



**National Bank  
of the Kyrgyz Republic**

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

**June 2018**

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**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<sup>1</sup>

**At the end of 2017, the results of macroprudential analysis, econometric modeling and financial forecasting, and “reverse” stress tests indicated at the sustainability of the financial sector.**

**Country risk still remains moderate for the banking sector.** Deterioration of the macroeconomic environment in the countries - major trade partners of the Kyrgyz Republic can indirectly influence the banking sector due to potential deterioration in the financial performance of the banks’ clients in Kyrgyzstan.

**Concentration risk is one of the main risks in the banking sector.** Potential default of the largest borrowers and a sudden outflow of major funding sources (including public sector bodies and public enterprises) can negatively affect certain banks.

**On the background of the low level of interbank lending “contagion”<sup>2</sup> risk remains insignificant.** This is also due to the presence of collateral in case of interbank lending and weak interlinkages between the commercial banks of the Kyrgyz Republic.

**The results of stress tests of the banking sector of the Kyrgyz Republic indicated its soundness to certain macroeconomic shocks.** According to conducted stress tests most of the banks still demonstrated sustainability to combined macroeconomic shocks.

**The banking sector of the Kyrgyz Republic still retains the financial strength.** The results of econometric modeling and financial forecasting, as well as “reverse” stress tests still indicate the availability of financial safety buffer at the end of 2017 compared to 2016.

**According to the results of 2017, the payments systems of the Kyrgyz Republic operated normally,** the level of system risks in the financial infrastructure was assessed as moderate.

**An increase of the price index for residential real estate was observed in the real estate market.**

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<sup>1</sup> The data of periodic regulatory bank reporting are used in this publication taking into account adjustments introduced by the banks for the previous periods.

<sup>2</sup> “Contagion” risk in case of interbank lending is meant.

## I. MACROECONOMIC AND FINANCIAL ENVIRONMENT

### 1.1. Macroeconomic Conditions and Risks

*Following the results of 2017, favorable situation in the world food markets and the recovery of consumer demand caused moderate inflation rates. The National Bank retained its interest rate policy on easing monetary conditions.*

*Following the results of 2017, the positive dynamics of the economic growth was still observed in the Kyrgyz Republic; however, certain macroeconomic risks remained due to weak diversification of transportation logistics on the domestic products export and dependence of the economy on the external environment.*

*The fiscal policy preserved social profile of the public expenses; meanwhile, a fiscal consolidation was observed based on the results of the year.*

#### *Gross Domestic Product*

According to the preliminary data of the National Statistical Committee of the Kyrgyz Republic, the economy in the country grew by 4.6 percent (in 2016 – by 4.3 percent). The economy of the country developed under the conditions of domestic demand recovery amid an increase in the inflow of remittances and growth in real wages, with moderate inflation rates, as well as favorable external environment. Excluding the enterprises for the development of gold mining “Kumtor”, GDP grew by 4.7 percent (in 2016 – by 4.3 percent). The deflator decreased by 1.5 p.p. compared to 2016 and was formed at 4.6 percent.

In the sectoral breakdown, the industrial sector with a contribution of 1.9 p.p. was the main driver of economic growth. The growth in the industrial sector by 10.3 percent was mainly due to the increase in the production of basic metals (mainly extracted at gold mine “Kumtor”), extraction of metal ores, textile production, and due to the increase in electricity production, transmission and distribution.

The trade sector (0.6 p.p.), construction (0.6 p.p.) and agriculture (0.3 p.p.) made a positive contribution to the growth, meanwhile, the information and communication sector (-0.02 p.p.) made a negligible negative contribution.

Growth by 2.2 percent (in 2016 – growth by 2.9 percent) in agriculture was due to an increase in production of the livestock and crop-growing sector. The state policy of subsidizing agricultural loans facilitated, among other things, the expansion of the agricultural products production.

Growth in the construction sector made 7.1 percent; this process was accompanied by increase in fixed capital investments by 6.2 percent. Growth of investments in fixed capital was observed in the construction of facilities almost in all sectors, except for the facilities for agriculture, forestry and fishery, water supply, waste treatment and processing, transportation and cargo storage, financial intermediation, insurance, and education. There was an increase in the volume of investments financed from internal sources by 10.0 percent and from external sources – by 1.5 percent.

Increase of 2.6 percent in the service sector was mainly due to growth in transport activity (by 7.6 percent) and trade (by 3.5 percent). Meanwhile, decrease was observed in the information and communication sphere (by 0.6 percent) due to decline in the communication services, caused by the substitution trend of some services by others.

**Table 1.1.1. Contribution of Individual Activities in GDP**  
(percent)

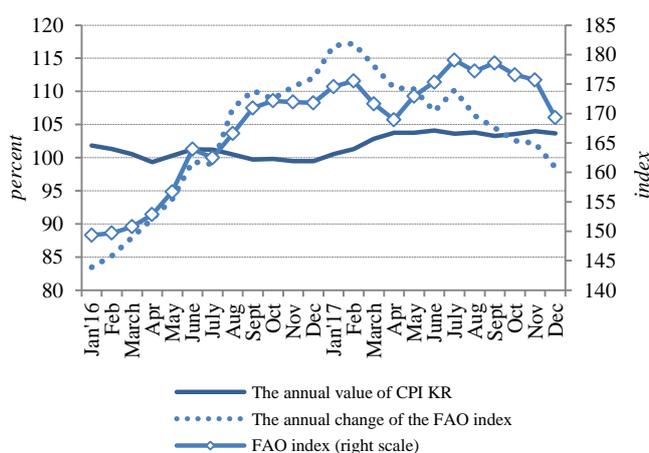
	2016			2017		
	Share, percent	Growth rate, percent	Contribution in growth, p.p.	Share, percent	Growth rate, percent	Contribution in growth, p.p.
GDP	100	4.3	4.3	100	4.6	4.6
Agriculture, forestry and fishery	12.8	2.9	0.4	12.3	2.2	0.3
Industry	18.2	5.9	1.0	18.2	10.3	1.9
Mining	0.6	27.0	0.2	1.0	78.4	0.5
Processing sectors (Processing industry)	15.4	5.8	0.8	15.1	7.6	1.2
Provision (supply) of electric energy, gas, steam and conditioned air	1.9	-2.6	-0.04	1.9	10.1	0.2
Water supply, waste treatment and processing, receipt of recyclable materials	0.2	3.3	0.01	0.2	6.6	0.02
Construction	8.4	9.3	0.8	8.2	7.1	0.6
Services	47.5	3.4	1.7	48.0	2.6	1.2
Wholesale and retail trade; repair of cars and motor-cycles	17.9	8.0	1.5	17.9	3.5	0.6
Transportation activity and storage of cargo	3.8	0.1	0.0	3.9	7.6	0.3
Information and communication	3.5	-9.1	-0.4	3.6	-0.6	-0.02
Other	22.3	2.4	0.5	22.6	1.5	0.3
Net (exclusive of subsidies) taxes on products	13.1	4.3	0.5	13.3	4.6	0.6

Source: NSC KR

### Inflation

In 2017, the price situation in Kyrgyzstan was generally stable. According to the National Bank estimates, the medium-term inflationary environment remains within the framework of the targets to allow the National Bank to adhere to the monetary policy aimed at maintaining economic activity. Average market inflation rate decreased from 6.0 in 2016 and constituted 4.6 percent. Price changes for food products still played a significant role in formation of the inflation rate. In 2017, prices for food products produced in Kyrgyzstan, such as vegetables and meat products, increased amid relatively low growth rates of their production.

**Chart 1.1.1. Dynamics of the Kyrgyz CPI and the FAO Index**



Source: NSC KR, www.fao.org

In 2017, the FAO index (Food Price Index), reflecting price dynamics in the world food markets, increased by 8.1 percent compared to the indicator of 2016. Prices for dairy and meat products increased significantly, which had no serious impact, since the prices for these products depend largely on domestic production in Kyrgyzstan. Prices were relatively stable or descending in the world markets of other basic food products. The harvest and supply of crops were high in Kazakhstan and Russia, in 2017. In these conditions, the environment in the foreign food markets did not have significant upward pressure on the prices in Kyrgyzstan.

### State Budget

Budget consolidation was conducted due to the policy of a moderate increase in public expenses accompanied by relatively high growth rates of state budget revenues. Thus, the level of the budget deficit

decreased from 4.4 percent of GDP in 2016 to 3.2 percent of GDP in 2017. Positive economic growth in the republic, as well as in the major trading partner countries, contributed to an increase in tax and non-tax revenues, and the stable political situation in the country had a favorable effect on an increase in grant income. The budget expenditures were characterized by social profile: budget expenditures on health, social protection and education made the main contribution to growth. At the same time, expenses on current consumption, still, occupy the most significant share of the total public expenses, which, in turn, is among the factors of possible strengthening of the overall inflation background in the country.

Following the results of the year, public debt increased by amounted to 11.4 percent compared to 2016 and amounted to USD 4.5 billion, or 59.9 percent of GDP. In general, the situation with the public debt sustainability requires special attention from the bodies of state administration, since the country's debt load remains at a high level. In addition, implementation of planned large investment projects requires additional financial resources, which, is likely to result in an increase of public debt.

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

	2016		2017	
	<i>billions of KGS</i>	<i>% to GDP</i>	<i>billions of KGS</i>	<i>% to GDP</i>
<b>Total incomes (including sales of non-financial assets)</b>	130.7	27.4	149.4	28.7
including incomes from operational activity	130.6	27.4	149.4	28.7
sale of non-financial assets	0.1	0.0	0.0	0.0
<b>Total expenditures (including purchase of non-financial assets)</b>	151.5	31.8	165.9	31.8
including expenditures for operational activity	115.9	24.3	124.9	24.0
purchase of non-financial assets	35.6	7.5	41.0	7.9
<b>Deficit(-) / Profit (+)</b>	-20.9	-4.4	-16.5	-3.2
<b>Primary deficit (-) / profit (+)</b>	-15.7	-3.3	-10.6	-2.0
<b>Budget financing</b>	26.9	5.6	22.8	4.4
External financing	19.2	4.0	17.6	3.4
Internal financing	7.7	1.6	5.2	1.0

Source: MF KR

### *Macroeconomic Risks*

Recovery of economic activity in the main trading partner countries, positive inflow of remittances and expansionary monetary policy conducted by the National Bank had a positive impact on the rates of economic growth in the republic. At the same time, temporary difficulties in crossing the Kyrgyz-Kazakh border resulted in restriction of the country's export capabilities, and also revealed the risks associated with weak diversification of the sales markets and transport logistics of domestic products exports.

Cold weather in winter and spring and later initiation of spring field works create risks of reduced yields in the agricultural sector, which can have a negative impact on economic development. Moreover, the total GDP demonstrated dependence on the volume of output at the enterprises for the development of gold mining "Kumtor".

The risks of the inflation rate deviation from the target values are mainly related to the prospects of changing prices for food products. This goods category accounts for about half (46 percent) of the consumer basket, thus, the influence of weather conditions on food prices, as well as price fluctuations in the world food markets, can have significant inflationary or deflationary pressures on the overall level of prices in the country. Taking into account a significant share of imported goods in the structure of the population consumption and in the consumer basket, the dynamics of exchange rates of the major foreign currencies can affect the inflation rate through imported prices and indirect influence of the prices on producer goods.

The absence of risks on the part of the major trading partner countries suggests that the growth rate of revenues from VAT on imported goods, that is, taxes occupying the most significant share in the state budget revenues, will be stable. Meanwhile, there is a risk that some part of external loans and grants will not reach the state budget in case of late implementation of internal procedures.

