

# National Bank of the Kyrgyz Republic

# THE FINANCIAL SECTOR STABILITY REPORT OF THE KYRGYZ REPUBLIC

December 2019

**Bishkek** 

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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 of the general assessment on the stability and sustainability 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 NBKR 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**

At the end of the first half of 2019, the results of macroprudential analysis and financial forecasting indicated at the sustainability of the financial sector in the Kyrgyz Republic.

In the first half of 2019, there was an increase in economic activity of the Kyrgyz Republic. There are macroeconomic risks from low diversification of sales markets and a high degree of integration with the external environment of the trading partner countries. The state budget was executed with a surplus, however the deficit index approved by the budget may increase by the end of the year. The loan portfolio grew amid slight deterioration in the quality of the loan portfolio and the growth of loan loss provisions. The profitability of the banking sector of the Kyrgyz Republic slightly decreased, but the values of indicators remain positive.

The banking sector of the Kyrgyz Republic is resistant to macroeconomic shocks. The results of econometric modeling, financial forecasting and reverse stress tests still reflect the availability of the financial safety margin at the end of the first half of 2019 and the ability to withstand certain macroeconomic shocks.

In case of further slowdown of global economic growth, high volatility in the world commodity markets and deterioration of the macroeconomic environment in the countries-main trading partners of the Kyrgyz Republic, some commercial banks may become more vulnerable to the currency and country risks, as well as to the concentration risk due to deterioration in the financial condition of the clients or counterparties. However, the significance of these risks does not yet pose a threat to the stability of the banking system.

There are no systemic risks in the payment system. According to the results of the first half of 2019, an increased level of risks was registered in the payment system of the Kyrgyz Republic due to the operational risks and blocked accounts of two operators in the retail payment systems. Risks in these payment systems did not entail systemic risk for the payment system and for the financial sector as a whole. The National Bank took measures to minimize the financial risks in the retail payment systems, as well as to revise existing regulatory legal acts on requirements for the operators of retail payment systems and payment organizations.

#### I. MACROECONOMIC AND FINANCIAL ENVIRONMENT

#### 1.1. Macroeconomic Conditions and Risks

The first half of 2019 is characterized by near-zero inflation rates due to sufficient supply in the food, goods and services market, as well as a favorable situation in the world food market.

In the first half of the year, there was a positive trend in economic activity of the Kyrgyz Republic. There are macroeconomic risks from the low diversification of the sales markets and a high degree of integration with the external environment of the trading partner countries.

At the end of the first half of 2019, outstripping growth in budget revenues compared to expenditures conditioned budget execution with a surplus; however an expansion of the fiscal policy is expected by the end of the year with the possibility of increasing the deficit index approved by the budget.

#### **External Conditions**

The macroeconomic indicators of the trading partner countries were still formed amid political and economic imbalance, and price fluctuations in the world food and energy markets remained the main risks for business activity as a whole.

In the first half of 2019, the economic growth in Kazakhstan made 4.1 percent at the end of the first half of the year amid high investment, internal and external demand. The economic growth was mainly conditioned by increased production output of commodities with relatively high prices for oil, budget programs of social support, as well as an increase in short-term consumer loans. The base rate in Kazakhstan was reduced from 9.25 percent at the beginning of the year down to 9.00 percent in April 2019 amid improving economic conditions and weakening inflation expectations.

At the end of the first half of 2019, the economic growth of China slowed down from 6.8 percent in the same period of 2018 to 6.3 percent mainly due to ongoing trade war with the United States for more than six months. Stimulus measures taken by the government and sustainable consumption growth significantly contributed to economic recovery of China. Meanwhile, risks and uncertainties for the Chinese economy are still observed amid trade conflict with the United States, a high level of total debt and a reduction in the working population of the country.

In the reporting period, Russia demonstrated weak dynamics of economic growth. Slowdown in economic growth of Russia year-to-date was mainly due to a number of temporary factors (an increase in VAT amid slowdown in business activity and consumer demand, a reduction in investment expenditures of the federal budget, and the negative impact of increased trade confrontation between the USA and China). Established steady trend of inflation slowdown and reduction of pro-inflation risks at the end of the reporting period contributed to a decrease of the key rate by the Bank of Russia by 0.25 p.p., to 7.50 percent. The situation in the foreign exchange and stock markets of Russia was stable amid monetary conditions rhetoric being softened by the developed countries. Acceleration of economic growth is expected in the course of successful execution of the country's national projects and implementation of the effect of reducing the key rate by the Bank of Russia. Global economic slowdown and geopolitical factors are among the key factors of uncertainty for the Russian economy in 2019-2021.

#### **Internal Conditions**

#### **Gross Domestic Product**

According to the preliminary data from the National Statistical Committee of the Kyrgyz Republic, in the first half of 2019, the economy in the country grew by 6.4 percent (in January-June 2018 – by 0.3 percent). Significant economic growth was mainly conditioned by increased production output at the enterprises for the developing of gold mining "Kumtor" (growth by 51.6 percent). Excluding the enterprises for the developing of gold mining "Kumtor", GDP grew by 2.1 percent (in January-June 2018 – 2.5 percent). The GDP deflator decreased by 7.8 p.p. compared to the same indicator in the first half of 2018 and was formed negative at 1.8 percent.

In the sectoral breakdown, the sectors of industry (4.1 p.p.), trade (0.7 p.p.), construction (0.4 p.p.) and agriculture (0.3 p.p.) made a significant positive contribution to economic growth, meanwhile, the sphere of information and communication (-0.2 p.p.) made a negative contribution.

The growth in the industrial production output by 20.5 percent compared to the same period of 2018 was due to the increase in the production of basic metals, extraction of metal ores, coal, crude oil and natural gas, as well as in textile production.

An increase in agricultural production by 1.7 percent (in January-June 2018 – by 1.7 percent) was due to an increase in production of the livestock sector (by 2.0 percent).

Growth in gross construction output by 5.9 percent was due to an increase of investments in fixed capital by 5.5 percent. The volume of investments financed from internal sources decreased by 4.5 percent, and the investments financed from external sources, on the contrary, increased by 40.0 percent. Growth of investments in fixed capital was observed in construction of facilities related to mining spheres, water supply, cleaning, waste treatment, wholesale and retail trade, hotels and restaurants, real estate operations, healthcare and social services, as well as housing construction.

Increase by 1.4 percent in the services sector was mainly due to growth in trade (by 4.3 percent) and transport activity (by 2.2 percent). Meanwhile, decrease was still observed in the information and communication sphere (by 6.3 percent) due to a reduction in consumption of communication services, caused by a decline in revenues from provision of mobile services.

Table 1.1.1. Contribution of Individual Activities in GDP

	,	Jan-June 2	2018		Jan-June 2	2019
	Share, percent	Growth rate, percent	Contribution in growth, p.p.	Share, percent	Growth rate, percent	Contribution in growth, p.p.
GDP	100	0.3	0.3	100	6.4	6.4
Agriculture, forestry and fishery	8.0	1.7	0.1	8.4	1.7	0.1
Industry	20.1	-3.8	-0.8	22.6	20.5	4.1
Mining	0.9	3.1	0.03	8.0	31.0	0.3
Processing sectors (Processing industry)	16.1	-6.3	-1.0	18.9	24.2	3.9
Provision (supply) of electric energy, gas, steam and conditioned air	2.8	3.2	0.1	2.6	-3.1	-0.1
Water supply, waste treatment and processing, receipt of recyclable materials	0.3	29.3	0.1	0.3	10.6	0.03
Construction	6.4	3.1	0.2	6.5	5.9	0.4
Services	48.5	1.5	0.7	47.3	1.4	0.7
Wholesale and retail trade; repair of cars and motor-cycles	15.7	4.3	0.7	15.6	4.3	0.7
Transportation activity and storage of cargo	4.3	4.7	0.2	4.2	2.2	0.1
Information and communication	3.6	-7.2	-0.3	3.3	-6.3	-0.2
Other	24.9	0.5	0.1	24.1	0.5	0.1
Net (exclusive of subsidies) taxes on products	17.0	0.3	0.04	15.2	6.4	1.1

Source: NSC KR

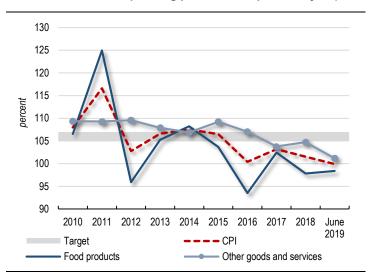
#### Inflation

In the first half of 2019, near-zero inflation rates were still observed in the Kyrgyz Republic. This dynamics was mainly determined by low prices for vegetables and fruits, stable prices for fuel and lubricants and moderate growth in other groups of goods and services. As before, due to planned increase in excise rates for tobacco at the beginning of 2019, this group continued growing during the first half of the year. In general, the inflation did not cause fears due to sufficient harvest inside the country in 2018 and import supplies being facilitated by the favorable situation in the world food market and in the trading partner countries.

The abovementioned conditions encouraged the National Bank to continue conducting its monetary policy focused on preserving and maintaining economic activity in the country.

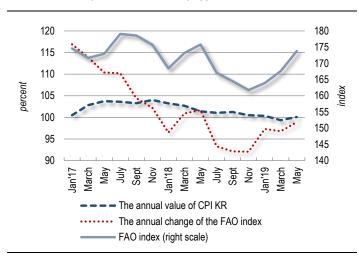
Market inflation remained low during the whole period and constituted 0.1 percent. The price index for the non-food product group and for paid services grew in the main commodity items during the reporting period; however the growth rate was slower.

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



Source: NSC KR

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



Source: NSC KR, www.fao.org

Given the actual dynamics of the CPI in the first half of 2019, it can be noted that significant risks that prevent from planned harvesting, and, accordingly, the food security of our country, are not expected in the second half of the year. Unusual for such period weather conditions in the country may be an exception. The formation of prices for consumer goods and services, excluding food products, remains relatively stable and is at the lower rate of the National Bank's target of 5-7 percent. In this regard, the risks of the CPI deviation from the targets are generally resulted from the influence of weather conditions and conditions of import supplies to Kyrgyzstan.

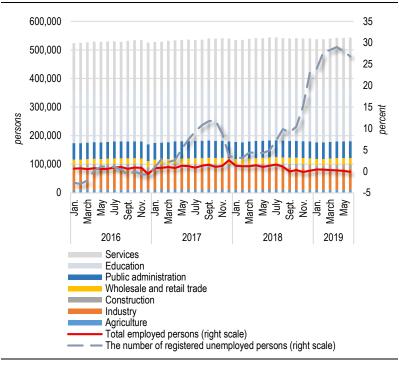
In the first half of 2019, the FAO Food Price Index, reflecting price dynamics in the world food markets, was higher compared to the actual value in the same period of 2018. The prices for crops are the main driver in the group.

The FAO index was formed under the influence of low prices for sugar, vegetable oils, meat and dairy products, as well as fluctuations in the prices of wheat and maize. The news background on food stocks, yields and tensions in the international trade relations still contributed to volatility in price formation.

These fluctuations did not influence significantly the prices in the Kyrgyz Republic.

#### Labor Market and Wages

Chart 1.1.3. Number of Officially Employed and Unemployed People



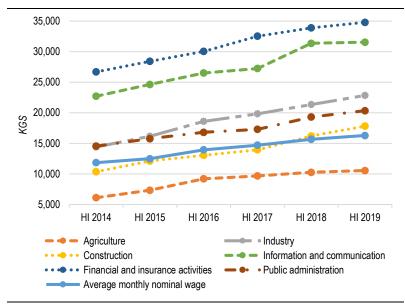
Source: NSC KR

According to the Ministry of Labor and Social Development of the Kyrgyz Republic, as of July 1, 2019, the number of unoccupied people in search of work registered at the state employment service increased by 18.1 percent compared to the same date in 2018 and constituted 102.3 thousand people. In the reporting period, the number of registered unemployed people increased 26.8 percent compared to July 1, 2018, and constituted 82.6 thousand persons. The registered unemployment rate made 3.3 percent of the economically active population.

