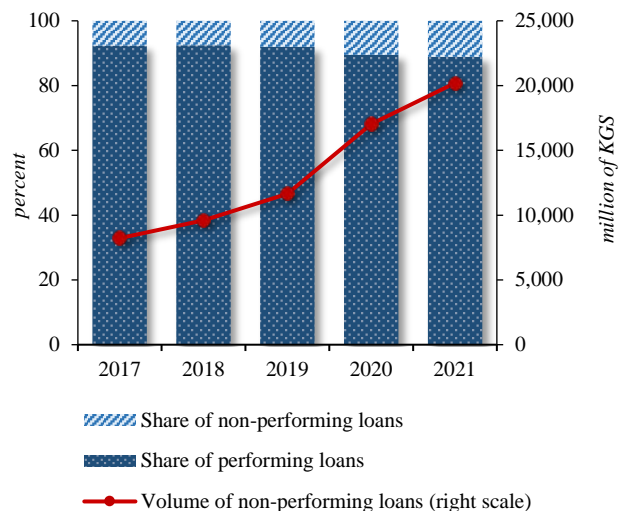
In 2021, the loan portfolio increased by 11.5 percent and amounted to KGS 181.2 billion (Chart 2.2.1). The share of non-performing loans in the loan portfolio of banks increased from 10.5 percent to 11.1 percent compared to 2020 (Chart 2.2.2).

Chart 2.2.1. Dynamics of Loan Portfolio¹³



Source: NBKR

Chart 2.2.2. Loan Portfolio Quality



Source: NBKR

In order to assess the quality of the loan portfolio, the commercial banks use a loan classification system, which contributes to determining the possible level of potential losses from bad loans and compensating them in time through creation of appropriate reserves (Chart 2.2.3).

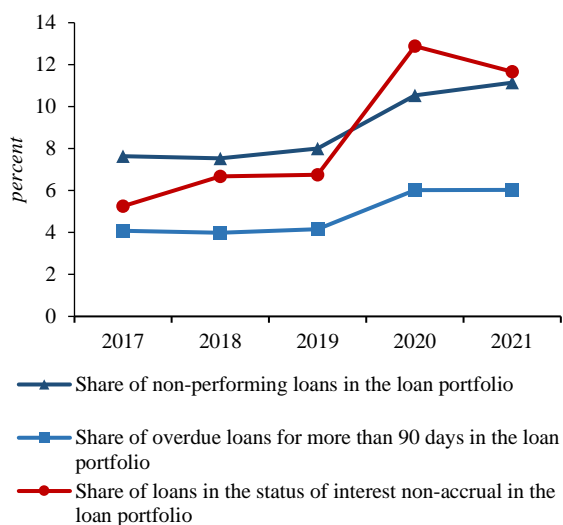
The indicator of the risk of default on assets (the ratio of special loan loss provisions and loan portfolio) increased by 0.9 p.p. compared to 2020 and constituted 7.0 percent.

Aggregate reserves created by the commercial banks increased by 0.5 p.p. compared to 2020 and constituted 9.4 percent of the total loan portfolio.

Meanwhile, the share of special loan loss provision in 2021 constituted 75.0 percent of the total reserves (Chart 2.2.4).

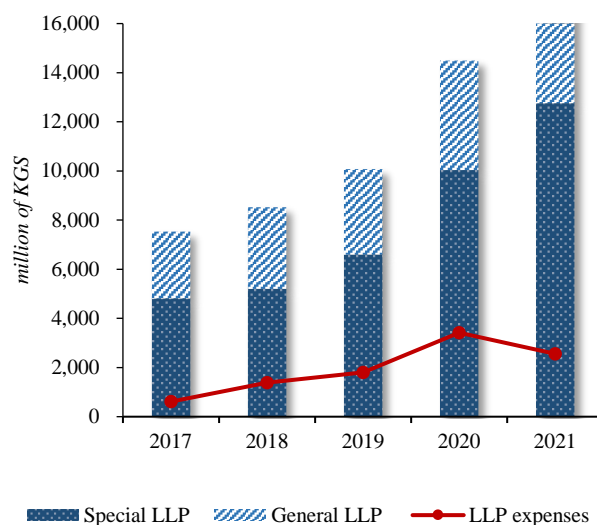
¹³ Loan portfolio excluding discount.

Chart 2.2.3. Indicators of the Loan Portfolio Quality



Source: NBKR

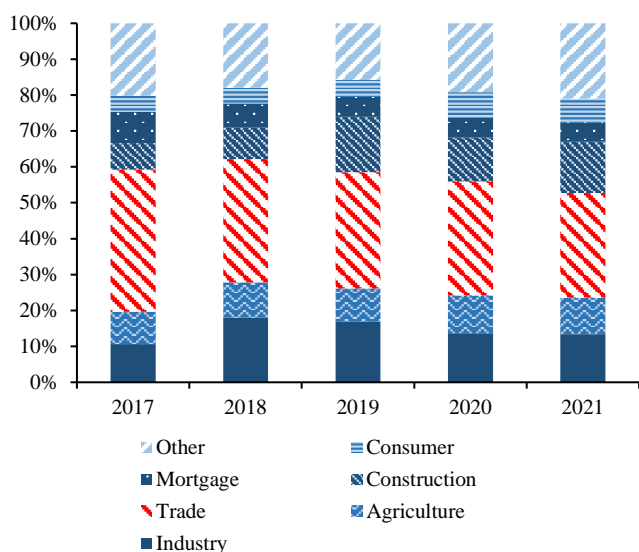
Chart 2.2.4. Total and Special Reserves



Source: NBKR

As of the end of 2021, the highest concentration of credit risks was still observed in the trade sector of economy (Chart 2.2.5).

Chart 2.2.5. Volume of Non-performing Loans by Sectors of Economy



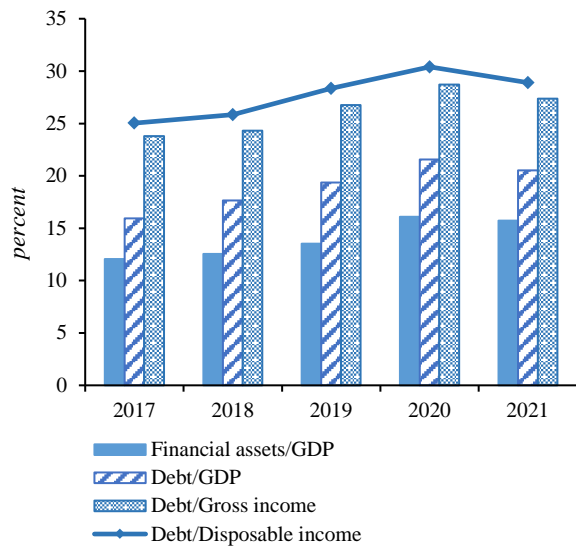
Source: NBKR

Financial Status of Households¹⁴

There was a slight improvement in the financial sustainability indicators of households because the growth rate of the population's income outran the growth rate of the population's debt to the financial sector.

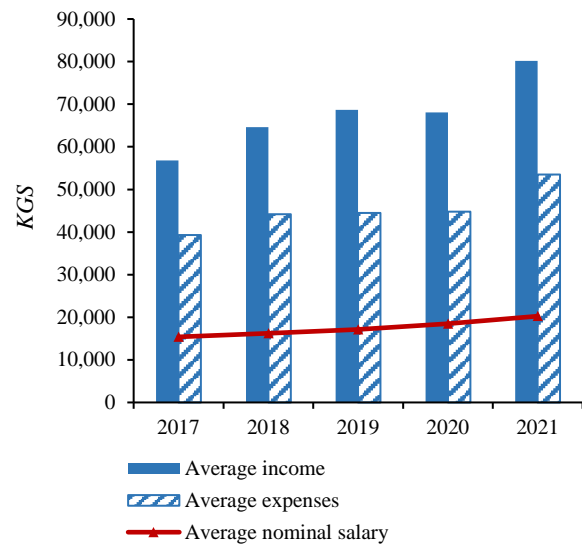
As of December 31, 2021, the households' debt ratio to GDP decreased from 21.6 percent to 20.5 percent compared to the same period of 2020 (Chart 2.2.6). The growth of average per capita incomes outran the growth of average per capita expenses by 27.5 percent (Chart 2.2.7).

Chart 2.2.6. Indicators of Financial Soundness of the Households Indicators



Source: NSC KR

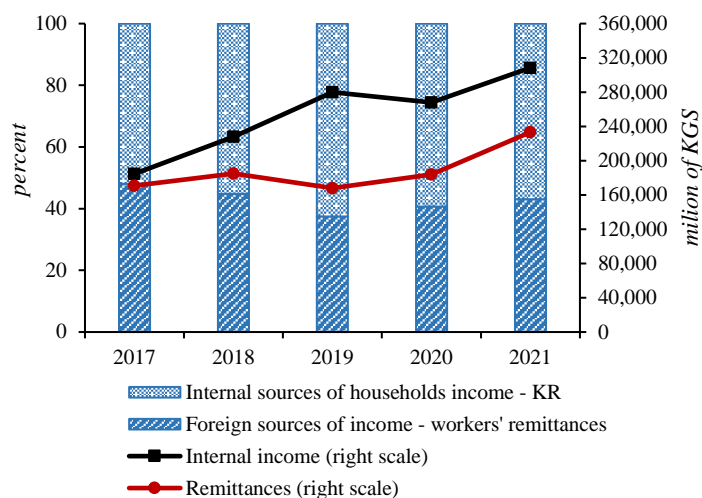
Chart 2.2.7. Factors of the Financial Soundness of the Population Balance



Source: NSC KR

At the end of 2021, the share of remittances increased by 2.4 p.p., up to 43.1 percent of the population gross incomes (Chart 2.2.8). Meanwhile, remittances of migrant workers were still a significant source of household income.

Chart 2.2.8. Structure of Households' Income by Sources



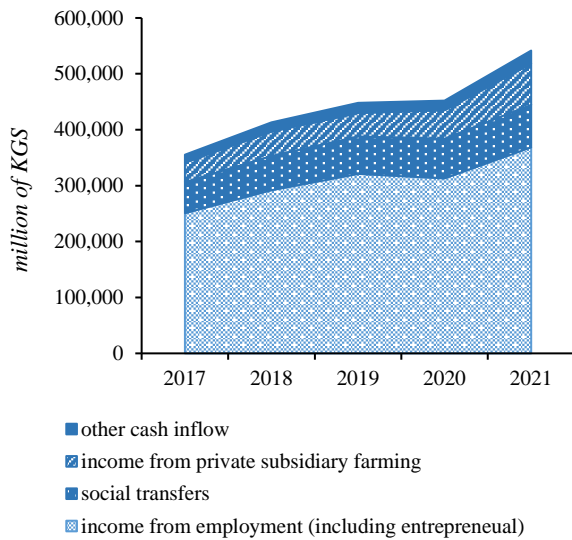
Source: NSC KR

¹⁴ According to the official statistics of the NSC KR, based on a sample survey of the households.

In 2021, in the structure of households' income, the major share was accounted for labor income, which constituted 56.9 percent of the population gross incomes (Chart 2.2.9).

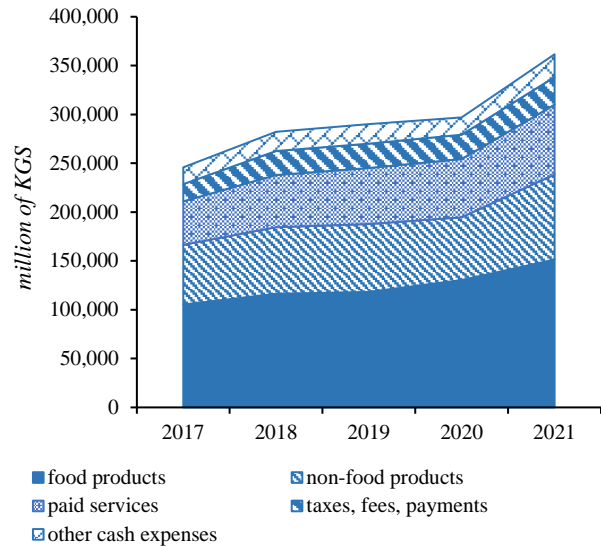
In the structure of household expenses, the main share fell on consumption (Chart 2.2.10), which limited the growth of savings and investments.