## 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)

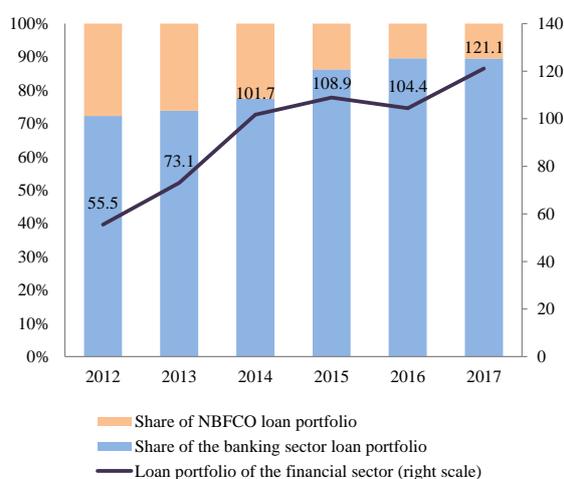
Financial institutions	2014	2015	2016	2017
<b>Commercial banks</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>25</b>
<b>Other financial companies, including:</b>	<b>689</b>	<b>656</b>	<b>704</b>	<b>688</b>
<i>Non-banking financial-credit organizations (NBFCO), including:</i>	<b>660</b>	<b>627</b>	<b>673</b>	<b>657</b>
Microfinance organizations, including:	215	172	162	150
microcredit companies	154	109	103	96
microcredit agencies	56	57	53	47
microfinance companies	5	6	6	7
"FC CU" OJSC	1	1	1	1
Credit unions	135	125	116	110
Exchange offices	309	329	394	396
<b>Insurance companies</b>	<b>17</b>	<b>17</b>	<b>19</b>	<b>19</b>
<b>Investment funds</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>
<b>Stock exchanges</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Pension funds</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>

Source: NBKR, NSC KR

As of the end of 2017, assets of the banks and the NBFCOs constituted KGS 213.3 billion or 43.2 percent of GDP.

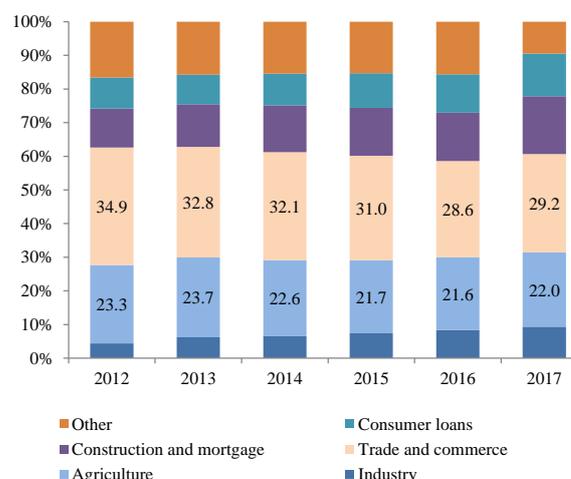
In 2017, the total loan portfolio of the banks and the NBFCOs constituted KGS 121.1 billion or 24.5 percent of GDP. The share of the banks' loans in the loan portfolio of the financial sector decreased by 0.1 p.p. and at the end of 2017 made 89.5 percent (Chart 1.2.1).

**Chart 1.2.1. Structure of the Loan Portfolio**



Source: NBKR

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



Source: NBKR

The high concentration was still observed in the trading sector (banks) and consumer loans (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 2017 constituted 41.9 percent of total issued loans or KGS 47.2 billion (Chart 1.2.2).

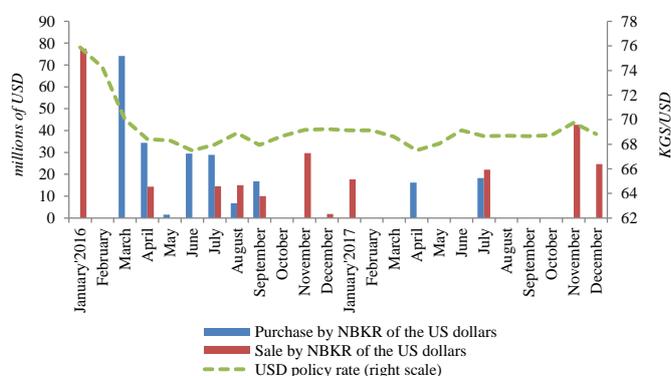
## 1.3. Financial Markets

Generally, in 2017, the situation in the domestic foreign exchange market was relatively stable thereby decreasing participation of the National Bank in this market. There was an increase in the volume of interbank repo transactions and the National Bank operations, with simultaneous decrease in the volume of standard transactions in national and foreign currency in the interbank credit market. Downward trend was observed in the interest rates for all securities in the market of securities issued by the Government of the Kyrgyz Republic and the National Bank.

### 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



During 2017, the situation in the currency market remained relatively stable. Such situation was mainly conditioned by the economic recovery in the countries – main trading partners of the Kyrgyz Republic and the steady inflow of remittances resulting in preservation of the balance of supply and demand during the year.

In 2017, there was a slight strengthening of the Kyrgyz som against the US dollar: the policy rate remained within the range of KGS 67.1329-69.7500/USD 1. At the end of 2017, the official exchange rate of the US dollar against the Kyrgyz som decreased by 0.6 percent and amounted

to KGS 68.8395 /USD 1 (at the end of 2016, the US dollar decreased by 8.8 percent and amounted to KGS 69.2301/USD 1).

The National Bank conducted currency market interventions, both on selling and buying foreign currency to smooth sharp fluctuations of the exchange rate. Generally, operations on selling foreign currency prevailed; the volume of these operations decreased by 34.2 percent and amounted to USD 107.2 million. The volume of purchased foreign currency amounted to USD 34.5 million (-82.0 percent). In 2017, net sale of foreign currency by the National Bank amounted to USD 72.7 million.

#### Money Market

The money market demonstrated excess liquidity during the reporting year, meanwhile, the downward trend was observed.

During 2017, the National Bank provided overnight loans in the amount of USD 13.8 billion (+6.8 times) to support short-term liquidity and the loans within the framework of credit auctions in the amount of USD 4.8 billion (+ 3.3 times).

Since the beginning of 2017, the market of repo transactions demonstrated a significant increase in the activity of participants. In the reporting period, the volume of repo transactions increased by 2.3 times compared to the indicator of 2016 and amounted to KGS 10.3 billion at the average weighted rate of 1.8 percent (-2.1 p.p.).

The volume of standard transactions in national currency in the interbank credit market decreased down to KGS 748.0 million (-59.6 percent), meanwhile the average weighted rate was 3.4 percent (-3.4 p.p.). The volume of transactions in foreign currency amounted to KGS 35.3 million (-0.9 percent) at an average weighted rate of 2.6 percent (+ 0.6 p.p.).

The total amount of the commercial banks' funds placed on overnight deposits amounted to KGS 1, 903.0 billion (-4.2 percent per year).

### 1.3.2. Securities Market

There was a downward trend in the yields on all urgencies in the primary market of the government treasury bills placement. The reason for a decline in the rates was the reduction in demand for ST-Bills; meanwhile the supply of ST-Bills did not demonstrate significant changes. Thus, the average weighted yield of 3-month ST-Bills decreased by 1.5 p.p. (down to 2.1 percent), 6-month ST-Bills - by 4.0 p.p. (down to 4.1 percent) and 12-month ST-Bills – by 5.6 p.p. (down to 5.7 percent). As a result, the total average weighted yield of ST-Bills decreased by 4.8 p.p. and constituted 5.0 percent in the reporting period.

As a result, the volume of actual ST-Bills sales, including additional placement, decreased by 27.4 percent, down to KGS 4.2 billion. In the reporting year, the commercial banks were the main holders of ST-Bills (the share in the structure of holders – 78.2 percent).

In 2017, the Ministry of Finance of the Kyrgyz Republic offered 7- and 10-year ST-Bonds in addition to 2-, 3- and 5-year ST-Bonds issued earlier. Therefore, the aggregate volume of ST-Bonds' supply increased by 38.5 percent, up to KGS 9.2 billion in the market. ST-Bonds remained attractive for the participants of this market, where the demand for these assets exceeded supply thereof by 83.8 percent within the year. Meanwhile, demand increased by 47.0 percent year-to-date and amounted to KGS 17.0 billion. Finally, an additional placement of ST-Bonds was implemented during 2017, which adjusted the total sales volumes to KGS 13.1 billion (+64.0 percent within the year).

In the reporting period, due to a significant decrease in yields of 2-, 3- and 5-year ST-Bonds, amid growing competition among the market participants and a relatively high level of yields on 7- and 10-year ST-Bonds, the total average weighted yield on these securities decreased by 3.5 p.p. compared to the indicator of 2016 and constituted 13.0 percent.

Within the framework of monetary policy, the National Bank of the Kyrgyz Republic continued to use notes as a tool to withdraw excess liquidity from the banking system, regulating the volume of their supply. The volume of notes offered by the National Bank in 2017 changed insignificantly and formed in the amount of KGS 113.5 billion (-2.2 percent within the year).

In the reporting period, demand for the National Bank notes decreased by 42.1 percent. Thus, there was a decrease in sales of the National Bank notes inclusive of the additional placement by 23.0 percent, down to KGS 84.9 billion.

The results of the auctions conducted showed that the total average weighted yield of the National Bank notes decreased by 0.6 p.p. compared to the same indicator of 2016 and constituted 2.0 percent in the reporting year.

## 1.4. Real Estate Market

The real estate market of the Kyrgyz Republic experienced increase of the price index<sup>3</sup>, due to growth in prices for apartments (in the reporting period, prices increased by 1.2 p.p.), and individual houses (an increase by 16.2 p.p.) compared to 2016.

Increase in the level of the average wage positively influenced the housing affordability index indicating improvement of the situation with real estate affordability.

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 2017, increase in property price index compared to 2016 was observed in the Kyrgyz Republic (Chart 1.4.1 and Chart 1.4.2).

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



Source: SRS GKR

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



Source: SRS GKR, NBKR calculations

As of December 31, 2017, the average price for 1 square meter of housing (apartments) in Bishkek increased by 3.6 percent and in Osh decreased by 5.7 percent compared to 2016 (Chart 1.4.3). The average price for 1 square meter of individual houses in Bishkek increased by 9.5 percent and in Osh – by 40.8 percent, (Chart 1.4.4).

<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:

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

where  $K$  = number of types of real estate;

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

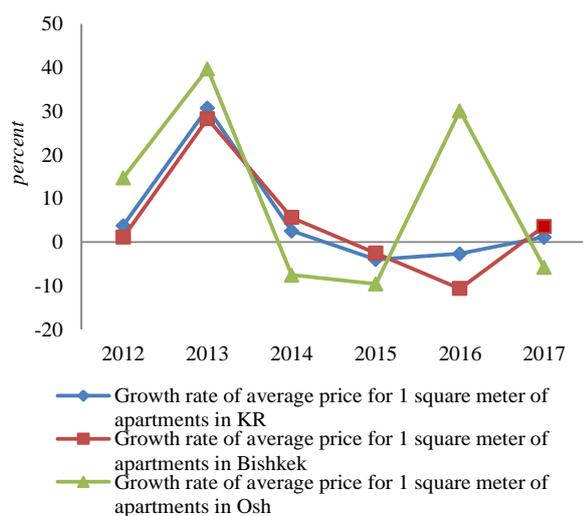
$Poi$  = price of real estate of type  $i$  in the base period;

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

<sup>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.