Education (34.1 percent), services (32.6 percent), industry (13.8 percent) and public administration (10.7 percent) remain the main employment sectors<sup>1</sup> of the able-bodies

population. It can be noted that in general, the number of employed population has not significantly changed over the past three years.

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



Source: NSC KR

In the reporting period, there was a steady growth of wages in the Kyrgyz Republic. At the end of the first half of 2019, the average monthly nominal wage per an employee1 increased by 4.0 percent compared to the same period in 2018 and amounted to KGS 16,020. The highest increase in the average monthly wage growth rate was observed in mining (12.0 percent), construction (8.9 percent), and in the sphere of professional, scientific and technical activity (8.2 percent). During 6 months of 2019, real wages increased by 4.3 percent compared to the same period of 2018 (in January-June 2018, the increase was 4.0 percent).

<sup>&</sup>lt;sup>1</sup> Exclusive of small enterprises.

#### State Budget

At the end of the first half of 2019, the nature of the state budget execution has changed: there is a surplus in the amount of KGS 0.3 billion or 0.1 percent to GDP. The surplus formation was conditioned by outstripping growth of total budget revenues (by 2.6 percent against the indicator in the same period of 2018) compared to the growth of total expenditures (by 1.6 percent).

An analysis of the budget revenues over the past 10 years showed that tax revenues have decreased for the first time (by 1.9 percent compared to the value in the same period of the last year) to make approximately 70 percent of total revenues. Non-tax revenues, by contrast, made a positive contribution to growth of total revenues, having increased by 10.6 percent. Slowdown in growth of budget expenditures was due to reduction in capital expenditures, meanwhile, as before, the expenditures remained socially oriented (expenditures for the social sector made approximately 40 percent). The primary budget surplus amounted to KGS 4.2 billion or 1.8 percent to GDP.

At the end of the reporting period, public debt decreased by 0.3 percent compared to the end of 2018 and amounted to KGS 310.8 billion or USD 4.5 billion. There was a downward trend in the external debt and an increase of the internal debt in the structure of total deb. The funds raised from placement of the government securities are the main sources of domestic financing of the budget deficit. Thus, the policy to increase the issue of government securities and to develop the financial market is still implemented, in particular long-term government securities.

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

	January-June 2018		January-Ju	ine 2019
	billions of KGS	% to GDP	billions of KGS	% to GDP
Total incomes (including sales of non-financial assets)	70.6	33.1	72.5	31.2
including incomes from operational activity	70.6	33.0	72.4	31.1
sale of non-financial assets	0.0	0.0	0.0	0.0
Total expenditures (including purchase of non-financial assets)	71.0	33.2	72.1	31.0
including expenditures for operational activity	62.3	29.1	64.4	27.7
purchase of non-financial assets	8.7	4.1	7.7	3.3
Deficit(-) / Proficit (+)	-0.4	-0.2	0.3	0.1
Primary deficit (-) / proficit (+)	3.0	1.4	4.2	1.8
Budget financing	11.0	5.2	6.7	2.9
External financing	-0.9	-0.4	-2.6	-1.1
Internal financing	11.9	5.6	9.2	4.0

Source: MF KR

#### Macroeconomic Risks

In general, at the end of the first half of 2019, the current economic growth was conditioned by the positive contribution of all main sectors of the economy, except for information and communication. High industry indicators were based on the results of production output at the enterprises for the development of gold mining "Kumtor". GDP excluding Kumtor, being regarded as an indicator of economic activity, demonstrated growth due to stimulating monetary policy of the National Bank and a positive inflow of remittances. At the same time, macroeconomic risks were still observed due to existing structural problems in the economy of the Kyrgyz Republic and ambiguous situation in the global economy.

Taking into account the results of the first half of 2019, the inflation rate is expected to be moderate in the second half of the year. According to previous forecasts, the inflation rate is expected to accelerate by the end of the year. In general, the current dynamics of inflation under the existing development conditions in the world food market and the domestic environment does not bear the risk of inflation rate deviation from the targets.

#### 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)

Financial institutions	2015	2016	2017	2018	HI 2018	HI 2019
Commercial banks	24	25	25	25	25	25
Other financial companies, including:	656	704	688	693	686	677
Non-banking financial-credit organizations (NBFCO), including:	627	673	657	662	655	646
Microfinance organizations, including:	172	162	150	142	148	139
microcredit companies	109	103	96	95	98	92
microcredit agencies	57	53	47	39	42	39
microfinance companies	6	6	7	8	8	8
"FC CU" OJSC	1	1	1	1	1	1
Credit unions	125	116	110	106	108	96
Exchange offices	329	394	396	413	398	410
Insurance companies	17	19	19	19	19	19
Investment funds	9	9	9	9	9	9
Stock exchanges	1	1	1	1	1	1
Pension funds	2	2	2	2	2	2

Source: NBKR, NSC KR

As of the end of the first half of 2019, assets of the banks and the NBFCOs constituted KGS 252.4 billion or 44.5 percent to GDP.

In the first half of 2019, the total loan portfolio of the banks and the NBFCOs constituted KGS 157.8 billion or 27.8 percent of GDP. The share of the banks' loans in the loan portfolio of the financial sector decreased by 1.2 p.p. and at the end of 2019 made 87.8 percent (Chart 1.2.1).

Chart 1.2.1. Structure of the Loan Portfolio

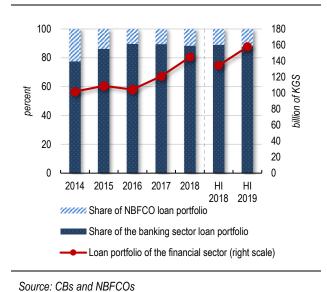
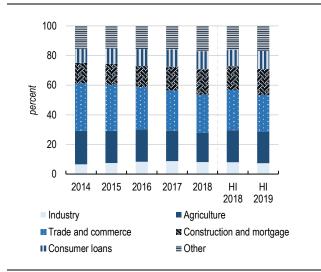


Chart 1.2.2. Sectoral Structure of the Loan Portfolio in the Financial Sector



Source: CBs and NBFCOs

The high concentration of loans was still observed in the trading sector (banks) and agriculture (NBFCOs) within the sectoral structure of the loan portfolio in the financial sector. The aggregate share of the loan portfolio in the financial sector of the aforementioned sectors of the economy at the end of the first half of 2019 constituted 46.0 percent of total issued loans and amounted to KGS 72.6 billion (Chart 1.2.2).

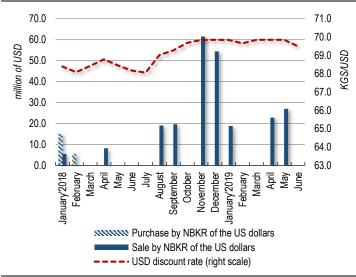
#### 1.3. Financial Markets

The situation in the domestic foreign exchange market remained relatively stable during the first half of 2019. The National Bank conducted foreign exchange interventions to smooth sharp fluctuations in the exchange rate. The volume of operations in the money market was slightly lower compared to the same period of 2018, mainly due to a decrease in the volume of repo operations. The volumes of supply decreased amid declined activity of its participants in the government securities market. In the reporting period, the National Bank actively used notes as a tool to absorb liquidity in the banking system.

#### 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



Source: NBKR

In the reporting period, the situation in the domestic foreign exchange market remained relatively stable amid existing soft monetary conditions in the developed countries and slight improvement in the global financial markets after significant fluctuations of the exchange rates in the second half of the previous year. During the reporting period, the dynamics of the USD/KGS exchange rate was mainly determined by the seasonal factors and the external environment.

The exchange rate fluctuated in a tight range: a slight strengthening of the national currency was observed in the second half of February and in the third decade of June 2019. Thus, at the end of the reporting period, the policy rate of the US dollar against the Kyrgyz som decreased by 0.5 percent year-to-date and amounted to KGS 69.4928 per one US dollar.

In the first half of 2019, the National Bank conducted foreign exchange interventions on sale of foreign currency in the amount of USD 68.6 million to prevent significant exchange rate fluctuations. The National Bank did not conduct interventions on purchase of foreign currency in the reporting period.

The total volume of operations on purchase and sale of foreign currencies by the participants of the foreign exchange market (including operations with non-residents) increased by 42.8 percent compared to the same period in 2018, up to KGS 443.6 billion. The increase in the volume of operations was observed on all currencies, excluding operations conducted in Kazakh tenge (-5.6 percent).

Most operations were conducted in the cash segment, in the reporting period, their share was 94.0 percent in the total volume of foreign exchange operations. A significant volume of operations on purchase and sale of foreign currency in cash was concluded in exchange bureaus (57.3 percent), and their growth rates were significantly higher compared to the commercial banks. The operations were mainly conducted in US dollars and Russian rubles in the non-cash segment of the foreign exchange market, the volume of these operations increased mainly due to growth in the number of operations conducted by the commercial banks.

#### Money Market

Operation of the money market in the country was still stable to facilitate the efficient distribution of financial resources, to ensure borrowers' access to liquid assets for the short-term periods, and to provide the lenders with the opportunity to receive profit by investing their money. In the first half of 2019, activity in the interbank credit market was relatively high, and the interest rates were higher compared to 2018. The interest rates in the money market are among the factors of their formation in the capital market.

In the first half of 2019, the volume of operations in the interbank credit market amounted to KGS 21.4 billion, which is by 4.7 percent lower compared to the same period of 2018, however nevertheless it is a relatively high indicator compared to other half-years in recent years. Repo operations were mainly conducted in the interbank market, the share thereof made 98.4 percent of the total volume of interbank loans. The average weighted rate in the interbank market slightly increased from 2.57 percent in the first half of 2018, up to 2.64 percent. In general, the volatility of rates was low and comparable to 2018. The average weighted maturities decreased from 4.05 days in the first half of 2018 down to 3.27 days in the reporting period.

The volume of repo operations slightly decreased compared to the same period in 2018 and amounted to KGS 21.1 billion. The average weighted rate on repo operations increased from 2.60 percent to 2.63 percent. In the reporting period, three standard operations were conducted in the national currency with a total volume of KGS 91.2 million (+38.7 percent), 10 standard operations were conducted in foreign currency with a total volume of KGS 244.1 million (in 2018, operations were not conducted).

In the first half of 2019, the volume of overnight loans provided by the National Bank to support the short-term liquidity of the banks amounted to KGS 136.4 million. The volume of funds placed by the commercial banks on overnight deposits amounted to KGS 428.0 billion (-13.0 percent compared to the same period in 2018).

#### 1.3.2. Securities Market

In the reporting period, the Ministry of Finance of the Kyrgyz Republic continued to place ST-Bills 12-month and 2-, 3-, 5-, 7- and 10-year ST-Bills to finance the republican budget deficit, refinance government debt, and develop the government securities market. The total supply of government securities (ST-Bills and ST-Bonds) at the auctions decreased by 15.9 percent compared to the same indicator in 2018 and amounted to KGS 9.3 billion. Moreover, the activity of participants in the government securities market slightly decreased amid a significant decrease in demand for all types of maturities from KGS 24.4 billion in the first half of 2018 down to KGS 8.9 billion in the reporting period. The results of auctions showed that the volume of sales of ST-Bills and ST-Bonds, including additional placement, amounted to KGS 6.7 billion (-54.9 percent).

Structurally, the volume of ST-Bonds supply primarily exceeded the volume of ST-Bills supply. In the reporting period, the volume of ST-Bills and 7-year ST-Bonds supply at the auctions amounted to KGS 1.5 billion accordingly, however the results of the auctions showed that the satisfied sales amount decreased by 2.3 times compared to the proposed volume. In the first half of the reporting period, the average weighted rate was at the level of 4.7 percent (-1.6 p.p.) amid a downward trend in yields. Moreover, the volume of the ST-Bills holders' portfolio decreased by 42.2 percent year-to-date, down to KGS 1.5 billion as of the end of June 2019.