Chart 2.2.9. Structure of Households' Income



Source: NSC KR

Chart 2.2.10. Structure of Households' Expenses



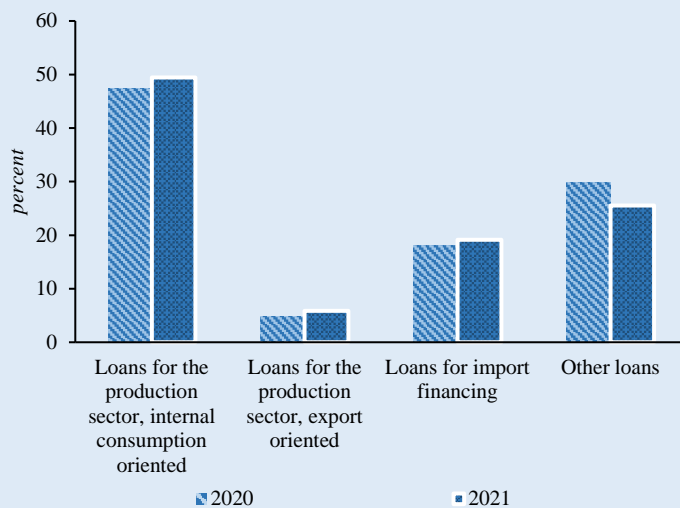
Source: NSC KR

A significant share of consumer expenses, that constituted 85.7 percent of total expenses in 2021, may affect the ability of households to meet their obligations in case of financial receipts reduction.

Box 3. Results of the Commercial Banks' Statistical Observation: Loans

According to the preliminary survey of the commercial banks, at the end of the reporting period, a significant share of extended loans (49.4 percent of total borrowers' loans) was still concentrated in the production sector of the economy¹⁵, thereby reflecting contribution of the lending in creation of the country's GDP, meanwhile, 19.1 percent of issued loans were forwarded for financing of imports (Chart 1).

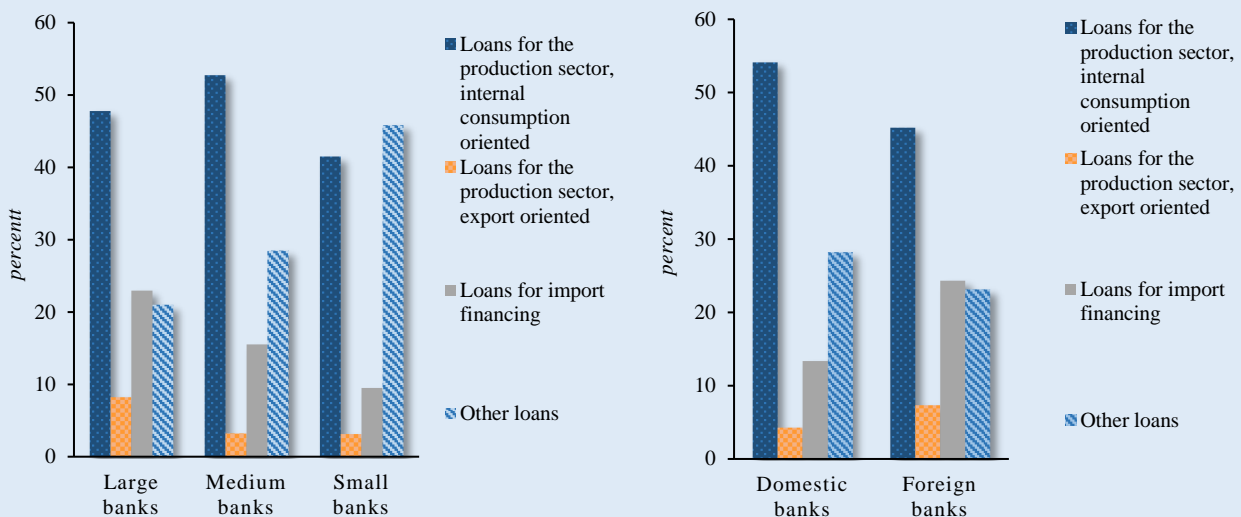
Chart 1 Sectoral Structure of Loans as of December 31, 2021



Source: CBs

Domestic banks forwarded 54.1 percent of the loan portfolio to the production sector (GDP) and 13.4 percent – to finance imports. Generally, foreign banks also provided loans to the production sector of economy (45.2 percent). In 2021, the share of loans forwarded to finance imports constituted 24.3 percent of the loan portfolio (Chart 2).

Chart 2. Sectoral Structure of Loans by the Groups of Banks as of December 31, 2021



Source: CBs

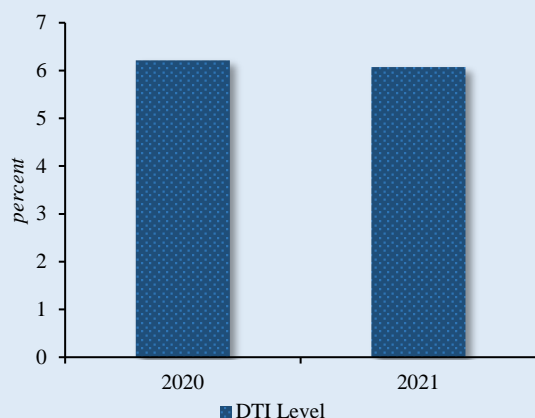
¹⁵ The production sector means the activity of the bank clients connected with the production of goods and services (construction, communication and automobile repair shop services, transport services, real estate leasing, hotels, restaurants, etc.).

Box 4. Results of the Commercial Banks' Statistical Observation: Largest Clients

Borrowers solvency

At the end of 2021, the level of debt burden of 15 banks' largest clients calculated through DTI¹⁶ index decreased by 0.1 p.p. compared to the same indicator in 2020 and constituted 6.1 percent (Chart 1).

Chart 1. DTI Level on 15 Banks' Largest Borrowers



Source: CBs, NBKR

By the groups of banks, the largest debt burden was observed in the major borrowers of the *small banks* (9.0 percent of the borrowers' basic income) (Table 1). At the same time, the lowest level of debt burden was observed in the major borrowers of the *medium banks* and constituted 3.7 percent.

Table 1. Debt Burden of 15 Banks' Largest Borrowers at the End of 2021

	Banking sector	Large banks	Medium banks	Small banks
Loan balance, <i>billions of KGS</i>	79.9	44.0	29.8	6.1
Share of loans in 15 largest borrowers in the total volume of loan portfolio in the banking sector, <i>in %</i>	43.7	45.2	40.2	54.2
Ratio of expenses for loan debt servicing to the borrowers' total income, <i>in %</i>	6.1	7.3	3.7	9.0

Source: CBs, NBKR

In 2021, the level of debt burden in the foreign banks was higher than in the domestic banks (Table 2).

Table 2. Debt Burden in the Domestic and Foreign Banks at the End of 2021

	Domestic banks	Foreign banks
Loan balance, <i>billions of KGS</i>	36.4	43.5
Share of loans in 15 largest borrowers in the total volume of loan portfolio in the banking sector, <i>in %</i>	42.0	45.2
Ratio of expenses for loan debt servicing to the borrowers' total income, <i>in %</i>	4.1	7.8

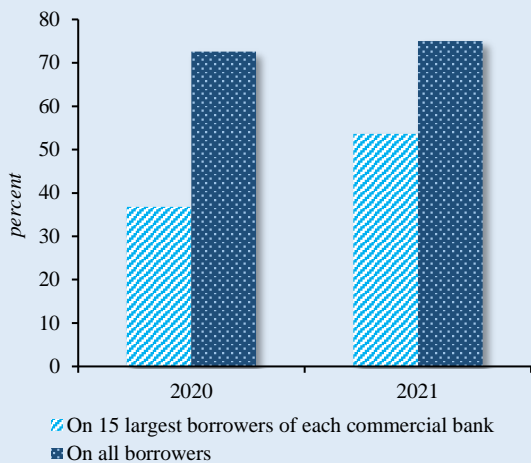
Source: CBs, NBKR

¹⁶ DTI (debt-to-income) is the ratio of the amount of the borrowers' payments on loans (including the amount of principal and interest payments for the reporting period) to the main annual income of the borrower declared at the time of issuing a loan.

Security of the borrowers' loans

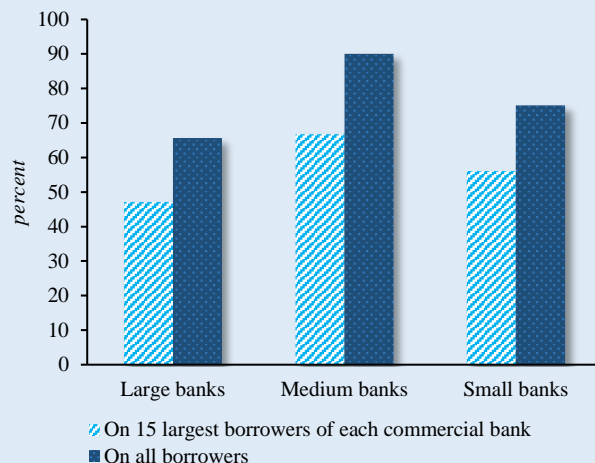
At the end of 2021, the LTV¹⁷ actual level in the banking sector amounted to 75.1 percent. The existing level of collateral indicates a relatively high level of the loans secured by the pledged property (Chart 2). At the same time, the LTV value of large banks is lower than that of small and medium banks and the banking sector as a whole (Chart 3).

Chart 2. LTV Level on All Borrowers and on 15 Largest Borrowers of Commercial Bank as of December 31, 2021



Source: CBs, NBKR

Chart 3. LTV Level on All Borrowers and on 15 Largest Borrowers of Commercial Bank by the Banks' Groups as of December 31, 2021



Source: CBs, NBKR

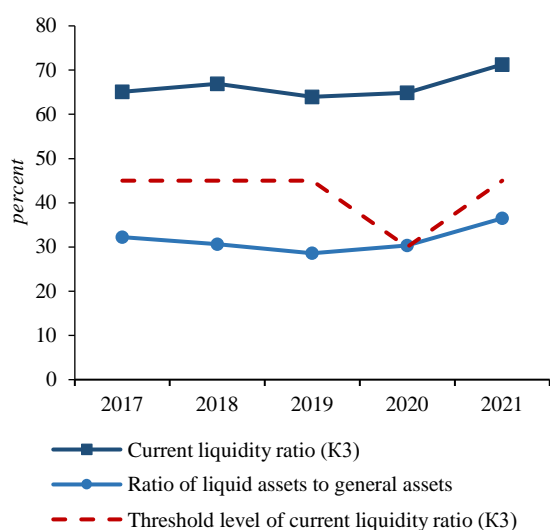
¹⁷ LTV (loan-to-value ratio) is the ratio of issued loans to the value of collateral.

2.2.2. Liquidity Risk

Since February 1, 2021, the National Bank increased the value of the economic liquidity ratio (K3.1.) from 30.0 to 45.0 percent and resumed compliance with the prudential standards for short-term liquidity (K3. 2) and quick liquidity (K3.3) due to improvement of the situation in the banking sector and to ensure financial stability.