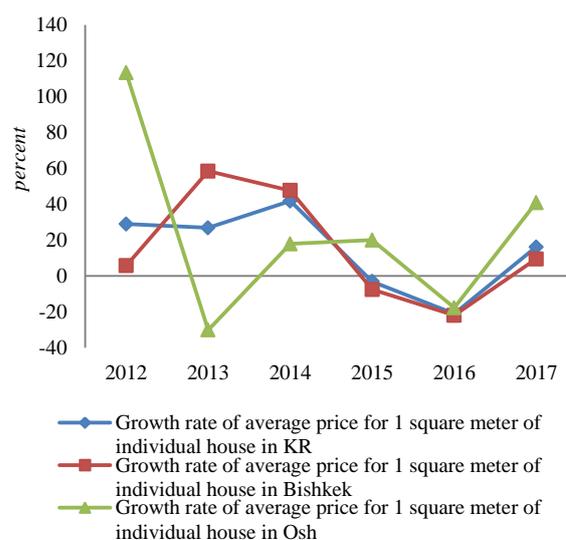
<sup>5</sup> The year 2010 was taken as the base period.

**Chart 1.4.3. Dynamics of Price Changes for Apartments**



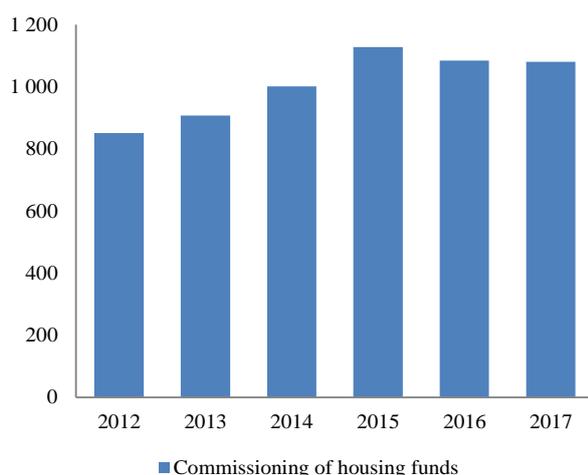
Source: SRS GKR, NSC KR, NBKR calculations

**Chart 1.4.4. Dynamics of Price Changes for Individual Houses**



Source: SRS GKR, NSC KR, NBKR calculations

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



Source: SRS GKR, NSC KR, NBKR calculations

Note: data for the reporting period

At the end of 2017, the decrease in the aggregate level of commissioning of housing funds constituted 0.3 percent compared to 2016 (Chart 1.4.5). The main share of commissioned housing still accounted for Bishkek city and Chui oblast, Osh city and Osh oblast (Table 1.4.1).

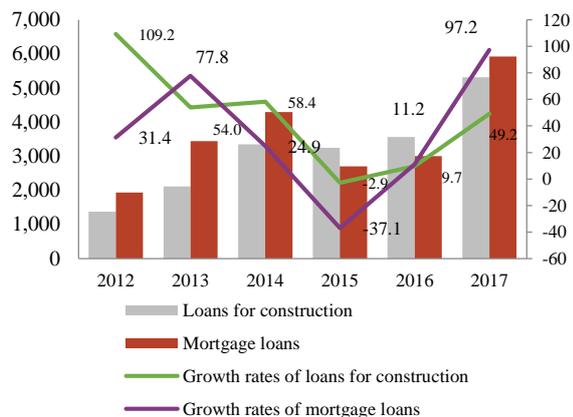
**Table 1.4.1. Geographic Structure of Commissioned Housing**

	2016		2017	
	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	529.1	48.8	496.8	46.0
Osh city and Osh region	238.3	22.0	228.2	21.1
Other regions of KR	316.6	29.2	355.5	32.9
<b>Total</b>	<b>1,084.0</b>	<b>100.0</b>	<b>1,080.5</b>	<b>100.0</b>

Source: NSC KR

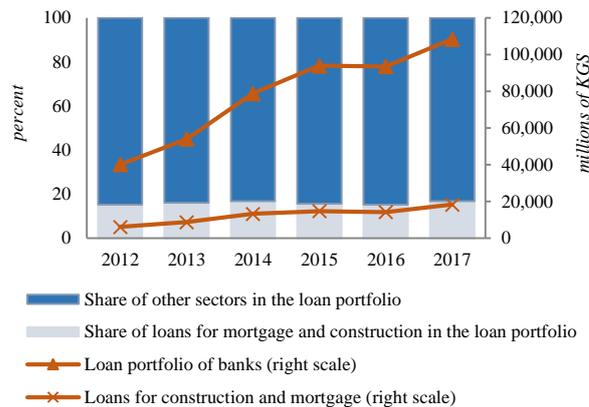
As of December 31, 2017, the volume of mortgage loans and loans issued to finance the construction increased compared to 2016. The total mortgage loans and loans issued to finance the construction amounted to KGS 11.2 billion (Chart 1.4.6).

**Chart 1.4.6. Loans Extended for Construction and Mortgage**



Source: NBKR  
Note: data for the reporting period

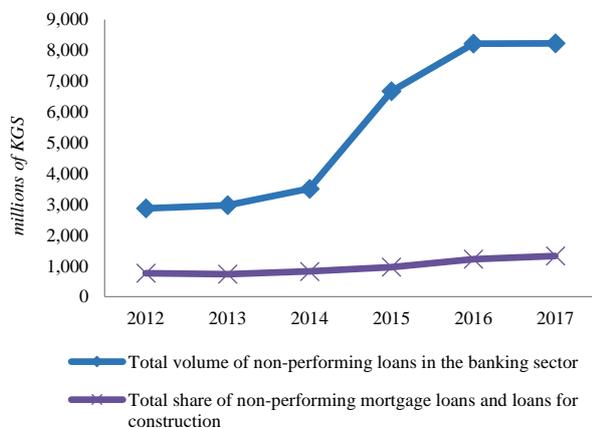
**Chart 1.4.7. Total Share of Loans for Mortgage and Construction in the Loan Portfolio of Commercial Banks**



Source: NBKR  
Note: data for the end of the reporting period

As of December 31, 2017, total loans of the commercial banks for mortgage and construction increased by 28.7 percent compared to 2016 and amounted to KGS 18.2 billion. Meanwhile, the total share of loans for construction and mortgage in the loan portfolio of the commercial banks increased by 1.7 p. p. compared to 2016 and constituted 16.8 percent (Chart 1.4.7).

**Chart 1.4.8. Dynamics of Non-performing Loans**



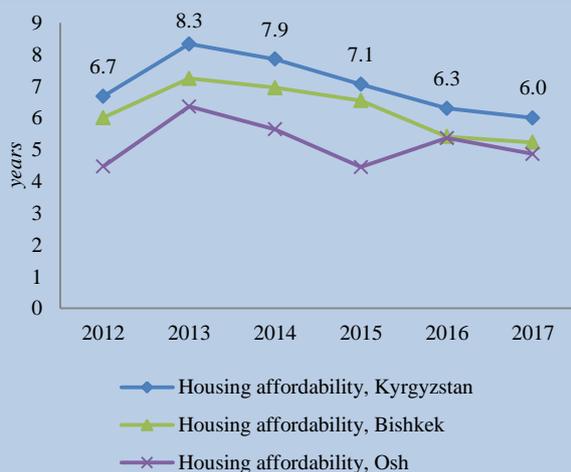
Source: NBKR

As of December 31, 2017, the total volume of non-performing loans for mortgage and construction amounted to KGS 1,324.3 million (Chart 1.4.8). In the reporting period, the aggregate share of non-performing loans in these sectors was 16.1 percent of the total volume of non-performing loans in the banking sector.

### Box 1. Housing Affordability Index

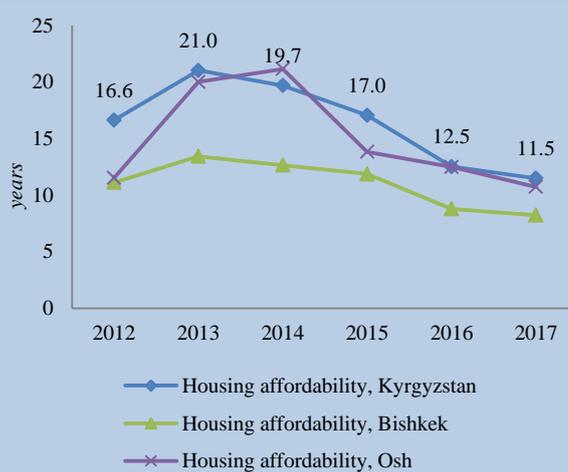
As of December 31, 2017, the housing affordability in the Kyrgyz Republic increased slightly (index value decreased by 0.3 years) compared to 2016. This is due to the increase of the average wage in the Kyrgyz Republic (Chart 1.4.9).

**Chart 1.4.9. Housing (Apartments) Affordability Index without Minimal Consumer Budget**



Source: NSC KR, SRS GKR, NBKR calculations

**Chart 1.4.10. Housing (Apartments) Affordability Index including Minimal Consumer Budget**



Source: NSC KR, SRS GKR, NBKR calculations

According to the results of 2017, to purchase an apartment of 54 square meters in the Kyrgyz Republic one should save all wages for 6 years.

According to the results of 2017, a family in the Kyrgyz Republic with the minimum consumer budget of KGS 14,702.4 (47.8 percent of total family income) will need 11.5 years in order to purchase housing (Chart 1.4.10).

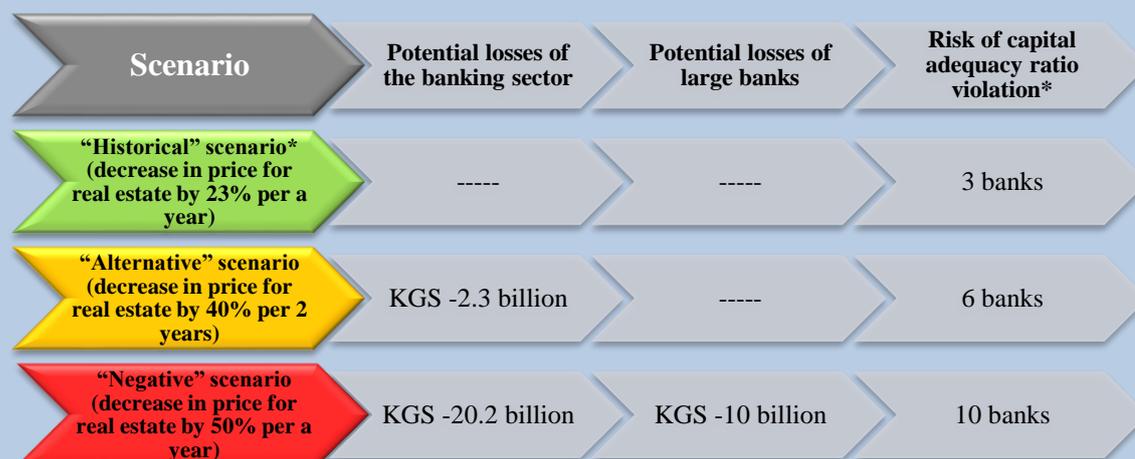
### Box 2. Stress Testing of Impact from Price Changes in the Real Estate Market on the Banking Sector<sup>6</sup>

As of December 31, 2017, the share of loans, secured by pledged real estate, constituted 76.1 percent of the total volume of loans in the loan portfolio of the banks.

Credit risks of the banking sector are conditioned by 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<sup>7</sup> 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



\* 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 28 percent, large banks – by 32 percent.

#### Scheme 2. Comparative Analysis of the Results of Stress Test with the Stress Test Conducted on June 30, 2017

	Stress test as of June 30, 2017	Stress test as of December 31, 2017
<b>Banking sector</b>	Scenario 1: ----- Scenario 2: ----- Scenario 3: KGS -17.6 billion	Scenario 1: ----- Scenario 2: ----- Scenario 3: KGS -20.2 billion
<b>Large banks</b>	Scenario 1 and 2: ----- Scenario 3: KGS -3.4 billion	Scenario 1 and 2: ----- Scenario 3: KGS -10 billion
Banks subjected to credit risk most of all in case of decrease in prices	<i>6 banks</i>	<i>5 banks</i>
The level of decrease in prices, when losses occur	<i>in the banking sector: 23%</i>	<i>in the banking sector: 28%</i>
The level of decrease in prices, when the risk of capital adequacy ratio violation occurs	<i>in the banking sector: 50%</i>	<i>in the banking sector: 49%</i>

<sup>6</sup> Stress test was conducted on the basis of the commercial banks’ data provided in the course of the survey as of December 31, 2017.