In the reporting period, the volume of ST-Bonds supply at the auctions amounted to KGS 7.8 billion (-12.4 percent). In terms of maturities, there was an increase in the supply of only 2- and 5-year securities in the ST-Bonds market. Moreover, the participants were the most active in respect of 5-year ST-Bonds (33.7 percent of total demand), and the smallest participants' activity was observed in respect of 10-year ST-Bonds (14.4 percent). Meanwhile, there was a significant demand for 10-year ST-Bonds in the same period of 2018.

Finally, including additional placement, ST-Bonds sales volume decreased by 53.9 percent, down to KGS 6.0 billion. The total weighted average yield decreased by 2.7 p.p., down to 9.7 percent due to the excess of ST-Bonds supply over demand. Meanwhile, at the end of the first half of 2019, the volume of ST-Bonds<sup>2</sup> in circulation increased by 9.9 percent year-to-date, up to KGS 41.4 billion as of the end of June 2019. Institutional investors were

<sup>&</sup>lt;sup>2</sup> Exclusive of the ST-Bonds denominated in foreign currency.

still the main holders of ST-Bonds (55.7 percent). The ST-Bonds portfolio represented in foreign currency has not changed year-to-date (USD 49.4 million).

The government securities participants did not conduct operations on ST-Bonds and ST-Bills purchase/sale in the secondary market.

In the reporting period, the National Bank continued to place 7-, 14-, 28-, 91- and 182-day notes, using them as an active tool to absorb excess liquidity of the banking system and to adjust the volume of their supply depending on the objectives of the monetary policy. The total demand for the National Bank's notes in the first half of the year decreased by 8.6 percent (down to KGS 70.7 billion), however the demand for the National Bank's notes exceeded the supply. Thus, the volume of notes proposed by the National Bank decreased by 6.3 percent compared to the same period in 2018, down to KGS 69.4 billion. According to the results of the auctions conducted on placement of the National Bank's notes, the volume of sales of these assets amounted to KGS 61.2 billion (-3.1 percent), where the main share fell on 7-day notes. The total weighted average yield of the National Bank's notes increased by 0.7 p.p., up to 3.8 percent, due to the growth of rates on 7-day securities.

At the end of the reporting period, the total volume of the National Bank's notes portfolio in circulation decreased by 18.9 percent year-to-date, down to KGS 6.5 billion.

#### 1.4. Real Estate Market

The was an increase of the price index<sup>3</sup> in the real estate market of the Kyrgyz Republic due to the rise in prices for apartments and individual houses.

As of June 30, 2019, the housing affordability index almost remained at the level of the same period of 2018 (the index value decreased from 6.3 to 6.2 years).

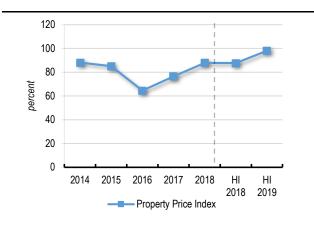
Risks to the financial sector from the real estate market remain moderate, which was conditioned by insignificant share of the mortgage loans<sup>4</sup> in the total loan portfolio of the banks.

At the end of the first half of 2019, an increase in property price index from 5.2 percent to 5.6 percent, as well as the property basis price index from 87.7 percent to 98.1 percent was observed in the Kyrgyz Republic due to growth in prices for individual housed (by 10.1 p.p.), as well as for apartments (by 2.7 p.p.) compared to the same period of 2018.

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

20
10
-10
-20
2014 2015 2016 2017 2018 HI HI 2018 2019
Property Price Index

Chart 1.4.2. Basis Price Index Growth Rate in the Real Estate Market<sup>5</sup>



Source: SRS GKR, National bank calculations

Source: SRS GKR, National bank calculations

As of June 30, 2019, the average price for 1 square meter of housing (apartments) in Bishkek increased by 2.8 percent (up to KGS 50.7 thousand) and in Osh – by 2.3 percent (up to KGS 33.2 thousand) compared to the same period of 2018. The average price for 1 square meter of individual houses in Osh increased by 43.9 percent, and in Bishkek – by 1.0 percent.

In the reporting period, the number of transactions of the real estate purchase and sale increased by 27.6 percent and amounted to 23,115. The transactions on purchase and sale of the apartments increased by 16.4 percent and the transactions on purchase and sale of the houses increased by 45.4 percent compared to the same period of 2018 and amounted to 12,959 and 10,156, accordingly.

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

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.

<sup>&</sup>lt;sup>3</sup> The Laspeyres index method was used in developing price index for the real estate. In general, the Laspeyres index is computed as follows:

<sup>&</sup>lt;sup>4</sup> Currently, a mortgage loan is usually a long-term loan extended on security of the title to real estate in the Kyrgyz Republic.

<sup>&</sup>lt;sup>5</sup> The year 2010 was taken as the base period.

Chart 1.4.3. Dynamics of Price Changes for Apartments

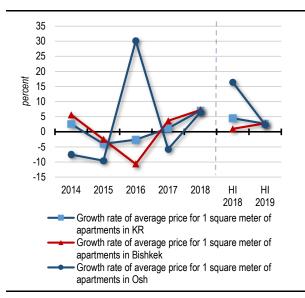
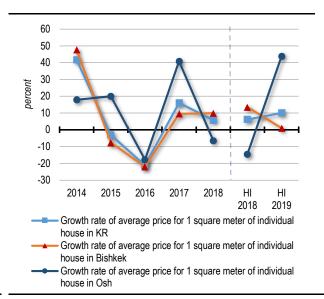


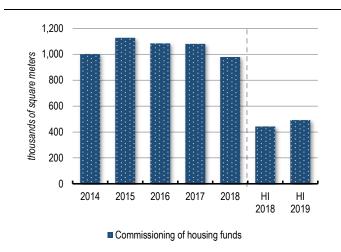
Chart 1.4.4. Dynamics of Price Changes for Individual Houses



Source: SRS GKR, NSC KR, National bank calculations

Source: SRS GKR, NSC KR, National bank calculations

Chart 1.4.5. Dynamics of Housing Commissioning and Loan Extended for Construction and Mortgage<sup>6</sup>



Source: SRS GKR, NSC KR, National bank calculations Note: data for the reporting period There was an increase in the level of commissioning of housing funds. At the end of the first half of 2019, the increase in the aggregate level of commissioning of housing funds constituted 11.2 percent compared to the same period of 2018 mainly due to the growth in the volume of housing funds commissioning in Jalal-Abad, Osh and Chui regions (Table 1.4.1).

<sup>&</sup>lt;sup>6</sup> Data for the period.

Table 1.4.1. Geographic Structure of Commissioned Housing

	HI 20	)18	HI 2019			
	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	160.3	36.2	154.5	31.4		
Osh city and Osh region	96.0	21.7	114.8	23.3		
Other regions of KR	186.5	42.1	223.1	45.3		
Total	442.8	100.0	492.4	100.0		

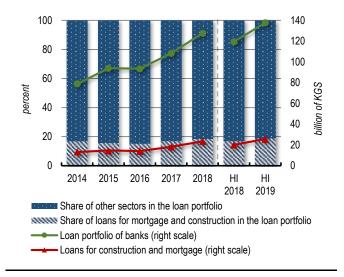
Source: NSC KR

At the end of the first half of 2019, there was an increase in the volume of loans issued to finance the construction and in extended mortgage loans compared to the same period of 2018. The volume of mortgage loans increased by 10.5 percent and amounted to KGS 2.8 billion in the reporting period, mainly due to the loans extended in foreign currency. The volume of loans extended for construction increased slightly by 1.7 percent and amounted to KGS 3.3 billion. There was an increase in the volume of loans extended in the national currency, and a decrease in the volume of loans extended in foreign currency.

Chart 1.4.6. Loans Extended for Construction and Mortgage<sup>7</sup>

8,000 120 100 7,000 80 6,000 60 5,000 40 4,000 20 3,000 0 2,000 -20 1,000 2014 2015 2016 2017 2018 НІ 2018 2019 Loans for construction Mortgage loans Growth rates of loans for construction Growth rates of mortgage loans

Chart 1.4.7. Total Share of Loans for Mortgage and Construction in the Loan Portfolio of Commercial Banks<sup>8</sup>



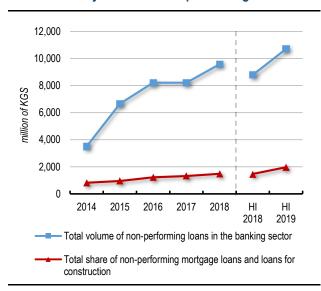
Source: CBs, NBKR

Source: CBs, NBKR

<sup>&</sup>lt;sup>7</sup> Data for the period.

<sup>&</sup>lt;sup>8</sup> Data as of the end of period.

Chart 1.4.8. Dynamics of Non-performing Loans



Source: CBs

At the end of the first half of 2019, residential houses are generally constructed and commissioned at the expense of the population (96.8 percent of the total commissioning)<sup>9</sup>.

As of the end of June 30, 2019, the share of loans for construction and mortgage increased slightly (by 1.9 p.p. compared to the same period of 2018) and constituted 18.7 percent (Chart 1.4.7) in the total loan portfolio of the commercial banks.

The total volume of non-performing loans for mortgage and construction increased by 33.8 percent and amounted to KGS 1,972.1 million; therefore, the aggregate share of non-performing loans for the aforementioned sectors increased in the reporting period by 1.7 p.p. and amounted to KGS 18.4 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 25.8 percent and amounted to KGS 1,244.1 million.

<sup>&</sup>lt;sup>9</sup> Social and economic situation of the Kyrgyz Republic, January-June 2018 // National Statistical Committee of the Kyrgyz Republic – Bishkek - P. 93.

#### **Box 1. Housing Affordability Index**

As of June 30, 2019, the situation with the housing affordability in the Kyrgyz Republic remained almost at the level of the same period in 2018 (index value decreased from 6.3 to 6.2 years). This is due to the growth rates of the average monthly nominal wages (growth by 4.0 percent) outrunning the growth rates of real estate prices (growth by 2.7 percent) (Chart 1).

Chart 1. Housing (Apartments) Affordability Index without Minimal Consumer Budget

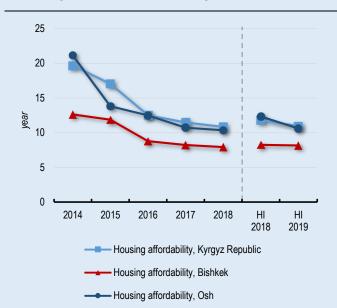
9
8
7
4
3
2014 2015 2016 2017 2018 HI HI 2018 2019

Housing affordability, Kyrgyz Republic

Housing affordability, Bishkek

- Housing affordability, Osh

Chart 2. Housing (Apartments) Affordability Index including Minimal Consumer Budget



According to the results of the first half of 2019, to purchase an apartment of 54 square meters in the Kyrgyz Republic one should save the average monthly nominal wage of the family, where the income is received by two people, for 6.2 years with other conditions being equal.

According to the results of the reporting period, a family of three people in the Kyrgyz Republic with the minimum consumer budget of KGS 14,217.2 (43.6 percent of total family income) will need 11.0 years in order to purchase housing (Chart 2).

#### Box 2. Stress Testing of Impact from Price Changes in the Real Estate Market on the Banking Sector<sup>10</sup>

As of June 30, 2018, the share of loans, secured by pledged real estate, constituted 32.6 percent of the total volume of loans in the loan portfolio of the banks. The volume of pledged real estate (at pledge value) amounted to 67.5 percent of the total collateral of the loan portfolio.