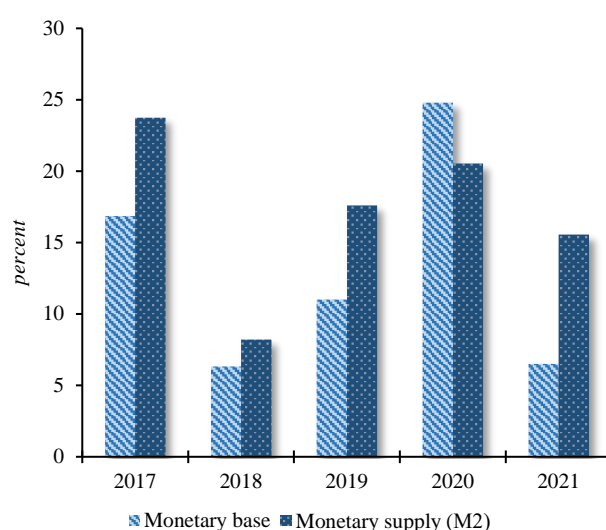
At the end of 2021, current liquidity ratio increased from 64.9 percent (at the end of 2020) up to 71.3 percent (Chart 2.2.11). Growth of money supply indicator (M2) was due to increase of monetary funds in the national currency and time deposits in the economy (Chart 2.2.12).

Chart 2.2.11. Liquidity Indicators in the Banking Sector



Source: NBKR

Chart 2.2.12. Growth Rates of Money Supply (M2) and Monetary Base



Source: NBKR

Liquidity ratio of the banking sector increased due to excess of liquid assets over current liabilities growth rates.

There was a gap between assets and liabilities in terms of their maturity. There was a negative gap between assets and liabilities with maturity “up to 1 month”, “from 3 to 6 months”. Positive gap between assets and liabilities is observed in the maturity “from 1 to 3 months” and “more than 12 months” (Table 2.2.1).

Table 2.2.1. Maturity of Financial Assets and Liabilities
as of December 31, 2021, millions of KGS

Name	Maturity					Total
	up to 1 month	1-3 months	3-6 months	6-12 months	more than 12 months	
Total financial assets	161,175	15,864	15,756	31,531	154,776	379,101
including loans and financial leasing to the clients	9,519	8,839	12,058	28,353	122,462	181,231
Total financial liabilities	189,877	11,959	21,355	32,642	48,299	304,131
including deposits of individuals and time deposits of legal entities	63,332	7,408	12,847	25,514	24,798	133,899
Gap	-28,702	3,905	-5,599	-1,111	106,477	74,970
Including on loans and deposits	-53,813	1,431	-789	2,839	97,663	47,332

2.2.3. Concentration Risk

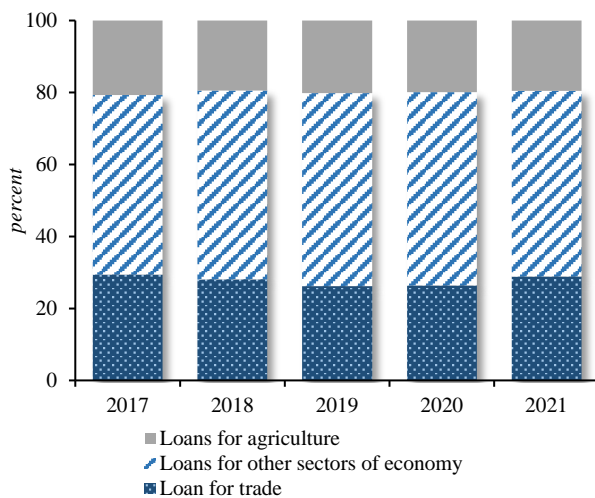
Concentration of the Largest Sources of Financing

The results of “reverse” stress testing show that some banks could not withstand the shock related to monetary funds outflow from one to five large clients, when the liquidity ratio decreases below the threshold level of 45 percent.

Loan Concentration

Potential default from one to four largest borrowers in separate banks may decrease regulatory capital below economic standard of the NBKR.

Chart 2.2.13. Sectoral Concentration of the Loan Portfolio



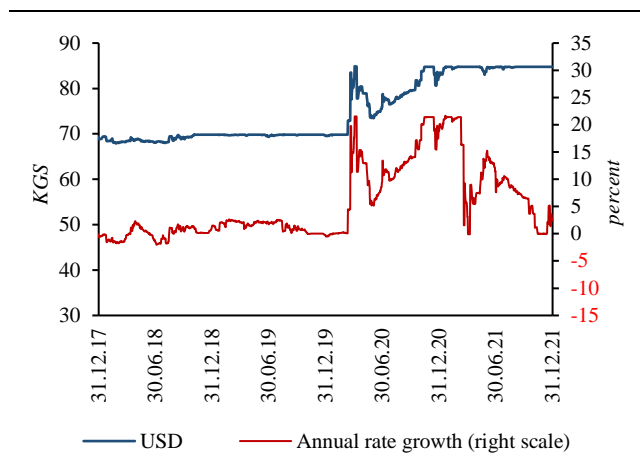
Increase of the level of trade loans concentration was observed in the sectoral structure of loan portfolio amid increase of lending to all sectors. At the end of 2021, the share of loans for trade increased from 26.4 percent to 28.9 percent (Chart 2.2.13).

Source: CBs, NBKR

2.2.4. Currency Risk

At the end of 2021, the annual average level of *currency risk* in the banking sector was at a moderate level. In 2021, the KGS/USD exchange rate was stable (Chart 2.2.14).

Chart 2.2.14. Dynamics of USD/KGS Nominal Exchange Rate



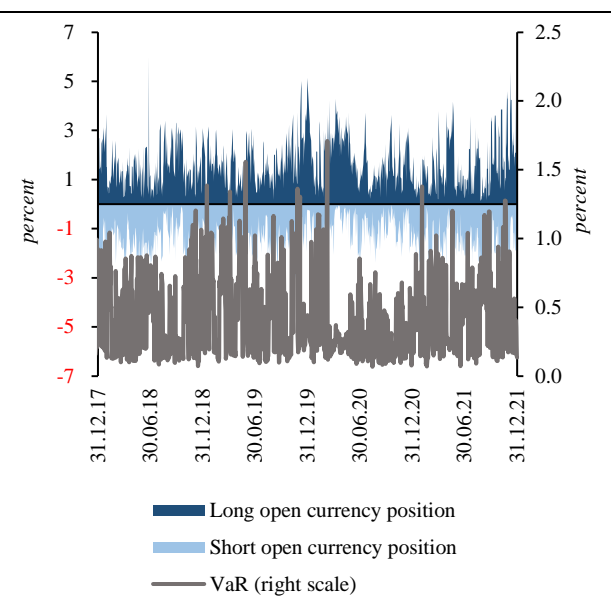
Source: NBKR

In general, the banks kept open currency positions of assets and liabilities within the limits set by the prudential standards of the National Bank of the Kyrgyz Republic.

In 2021, the risk of currency position overestimation in the banking sector was minimum (VaR: 0.1-1.4 percent of the net total capital, Chart 2.2.15) i.e. the banks adhered to a conservative policy when conducting operations with foreign currency and were weakly exposed to currency risk.

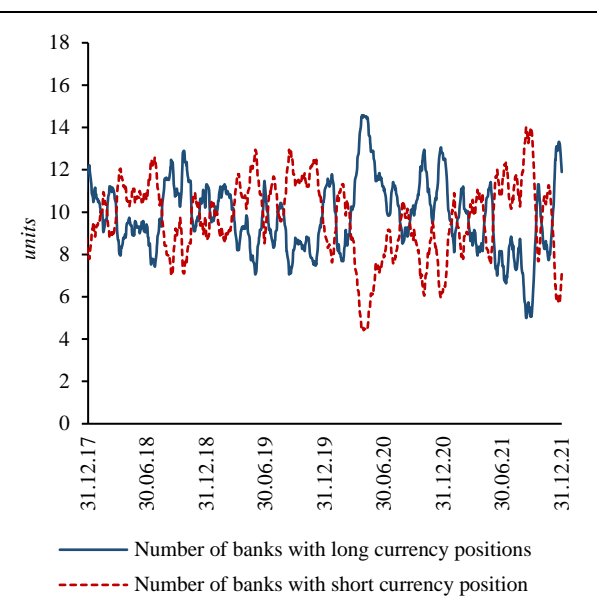
In 2021, the number of banks with long and short currency positions did not change significantly and remained stable, as in 2020 (Chart 2.2.16).

Chart 2.2.15. Dynamics of Open Currency Position (OCP) and Revaluation Risk (VaR), in percent of NTC



Source: NBKR

Chart 2.2.16. Currency Position of the Banks



Source: NBKR

Box 5. Credit and Currency Risks

As of December 31, 2021, 16.8 percent of the total loan portfolio was accounted for the loans, which were repaid in foreign currency, while the incomes of the borrowers were generated in the national currency (Chart 1). This volume of the loan portfolio was potentially exposed to credit and currency risks.

The impact made by the currency risk on the credit risk is given in Chart 2 that displays the proportion of non-performing loans by groups of loans:

- Group 1 – 23.9 percent, basic incomes of the borrower are generated in the national currency, and the loans are repaid in foreign currency;
- Group 2 – 8.7 percent, basic incomes and loans payable by the borrower are generated in the same currency;
- Group 3 – 9.1 percent, basic incomes of the borrower are generated in foreign currency, and the loans are repaid in the national currency.

Chart 1. Loan Portfolio by Groups of Loans¹⁸

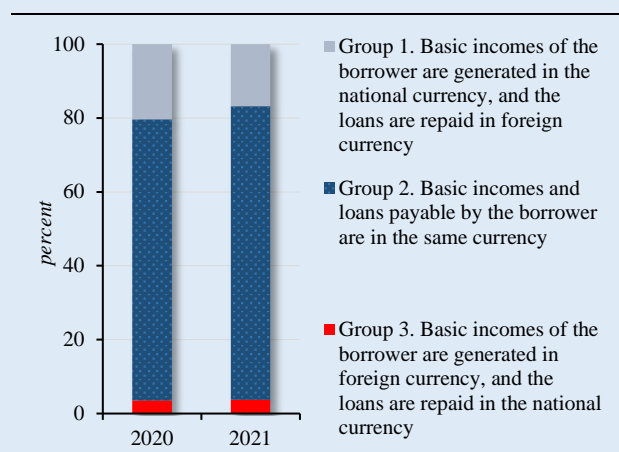
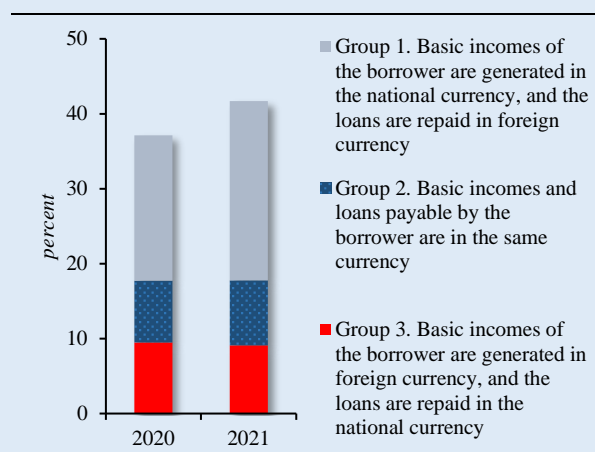


Chart 2. Share of Non-performing Loans by Groups of Loans¹⁹



Source: CBs, the volume of loan portfolio is specified exclusive of overdraft loans.

¹⁸ Breaking of loans into groups is presented in this chart. For example, the volume of loans for Group 1 as of December 31, 2021 amounted to KGS 30.0 billion or 16.8 percent of the total loan portfolio.