<sup>7</sup> According to the data provided in the course of the commercial banks’ survey.

Banks policies were not taken into account in calculations of the stress test; according to these policies banks can underestimate the value of pledged real estate to the amount, which constitute 20% of its market value. Taking into account aforementioned facts, the threshold level of decline in prices for real estate can increase by 20 percent.

## II. BANKING SECTOR

*Growth of the main indicators of the banking sector: assets, loan portfolio and resource base was observed during 2017. Growth of financial intermediation on the part of the commercial banks remained amid the main indicators of the banking sector outrunning the rates of economic growth.*

*At the end of 2017, 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.*

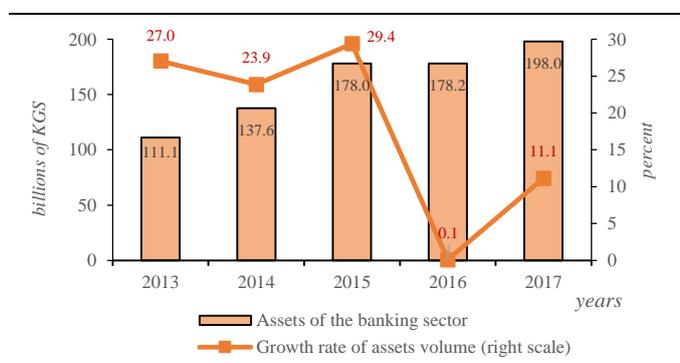
### 2.1. Major Trends

As of December 31, 2017<sup>8</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 18 banks with foreign participation in the capital, including 15 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 2017 amounted to KGS 198.0 billion, having increased by 11.1 percent compared to 2016 (Chart 2.1.1).

**Chart 2.1.1. Dynamics of Assets in the Banking Sector**  
billions of KGS/percent



The growth of assets was mainly provided by increase of:

- the loan portfolio by 15.9 percent or KGS 14.8 billion;
- the securities by 38.5 percent or KGS 5.0 billion.

The share of loan portfolio in the structure of assets constituted 54.7 percent.

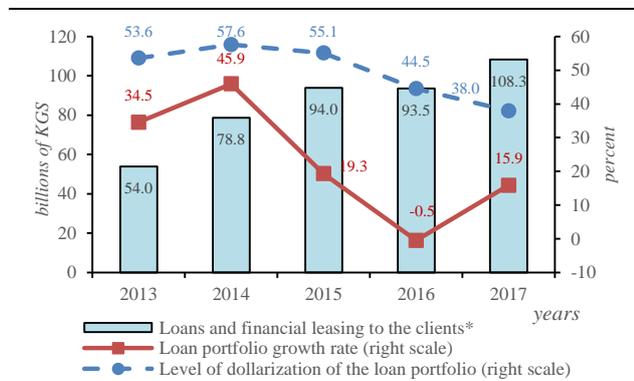
<sup>8</sup> The data are submitted according to periodic regulatory reporting of the commercial banks (PRBR).

### Loan Portfolio

In 2017, growth of the loan portfolio was observed in all sectors of economy.

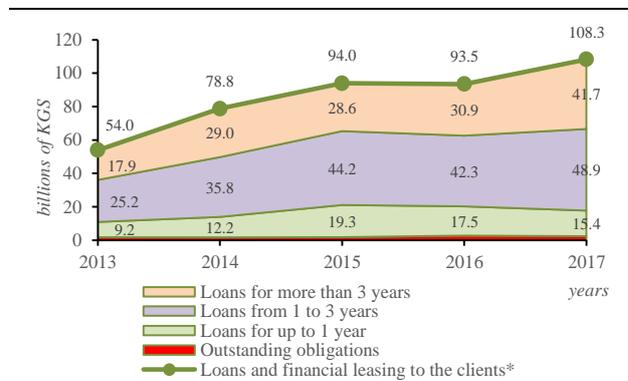
At the end of 2017, the level of dollarization of the loan portfolio in the banking sector decreased by 6.6 p.p. compared to 2016 and amounted to 38.0 percent (Chart 2.1.2).

**Chart 2.1.2. Dynamics of Loan Portfolio in the Banking Sector**  
billions of KGS/percent



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

**Chart 2.1.3. Structure of Loan Portfolio by Maturity**  
billions of KGS



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

The major share was accounted for medium-term loans from 1 to 3 years in the structure of loan portfolio by maturity, which constituted 45.1 percent or KGS 48.9 billion at end of 2017 (Chart 2.1.3).

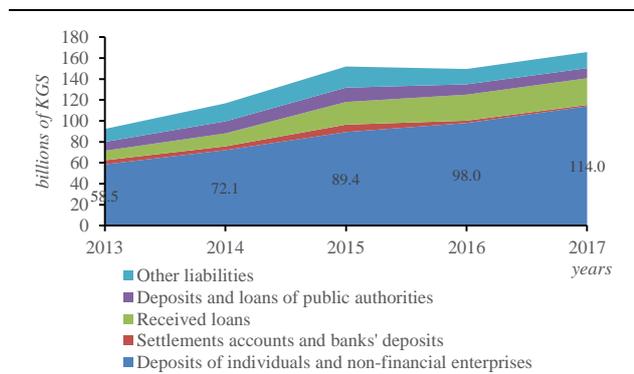
### Liabilities

At the end of 2017, liabilities of the banking sector of the Kyrgyz Republic amounted to KGS 168.5 billion, having increased by 10.8 percent compared to 2016.

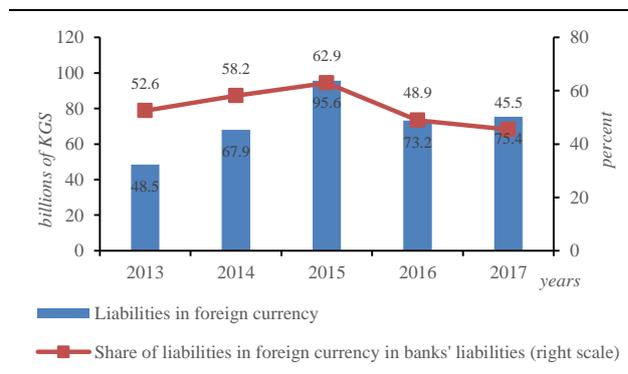
At the end of 2017, deposits of individuals and non-financial enterprises increased by 16.3 percent and amounted to KGS 114.0 billion (Chart 2.1.4). The share of individuals' and non-financial enterprises' deposits in the banks' liabilities increased by 3.2 percentage points and amounted to 68.7 percent.

The share of liabilities in foreign currency in the total volume of attracted funds decreased by 3.5 percentage points and amounted to 45.5 percent or KGS 75.4 billion (Chart 2.1.5).

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



**Chart 2.1.5. Banks' Liabilities in Foreign Currency**  
billions of KGS/percent



### Financial Results

The improvement of profitability indicators<sup>9</sup> at the end of 2017 was observed compared with the same period of 2016:

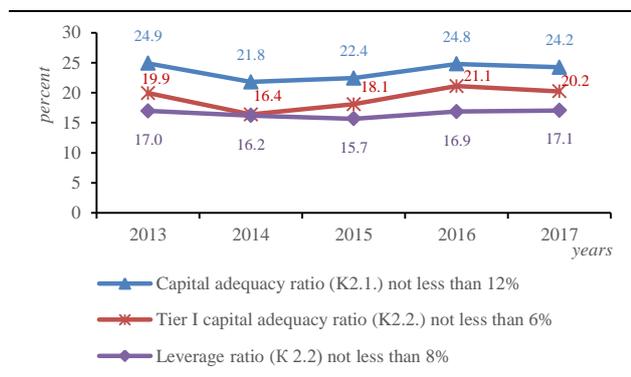
- ROA constituted 1.2 percent;
- ROE formed at 7.6 percent.

Net profit of the banking sector amounted to KGS 2,134.8 million.

### Capital Adequacy

With statutory minimum capital adequacy at 12.0 percent, at the end of 2017, this figure amounted to 24.2 percent (Chart 2.1.6), having decreased by 0.5 p.p compared to 2016.

**Chart 2.1.6. Dynamics of Capital Adequacy Ratios**  
percent



Decrease of capital adequacy was due to outstripping growth rates of risk weighted assets and off-balance sheet liabilities (+15.6 percent) over growth rates of net total capital (+13.1 percent).

At the same time, the actual level of capital adequacy in the banking sector, generally formed according to the results of 2017, can further increase the volume of risky and earning assets by 2.0 times, without exceeding established level of capital adequacy.

The abovementioned 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.

<sup>9</sup> ROA, ROE indicators are presented in annual terms.

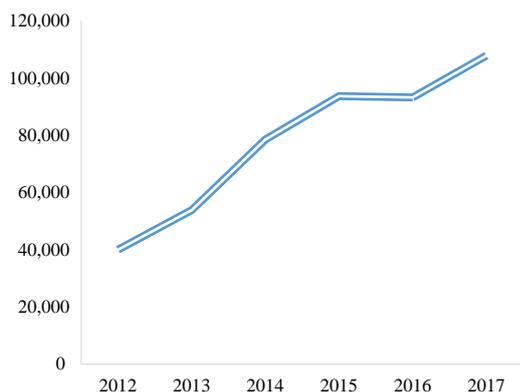
## 2.2. Banking Sector Risks

### 2.2.1. Credit Risk

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

The share of non-performing loans in the loan portfolio of banks decreased from 8.8 percent to 7.6 percent compared with the same period of 2016 (Chart 2.2.2).

**Chart 2.2.1. Dynamics of Loan Portfolio**  
millions of KGS



**Chart 2.2.2. Loan Portfolio Quality**

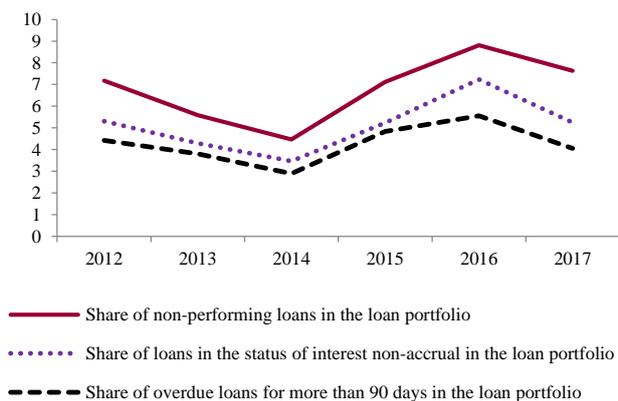


In order to assess the quality of the loan portfolio, the commercial banks use a loan classification system<sup>10</sup>, which contributes to determining the possible level of potential losses from bad loans and compensating them in time through creation of appropriate reserves (Chart 2.2.3).

At the end of 2017, the indicator of the risk of default on assets (the ratio of special loan loss provisions and loan portfolio) constituted 4.5 percent.