Credit risks of the banking sector are conditioned by possible decrease in the value of pledged real estate below the loan repayment balance and further potential refusal of a 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)	>		<u> </u>	5 banks	
"Alternative" scenario (decrease in price for real estate by 40% per 2 years)	>	KGS -1.1 billion	<u> </u>	7 banks	
"Negative" scenario (decrease in price for real estate by 50% per a year)		KGS -18.4 billion	KGS -9.0 billion	8 banks	

<sup>\*</sup> At the end of 2008, prices for real estate in Kyrgyzstan decreased by 23 percent.

In addition to stress test, threshold level of decrease in prices for real estate, when banks potentially suffer losses, was calculated. The banking sector potentially suffers losses if prices for the real estate decrease by 39.4 percent, large banks – by 40.8 percent. The risk of capital adequacy ratio violation by the banking sector, as well as by the large banks, arises when prices for the real estate decrease by 53.3 and 50.6 percent, accordingly.

The possible difference in the estimated value of pledged real estate, which may be less than the market value by approximately 20 percent, was not taken into account by the banks in calculations of the stress test.

Possible difference in the estimated value of pledged real estate, which may be less than its market value by approximately 20 percent was not taken into account by the banks. Taking into account aforementioned facts, prices for real estate can decrease by 20 percent.

<sup>&</sup>lt;sup>10</sup> Stress test was conducted on the basis of the commercial banks' data provided in the course of the survey as of June 30, 2019.

#### II. BANKING SECTOR

Growth of the main indicators of the banking sector: assets, liabilities, capital, deposit base, loan portfolio and indices of financial intermediation was observed in the first half of 2019 compared to the same period of 2018.

At the end of the first half of 2019, 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

As of June 30, 2019<sup>11</sup>, 25 commercial banks (including the Bishkek branch of the National Bank of Pakistan) and 319 of their branches worked in the territory of the Kyrgyz Republic, among which there were 17 banks with foreign participation in the capital, including 12 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 was observed at the end of the reporting period. Assets of the banking sector at the end of the first half of 2019 amounted to KGS 299.9 billion, having increased by 8.7 percent compared to the first half of 2018 (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 15.9 percent or KGS 19.0 billion;
- the cash and correspondent accounts by 10.9 percent or KGS 5.3 billion.

The share of loan portfolio in the structure of assets constituted 60.4 percent, having increased by 3.9 p.p. compared to the same period of 2018.

#### Loan Portfolio

In the first half of 2019, growth of the loan portfolio was observed in all sectors of economy.

At the end of the first half of 2019, the level of dollarization of the loan portfolio in the banking sector decreased by 1.3 p.p. compared to the first half of 2018 and amounted to 36.3 percent (Chart 2.1.2).

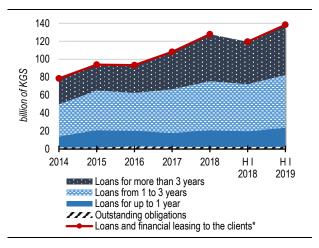
<sup>&</sup>lt;sup>11</sup> The data are submitted according to periodic regulatory reporting of the commercial banks (PRBR).

Chart 2.1.2. Dynamics of Loan Portfolio in the Banking Sector



\* Exclusive of loans provided by FCO and special loan loss provisions

Chart 2.1.3. Structure of Loan Portfolio by Maturity



<sup>\*</sup> Exclusive of loans provided by FCO and special loan loss provisions

The major shares were accounted for the medium-term loans extended for 1-3 years, which constituted 42.6 percent or KGS 59.0 billion, and for the long-term loans extended for more than 3 years – 40.3 percent or KGS 55.9 billion in the structure of loan portfolio by maturity (Chart 2.1.3).

#### Liabilities

At the end of the first half of 2019, liabilities of the banking sector of the Kyrgyz Republic amounted to KGS 189.8 billion, having increased by 6.9 percent compared to the first half of 2018.

At the end of the first half of 2019, deposits of individuals and non-financial enterprises increased by 7.6 percent and amounted to KGS 130.9 billion (Chart 2.1.4). The share of individuals' and non-financial enterprises' deposits in the banks' liabilities increased by 0.6 p.p. and amounted to 69.2 percent.

The share of liabilities in foreign currency in the total volume of attracted funds decreased by 2.0 p.p. and amounted to 41.1 percent or KGS 77.9 billion (Chart 2.1.5).

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

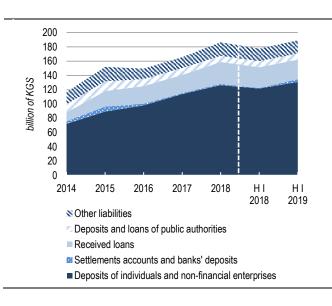
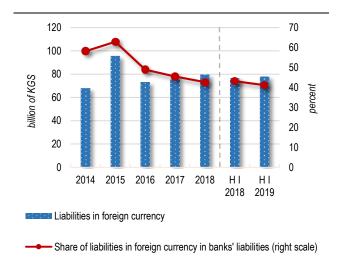
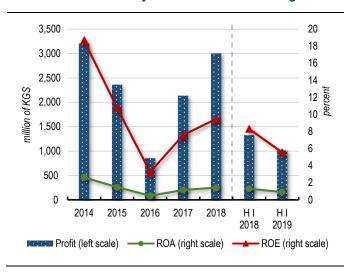


Chart 2.1.5. Banks' Liabilities in Foreign Currency



#### Financial Results

Chart 2.1.6. Profitability Indicators of the Banking Sector



The deterioration of profitability indicators at the end of the first half of 2019 was observed compared with the first half of 2018 due to reduction of profit in the banking sector:

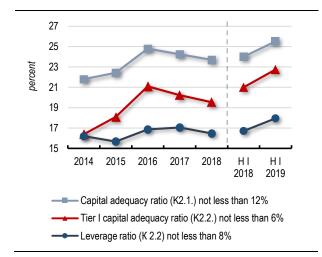
- ROA constituted 0.9 percent;
- ROE formed at 5.6 percent.

Net profit of the banking sector decreased by 23.3 percent and amounted to KGS 1.0 billion (Chart 2.1.6).

#### **Capital Adequacy**

With statutory minimum capital adequacy at 12.0 percent, at the end of the first half of 2019, this figure amounted to 25.5 percent (Chart 2.1.7), having increased by 1.5 p.p. compared to the first half of 2018.

**Chart 2.1.7. Dynamics of Capital Adequacy Ratios** 



At the same time, the actual level of capital adequacy in the banking sector, generally formed according to the results of the first half of 2019, can further increase the volume of risky and earning assets by 2.0 times, without exceeding established level of capital adequacy.

The ab ovementioned information indicates relative stability of the banking sector to negative shocks and the presence of certain potential to increase the level of financial intermediation and efficiency of the banking sector activity in the future.

#### 2.2. Banking Sector Risks

#### 2.2.1. Credit Risk

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

In the reporting period, the share of non-performing loans in the loan portfolio of banks increased from 7.4 percent up to 7.8 percent compared with the first half of 2018 (Chart 2.2.2).

Chart 2.2.1. Dynamics of Loan Portfolio

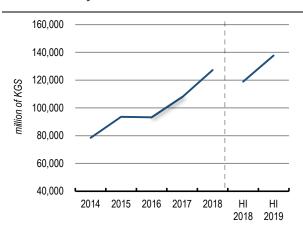
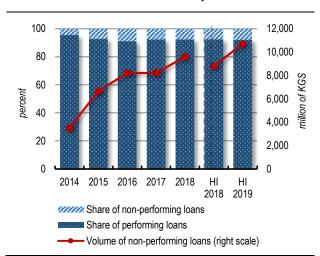


Chart 2.2.2. Loan Portfolio Quality

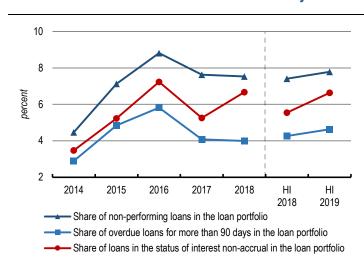


In order to assess the quality of the loan portfolio, the commercial banks use a loan classification system<sup>12</sup>, which contributes to determining the possible level of potential losses from bad loans and compensating them in time through creation of appropriate reserves (Chart 2.2.3).

At the end of the first half of 2019, the indicator of the risk of default on assets (the ratio of special loan loss provisions and loan portfolio) increased slightly (by 0.2 p.p.) compared to the same period of 2018 and constituted 4.3 percent.

<sup>&</sup>lt;sup>12</sup> In classification of the loan portfolio, all loans are usually divided into six categories, depending on the client's current capacity to fulfill the obligations to the bank (listed in declining order of classification): normal, satisfactory, under supervision, substandard, doubtful and losses. Loans of last three categories, as having the most negative characteristics in terms of return of loans, are usually attributed to the "non-performing". For each of six categories, the bank has to create a reserve corresponding to this category defined as a percentage of loans issued.

#### Chart 2.2.3. Indicators of the Loan Portfolio Quality

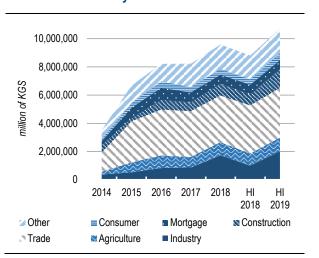


Aggregate reserves created by the commercial banks increased by 0.2 p.p. compared to 2018 and constituted 6.9 percent of the total loan portfolio (as of June 30, 2018 this index constituted 6.7 percent). Meanwhile, the share of special loan loss provisions in the reporting period constituted 62.9 percent of the total reserves (Chart 2.2.4).

**Chart 2.2.4. Total and Special Reserves** 

8,000 7,000 6,000 million of KGS 5,000 4,000 3,000 2,000 1,000 2015 2016 2017 2018 ΗΙ 2014 2018 2019 Special LLP General LLP LLP expenses

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

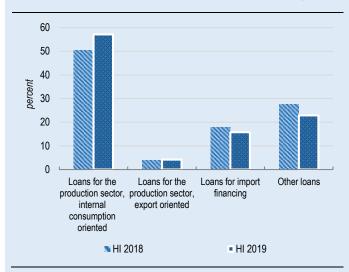


As of the end of the first half of 2019, the highest concentration of credit risks was still observed in the trade sector of economy (Chart 2.2.5).

#### Box 3. The Survey Results of the Commercial Banks Clients

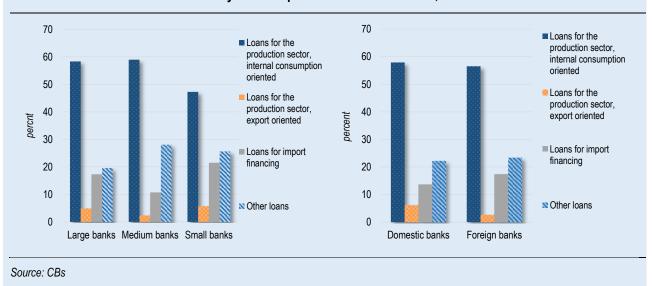
At the end of the first half of 2019, a significant share of extended loans (57.1 percent of total borrowers' loans) was still concentrated in the production sector of the economy<sup>13</sup>, thereby reflecting contribution of the banking sector in creation of the country's GDP, meanwhile, 15.8 percent of issued loans were forwarded for financing of imports (Chart 1).

Chart 1 Sectoral Structure of Loans as of June 30, 2019



Domestic banks forward 58.0 percent of the loan portfolio to the production sector (GDP) and 13.7 percent – to finance imports. Generally, foreign banks also provided loans to the production sector of economy (56.5 percent). In the reporting period, the share of loans forwarded to finance imports constituted 17.4 percent of the loan portfolio (Chart 2).