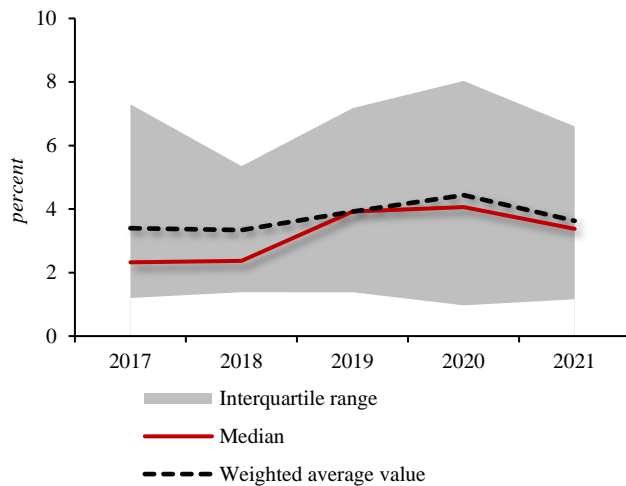
¹⁹ This chart shows the shares of non-performing loans in the loan portfolio by each group of loans. For example, the volume of non-performing loans for Group 1 as of December 31, 2021 amounted to KGS 7.2 billion or 23.6 percent of the total loan portfolio for Group 1 (KGS 30.0 billion).

2.2.5. Interest Rate Risk

At the end of the reporting period, there was an increase in the *interest rate risk* due to the high growth rates of risk-weighted assets compared to the net total capital.

Average value of interest rate risk during the period of 2010 - 2021 was within accessible limits (2.4-4.4 percent of net total capital) (Chart 2.2.17).

Chart 2.2.17. Dynamics of Interest Rate Risk (VaR)
in percent of NTC



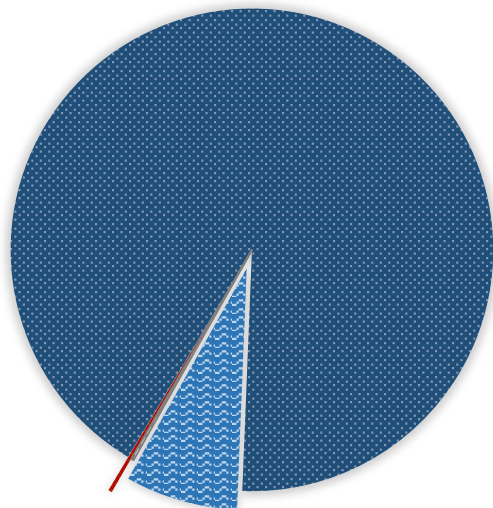
Source: NBKR

2.2.6. Contagion” Risk

The purpose of this analysis is to assess the consequences of “contagion” effect in the interbank credit market of the Kyrgyz Republic, which can set off chain-reaction upon occurrence of problems with liquidity in one bank.

At the end of 2021, the volume of interbank loan transactions amounted to KGS 34.0 billion²⁰.

Chart 2.2.18. Distribution of Interbank Loan Transactions Made during 2021 between Resident Banks, Depending on Collateral



■ ST-Bills ■ ST-Bonds ■ Notes ■ Without collateral

The loans in the interbank market are generally covered by collateral in the form of highly liquid government securities (Chart 2.2.18) in the banking sector of the Kyrgyz Republic.

In general, the probability of the “contagion” risk materialization in the interbank credit market of the country is minimal, which is caused by highly liquid collateral.

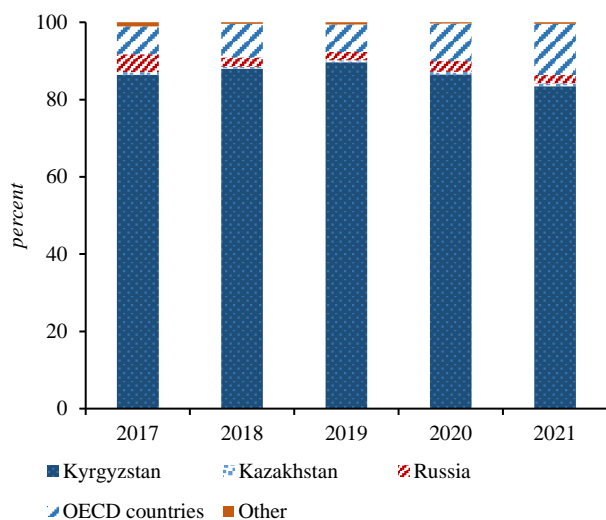
Source: NBKR

²⁰ The total volume of transactions made between the resident banks during 2021 is meant here.

2.2.7. Country Risk

As of December 31, 2021, the aggregate volume of disposed assets of non-residents constituted KGS 63.3 billion or 16.5 percent of the total banking sector assets. The highest concentration of placement was observed in the OECD countries – 80.4 percent (KGS 50.9 billion) of non-residents’ assets.

Chart 2.2.19. Geographic Structure of Assets

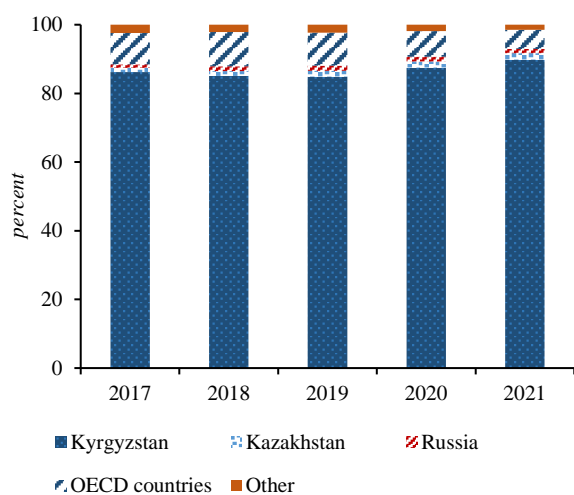


Source: NBKR

The main share of the assets placed abroad was focused on correspondent and deposit accounts and constituted KGS 62.0 billion or 98.0 percent of total placed assets of non-residents (Chart 2.2.19).

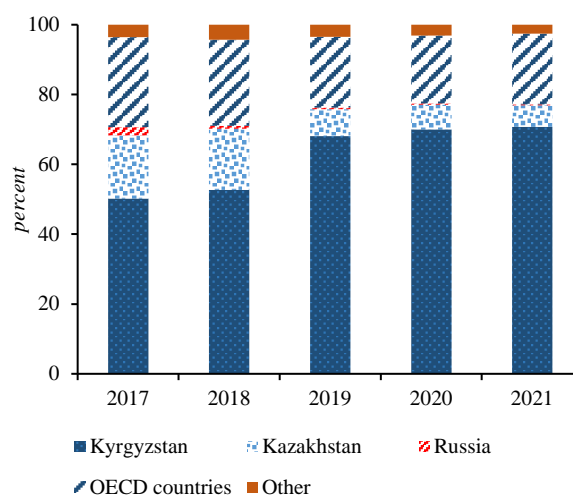
At the end of 2021, banks’ liabilities to non-residents of the Kyrgyz Republic totaled KGS 31.1 billion or 10.2 percent of the total liabilities of the banking sector. Significant volume of the resources was drawn by the non-resident banks in the form of loans and deposits, which amounted to KGS 29.4 billion or 94.4 percent of the total liabilities to non-residents. 54.9 percent of the liabilities to the non-residents were accounted for the OECD countries, 19.3 and 11.6 percent – for Russia and Kazakhstan, accordingly (Chart 2.2.20).

Chart 2.2.20. Geographic Structure of Liabilities



Source: NBKR

Chart 2.2.21. Authorized Capital by Countries



Source: NBKR

At the end of 2021, foreign capital amounted to KGS 10.8 billion or 29.2 percent of the total authorized capital of the banking sector. The structure of foreign capital by countries is distributed among (Chart 2.2.21):

- residents of the OECD countries – 69.2 percent;
- residents of Kazakhstan – 20.9 percent;
- residents of Russia – 1.0 percent.
- residents of other countries – 8.9 percent.

2.3. “Reverse” Stress Testing of the Banking Sector

2.3.1. “Reverse” Stress Testing of Credit Risk²¹

Maximum allowable share of “performing” loans²² in the loan portfolio, which upon categorized as “non-performing” loans can reduce the CAR (capital adequacy ratio) down to the threshold level of 12 percent, is calculated by means of the “reverse” stress testing of the credit risk.

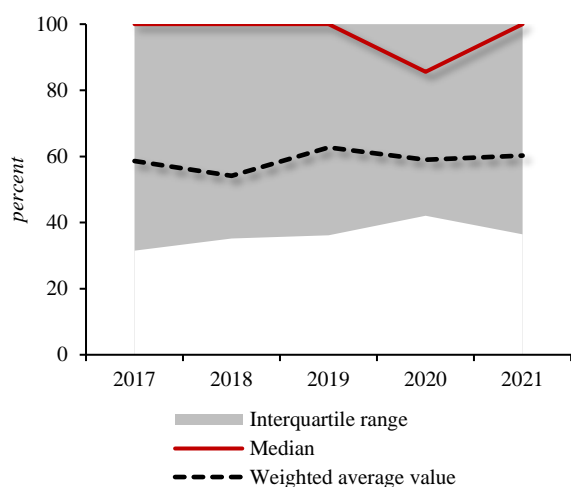
This method allows detecting a buffer stock of capital (net total capital) of banks, which can cover the additional allocations to LLP in connection with the transformation of “performing” loans into the category of “non-performing” loans²³.

Moreover, the maximum growth rate of “non-performing” loans, where capital adequacy (K2.1) will be reduced to the threshold level of 12 percent, can be calculated by means of this method.

Based on the results of the “reverse” stress testing of the banking sector as of December 31, 2021, the maximum allowable share of “performing” loans, transferring to the category of “non-performing” in the banking sector, amounted to approximately 60.3 percent (Chart 2.3.1).

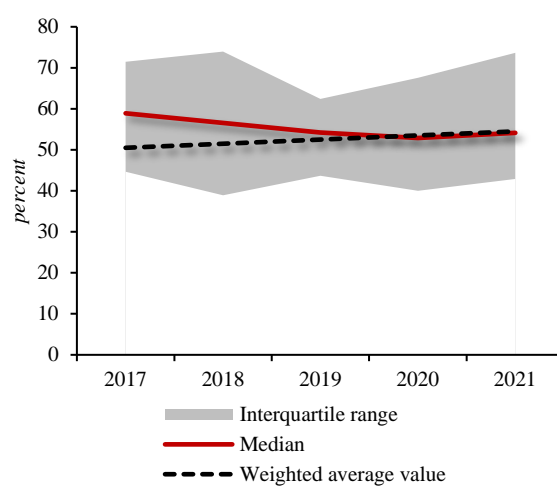
Thus, the banking sector can sustain a significant deterioration in the quality of the loan portfolio, which may require the creation of additional LLP approximately up to 54.5 percent of net total capital (Chart 2.3.2).

Chart 2.3.1. Maximum Possible Share of “Performing”²⁴ Loans that May Become “Non-performing” Loans²⁵
percent of performing loans



Source: NBKR

Chart 2.3.2. Additional LLP, in Creating thereof CAR Decreases to 12 Percent
percent of NTC



Source: NBKR

²¹ Exclusive of troubled banks.

²² Exclusive of “normal” loan category, which are risk free.

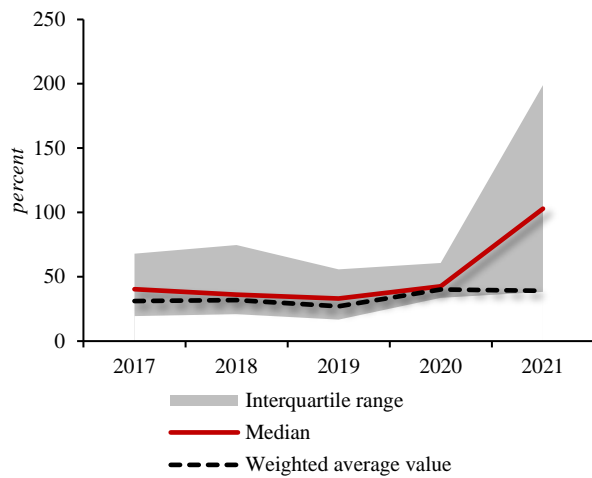
²³ Herewith, transition of “performing” loans to the category of “non-performing” loans is fulfilled smoothly by three categories (“substandard”, “doubtful” and “losses”).

²⁴ Exclusive of “normal” loan category, which are risk free.