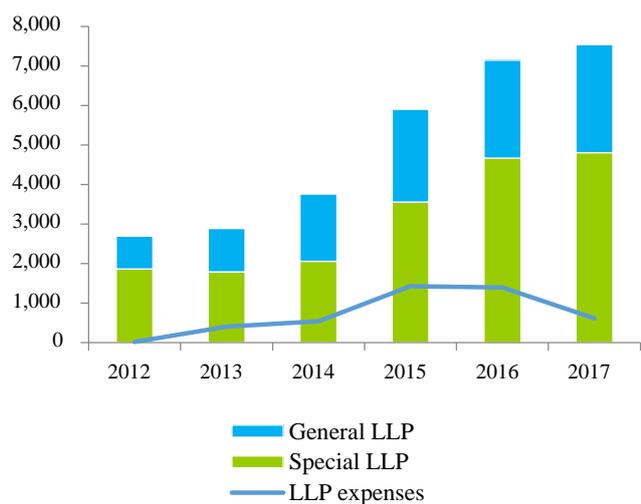
<sup>10</sup> In order to assess the quality of the loan portfolio, all loans are usually divided into six categories, depending on the client's current capacity to fulfill the obligations to the bank (listed in declining order of classification): normal, satisfactory, under supervision, substandard, 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**  
percent

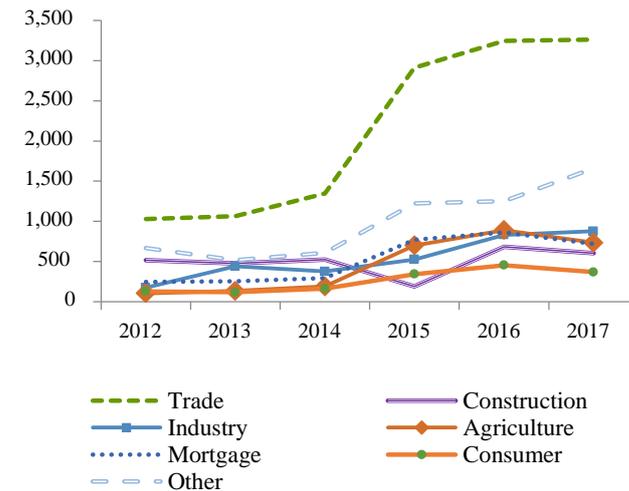


Aggregate reserves created by the commercial banks constituted 7.0 percent of the total loan portfolio (as of the end of 2016 this index constituted 7.7 percent). Meanwhile, the share of special loan loss provision in the reporting period constituted 63.7 percent of the total reserves (Chart 2.2.4).

**Chart 2.2.4. Total and Special Reserves**  
millions of KGS



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

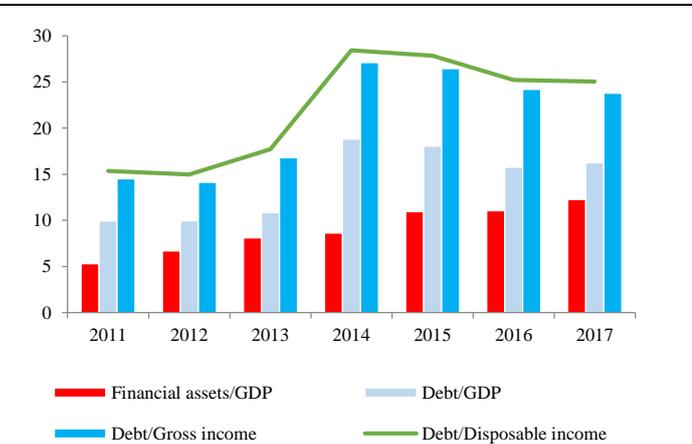


As of the end of 2017, the highest concentration of credit risks was still observed in the trade sector of economy (Chart 2.2.5).

**Financial Conditions of the Households<sup>11</sup>**

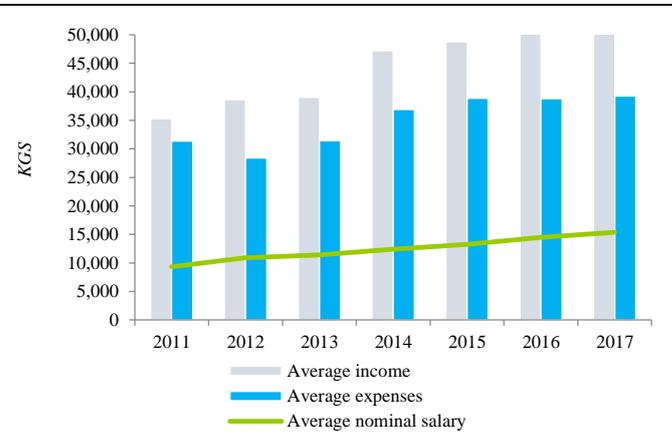
On December 31, 2017, the households' debt-to-GDP ratio increased from 15.8 percent to 16.2 percent compared to 2016 (Chart 2.2.6).

**Chart 2.2.6. Indicators of Financial Soundness of the Households**  
percent



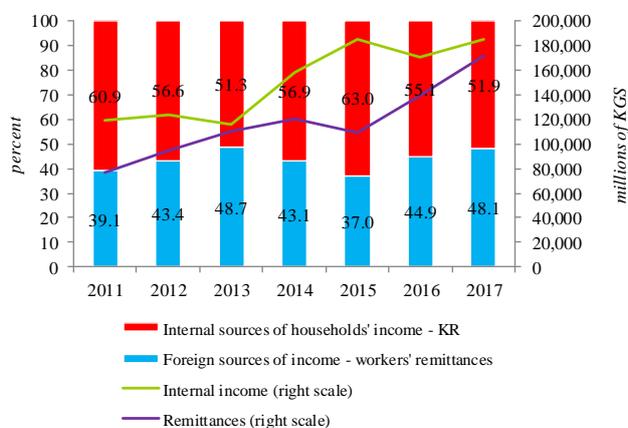
Source: NSC KR, NBKR

**Chart 2.2.7. Factors for the Financial Soundness of the Population Balance**  
KGS



Source: NSC KR

**Chart 2.2.8. Structure of the Households' Incomes by Sources**  
percent/ millions of KGS



Source: NSC KR and NBKR

At the end of 2017, the share of remittances increased by 3.2 p.p., up to 48.1 percent of total income of the population (Chart 2.2.8). Meanwhile, remittances of migrant workers continued to be a significant source of the households' income.

At the end of 2017, the major share in the structure of the households' income accounted for the income from employment, which made 70.5 percent of the population total income (Chart 2.2.9).

The major share in the structure of household's expenses accounted for consumption (Chart 2.2.10) that restricted the increase of savings and investment costs.

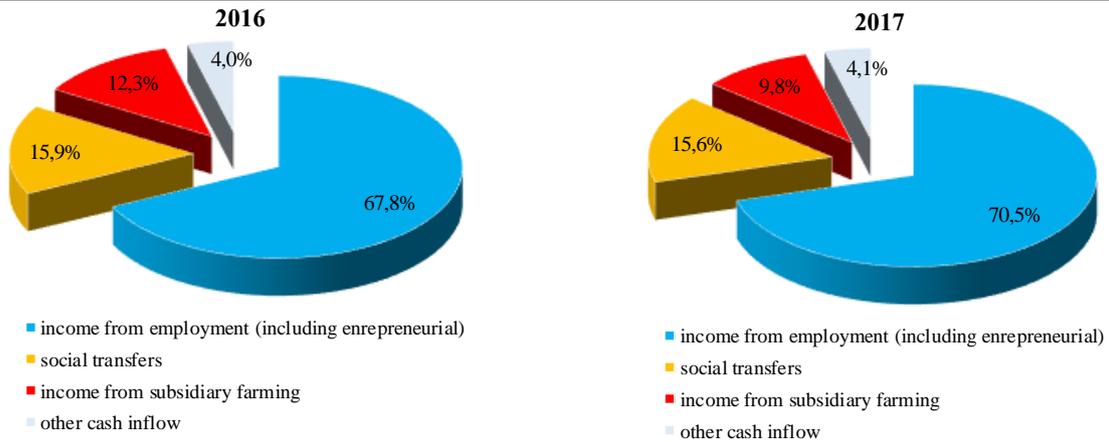
A significant share of consumer expenses, which made 85.9 percent of the total

expenses at the end of 2017, can affect the households' ability to meet their obligations in case of a reduction in financial income.

<sup>11</sup> According to the official statistical data of the NSC KR based on the sample survey of the households.

**Chart 2.2.9. Structure of the Households' Income**

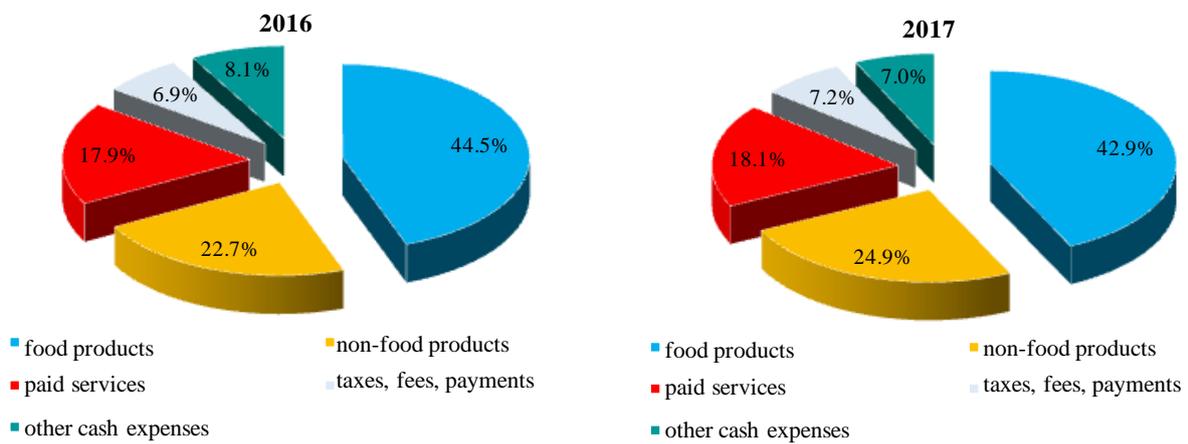
percent



Source: NSC KR

**Chart 2.2.10. Structure of the Households' Expenses**

percent

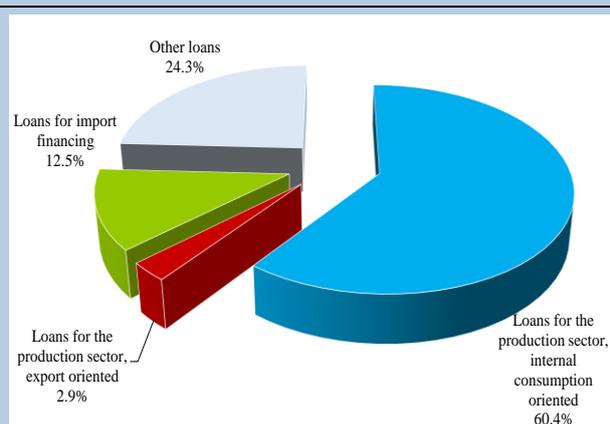


Source: NSC KR

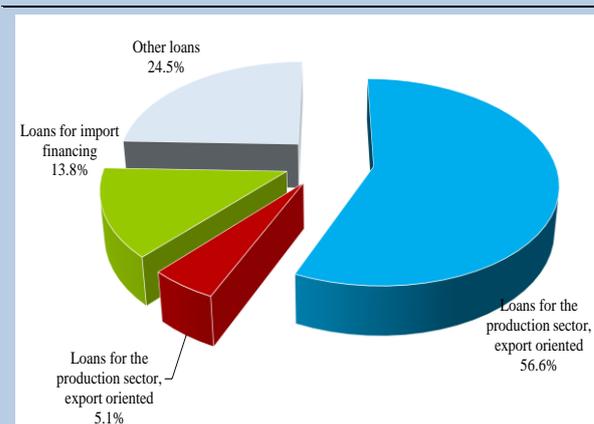
### Box 3. The Survey Results of the Commercial Banks Clients

At the end of 2017, a significant share of loans (56.6 percent of total borrowers' loans) extended to the borrowers was still concentrated in the manufacturing sector of the economy<sup>12</sup>, thereby reflecting contribution of the banking sector in creation of the country's GDP, meanwhile, more than 1/10 of issued loans (13.8 percent) were forwarded for financing of imports (Chart 2.2.12).