Chart 2. Sectoral Structure of Loans by the Groups of Banks as of June 30, 2019



30

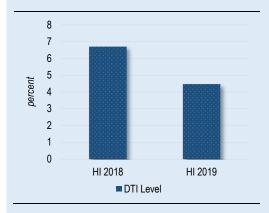
<sup>&</sup>lt;sup>13</sup> The production sector means the activity of the bank clients connected with the production of goods and services (construction, communication and automobile repair shop services, transport services, real estate leasing, hotels, restaurants, etc.).

#### Box 4. Results of the Survey of the Commercial Banks' Largest Clients

Borrowers solvency

At the end of the first half of 2019, the level of debt burden of 15 banks' largest clients calculated through DTI index<sup>14</sup>, decreased by 2.2 p.p. compared to the same indicator of 2018 and constituted 4.5 percent.

Chart 1. DTI Level on 15 Banks' Largest Borrowers



By the groups of banks, the largest debt burden was observed in the major borrowers of **the small banks** (5.2 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 large banks**.

Table 1. Debt Burden of 15 Banks' Largest Borrowers at the end of the first half of 2019

	Banking sector	Large banks	Medium banks	Small banks
Loan balance, billions of KGS	41.0	21.4	12.8	6.8
Share of loans in 15 largest borrowers in the total volume of loan portfolio in the banking sector, <i>in</i> %	29.7	26.8	30.6	42.1
Ratio of expenses for loan debt servicing to the borrowers' total income, in %	4.5	4.2	4.7	5.2

Source: CBs, NBKR

In the reporting period, 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 the First Half of 2019

	Domestic banks	Foreign banks
Loan balance, billions of KGS	25.7	15.2
Share of loans in 15 largest borrowers in the total volume of loan portfolio in the banking sector, <i>in</i> %	33.6	24.9
Ratio of expenses for loan debt servicing to the borrowers' total income, in %	6.6	3.7

Source: CBs, NBKR

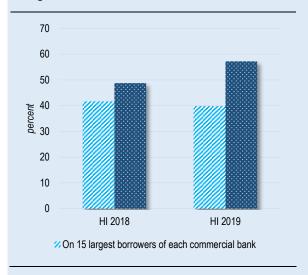
<sup>14</sup> DTI (debt-to-income) is the ratio of the amount of the borrowers' payments on loans (including the amount of principal and interest payments for the reporting period) to the main annual income of the borrower declared at the time of issuing a loan.

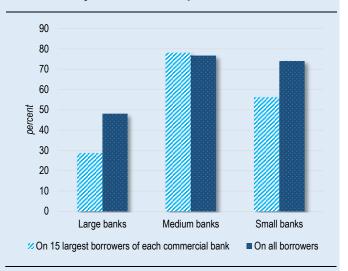
#### Security of the borrowers' loans

At the end of the first half of 2019, the LTV actual level<sup>15</sup> in the banking sector amounted to 57.2 percent. The existing level of collateral indicates a relatively high level of the loans secured by the pledged property (Chart 2).

Chart 2. LTV Level on All Borrowers and on 15 Largest Borrowers of Each Commercial Bank

Chart 3. LTV Level on All Borrowers and on 15 Largest Borrowers by the Banks' Groups as of June 30, 2019





Meanwhile, the LTV value in the large banks is lower than in the small and medium banks and in the banking sector as a whole (Chart 3).

 $<sup>^{\</sup>rm 15}\,\text{LTV}$  (loan-to-value ratio) is the ratio of issued loans to the value of collateral.

#### 2.2.2. Liquidity Risk

Public confidence in the banking sector depends on the timely implementation of obligations by the banks, which suggests availability of sufficient liquidity in the banks. For regulatory purposes, liquidity risk is assessed using economic current liquidity ratio<sup>16</sup>.

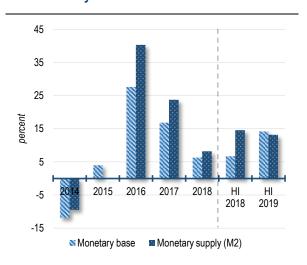
At the end of the first half of 2019, current liquidity ratio decreased slightly from 65.5 percent (as of the end of the first half of 2018) down to 64.8 percent (Chart 2.2.15).

Chart 2.2.15. Liquidity Indicators in the Banking Sector

80 70 60 50 40 30 20 2014 2015 2016 2017 2018 Н Н 2018 2019 Current liquidity ratio (K3) Ratio of liquid assets to general assets

- Threshold level of current liquidity ratio (K3)

Chart 2.2.16. Growth Rates of Money Supply (M2) and Monetary Base



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

**Table 2.2.1. Maturity of Financial Assets and Liabilities** as of June 30, 2019, millions of KGS

			Maturity			
Name	up to 1	1-3	3-6	6-12	more than	Total
	month	months	months	months	12 months	
Total financial assets	71,627	11,278	12,171	23,894	119,630	238,600
including loans and financial leasing						
to the clients	6,561	5,939	9,557	19,998	95,713	137,768
Total financial liabilities	98,241	9,961	15,491	20,428	41,112	185,232
including deposits of individuals and						
time deposits of legal entities	42,639	7,266	9,302	15,801	17,218	92,226
Gap	-26,614	1,317	-3,320	3,466	78,519	53,368
Including on loans and deposits	-36,078	-1,326	255	4,197	78,495	45,541

<sup>&</sup>lt;sup>16</sup> Economic current liquidity ratio is one of the mandatory standards for the bank established by the National Bank, according to which the liquid assets (for calculation of this indicator including funds of banks in cash and correspondent accounts) must be at least 45 percent of short-term liabilities.

#### 2.2.3. Concentration Risk

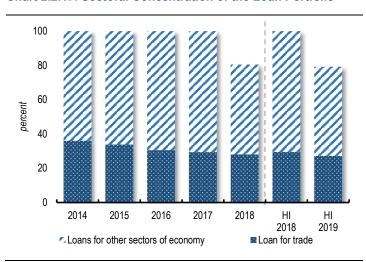
#### Concentration of the Largest Sources of Financing

The results of "reverse" stress testing show that some banks could not withstand the shock related to outflow from one to five large clients<sup>17</sup>, meanwhile the liquidity ratio decreases below the threshold level of 45 percent.

#### **Loan Concentration**

Potential default from one to five largest borrowers<sup>18</sup> in separate banks may decrease regulatory capital below economic standard of the National Bank.

#### Chart 2.2.17. Sectoral Concentration of the Loan Portfolio



Decrease 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 the first half of 2019, the share of loans for trade decreased from 29.5 percent down to 27.2 percent (Chart 2.2.17).

<sup>&</sup>lt;sup>17</sup> The largest sources of financing (LSF) are the funds of creditors and depositors (received loans, settlement accounts, demand deposits and time deposits).

<sup>&</sup>lt;sup>18</sup> Total debt of five largest borrowers of the bank is meant.

#### 2.2.4. Currency Risk

At the end of the first half of 2019, the annual average level of *currency risk* in the banking sector was moderate.

Chart 2.2.18. Dynamics of USD/KGS Nominal Exchange Rate



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 the first half of 2019, the risk of currency position overestimation in the banking sector was minimum (VaR: 0.1–1.6 percent of the net total capital, Chart 2.2.19), i.e. the banks adhered to a conservative policy in dealing with foreign currency and were weakly exposed to currency risk.

Chart 2.2.19. Dynamics of Open Currency Position (OCP) and Revaluation Risk (VaR)

in percent of NTC

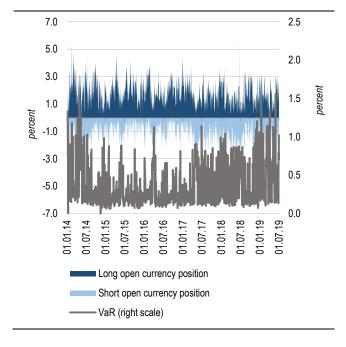
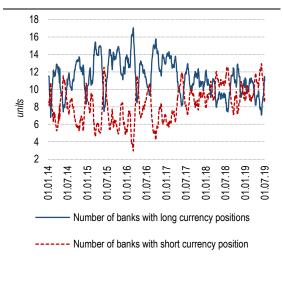


Chart 2.2.20. Currency Position of the Banks



#### Box 5. Credit and Currency Risks

At the end of the reporting period, 23.6 percent of the total loan portfolio was accounted for the loans, which were repaid in foreign currency, while the income of the borrowers was 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 14.6 percent, where basic incomes of the borrower are generated in the national currency, and the loans are repaid in foreign currency;
- Group 2 5.7 percent, where basic incomes and loans payable by the borrower, are in the same currency;
- Group 3 7.2 percent, where 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 Loans<sup>19</sup>

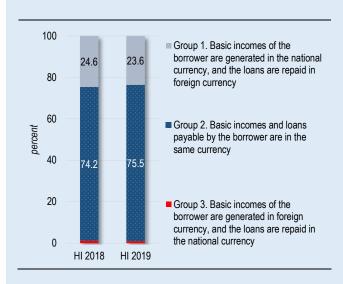
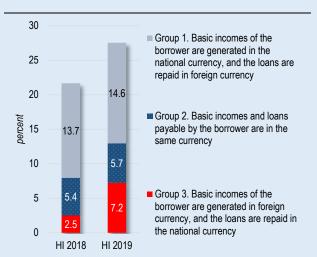


Chart 2. Share of Non-performing Loans by Groups of Loans<sup>20</sup>



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

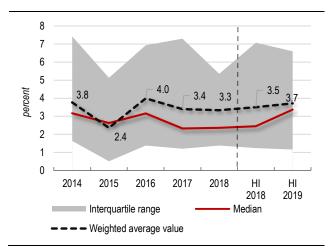
<sup>&</sup>lt;sup>19</sup> Breaking of loans into groups is presented in this chart. For example, the volume of loans for Group 1 as of June 30, 2019 amounted to KGS 31.6 billion or 25.0 percent of the total loan portfolio (KGS 126.4 billion).

<sup>&</sup>lt;sup>20</sup> 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 June 30, 2019 amounted to KGS 4.2 billion or 13.4 percent of the total loan portfolio for Group 1 (KGS 31.6 billion).

### 2.2.5. Interest Rate Risk

At the end of the first half of 2019, there was a decrease of the interest rate risk in the financial sector.

Chart 2.2.21. Dynamics of Interest Rate Risk (VaR) in percent of NTC



Slight increase of interest rate risk (VaR) from 3.5 percent up to 3.7 percent of net total capital was caused by decrease of gaps by maturities between financial assets and liabilities vulnerable to interest rates dynamics.

Average value of interest rate risk during the period of 2013 – first half of 2019 was within accessible limits (2.4 - 4.0 percent of net total capital).

Chart 2.2.22. Dynamics of Average Weighted Interest Rate of Individuals' Time Deposits

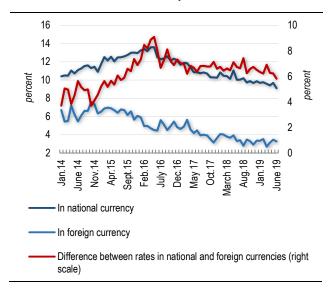
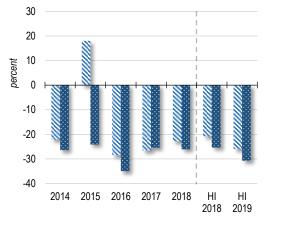


Chart 2.2.23. Cumulative Gap of Assets and Liabilities Exposed to Interest Rate Risk



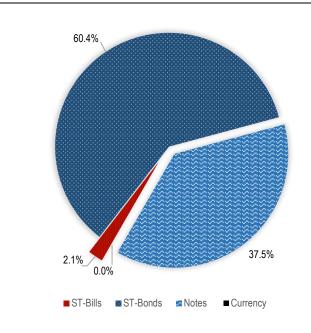
- Cumulative gap up to a year/All assets (in the national currency)
- Cumulative gap up to a year/All assets (in foreign currency)

# 2.2.6. "Contagion" Risk

The purpose of this analysis is to assess the "contagion" risk in case of interbank lending, which can set off chain reaction upon occurrence of problems with liquidity.