²⁵ When CAR decreases to the threshold level of 12 percent.

2.3.2. “Reverse” Stress Testing of Liquidity Risk

Chart 2.3.3. Scope of Potential Outflow of Deposits when K3.1 May Drop to 45 Percent, percent of clients’ total deposits



Source: NBKR

The reserve of liquid assets, which can cover a massive outflow of deposits of the clients’ total deposit base, without violating the NBKR prudential standard on the current liquidity, was calculated for the evaluation of the liquidity risk in the banking sector.

Shock is the maximum volume of the outflow of the individuals’ and non-financial enterprises’ deposits, which may reduce the liquidity ratio down to the threshold level of 45 percent.

The results of the “reverse” stress testing show (Chart 2.3.3), that as of the end of 2021 the actual amount of liquid assets of the banking sector was able to cover the deposits outflow of an average of 39.1 percent of the clients’ total deposit base (Table 2.3.1).

2.3.3. “Reverse” Stress Testing of Market Risk

The results of the “reverse” stress testing of the market risk indicate that the banking sector as of the end of 2021 has little sensitivity to the interest rate and currency risks.

Interest Rate Risk

Scenario 1 – decrease of average weighted interest rate on loans, when the level of capital adequacy decreases to the threshold level (12 percent).

The results of the “reverse” stress testing indicate little sensitivity of the banking sector to the direct interest rate risk. Decrease of the average interest rates on loans by 9.3 p.p. can reduce the level of capital adequacy ratio to 12 percent (Table 2.3.1).

Generally, the results of the “reverse” stress testing show that the banking sector is characterized by low level of interest rate risk.

Currency Risk (Revaluation Risk)

Maximum increase level of the KGS/USD exchange rate, which will influence capital adequacy and net profit, is calculated for valuation of the currency risk in the banking sector.

Scenario 1 – maximum increase level of the KGS/USD exchange rate, when the level of capital adequacy (K2.1) declines to the threshold level (12 percent).

Calculations of the “reverse” stress testing indicate that the banking sector is characterized by low risk of assets and liabilities revaluation and confirms availability of low sensitivity to currency risk (Table 2.3.1).

Scenario 2 – maximum increase level of the KGS/USD exchange rate, when net profit of the commercial banks decreases to zero level.

The results of stress testing indicate that the commercial banks can stand the impact of currency risk (Table 2.3.1).

Table 2.3.1. General Results of the “Reverse” Stress Tests as of December 31, 2021

		Banking sector
Credit risk		
Scenario 1	Share of performing loans transferring to the category of "non-performing" loans, <i>in percent</i>	60.2
Interest rate risk		
Scenario 1	Decrease of weighted average interest rate on loans, when CAR declines to 12%, <i>in percentage points</i>	9.3
Currency risk		
Scenario 1	Growth rate of USD/KGS (\pm) exchange rate, when CAR decreases to 12%, <i>in percent</i>	change of currency rate by 100 percent (KGS/USD)
Scenario 2	Growth rate of USD/ KGS (\pm) exchange rate, when net profit decreases to zero level, <i>in percent</i>	
Liquidity risk		
Scenario 1	Outflow of clients' deposit and received loans of the total deposits and loans, when current liquidity ratio declines to 30%, <i>in percent</i>	39.1

III. NON-BANKING FINANCIAL-CREDIT ORGANIZATIONS

In general, the state of the system of non-banking financial-credit organizations (NBFCOs) is assessed as stable. Increase of major indicators such as assets, loan portfolio, resource base is observed. Stress test results indicate that the credit risk of the NBFCOs system is moderate.

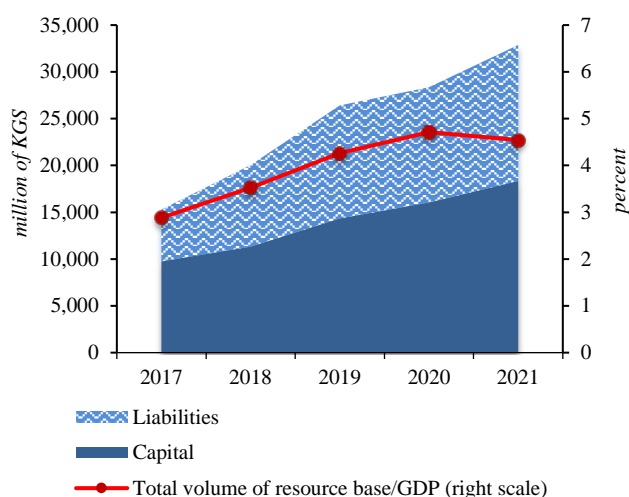
The weighted average interest rates on loans of the microfinance organizations and credit unions decreased compared to 2020.

3.1. Main Trends

The system of non-banking financial-credit organizations subject to licensing and regulation by the National Bank as of December 31, 2021 in the Kyrgyz Republic, included: the specialized financial and credit institution – “FCCU” OJSC, “Guarantee Fund” OJSC; 88 credit unions, 133 microfinance organizations (including 10 microfinance companies, 86 microcredit companies and 37 microcredit agencies), and 379 exchange offices and 2 credit bureaus.

Resources

Chart 3.1.1. Dynamics of NBFCOs Liabilities and Capital

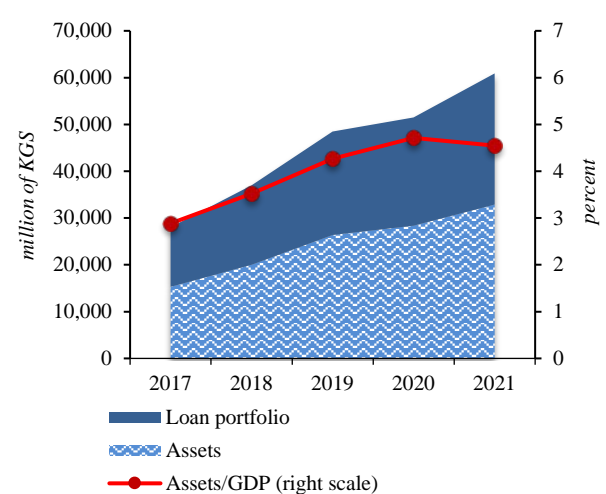


At the end of 2021, NBFCOs liabilities increased by 18.1 percent compared to 2020 and were formed in the amount of KGS 14.5 billion. NBFCOs capital demonstrated an increase by 14.2 percent and totaled KGS 18.3 billion (Chart 3.1.1).

Source: NBKR

Assets

Chart 3.1.2. Dynamics of NBFCOs Assets and Loans



Source: NBKR, NBFCOs

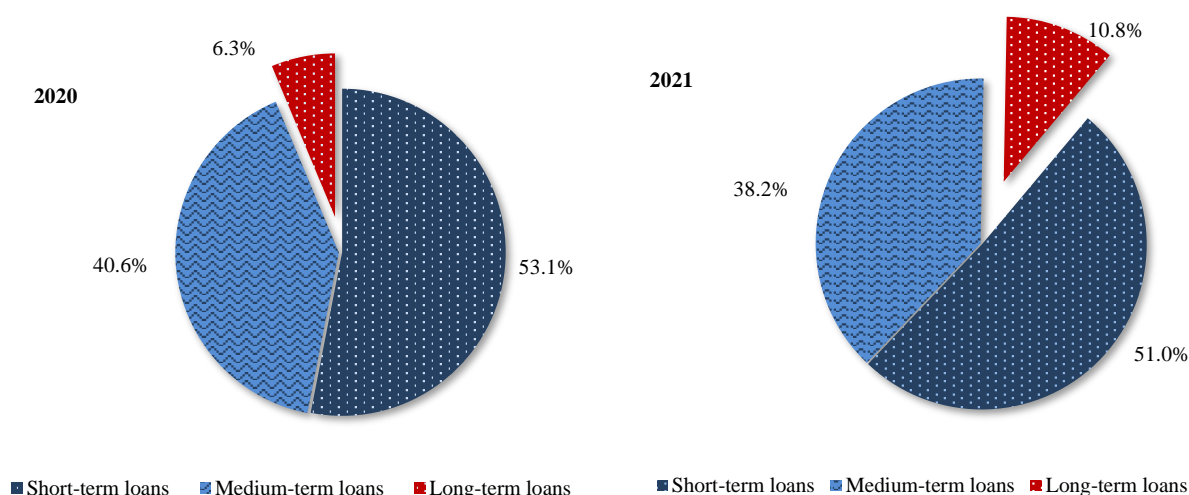
According to periodic regulatory reporting, the total assets of NBFCOs at the end of 2021 increased by 15.9 percent and amounted to KGS 32.9 billion²⁶. This increase was due to growth in the loan portfolio of NBFCOs (Chart 3.1.2).

Lending remains the main activity of NBFCOs. As of December 31, 2021, the loan portfolio of the NBFCOs increased by 21.1 percent and formed in the amount of KGS 28.0 billion.

At the end of the reporting period, the number of borrowers decreased by 1.4 percent compared to 2020 and amounted to 427,414 borrowers.

There was a decrease in the share of short-term and medium-term credit resources and an increase in the share of long-term loans within the maturity structure of loans provided to NBFCOs during the reporting period (Chart 3.1.3).

Chart 3.1.3. Structure of the NBFCOs Loan Portfolio by Maturity²⁷



Source: NBKR, NBFCOs

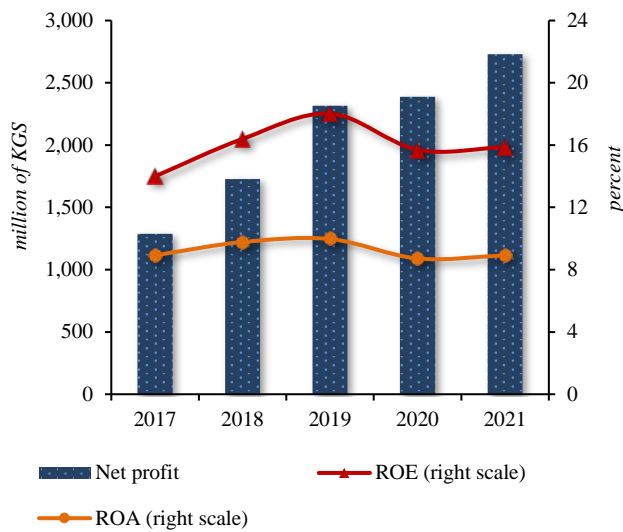
The main regions where the major share of NBFCOs loan portfolio is concentrated (73.3 percent of the total loan portfolio) are Bishkek city, as well as Chui, Osh and Jalal-Abad regions, which is due to the highest level of business activity in these regions of the republic.

²⁶ Exclusive of SFCOs.

²⁷ Data for the period.

Revenue Position²⁸

Chart 3.1.4. Dynamics of NBFCOs Revenue Position²⁹



At the end of 2021, net profit of NBFCOs increased by 14.4 percent compared to 2020 and amounted to KGS 2.7 billion. As of 2021, ROA increased by 0.2 p.p. and amounted to 8.9 percent. ROE increased by 0.2 p.p. and constituted 15.9 percent (Chart 3.1.4).

Source: NBKR, NBFCOs

²⁸ ROA and ROE indices are provided in annual term.

²⁹ Exclusive of SFCOs.

3.2. Risks of Non-banking Financial-Credit Organizations

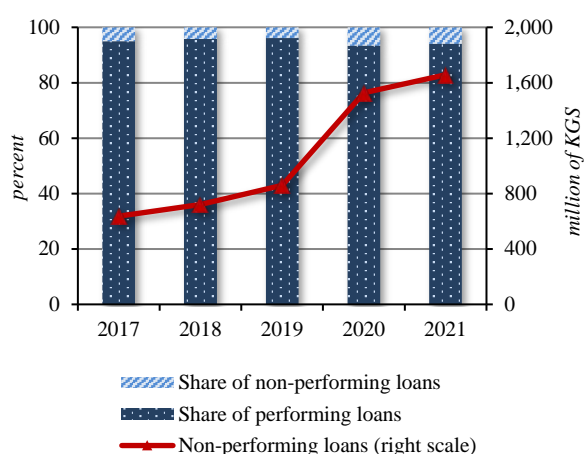
Major risk factors of the activities of NBFCOs are the quality of the loan portfolio, sectoral and institutional concentration, as well as status of the NBFCOs external debt.