**Chart 2.2.11 Sectoral Structure of Loans as of December 31, 2016**

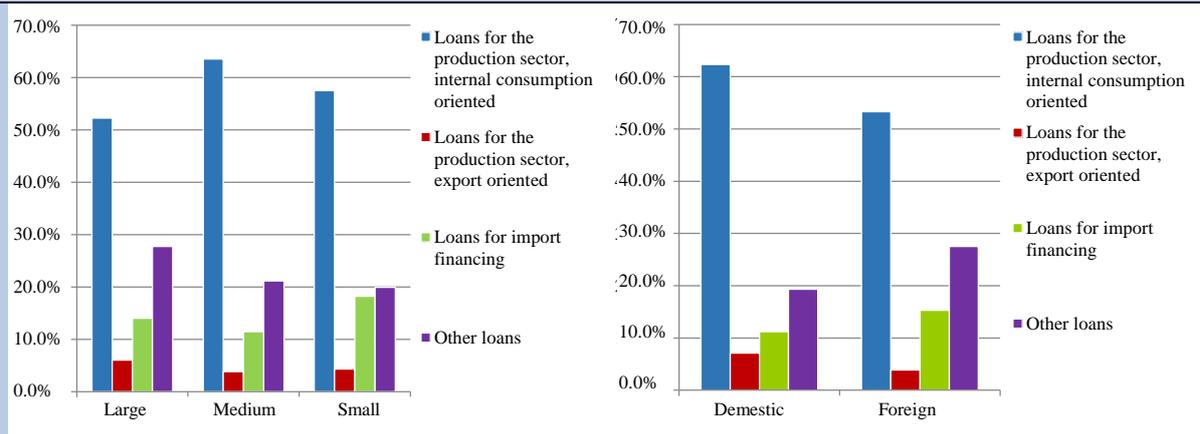


**Chart 2.2.12. Sectoral Structure of Loans as of December 31, 2017**



Domestic banks forward 62.4 percent of the loan portfolio to the manufacturing sector (GDP) and 11.2 percent – to finance imports. Generally, foreign banks also provided loans to the manufacturing sector of economy (53.3 percent). In the reporting period, the share of loans forwarded to finance imports constituted 15.3 percent of the loan portfolio (Chart 2.2.13).

**Chart 2.2.13. Sectoral Structure of Loans by the Groups of Banks and Forms of Ownership as of December 31, 2017**



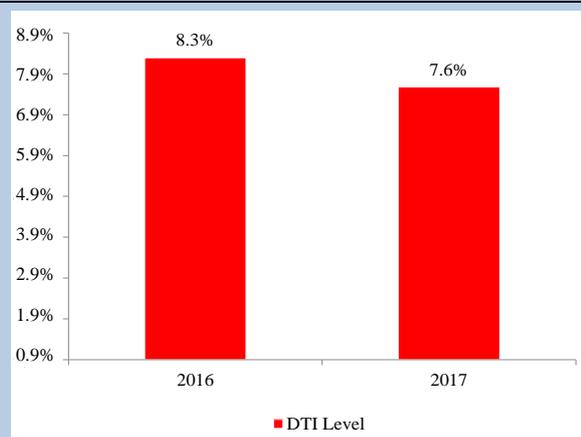
<sup>12</sup> The production sector means the activity of the bank clients connected with the production of goods and services (construction, communication and automobile repair shop services, transport services, real estate leasing, hotels, restaurants, etc.).

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

#### Borrowers solvency

At the end of 2017, the level of debt burden of 15 banks' largest clients calculated through DTI index constituted 7.6 percent.

**Chart 2.2.14. 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* (12.6 percent of the borrowers' basic income) (Table 2.2.1). At the same time, the lowest level of debt burden was observed in the major borrowers of the *medium banks*.

**Table 2.2.1. Debt Burden of the Banks Clients\* in 2017**

	Banking sector	Large banks	Medium banks	Small banks
Loan balance, billions of KGS	28,919.7	17,979.6	6,093.0	4,847.0
Share of loans in 15 largest borrowers in the total volume of loan portfolio in the banking sector, in %	26.8	31.1	17.7	31.0
Ratio of expenses for loan debt servicing to the borrowers' total income, in %	7.6	8.7	4.5	12.6

Source: Data of the commercial banks, NBKR calculations  
\* data for 15 largest borrowers of each commercial bank

The level of debt burden in the foreign banks was higher than in the domestic banks (Table 2.2.2).

**Table 2.2.2. Debt Burden in the Domestic and Foreign Banks at the End of 2017\***

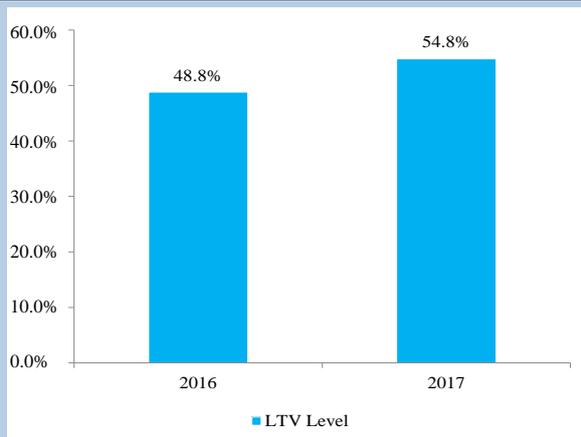
	Domestic banks	Foreign banks
Loan balance, billions of KGS	7,416.6	21,503.1
Share of loans in 15 largest borrowers in the total volume of loan portfolio in the banking sector, in %	18.5	31.8
Ratio of expenses for loan debt servicing to the borrowers' total income, in %	3.7	13.6

Source: Data of the commercial banks, NBKR calculations  
\* data for 15 largest borrowers of each commercial bank

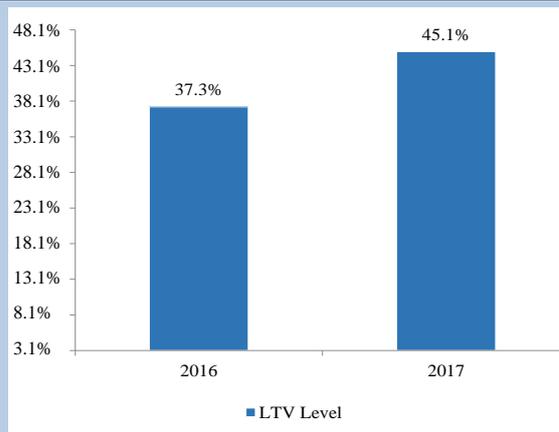
#### Security of the borrowers' loans

At the end of 2017, the LTV actual level in the banking sector amounted to 54.8 percent. The existing level of collateral indicates a relatively high level of the loans secured by the pledged property (Chart 2.2.15).

**Chart 2.2.15. LTV Level on All Borrowers of the Banking Sector**

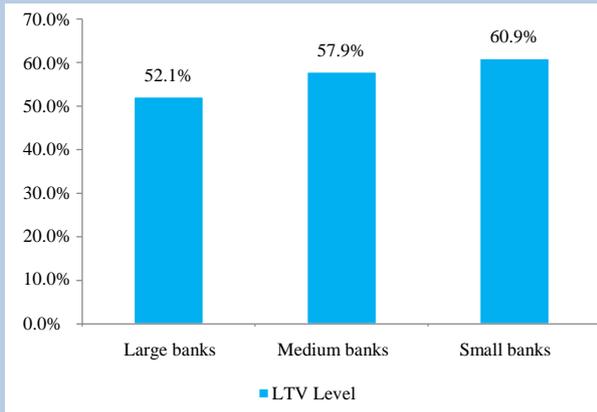


**Chart 2.2.16. LTV Level on 15 Largest Borrowers of the Banking Sector**

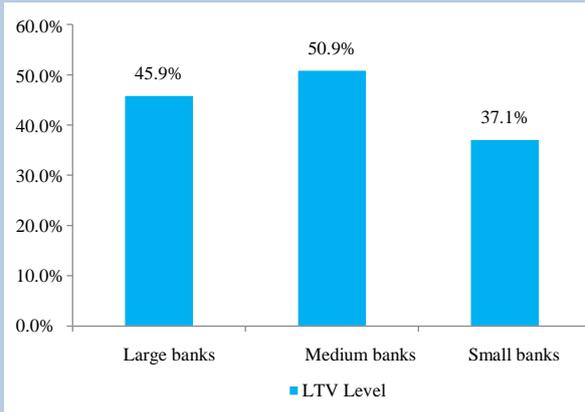


Meanwhile, the LTV value in the large banks is lower than in the small and medium banks and in the banking sector as a whole (Chart 2.2.17).

**Chart 2.2.17. LTV Level on All Borrowers by the Banks' Groups in 2017**



**Chart 2.2.18. LTV Level on 15 Largest Borrowers by the Banks' Groups in 2017**



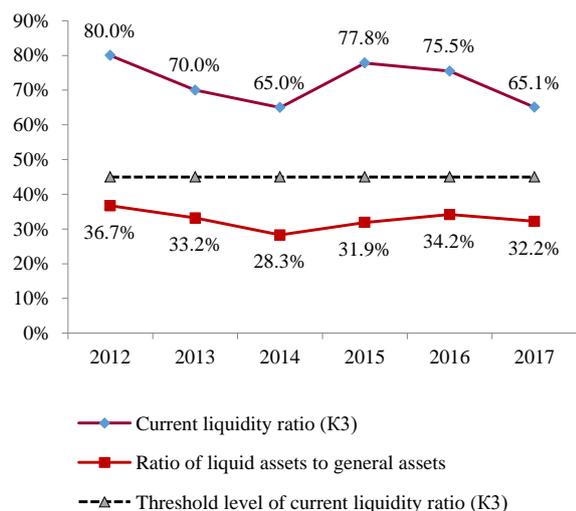
CONTENT

### 2.2.2. Liquidity Risk

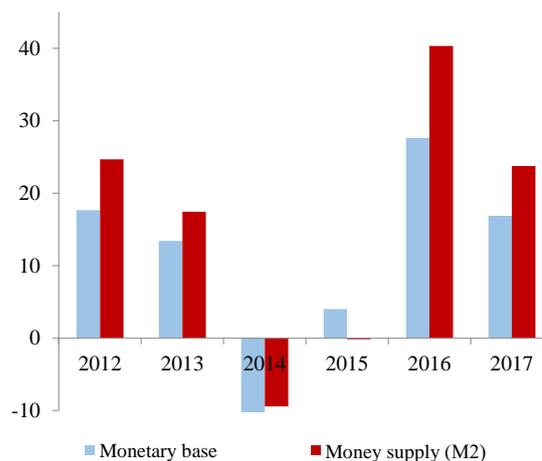
Public confidence in the banking sector depends on the timely implementation of obligations by the banks, which suggests availability of sufficient liquidity in the banks. For regulatory purposes, liquidity risk is assessed using economic current liquidity ratio<sup>13</sup>.

At the end of 2017, current liquidity ratio decreased from 75.5 percent (as of the end of 2016) to 65.1 percent (Chart 2.2.19).