At the end of the first half of 2019, the volume of interbank transactions amounted to KGS 21.2 billion<sup>21</sup>.

Chart 2.2.24. Distribution of Interbank Loan Transactions Made during the First Half of 2019 between Resident Banks, Depending on Collateral



The loans in the interbank market are generally covered by collateral in the form of highly liquid government securities (Chart 2.2.24) in the banking sector of the Kyrgyz Republic.

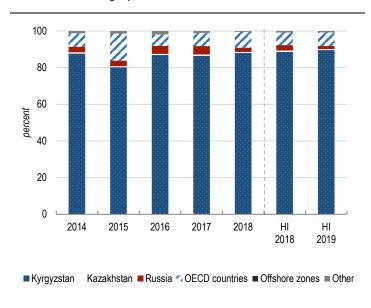
In general, the probability of the "contagion" risk materialization in the interbank credit market of the Kyrgyz Republic is minimal, which is caused by highly liquid collateral.

<sup>&</sup>lt;sup>21</sup> The total volume of transactions made between the resident banks during 2018 is meant here.

### 2.2.7. Country Risk<sup>22</sup>

In general, as of June 30, 2019, the volume of disposed assets of non-residents constituted KGS 25.2 billion or 10.5 percent of total banking sector assets. The highest concentration of placement was observed in the OECD countries<sup>23</sup> – 7.4 percent (or KGS 17.8 billion) of total assets in the banking sector of the Kyrgyz Republic.

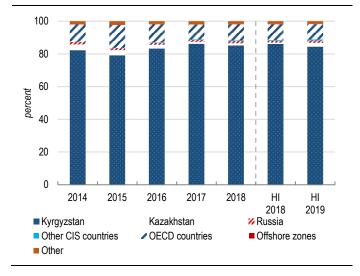
Chart 2.2.25. Geographic Structure of Assets



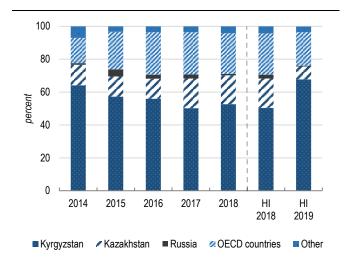
The main share of the assets placed abroad was focused on correspondent or deposit accounts and constituted KGS 23.2 billion or 92.1 percent of total placed assets of non-residents.

At the end of the first half of 2019, banks' liabilities to non-residents of the Kyrgyz Republic totaled KGS 28.8 billion or 15.6 percent of the total liabilities of the banking sector. Main volume of the resources was drawn from non-resident banks in the form of loans and deposits, which amounted to KGS 27.6 billion or 95.8 percent of the total liabilities to non-residents. 9.4 percent of the total liabilities in the banking sector were accounted for the OECD countries, 1.5 and 2.4 percent - for Russia and Kazakhstan, accordingly (Chart 2.2.26).

Chart 2.2.26. Geographic Structure of Liabilities



**Chart 2.2.27. Authorized Capital by Countries** 



At the end of the first half of 2019, foreign capital amounted to KGS 9.2 billion or 32.2 percent of the total authorized capital of the banking sector (KGS 28.4 billion). The main share of foreign capital is distributed among (Chart 2.2.27):

- residents of the OECD countries 20.4 percent;
- residents of Kazakhstan 7.8 percent;
- residents of Russia 0.5 percent.

<sup>&</sup>lt;sup>22</sup> Data given by the commercial banks.

<sup>&</sup>lt;sup>23</sup> Organization for Economic Cooperation and Development (OECD) is an international economic organization of developed countries that recognize the principles of representative democracy and free market economy.

# 2.3. "Reverse" Stress Testing of the Banking Sector

# 2.3.1. "Reverse" Stress Testing of Credit Risk<sup>24</sup>

Maximum allowable share of "performing" loans<sup>25</sup> 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, was 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" loans<sup>26</sup>.

Moreover, the maximum growth rate of "non-performing" loans, where capital adequacy (K 2.1) will be reduced to the threshold level of 12 percent, can be calculated by means of this method.

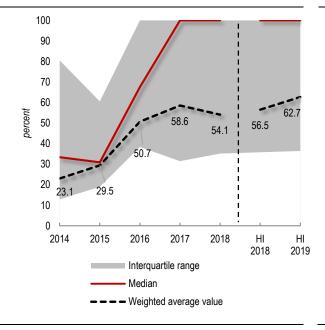
Based on the results of the "reverse" stress testing of the banking sector as of June 30, 2019, the maximum allowable share of "performing" loans, transferring to the category of "non-performing" in the banking sector, amounted to approximately 62.7 percent (Chart 2.3.1).

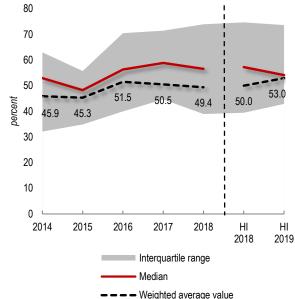
Thus, the banking sector can sustain a significant deterioration in the quality of the loan portfolio, which may require the creation of additional LLP approximately up to 53.0 percent of net total capital (Chart 2.3.2).

Chart 2.3.1. Maximum Possible Share of "Performing"<sup>27</sup> Loans that May Become "Non-performing" Loans<sup>28</sup>

percent of performing loans

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





<sup>&</sup>lt;sup>24</sup> Exclusive of troubled banks.

<sup>&</sup>lt;sup>25</sup> Exclusive of "normal" loan category, which are risk free.

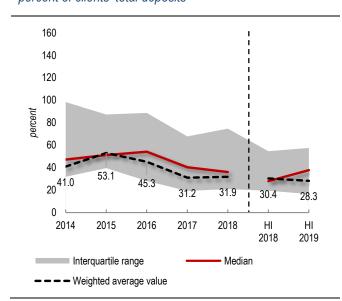
<sup>&</sup>lt;sup>26</sup> Herewith, transition of "performing" loans to the category of "non-performing" loans is fulfilled smoothly by three categories ("substandard", "doubtful" and "losses".

<sup>&</sup>lt;sup>27</sup> Exclusive of "normal" loan category, which are risk free.

<sup>&</sup>lt;sup>28</sup> 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 May Drop to 45 Percent, percent of clients' total deposits



The reserve of liquid assets, which can cover a massive outflow of deposits of the population and non-financial enterprises, 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 the first half of 2019 the actual amount of liquid assets of the banking sector was able to cover the outflow of an average of 28.3 percent of total deposits of population and non-financial enterprises (Table 2.3.1).

### 2.3.3. "Reverse" Stress Testing of Market Risk

In general, the results of the "reverse" stress testing of the market risk indicate that the banking sector as of the end of the first half of 2019 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 interest rate risk. Decrease of the average interest rates on loans by 16.9 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, was 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 June 30, 2019

		Banking sector						
	Credit risk							
Scenario 1	Share of performing loans transferring to the category of "non-performing" loans, <i>in percent</i>	62.7						
	Interest rate risk							
Scenario 1	Decrease of weighted average interest rate on loans, when CAR declines to 12%, in percentage point	16.9						
	Currency risk							
Scenario 1	Growth rate of USD/KGS (±) exchange rate, when CAR decreases to 12%, <i>in percent</i>	Commercial banks overcome the effect of the direct currency risk						
Scenario 2	Growth rate of USD/KGS (±) exchange rate, when net profit decreases to zero level, in percent	(i.e. change of currency rate by more than 100 percent)						
Liquidity risk								
Scenario 1	Outflow of clients' deposit and received loans share of the total deposits and loans, when current liquidity ratio declines to 45%, <i>in percent</i>	28.3						

# III. NON-BANKING FINANCIAL-CREDIT ORGANIZATIONS

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

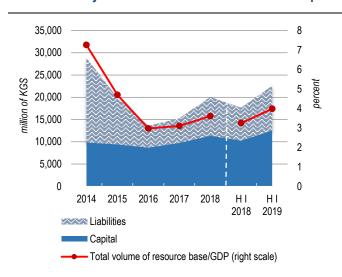
The weighted average interest rates on loans of the microfinance organizations and credit unions decreased compared to the same period of 2018.

### 3.1. Main Trends

The system of non-banking financial-credit organizations subjected to licensing and regulation by the National Bank as of June 30, 2019 in the Kyrgyz Republic included: the specialized financial-credit organization – "FCCU" OJSC; 96 credit unions; 139 microfinance organizations (including 8 microfinance companies, 92 microcredit companies and 39 microcredit agencies) and 410 exchange offices.

#### Resources

Chart 3.1.1. Dynamics of NBFCOs Liabilities and Capital

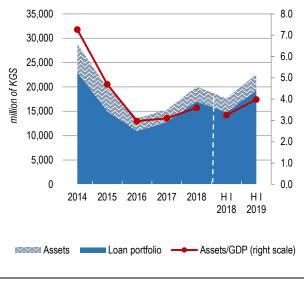


At the end of the first half of 2019, NBFCOs liabilities increased by 36.1 percent compared to the first half of 2018 and were formed in the amount of KGS 10.1 billion. As of June 30, 2018, NBFCOs capital increased by 21.8 percent and totaled KGS 12.5 million (Chart 3.1.1).

Source: NBKR

#### Assets

Chart 3.1.2. Dynamics of NBFCOs Assets and Loans



Source: NBKR

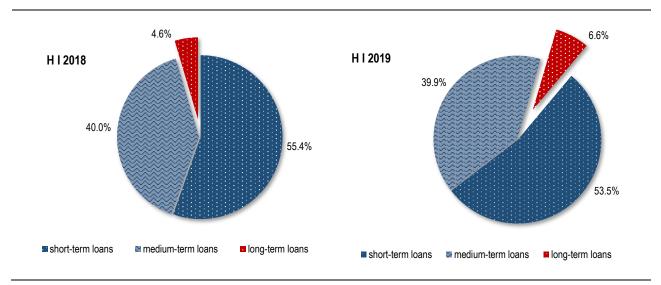
According to periodic regulatory reporting, the total assets of NBFCOs in the first half of 2019 increased by 27.8 percent and amounted to KGS 22.6 billion<sup>29</sup>. This increase was due to growth in the loan portfolio of NBFCOs (Chart 3.1.2).

Lending remains the main activity of NBFCOs. As of June 30, 2019, the loan portfolio of NBFCOs increased by 30.0 percent and was formed in the amount of KGS 19.2 billion.

At the end of the first half of 2019, the number of borrowers increased by 28.8 percent compared to the first half of 2018 and amounted to 409,618 borrowers.

There was an decrease in the share of short-term credit resources and an increase in the share of long-term loans, meanwhile the share of medium-term loans remained unchanged (Chart 3.1.3) within the structure of the loan maturity provided by NBFCOs in the first half of 2019.

Chart 3.1.3. Structure of the NBFCOs Loan Portfolio by Maturity<sup>30</sup>



Source: NBKR

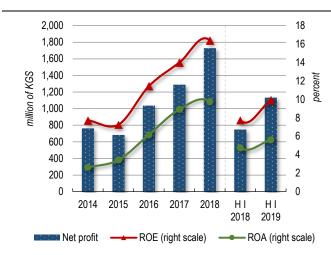
The main oblasts where the major share of NBFCOs loan portfolio is concentrated (72.0 percent of the total loan portfolio) are Bishkek city, Chui, Osh and Jalal-Abad oblasts, which is due to the highest level of business activity in these oblasts of the republic.

<sup>&</sup>lt;sup>29</sup> Exclusive of "FCCU" OJSC.

<sup>&</sup>lt;sup>30</sup> Data for the period.