Quality of the NBFCOs Loan Portfolio

As of the end of the reporting period, the share of non-performing loans in the loan portfolio of NBFCOs decreased by 0.7 p.p. and constituted 5.9 percent, meanwhile, their nominal volume increased by KGS 130.0 million or 8.5 percent compared to 2020 (Chart 3.2.1).

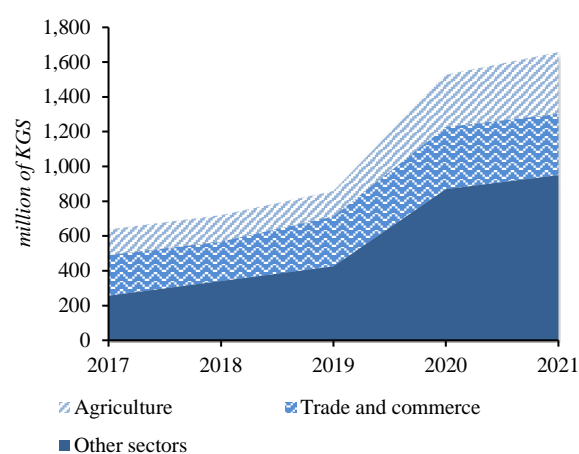
At the end of 2021, the structure of NBFCOs non-performing loans demonstrated increase in the share of defaulting loans issued to agriculture (by 1.7 p.p.), and decrease in the share of defaulting loans to trade (by 2.2 p.p.) compared to 2020. The share of defaulting loans issued to agriculture and trade in the total non-performing loans of NBFCOs constituted 21.4 and 21.3 percent, respectively (Chart 3.2.2).

Chart 3.2.1. Quality of NBFCOs Loan Portfolio



Source: NBKR

Chart 3.2.2. Structure of NBFCOs Nonperforming Loans by Sectors of Economy



Source: NBKR

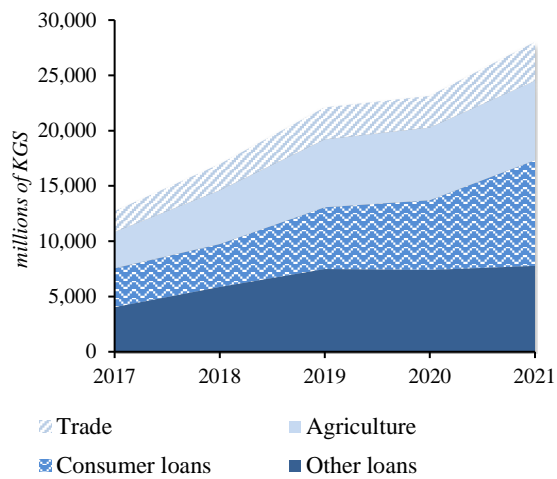
Sectoral Concentration

NBFCOs loan portfolio is concentrated in consumer loans (34.1 percent of NBFCOs total loans), as well as in the loans issued to agriculture and trade (25.7 percent and 12.5 percent of the total loan portfolio, accordingly, Chart 3.2.3). Lending of agriculture is associated with significant dependence on climate conditions.

Institutional Concentration

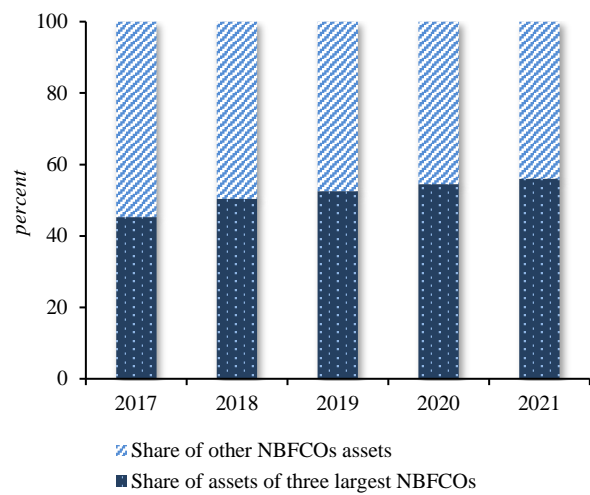
According to the results of the reporting period, the share of assets of three largest NBFCOs increased by 1.5 p.p. compared to 2020 and amounted to 56.1 percent of the total assets of NBFCOs sector (Chart 3.2.4).

Chart 3.2.3. Sectoral Structure of NBFCOs Loan Portfolio



Source: NBKR, NBFCOs

Chart 3.2.4. Institutional Structure of NBFCOs Assets



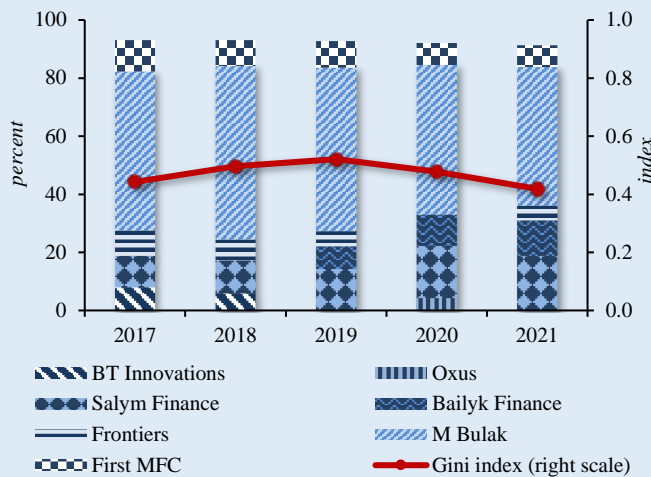
Source: NBKR, NBFCOs

Box 6. Concentration Indices based Assessment of NBFCOs Sector Activity³⁰

The Herfindahl-Hirschman Index

Herfindahl-Hirschman³¹ index was calculated for the purposes of concentration risk analysis in the NBFCOs sector. As of the end of 2021, Herfindahl-Hirschman index for the NBFCOs sector constituted 1,487.7 points. According to the rule of thumb³², resulting value indicates availability of moderate concentration of NBFCOs assets.

Chart 1. Dynamics of the Gini Index and Assets of 6 Largest NBFCOs



Source: NBKR, NBFCOs

The Gini Index³³

The Gini index was calculated for estimating the uniformity of the NBFCOs assets distribution. As of the end of 2021, the index value constituted 0.42 with a simultaneous decrease of concentration level (Chart 1).

³⁰ Concentration indices are calculated on the basis of data submitted by 6 largest NBFCOs.

³¹ $H = \sum_{i=1}^n (share_i)^2$.

³² The following rule of thumb was used for determining the level of market concentration:

- index value is below 0.1 (or 1,000) – insignificant market concentration;
- index value is from 0.1 to 0.18 (or from 1,000 to 1,800) – average market concentration;
- index value is above 0.18 (or 1,800) – high market concentration.

³³ Gini Index: an indicator characterizing the deviation of the actual assets distribution among 6 largest NBFCOs from absolute equality. The index value 0 corresponds to absolute equality, 1 – to absolute inequality.

External Debt Status of NBFCOs

As of the end of the reporting period, the external debt of NBFCOs amounted to USD 89.9 million. Major part of the external debt of NBFCOs are loans provided by the foreign financial-credit organizations (75.1 percent of total external debt of NBFCOs), and the rest (24.9 percent) are loans of the international financial institutions.

At the end of 2021, external debt of the largest NBFCOs increased by 31.5 percent compared to 2020 and amounted to USD 82.3 million.

3.3. Stress Testing of NBFCOs Sector

Stress Testing of the NBFCOs Credit Risk

Stress testing was conducted to assess the effect of deterioration of the loan portfolio quality on the NBFCOs sector.

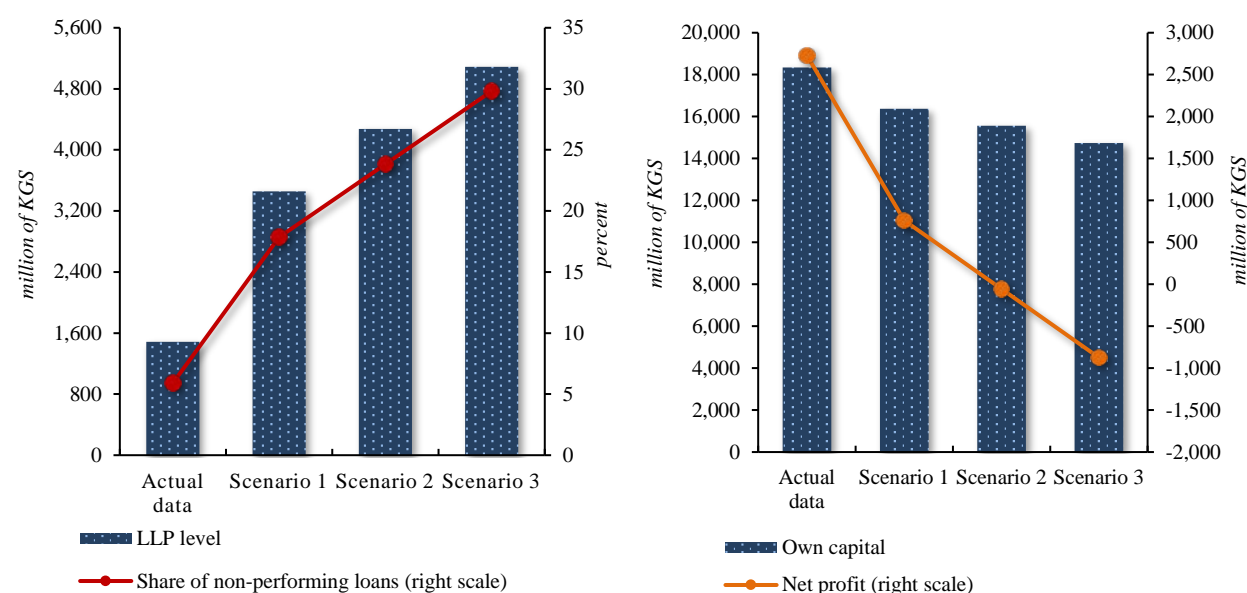
Three scenarios were considered when conducting stress testing:

- scenario 1: 50% of loans transition from one category to another;
- scenario 2: 75% of loans transition from one category to another;
- scenario 3: 100% of loans transition from one category to another.

The transition of loans from one category to another occurs uniformly by such categories as: “standard”, “under supervision”, “substandard”, “doubtful” and “losses”.

The level of loan loss provisions³⁴ in the loan portfolio of NBFCOs increased from 132.5 to 242.4 percent, depending on the scenario in conducting this stress testing (Chart 3.3.1)

Chart 3.3.1. Results of Stress Testing of the Credit Risk as of December 31, 2021



Source: NBKR

It should be noted that the deterioration of the loan portfolio quality entails a gradual decline in equity and net profit of NBFCOs. In case of the first scenario implementation, the NBFCOs sector remains profitable, but the level of profit decreases down to KGS 761.0 million. In case of the second and third scenarios implementation, the NBFCOs sector will experience losses in the amount of KGS 56.2 and 873.4 million, accordingly (Chart 3.3.1).