**Chart 2.2.19. Liquidity Indicators in the Banking Sector**



**Chart 2.2.20. Growth Rates of Money Supply (M2) and Monetary Base**  
percent



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

**Table 2.2.3. Maturity of Financial Assets and Liabilities**  
as of December 31, 2017, millions of KGS

Name	Maturity					Total
	up to 1 month	1- 3 months	3-6 months	6-12 months	more than 12 months	
Total financial assets	69,163	11,921	10,865	19,490	92,767	204,205
Including loans and financial leasing to the clients	4,585	5,338	7,585	14,904	75,326	107,739
Total financial liabilities	87,817	7,793	13,060	18,408	34,271	161,349
Including deposits of individuals and time deposits of legal entities	33,943	4,707	7,360	14,036	13,054	73,099
Gap	-18,654	4,127	-2,195	1,082	58,496	42,856
Including on loans and deposits	-29,358	632	226	869	62,272	34,640

<sup>13</sup> Economic current liquidity ratio is one of the mandatory standards for the bank established by the NBKR, 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

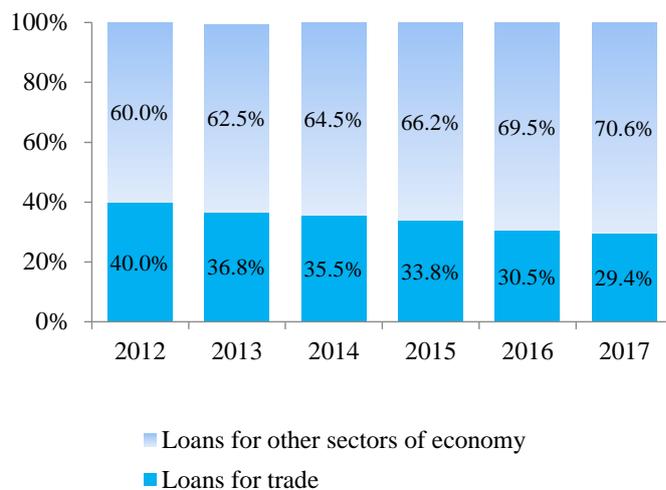
#### Concentration of the Largest Sources of Financing

The results of “reverse” stress testing show that some banks could not withstand the shock related to outflow from one to five largest sources of financing<sup>14</sup> (liquidity ratio decreases below the threshold level of 45 percent).

#### Loan Concentration

Potential default from one to five largest borrowers<sup>15</sup> in separate banks may decrease regulatory capital below economic standard of the NBKR.

**Chart 2.2.21. Sectoral Concentration of the Loan Portfolio**



Moderate decrease of the level of trade loans concentration was observed in the sectoral structure of loan portfolio amid increase of lending to the agricultural sector. At the end of 2017, the share of loans for trade in the total loan portfolio decreased slightly and constituted 29.4 percent (Chart 2.2.21).

CONTENT

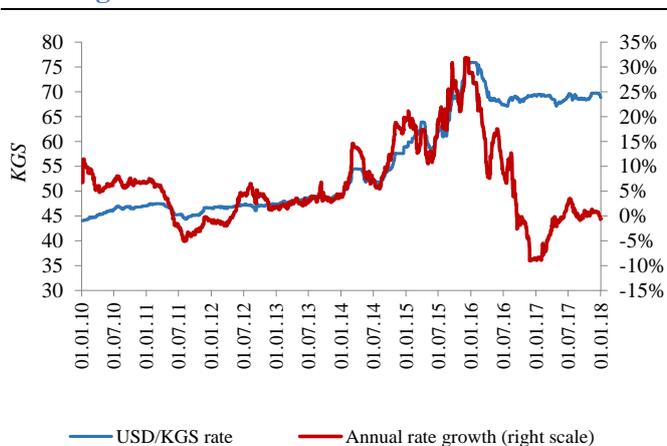
<sup>14</sup> The largest sources of financing (LSF) are the funds of creditors and depositors (received loans, settlement accounts, demand deposits and fixed deposits).

<sup>15</sup> Total debt of five largest borrowers of the bank is meant.

### 2.2.4. Currency Risk

At the end of 2017, *direct currency risk* of the banking sector was at a moderate level.

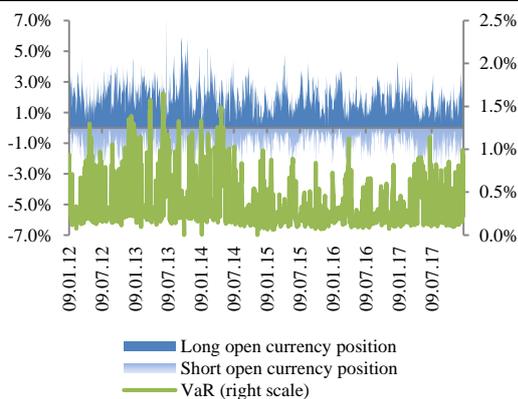
**Chart 2.2.21. Dynamics of USD/KGS Nominal Exchange Rate**



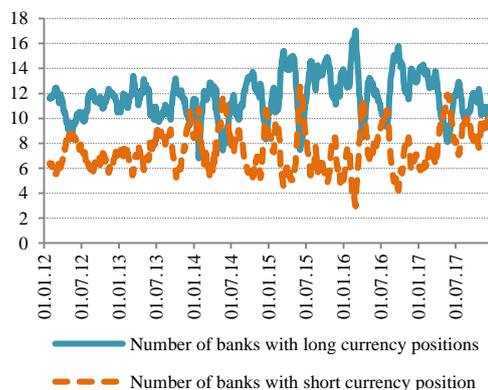
In general, the banks kept open currency positions of assets and liabilities within the limits of prudential standards of the National Bank of the Kyrgyz Republic.

The risk of currency position overestimation in the banking sector is minimum (VaR: 0.1–1.1 percent of the net total capital, Chart 2.2.23).

**Chart 2.2.23. Dynamics of Open Currency Position (OCP) and Revaluation Risk (VaR) in percent of NTC**



**Chart 2.2.24. Currency Position of the Banks units**



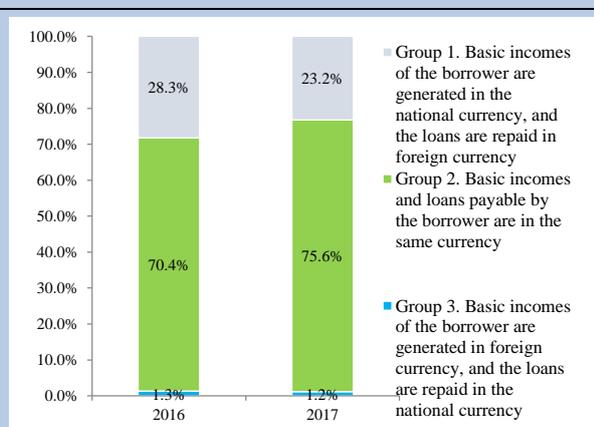
### Box 5. Credit Risk Through Indirect Currency Risk

As of December 31, 2017, 23.2 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 2.2.25). This volume of the loan portfolio was potentially exposed to credit risk through exposure to currency risk (so-called indirect currency risk).

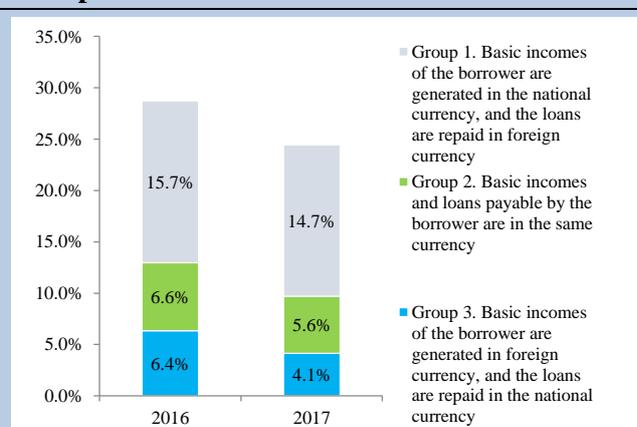
Indirect confirmation of the impact made by the currency risk on the credit risk is given in Chart 2.2.26 that displays the proportion of non-performing loans by groups of loans:

- Group 1 – 14.7 percent, basic incomes of the borrower are generated in the national currency, and the loans are repaid in foreign currency;
- Group 2 – 5.6 percent, basic incomes and loans payable by the borrower, are in the same currency;
- Group 3 – 4.1 percent, basic incomes of the borrower are generated in foreign currency, and the loans are repaid in the national currency.

**Chart 2.2.25. Loan Portfolio by Groups of Loans\***



**Chart 2.2.26. Share of Non-performing Loans by Groups of Loans\*\***



Source: data are calculated based on section 37 of the PRBR, the volume of loan portfolio is specified exclusive of overdraft loans.

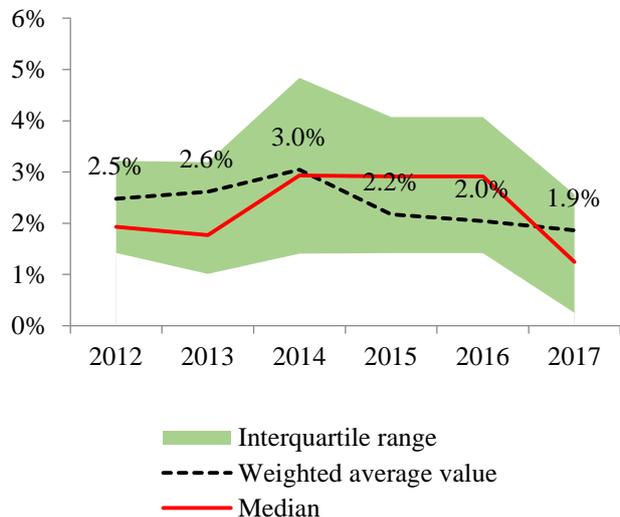
\* Breaking of loans into group is presented in this chart. For example, the volume of loans for Group 1 as of the reporting date amounted to KGS 24.9 billion or 23.2 percent of the total loan portfolio (KGS 107.2 billion).

\*\* 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 the reporting date amounted to KGS 3.7 billion or 14.7 percent of the total loan portfolio for Group 1 (KGS 24.9 billion).

### 2.2.5. Interest Rate Risk

At the end of 2017, interest rate risk was moderate.

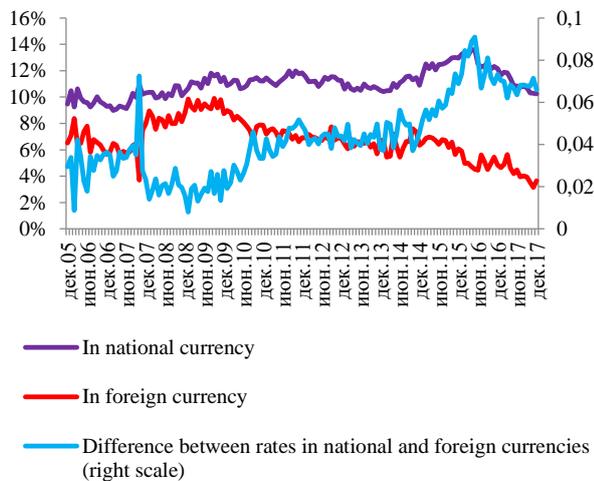
**Chart 2.2.27. Dynamics of Interest Rate Risk (VaR) in percent of NTC**



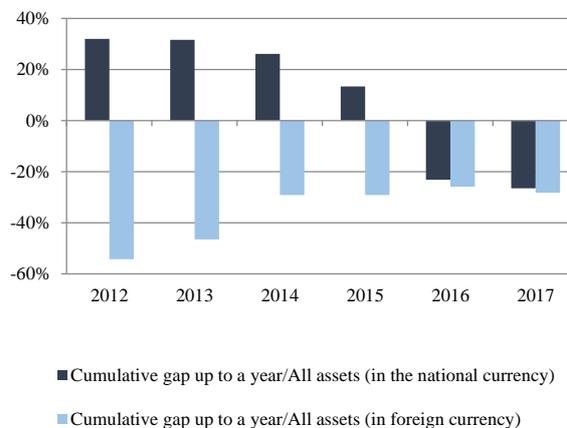
Slight decrease of interest rate risk (VaR) from 2.0 percent to 1.9 percent of net total capital was resulted from decrease of gaps by maturities between financial assets and liabilities vulnerable to interest rates dynamics.