### Revenue Position<sup>31</sup>

Chart 3.1.4. Dynamics of NBFCOs Revenue Position<sup>32</sup>



At the end of the first half of 2019 net profit of NBFCOs increased by 51.0 percent compared to the same period of 2018 and amounted to KGS 1.1 billion. As of June 30, 2019, ROA increased by 0.9 p.p. and amounted to 5.6 percent. ROE increased by 2.2 p.p. and constituted 9.9 percent (Chart 3.1.4).

Source: NBKR

<sup>&</sup>lt;sup>31</sup> ROA and ROE indices are provided in annual terms.

<sup>32</sup> Exclusive of "FCCU" OJSC.

# 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 June 30, 2019, the share of non-performing loans in the loan portfolio of NBFCOs constituted 4.0 percent, meanwhile, their nominal volume increased slightly by KGS 113.0 million or 17.2 percent compared to the first half of 2018 (Chart 3.2.1).

At the end of the first half of 2019, the structure of NBFCOs non-performing loans demonstrated decrease in the share of defaulting loans issued to agriculture (by 2.0 p.p.) and to trade (by 2.2 p.p.) compared to the first half of 2018. The share of defaulting loans in the total non-performing loans of NBFCOs issued to agriculture and trade constituted 19.3 percent and 31.8 percent, respectively (Chart 3.2.2).

Chart 3.2.1. Quality of NBFCOs Loan Portfolio

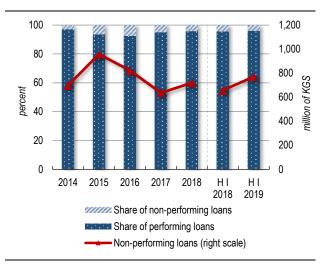
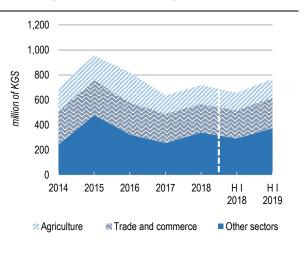


Chart 3.2.2. Structure of NBFCOs Non-performing Loans by Sectors of Economy



Source: NBKR Source: NBKR

### Sectoral Concentration

NBFCOs loan portfolio is concentrated in the sphere of agriculture (30.3 percent of NBFCOs total loans), as well as consumer loans and trade (22.6 percent and 13.8 percent of the total loan portfolio, accordingly, Chart 3.2.3). Lending of agriculture is associated with a high dependence of climate conditions.

#### Institutional Concentration

As of June 30, 2019, the share of assets of the three largest NBFCOs increased by 2.8 p.p. compared to the same period of 2018 and amounted to 51.8 percent of the total assets of NBFCOs system (Chart 3.2.4).

Chart 3.2.3. Sectoral Structure of NBFCOs Loan Portfolio

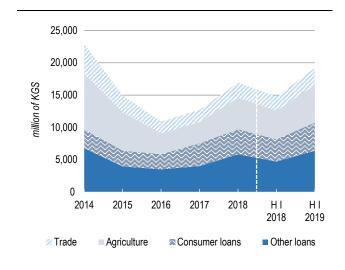
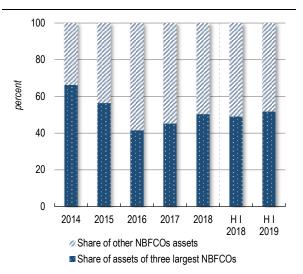


Chart 3.2.4. Institutional Structure of NBFCOs Assets



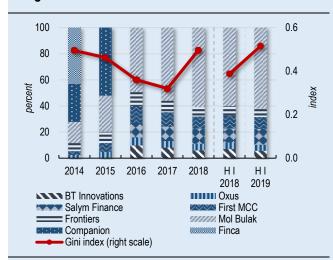
Source: NBKR Source: NBKR

# Box 6. Concentration Indices based Assessment of NBFCOs System Activity<sup>33</sup>

#### The Herfindahl-Hirschman Index

Herfindahl-Hirschman index<sup>34</sup> was calculated for the purposes of concentration risk analysis in the NBFCOs system. As of June 30, 2019, Herfindahl-Hirschman index for the NBFCOs system constituted 1,615.1 points. According to the rule of thumb<sup>35</sup>, resulting value indicates availability of moderate concentration of NBFCOs assets or moderate concentration of microfinance market.

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



#### The Gini Index

The Gini index was calculated for estimating the uniformity of the NBFCOs assets distribution. As of June 30, 2019, the index value constituted 0.52, meanwhile, increase of concentration level was observed in the first half of 2019 (Chart 1).

Source: NBKR

<sup>&</sup>lt;sup>33</sup> Concentration indices are calculated on the basis of data submitted by 6 largest NBFCOs.

 $<sup>^{34}</sup>H = \sum_{i=1}^{n} (share i)^{2}.$ 

<sup>&</sup>lt;sup>35</sup> The following rule of thumb was used for determining the level of market concentration:

<sup>•</sup> index value is below 0.1 (or 1,000) – insignificant market concentration,

<sup>•</sup> index value is from 0.1 to 0.18 (or from 1,000 to 1,800) – average market concentration,

<sup>•</sup> index value is above 0.18 (or 1,800) – high market concentration.

# **External Debt Status of NBFCOs**

As of June 30, 2019, the external debt of NBFCOs amounted to USD 82.5 million. Major part of the external debt of NBFCOs are loans provided by the foreign commercial financial-credit organizations (81.3 percent of total external debt of NBFCOs), and the rest are loans of the international financial institutions (18.7 percent of total external debt of NBFCOs).

At the end of the first half of 2019, external debt of the largest NBFCOs increased by 37.0 percent compared to the first half of 2018 and amounted to USD 63.7 million.

# 3.3. Stress Testing of NBFCOs System

### Stress Testing of the NBFCOs Credit Risk

Stress testing, in which the effect of deterioration of the loan portfolio quality on the NBFCOs system as a whole is calculated, was conducted.

Three scenarios were considered when conducting stress testing:

Scenario 1: 50% of loans transition from one category to another;

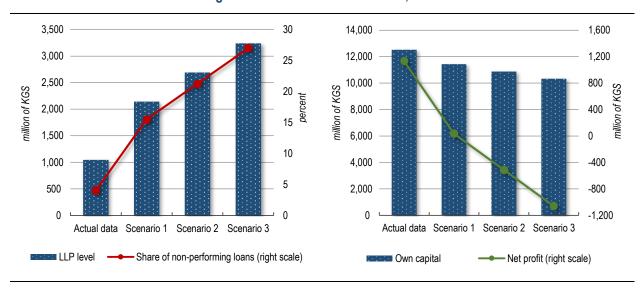
Scenario 2: 75% of loans transition from one category to another;

Scenario 3: 100% of loans transition from one category to another.

The transition of loans from one category to another occurs uniformly by the following categories: "standard", "under supervision", "substandard", "doubtful" and "losses".

The level of loan loss provisions<sup>36</sup> in the loan portfolio of NBFCOs increased from 104.7 to 209.4 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 June 30, 2019



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; however the volume of profit decreases down to KGS 35.1 million. In case of the second and third scenario implementation, the NBFCOs can experience losses in the amount of KGS 513.2, and 1,061.5 million, accordingly (Chart 3.3.1).

<sup>&</sup>lt;sup>36</sup> 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:

<sup>-</sup> Standard, in % - from 0% to 5%;

<sup>-</sup> Assets under supervision, in % - 10; - Substandard, in % - 25;

<sup>-</sup> 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	15.5
Scenario 2: transition of 75% of loans from one category to another	21.3
Scenario 3: transition of 100% of loans from one category to another	27.0

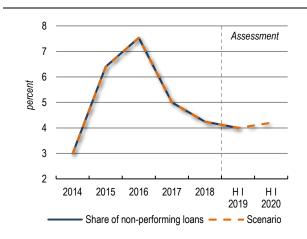
Source: National bank, National bank calculations

Implementation of the first scenario may result in an increase in the share of non-performing loans in the loan portfolio of NBFCOs by 11.5 p.p., to the level of 15.5 percent. In the case of the second scenario, non-performing loans may increase by 17.3 p.p., to the level of 21.3 percent, and in the implementation of the third scenario – by 23.0 p.p. and may reach the level of 27.0 percent.

# Stress Testing of the Credit Risk of NBFCOs Based on the Econometric Model

This stress testing was carried out on the basis of an econometric model, which characterizes the dependence of NBFCOs non-performing loans on macroeconomic factors.

Chart 3.3.2. Dynamics of NBFCOs Non-performing Loans



In order to assess the impact of macroeconomic shock on the dynamics of the NBFCOs non-performing loans share the scenario "reducing the rate of GDP growth by 10 percent" was considered.

An increase in the share of non-performing loans in the loan portfolio by 0.2 p.p., up to the level of 4.2 percent may occur in the process of this scenario implementation.

Source: NBKR

### IV. PAYMENT SYSTEMS

In the reporting period, there was an increase in the level of risks in the payment system of the Kyrgyz Republic due to operational risks and blocked accounts of two operators in the retail payment systems. These events did not entail a systemic risk for the whole financial system; the National Bank took measures to mitigate the consequences and resolve the situation with these payment systems, as well as to revise the current regulatory legal acts regarding the requirements for the payment service market participants.

In general, the level of risks in the systemically important payment systems was minimal and was due to the existing high level of liquidity.

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

As of June 30, 2019, the following components of the payment system were operating in the Kyrgyz Republic:

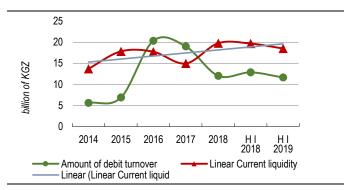
- Large Value Payment System of the National Bank – Real Time Gross Settlement System (RTGS).
- 2. Retail Payments Systems: the Bulk Clearing System (BCS), Cards Payment Systems, Money Transfer Systems, e-money payment systems.
- 3. Financial Messages Routing Infrastructure (SWIFT Service Bureau, Single Interbank Processing Center (hereinafter SIPC), Interbank Communication Network (hereinafter ICN), payment organizations, commercial banks, etc.).

The RTGS functioned normally during the first half of 2019.

The level of financial risks in the RTGS remained low due to high level of liquid funds on the participants' accounts in relation to the turnovers in the system (liquidity ratio was 1.6 and the turnover ratio was 0.6). Average daily volume of the participants' liquid assets showed decrease by 6.0 percent (compared to the same period of 2018) and amounted to KGS 18.5 billion (Chart 4.1).

During the first half of 2019, the RTGS affordability ratio remained high and constituted

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



	2014	2015	2016	2017	2018	H I 2018	H I 2019
Technical failure	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Affordability ratio	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	100.0%
Operational risk level	5.9%	4.1%	5.2%	2.9%	4.1%	3.7%	4.9%

Source: NBKR

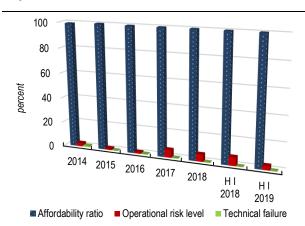
100.0 percent; meanwhile, the level of operational risk, taking into account prolongation of the transaction day, was 4.9 percent.

The RTGS is a systemically important payment system, failures thereof can cause serious shocks for the banking system and the whole financial system.

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 4.1 times higher than the required level. According to the results

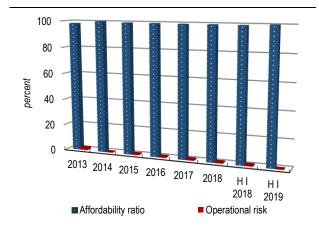
of the SBC operation monitoring, the system affordability ratio remained high and amounted to 100.0 percent during the reporting period. Meanwhile, the level of operational risk was 3.4 percent (Chart 4.3) due to extending the operating procedure upon request of the system participants and minor failures.