³⁴ MFOs create general and special loan loss provisions for relevant categories of classifications implementing the following allocations indicated in percentage from the amount of assets:

- | | | |
|----------------------------------|---|-------------|
| - Standard, in % | - | from 0 to 5 |
| - Assets under supervision, in % | - | 10 |
| - Substandard, in % | - | 25 |
| - Doubtful, in % | - | 50 |
| - Losses, in % | - | 100 |

Table 3.3.1. Results of Stress Testing of the Credit Risk, percent

	Share of non-performing loans in the loan portfolio of NBFCOs
Scenario 1: transition of 50% of loans from one category to another	17.9
Scenario 2: transition of 75% of loans from one category to another	23.8
Scenario 3: transition of 100% of loans from one category to another	29.8

Source: NBKR

Implementation of the first scenario may result in an increase in the share of non-performing loans in the loan portfolio of NBFCOs by 11.9 p.p., to the level of 17.9 percent. In the case of the second scenario, non-performing loans may increase by 17.9 p.p., to the level of 23.8 percent, and in the implementation of the third scenario – by 23.9 p.p. and may reach the level of 29.8 percent.

IV. PAYMENT SYSTEMS

During the reporting period, the level of risks was within acceptable limits and was determined by the risk management mechanisms provided for by the legislation of the Kyrgyz Republic and the rules of payment systems, the current high level of liquidity, the system of insurance deposits and prepayment in the systemically important and significant payment systems.

Effective and uninterrupted payment system is one of the main factors, which determine stability of the financial sector in the country.

As of January 1 2021, the payment system of the Kyrgyz Republic included the following components:

1. Large Value Payment System of the National Bank – Real Time Gross Settlement (RTGS).

2. Systems of Retail Payments: the System of Batch Clearing of Small Retail and Regular Payments (SBC), Systems of Payment Cards Settlement, Money Transfer Systems, E-money Payment Systems, systems to accept payments in favor of third parties

3. Payment Messages Receiving and Processing Infrastructure (SWIFT Service Bureau, Interbank Communication Network).

At the end of 2021, the following systems were recognized³⁵ according to the criteria for the payment systems significance:

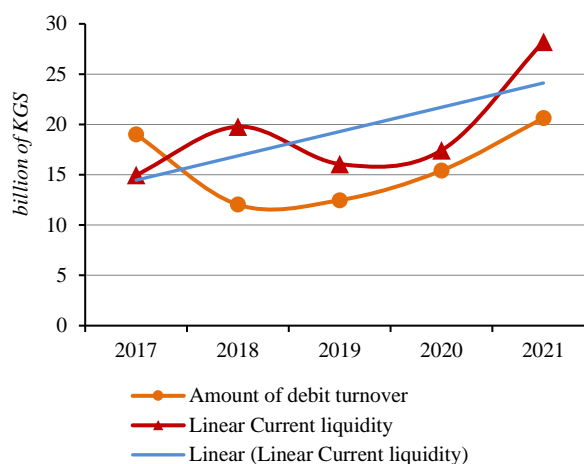
1. systemically important payment systems – the RTGS and SBC systems;
2. National payment systems – RTGS, SBC and Elcard systems.

The RTGS functioned normally during 2021.

The level of financial risks in the RTGS remained low due to high level of liquid funds on the participants' accounts: average daily volume of liquid assets of participants showed an increase by 61.9 percent (compared to 2020) and amounted to KGS 28.2 billion

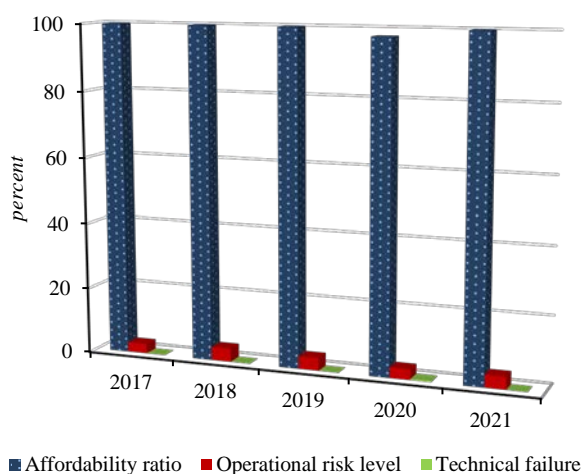
During 2021, the RTGS affordability ratio remained high and constituted 100.0 percent. Meanwhile, the level of operational risk,

Chart 4.1. Dynamics of Changes of Daily Average Indicator of Payment Volumes and Liquidity in the RTGS



Source: NBKR

Chart 4.2. Ratio of Affordability and Operational Risk in the RTGS



Source: NBKR

	2017	2018	2019	2020	2021
Technical failure, %	0.0	0.0	0.0	0.3	0.0
Affordability ratio, %	100.0	100.0	100.0	97.7	100.0
Operational risk level, %	2.9	4.1	3.9	3.2	3.9

³⁵ Approved by the Resolution of the Board of the National Bank of the Kyrgyz Republic No. 2021-P-14/6-1-(PS) on February 10, 2021.

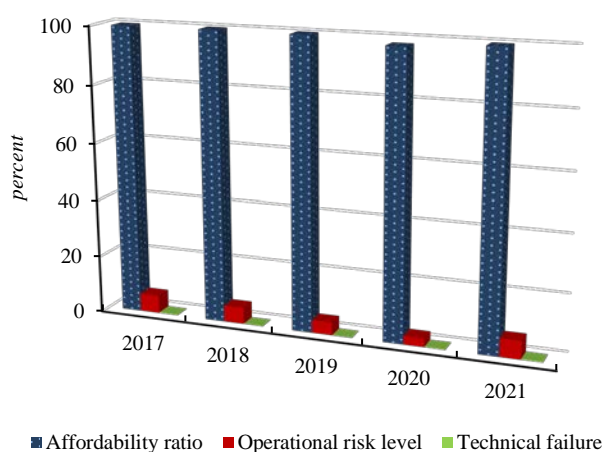
taking into account prolongation of the transaction day, was 3.9 percent.

In functioning of the **SBC** the level of financial risks in the reporting period was also low. Reserves exhibited by the participants to cover a debit net position were 4 times higher than the required level. According to the results of the SBC operation monitoring, the system affordability ratio remained rather high and amounted to 99.7 percent during the reporting period. Meanwhile, the level of operational risk was 6.4 percent taking into account extending upon request of separate participants and system failures.

A new version of the software was installed and the hardware complex of the system was updated to improve the smooth operation and information security of the system.

Systemically important payment systems are the key components of the payment system of the Kyrgyz Republic, failures thereof may result in systemic risks for the payment and banking systems of the country, and therefore are subject to increased requirements.

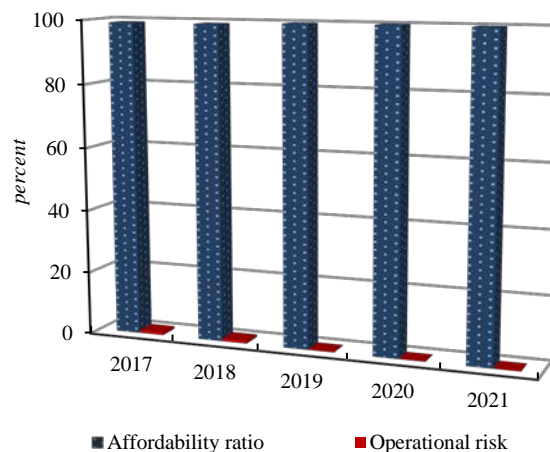
Chart 4.3. Ratio of Affordability Index and Operational Risks in the SBC



	2017	2018	2019	2020	2021
Technical failure, %	0.2	0.0	0.0	0.1	0.3
Affordability ratio, %	99.8	100.0	100.0	98.0	99.7
Operational risk level, %	6.2	5.8	4.5	3.1	6.4

Source: NBKR

Chart 4.4. Ratio of Affordability Index and Operational Risk in the SIPC



	2017	2018	2019	2020	2021
Affordability ratio, %	99.1	99.2	99.8	99.9	99.8
Operational risk, %	0.9	0.8	0.2	0.1	0.2

Source: NBKR

Systems of Bank Payment Cards Settlements. As of January 1, 2022, five international payment card systems, the national system “Elcard” and co-badging cards “Elcard-UPI³⁶” operated in the Kyrgyz Republic.

In the reporting period, 22 commercial banks worked with **the national system “Elcard”**.

In 2021, the results of operation monitoring and analysis indicated that the system affordability ratio was 99.8 percent, and the level of operational risks in the system, taking into account technical failures was 0.2 percent.

Money transfer systems. During 2021, receipt and transfer of international remittances without opening an account in the commercial banks was carried out by means of 7 **international money transfer systems**.

³⁶ According to the Regulation “On bank payment cards in the Kyrgyz Republic”, a co-badging card is a card issued within the framework of two payment systems. Thus, “Elcard”-UPI is serviced according to the rules of the “Elcard” system in the territory of the Kyrgyz Republic, and outside the country - by Union Pay.

In respect of **local money transfer systems**, 14 local money transfer systems operated as of January 1, 2022, the banks of the Kyrgyz Republic are the operators thereof.

E-money payment systems. As of January 1, 2022, the number of e-wallets increased by 34.9 percent compared to the same period of 2020 and amounted to more than 4.7 million wallets.

Indicators on turnovers with e-money for 2021 compared to 2020 were as follows:

- the volume of operations for transfer of funds between e-wallets increased by 83.3 percent compared to 2020 and amounted to KGS 12.7 billion. The number of funds transfers increased by almost 3 times and amounted to 5.1 million operations;

- the volume of operations on payment for goods and services with e-money in the reporting year increased by 39.8 percent compared to the same period of 2020 and amounted to KGS 10.0 billion, while the number of operations decreased by 17.1 percent and amounted to 13.1 million operations;

- in the reporting year, the number of operations for replenishments of e-wallets decreased by 43.2 percent compared to the previous year and amounted to 7.5 million operations, in turn, the volume of operations for replenishments of e-wallets increased by 32.2 percent and amounted to KGS 36.4 billion;

- the number and volume of operations on redemption of e-money increased by 2 times and 35.5 percent respectively and constituted 6.1 million operations to the amount of KGS 26.8 billion.

Financial messaging channels. At the end of 2021, the exchange of cross-border financial messages was made through the SWIFT network, “bank-client” services, while the main flow fell on the SWIFT telecommunications network.

SWIFT is the main channel for the banking system to exchange cross-border financial messages with its correspondent banks. In order to minimize the financial burden for participation in this network, in 2002, the National Bank, together with individual banks, created the SWIFT shared use node (SWIFT SUN), which was transformed into a SWIFT service bureau since January 1, 2019. Currently, the National Bank and 14 commercial banks of the Kyrgyz Republic operate through the SWIFT service bureau.

As of the end of 2021, the payment infrastructure of the Kyrgyz Republic included 17 non-banking systems to accept payments in favor of third parties.

In 2021, licenses of three payment system operators were revoked.

Based on the analysis of the data received in the reporting period, payment system operators processed 157.6 million payments to the total amount of KGS 92.8 billion. The volume of payments increased by 2.1 time, the number of payments increased by 7.4 percent, compared to the same period of 2020.

Considering that there is a large number of systems in the market for accepting payments in favor of third parties, competition is developed in this segment.

V. IMPROVEMENT OF THE FINANCIAL SECTOR REGULATION

In the reporting period, development of the legal framework governing the activities of the financial-credit organizations was mainly aimed at mitigating the consequences of the crisis due to the spread of coronavirus infection for the banking system, creating opportunities for provision of the banking services and an equal legal environment for the financial-credit organizations.

1. The Board of the National Bank approved Resolution No. 2021-P-12/4-6-(NPA) on January 27, 2021 in order to cancel the temporary regulations adopted due to the spread of coronavirus infection COVID-19.

The Resolution withdrew the norms on suspension of the implementation of the requirement for monitoring movable property and borrowers' loans, relief in terms of the degree of weighting the credit risk on loans in foreign currency, and liquidity ratios, as well as the deadlines for submitting reports to the National Bank.

2. The Board of the National Bank adopted the Resolution "On introduction of amendments into some regulatory legal acts of the National Bank of the Kyrgyz Republic" No. 2021-P-12/14-5-(NPA) on March 31, 2021 in order to clarify the possibilities for provision of the banking services through the use of e-documents in its activities, namely: the practice of using the documents in electronic format received through the information systems of the state bodies of the Kyrgyz Republic for provision of the banking services on lending and opening bank accounts (deposits).