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



	2014	2015	2016	2017	2018	H I 2018	H I 2019
Technical failure	0.9%	0.0%	0.3%	0.2%	0.0%	0.4%	0.0%
Affordability ratio	99.1%	100.0%	99.7%	99.8%	100.0%	100.0%	100.0%
Operational risk level	2.6%	1.2%	1.2%	6.2%	5.8%	6.9%	3.4%

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



	2014	2015	2016	2017	2018	H I 2018	H I 2019
Affordability ratio	99.9%	99.3%	99.2%	99.1%	99.2%	99.1%	99.8%
Operational risk	0.1%	0.7%	0.8%	0.9%	0.8%	0.9%	0.2%

Source: NBKR Source: NBKR

**Systems of Bank Payment Cards Settlements.** As of July 1, 2019, six international payment card systems and one national system "Elcart" operated in the Kyrgyz Republic.

There was a positive trend in the level of bank cards penetration in recent years. Thus, the total number of payment cards in circulation as of July 1, 2019 increased by 19.6 percent compared to the same period of the last year and amounted to 2,702.7 thousand.

The total number of ATMs installed throughout the republic amounted to 1,620 and 10,867 POS-terminals, among them: 8,800 POS-terminals were installed in the trade and service outlets and 2,067 POS-terminals - in the branches of the commercial banks. The number of ATMs increased by 7.8 percent and POS-terminals – by 19.7 percent compared to the same period of 2018. The main share falls on peripheral devices installed in Bishkek.

In the reporting period, 24 commercial banks worked with the national system "Elcart". 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 (Chart 4.4).

In terms of the international payment card systems, currently, the commercial banks work with the international payment systems such as Visa, Mastercard, American Express, Union Pay, Zolotaya Korona and Mir.

**Money transfer systems.** During the first half of 2019, receipt and transfer of international remittances without opening an account in the commercial banks was carried out by means of eight international money transfer systems (Table 4.1.).

**Table 4.1. Distribution of Flows among International Money Transfer Systems** 

	Inco	ming	Outgoing			
Money transfer system	Share of the total number, in %	Share of the total volume, in %	Share of the total number, in %	Share of the total volume, in %		
Zolotaya Korona	84.5	72.7	84.6	83.2		
Unistream	7.4	12.5	2.1	5.2		
Western Union	4.0	5.7	4.8	4.9		
CONTACT	2.4	4.8	7.6	5.6		
Money Gram	0.8	1.9	0.8	1.0		
Other	0.9	2.5	0.1	0.1		
Total	100.0	100.0	100.0	100.0		

Source: National bank

Regarding **local money transfers**, relatively even distribution among six local money transfer systems is currently observed, the banks of the Kyrgyz Republic are operators thereof.

At the end of the first half of 2019, the exchange of cross-border financial messages was carried out through the SWIFT network and the bank-client services.

The results of monitoring over the functioning of the Kyrgyz Republic payment system during the first half of 2019 show that all significant payment systems functioned normally and did not cause any systemic risk for the financial system of the country.

Nine commercial banks were the e-money issuers as of the end of July 1, 2019 within the **e-money payment systems**. There is an annual stable increase in e-money indicators due to simplicity and ease of use thereof. As of the end of the first half of 2019, the number of e-wallets increased by almost 1.6 times compared to the same period in 2018, and amounted to more than 1.4 million wallets. The activity of e-wallets users is also growing steadily year by year.

# V. IMPROVEMENT OF THE FINANCIAL SECTOR REGULATION

In the reporting period, within the development of the regulatory legal framework regulating the activities of financial and credit organizations, special attention was paid to maintaining the capital base and reducing risks in the activities of financial and credit organizations, including those implementing operations in accordance with Islamic principles of banking and finance, as well as improving supervision of the activities of commercial banks.

1. The Board of the National Bank of the Kyrgyz Republic adopted the Resolution "On introduction of amendments into some regulatory legal acts of the National Bank of the Kyrgyz Republic" No. 2019-P-12/11-1- (NPA) on March 14, 2019 to ensure safety and reliability, as well as to maintain the capital base of the banking system necessary to cover banking risks.

The Resolution defines the authority of the Supervisory Committee of the National Bank of the Kyrgyz Republic in establishing the value of the index "capital buffer" for all commercial banks.

2. The Regulation "On minimum requirements for liquidity risk management in the commercial banks of the Kyrgyz Republic" was approved by the Resolution of the National Bank Board No. 2019-P-12/17-3-(NPA) on March 29, 2019 to properly manage liquidity risk in accordance with the standards of the Basel Committee on Banking Supervision.

This regulatory legal act provides the requirements for the system, structure and process for managing liquidity risk to ensure an adequate internal control system in the commercial banks.

- 3. The Board of the National Bank and the Kyrgyz Republic adopted the Resolution "On introduction of amendments into some regulatory legal acts of the National Bank of the Kyrgyz Republic" in the part of the Temporary Administration and liquidation procedures of the banks No. 2019-P-12/19-3-(NPA) on April 10, 2019 to bring the regulatory legal acts of the National Bank in accordance with the provisions of the Law of the Kyrgyz Republic "On introduction of amendments into certain legislative acts of the Kyrgyz Republic (into the Laws of the Kyrgyz Republic "On the National Bank of the Kyrgyz Republic, banks and banking activity", "On enactment of the Law of the Kyrgyz Republic "On the National Bank of the Kyrgyz Republic, banks and banking activity" and the Civil Code of the Kyrgyz Republic) dated December 10, 2018.
- 4. 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. 2019-P-12/20-2-(NPA) on April 15, 2019 within the framework of providing assistance in implementation of the Affordable Housing 2015-2020 Government Program of the Kyrgyz Republic and development of the mortgage securities market.
- 5. Amendments and additions were approved to some regulatory legal acts by the Resolution of the Board of the National Bank No. 2019-P-12/22-4-(NPA) on April 24, 2019, namely:
- the banks were provided with the possibility to use a credit rating system in lending activities, which contributes to optimization of the banks' activities on loans extending;
  - classification of collaterals for loans was introduced;
  - the possibility was envisaged for the banks to accept guarantees/sureties as full security for loans.

The adopted amendments and additions are aimed at expanding the availability of financing in the republic.

6. The Board of the National Bank of the Kyrgyz Republic adopted the Resolution "On introduction of amendments into some regulatory legal acts of the National Bank of the Kyrgyz Republic" regarding the use of e-signature No. 2019-P-12/32-3-(NPA) on June 19, 2019 as part of the initiatives to develop regions and digitalize the economy, as well as to clarify the relationship between the banks and other supervised organizations providing remote services.

The adopted amendments are aimed at expanding the possibilities for remote servicing of the population by the financial and credit organizations.

Moreover, the procedure has been determined for technologies currently used by the commercial banks, such as Internet banking, mobile banking, e-wallets and other electronic interaction technologies that have codes, passwords and other identifiers to implement legally significant actions with limited risks for certain operations. Meanwhile, the

users of the remote service systems, if there is an agreement on the recognition of an electronic signature as an identifier, will have the opportunity to open additional accounts/deposits, to receive loans for certain amounts, as well as other operations requiring mandatory presence of a paper contract or signature. Thus, conditions will be created for identified users to receive banking and payment services without additional visits to the financial institution where they are served.

7. Amendments and additions were adopted to some regulatory legal acts by the Resolution of the National Bank Board No. 2019-P-12/34-3-(NPA) on June 28, 2019 to bring the regulatory acts of the National Bank in line with the international standards "Basel III: a global regulatory framework for more resilient banks and banking systems" of the Basel Committee on Banking Supervision.

Amendments and additions revised the capital structure of the banks and calculation of the capital adequacy ratios, and introduced a new prudential standard in accordance with the international standards of Basel III. Moreover, criteria have been established with the individual elements of capital to meet them.

The Resolution also contains amendments and additions aimed at improving the forms of the periodic regulatory banking report and the corporate governance system in the banks.

8. New versions of the Provisions "On consolidated supervision" and "On periodic regulatory consolidated reporting" were adopted by the Resolution of the National Bank Board No. 2019-P-12/34-4-(NPA) on June 28, 2019 to improve the regulatory legal acts of the National Bank, taking into account the risk-based approach in supervision, as well as international practice of regulation and supervision of the banking groups. The specified regulatory legal acts are aimed at improving supervision of the banking groups, identifying the risks and impact that a banking group has on its participants, as well as on the composition of the report submitted by the banks to the regulator.

### Principles of Islamic Finance

1. The Resolution No. 2019-P-12/19-3-(NPA) was adopted of the Board of the National Bank on April 10, 2019 to reduce the risks in the activities of banks operating in accordance with the principles of Islamic banking and finance, and to encourage the banks to participate in the government programs related to financing of agriculture and export-oriented and import-substituting enterprises.

The Recommendations on provision of financing in accordance with the principles of Islamic banking and finance for agricultural development were approved by the Resolution of the National Bank Supervisory Committee No.16/6 on May 8, 2019. The recommendations are developed in the form of a brief guide for the financial and credit organizations of the Kyrgyz Republic on use of the Islamic financial products to finance various agricultural sectors in the country.

2. The Instruction for working with bank accounts, bank deposit accounts (deposits) opened in accordance with the principles of Islamic banking and finance was approved by the Resolution of the Board of the National Bank of the Kyrgyz Republic No. 2019-P-12/31-2-(NPA) on June 13, 2019 to establish the minimum requirements for the mode of working with the bank accounts, bank deposit accounts (deposits) opened in accordance with the principles of Islamic banking and finance, and the procedure for conducting operations thereon.

### **GLOSSARY**

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. It is 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 profiles 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.

VaR (Value at Risk) is maximum possible losses in monetary terms within a certain period of time.

### LIST OF ABBREVIATIONS

ADB - Asian Development Bank

CAR - Capital Adequacy Ratio

CB - Commercial Bank

CBRF - Central Bank of the Russian Federation

CIS - Commonwealth of Independent States

CJSC - Closed Joint-Stock Company

CPI - Consumer Price Index

DTI (Debt-to-Income) – ratio of the amount repaid by a borrower on the loan (including the amount of the principal debt and interest rate payments for the reporting period) to the main annual income of a borrower declared (announced) at the moment of the loan issue

EAEU - Eurasian Economic Union

FAO - Food Agriculture Organization of the United Nations

FCCU ("FCCU" OJSC) - "Financial Company of Credit Unions" OJSC

FCO - Financial-Credit Organization

FRS - Federal Reserve System

GDP - Gross Domestic Product

GS - Government Securities

HUS - Housing and Utilities Sector

ICN - Inter-bank Communication Network

IMF - International Monetary Fund

KR - Kyrgyz Republic

KSE - Kyrgyz Stock Exchange

LLP - Loan Loss Provisions

LTV (Loan-to-Value Ratio) - ratio of the volume of issued loans to the value of collateral

LSF - Large Sources of Financing

MCC - Microcredit Company

MFC - Microfinance Company

MF KR - Ministry of Finance of the Kyrgyz Republic

MFO – Microfinance Organization

MUN (Multi-User node) SWIFT - Financial Messages Exchange Infrastructure

MY - Marketing Year

NBFCOs - Non-banking Financial-Credit Organizations

NBKR - National Bank of the Kyrgyz Republic

NBRK - National Bank of the Republic of Kazakhstan

NGS - Non-Government Securities

NLA - Normative Legal Acts

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

PRC - People's Republic of China

RF - Russian Federation

RK - Republic of Kazakhstan

ROA - Return on Assets

ROE – Return on Equity

RTGS - Real Time Gross Settlement System

SBC - System of Batch Clearing

SIPC - Single Inter-bank Processing Center

SRS GKR – State Registration Service under the Government of the Kyrgyz Republic

ST-Bills – State Treasury Bills

ST-Bonds – State Treasury Bonds

S – Securities

USA - United States of America

VaR - Interest Rate Risk