According to introduced amendments, the amount of a loan issued through a remote service channel should not exceed KGS 100,000 (equivalent in foreign currency) under an agreement signed with a simple e-signature, and KGS 200,000 (equivalent in foreign currency) under an agreement signed with an enhanced e-signature.

3. Amendments were introduced into some regulatory legal acts of the National Bank by the Resolution of the Board of the National Bank No. 2021-P-12/25-3-(NPA) dated May 19, 2021 in order to stimulate the commercial banks to accept guarantees of the guarantee fund, as well as to improve the requirements for classification of some loans secured by the guarantee fund's guarantee. According to introduced amendments, the commercial banks can classify a part of an asset secured by a guarantee fund's guarantee licensed and regulated in accordance with the legislation of the Kyrgyz Republic, as a "normal asset", while observing the conditions specified in the Resolution.

4. The Resolution of the Board of the National Bank No. 2021-P-12/25-2-(NPA) dated May 19, 2021 introduced amendments into the Temporary rules for assets classification and implementation of the corresponding deductions to the reserves to cover potential losses by the commercial banks and separate financial-credit organizations aimed at mitigating the consequences of the crisis for the banking system due to the spread of coronavirus infection.

According to the amendments, requirements were established for the third restructuring of assets, the quality of which has deteriorated or deteriorates due to the circumstances of the coronavirus infection spread, that is, for existing loans. The amendments will also allow the commercial banks to mobilize their resources and support the business activity of the population in the Kyrgyz Republic.

5. The Resolution No. 2021-P-12/36-3-(NPA) was adopted by the Board of the National Bank on June 30, 2021 in order to create an equal legal environment for the financial-credit organizations conducting operations in accordance with the principles of Islamic finance.

This Resolution amended the regulatory legal acts of the National Bank concerning the requirements for the banks to manage credit risk and classify assets and create appropriate deductions to the reserve to cover potential losses when conducting operations in accordance with the principles of Islamic finance.

6. The Resolution of the Board of the National Bank "On introduction of amendments into some regulatory legal acts of the National Bank of the Kyrgyz Republic" No. 2021-P-12/38-3-(NPA) was

adopted on July 14, 2021 in order to update the existing requirements on the enforcement actions, including the regime of direct banking supervision.

7. Amendments were introduced into some regulatory legal acts of the National Bank by the Resolution of the Board of the National Bank No. 2021-P-12/47-2-(NPA) dated August 25, 2021 in order to improve the regulatory legal acts of the National Bank, bring their requirements in line with the legislation of the Kyrgyz Republic, as well as to resolve the issues related to reorganization of the banks and coordination of the officials, to clarify certain issues regarding granting a license to conduct banking operations in accordance with the principles of Islamic banking and finance through the “Islamic window”, as well as issuing a permit to conduct additional banking operations in accordance with the principles of Islamic banking and finance.

8. The Board of the National Bank of the Kyrgyz Republic approved the Resolution No. 2021-P-12/51-1-(NPA) “On introduction of amendments into some regulatory legal acts of the National Bank of the Kyrgyz Republic” on September 15, 2021 in terms of creation of equal legal environment for the financial-credit organizations conducting operations in accordance with the principles of Islamic finance. The purpose of the Resolution is to bring the regulatory legal acts of the National Bank on the principles of Islamic finance in accordance with the regulatory legal acts of the National Bank for the traditional banks.

9. Amendments were adopted in some regulatory legal acts by the Resolution of the Board of the National Bank of the Kyrgyz Republic No. 2021-P-12/51-1-(NPA) dated September 15, 2021 in order to increase the sustainability of the banking system, to manage the level of credit risk and revise the requirements for the amount of loan coverage, as well as to bring the regulatory legal acts of the National Bank of the Kyrgyz Republic in line with international standards on banking supervision and regulation, as well as the legislation in the field of countering the financing of terrorism and anti-money laundering. According to the amendments:

- the values of individual capital adequacy (sufficiency) standards were revised upwards;
- the leverage ratio formula was changed in the part related to the calculation of off-balance sheet liabilities;
- adjustments were made for intangible assets subject to deduction from Tier 1 Basic Capital prior to calculating capital adequacy (sufficiency) ratios;
- the expansion of the bank’s management responsibility for concluding operations that do not have an obvious economic meaning, a legitimate purpose and/or which may subsequently damage the interests of the bank, and the need for the bank to regulate the methods and approaches for identifying such operations, is provided for;
- the requirements for the banks on customer due diligence were strengthened.

10. The Board of the National Bank of the Kyrgyz Republic adopted the Resolution No. 2021-P-12/59-4-(NPA) “On introduction of amendments to the Resolution of the Board of the National Bank of the Kyrgyz Republic “On the Temporary rules for assets classification and implementation of the corresponding deductions to the reserves to cover potential losses by the commercial banks and separate financial-credit organizations” No. 2020-P-12/25-7-(NPA) dated April 29, 2020” on October 27, 2021 in order to mitigate the consequences of the crisis due to the spread of coronavirus infection in the banking system and establish the requirements for the fourth asset restructuring.

11. The Resolution of the Board of the National Bank No. 2021-P-12/70-2-(NPA) dated December 15, 2021 amended some regulatory legal acts of the National Bank in terms of excluding the requirements to provide physical reports of the commercial banks that submit documents in electronic format signed with an electronic signature.

According to introduced amendments, the commercial banks must submit reports to the National Bank only in electronic format, signed by the electronic signature of the bank’s responsible official.

12. Amendments to the Procedure for remote identification and verification of the clients in terms of expanding the minimum requirements for remote identification and verification of the clients to

provide banking services were adopted by the Resolution of the Board of the National Bank No. 2021-P-12/70-1-(NPA) dated December 15, 2021.

Amendments were introduced in order to increase the opportunities to provide banking services in the Kyrgyz Republic by expanding the client identification, as well as to provide the commercial banks with the opportunity to conduct remote identification and verification using artificial intelligence, machine training or other forms of predictive algorithms for processing customer biometric data.

13. Amendments on capital sufficiency (adequacy) standards for the banks operating in accordance with the principles of Islamic finance were introduced in some regulatory legal acts of the National Bank by the Resolution of the Board of the National Bank No. 2021-P-12/70-3-(NPA) dated December 15, 2021.

14. The Regulation “On minimum requirements for the pricing policy of banking, payment services and services provided by the microfinance organizations, and for implementation of the marketing activities” was approved by the Resolution of the Board of the National Bank No. 2021-P-12/75-1-(BS) dated December 29, 2021 in order to bring it in line with the Law of the Kyrgyz Republic “On the National Bank of the Kyrgyz Republic, banks and banking activities” No. 206 dated December 16, 2016.

15. The Procedure for the Murabaha operation accounting was approved by the Resolution of the Board of the National Bank No. 2021-P-12/75-2-(NPA) on December 29, 2021 in order to determine the rules for assessment, recognition and disclosure of information on the Murabaha operations.

16. Amendments were introduced to certain regulatory legal acts of the National Bank regulating the procedure for granting the status of interest income non-accrual and providing the periodic regulatory reports by the banks operating under the principles of Islamic finance by the Resolution of the Board of the National Bank 2021 No. 2021-P-12/75-3-(NPA) on December 29 in order to bring them in line with the Procedure for the Murabaha operations accounting.

GLOSSARY AND ABBREVIATIONS

A bank deposit is the amount of money, accepted by a financial-credit organization under contract from another person on the terms of repayment, payment and maturity. Deposits can be time and demand. Demand deposits are made without specifying the shelf life, and time deposits are made for a certain period.

A bank loan is money provided by a bank for a fixed period under the terms of re-payment and payment of loan interest.

A foreign exchange market is a market in which the purchase/sale of foreign currencies is made. By the economic content, it is a sector of the money market, where supply and demand for a specific product such as currency are balanced. According to its purpose and form of organization, it is a set of specific institutions and mechanisms that in concert provide an opportunity to freely sell and/or buy domestic and foreign currency on the basis of supply and demand.

A money market is a market in which there is the giving and receiving of funds in the form of loans and securities for a short term within the range of participants.

Return on securities is the ratio of the annual return on the security to its market price; the rate of return received by the owner of the security.

The housing affordability index is an indicator of the state of the housing market in terms of the possibility of acquiring apartments by the people. Calculated as the ratio of the average market value of a standard apartment (total area of 54 sq. m.) to the average annual income of a family of three (two adults and a child).

The payment system affordability index is a measure of the availability of the system as access to services and information for users of the system on their demand. Downtime of the system due to technical failures, power outages, late opening or early closing of the trading day of the system reduce the time to access the system.

The liquidity ratio of payment systems characterizes sufficiency of liquid funds in the accounts of the participants of the system for the payments and settlements.

Macroprudential analysis is an assessment and monitoring of strong sides and vulnerable spots of the financial system taken as a whole.

Minimum consumer budget is the cost of a set of minimum benefits and services to the subsistence minimum.

A securities market is organized exchanges and structures (securities depository companies, accounting and clearing houses), as well as other companies that provide services related to the activities of the exchange. This category includes depositories and electronic clearing systems, the activity of which is ensured by financial corporations and national self-regulatory organizations of oversight over the activities of stock exchanges and related institutional units or their regulation.

Stress tests are methods used for assessment of portfolios vulnerability with respect to significant changes in the macroeconomic situation or exceptional but possible events.

An unemployment rate is the percentage of the actual number of unemployed to the total economically active population.

Financial assets include equity instruments and units/shares of investment funds, debt instruments, derivatives, stock options for employees and monetary gold.

LIST OF ABBREVIATIONS

CAR	– Capital Adequacy Ratio
CB	– Commercial Bank
COVID-19	(COroNaVIrus Disease 2019) is the coronavirus infection of 2019
CPI	– Consumer Price Index
DTI	(debt-to-income) is the ratio of the amount of the borrowers’ payments on loans (including the amount of principal and interest payments for the reporting period) to the main annual income of the borrower declared at the time of issuing a loan
EAEU	– Eurasian Economic Union
FAO	– Food Agriculture Organization of the United Nations
FCO	– Financial-Credit Organization
GDP	– Gross Domestic Product
ICN	– Interbank Communication Network
K3.1.	– Economic Liquidity Ratio
K3.2.	– Short-term Liquidity Ratio
K3.3.	– Instant Liquidity Ratio
KR	– Kyrgyz Republic
LLP	– Loan Loss Provisions
LTV	(loan-to-value ratio) is the ratio of issued loans to the value of collateral
MF KR	– Ministry of Finance of the Kyrgyz Republic
MFO	– Microfinance Organization
M2	– Money Supply
NBFCOs	– Non-banking Financial-Credit Organizations
NBKR	– National Bank of the Kyrgyz Republic
NSC KR	– National Statistical Committee of the Kyrgyz Republic
NTC	– Net Total Capital
OCP	– Open Currency Position
OECD	– Organization for Economic Cooperation and Development
OJSC	– Open Joint-Stock Company
POL	– Petroleum, oil, lubricants
p.p.	– percentage points
PRBR	– Periodic Regulatory Bank Reporting
R	– Refinery
RLA	– Regulatory and legal acts
ROA	– Return on Assets
ROE	– Return on Equity
RTGS	– Real Time Gross Settlement System
SALR GKR	– State Agency for Land Resources at the Government of the Kyrgyz Republic
SBC	– System of Batch Clearing
SFCO	– Specialized Financial-Credit Organization
SFSS	(State Financial Supervision Service) – State Service for Regulation and Supervision of Financial Markets at the Ministry of Economy and Finance of the Kyrgyz Republic
SIPC	– Single Inter-bank Processing Center
ST-Bills	– State Treasury Bills
ST-Bonds	– State Treasury Bonds
USA	– United States of America
VaR	– Interest Rate Risk