Average value of interest rate risk during the period of 2012 – 2017 was within accessible limits (2-4 percent of net total capital).

**Chart 2.2.28. Dynamics of Average Weighted Interest Rate of Individuals' Time Deposits**



**Chart 2.2.29. Cumulative Gap of Assets and Liabilities Exposed to Interest Rate Risk**

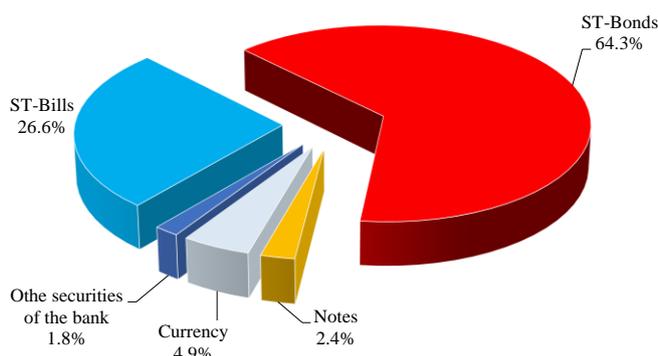


### 2.2.6. "Contagion" Risk

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 2017, the volume of transactions in the interbank market made between the resident banks amounted to KGS 11.2 billion<sup>16</sup>, having increased by 73.6 percent compared with 2016.

**Chart 2.2.30. Distribution of Interbank Loan Transactions Made during 2017 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 or foreign exchange (Chart 2.2.30) in the banking sector of Kyrgyzstan.

In general, the probability of the "contagion" risk materialization in the interbank credit market of Kyrgyzstan is minimal, which is caused by highly liquid collateral and insignificant volume of transactions.

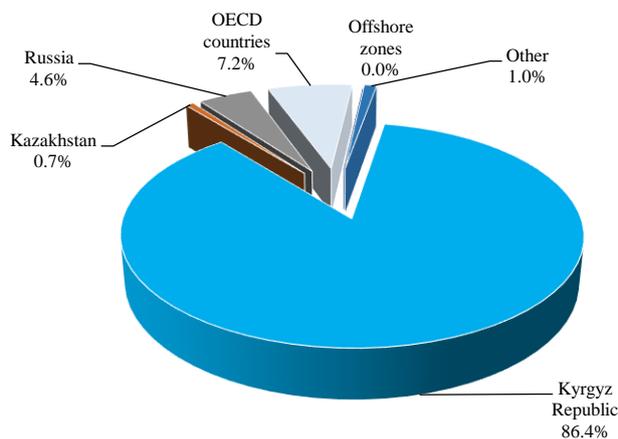
CONTENT

<sup>16</sup> The total volume of transactions made between the resident banks during 2017 is meant here.

2.2.7. Country Risk<sup>17</sup>

In general, the volume of disposed assets of non-residents constituted KGS 27.9 billion or 13.6 percent of total banking sector assets. The highest concentration of placement was observed in the OECD countries – 7.2 percent (KGS 14.8 billion) of total assets in the banking sector of the Kyrgyz Republic.

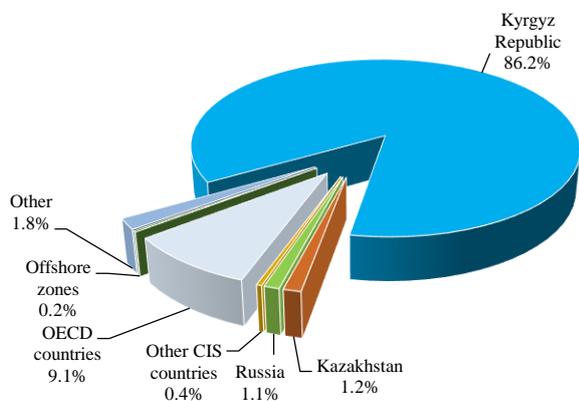
**Chart 2.2.31. Geographic Structure of Assets as of December 31, 2017**  
percent



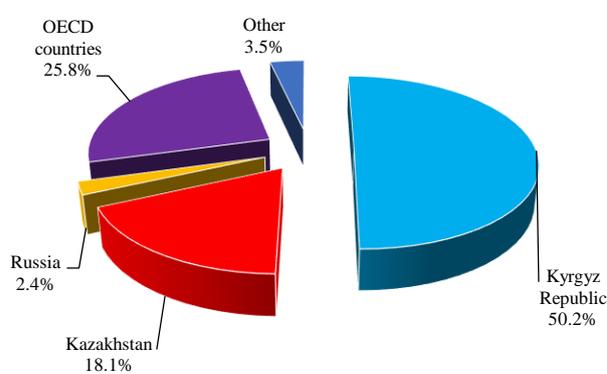
The main share of the assets placed abroad was focused on correspondent or deposit accounts and constituted KGS 24.9 billion or 89.2 percent of total placed assets of non-residents.

At the end of 2017, banks' liabilities to non-residents of the Kyrgyz Republic totaled KGS 22.3 billion or 13.8 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 20.9 billion or 94.0 percent of the total liabilities to non-residents.

**Chart 2.2.32. Geographic Structure of Liabilities as of December 31, 2017**  
percent



**Chart 2.2.33. Authorized Capital by Countries as of December 31, 2017**  
percent



At the end of 2017, foreign capital amounted to KGS 10.9 billion or 49.8 percent of the total authorized capital of the banking sector.

<sup>17</sup> Data are given of the basis of section 1 of the PRBR.

## 2.3. “Reverse” Stress Testing of the Banking Sector

### 2.3.1. “Reverse” Stress Testing of Credit Risk<sup>18</sup>

Maximum allowable share of “performing” loans<sup>19</sup> in the loan portfolio, which upon categorized as “non-performing” loans can reduce the CAR 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>20</sup>.

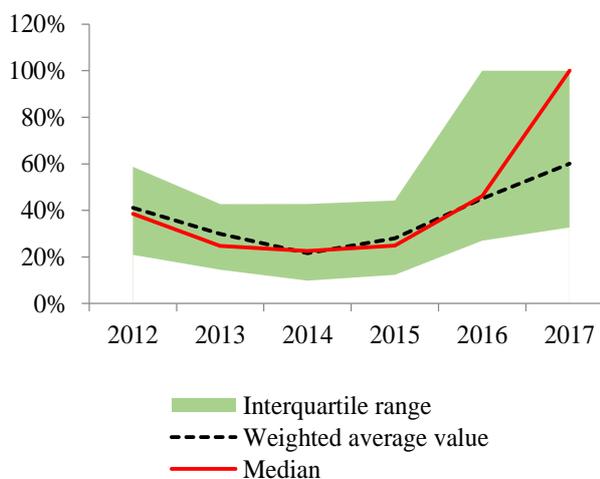
Moreover, the maximum growth rate of “non-performing” loans, where capital adequacy (K 2.1) will be reduced to the threshold level of 12 percent, can be calculated by means of this method.

Based on the results of the “reverse” stress testing of the banking sector as of the end of 2017, the maximum allowable share of “performing” loans, transferring to the category of “non-performing” in the banking sector, amounted to approximately 58.5 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 49.8 percent of net total capital (Chart 2.3.2).

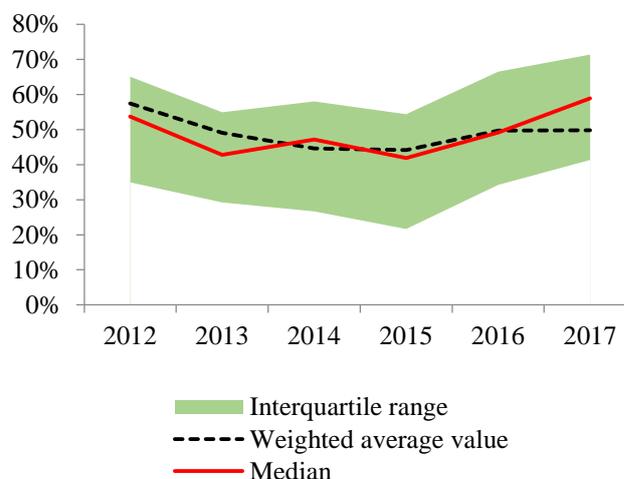
**Chart 2.3.1. Maximum Possible Share of “Performing”<sup>21</sup> Loans that May Become “Non-performing” Loans<sup>22</sup>**

percent



**Chart 2.3.2. Additional LLP, in Creating thereof CAR Decreases to 12 Percent**

percent



<sup>18</sup> Exclusive of troubled banks.

<sup>19</sup> Exclusive of “normal” loan category, which are risk free.

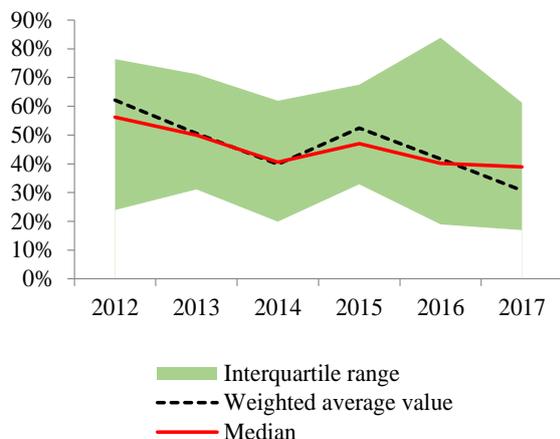
<sup>20</sup> Herewith, transition of “performing” loans to the category of “non-performing” loans is fulfilled smoothly by three categories (“substandard”, “doubtful” and “losses”).

<sup>21</sup> Exclusive of “normal” loan category.

<sup>22</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*



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 2017 the actual amount of liquid assets of the banking sector was able to cover the outflow of an average of 31.2 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 December 31, 2017 has little sensitivity to the direct interest rate and currency risks.

#### Interest Rate Risk

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

The results of the “reverse” stress testing indicate little sensitivity of the banking sector to the direct interest rate risk. Decrease of the average interest rates on loans by 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/decrease level of the U.S. dollar 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/decrease level of the USD/KGS 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 direct currency risk (Table 2.3.1).

**Scenario 2** – maximum increase/decrease level of the USD/KGS 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 direct foreign exchange rate (Table 2.3.1).

**Table 2.3.1. General Results of the “Reverse” Stress Tests as of December 31, 2017**

		Banking sector
<b>Credit risk</b>		
Scenario 1	Share of performing loans transferring to the category of "non-performing" loans, <i>in percent</i>	58.5
<b>Interest rate risk</b>		
Scenario 1	Decrease of weighted average interest rate on loans, when CAR declines to 12%, <i>in percentage points</i> .	16.9
Scenario 2	Decrease of weighted average interest rate on loans, when net profit decreases to zero level, <i>in percentage points</i>	2.2
<b>Currency risk</b>		
Scenario 1	Growth rate of USD/KGS ( $\pm$ ) exchange rate, when CAR decreases to 12%, <i>in percent</i>	Commercial banks overcome the effect of the direct currency risk (change of currency rate for more than 100 percent)
Scenario 2	Growth rate of USD/ KGS ( $\pm$ ) exchange rate, when net profit decreases to zero level, <i>in percent</i>	
<b>Liquidity risk</b>		
Scenario 1	Outflow of clients' deposit share of the total deposits, when current liquidity ratio declines to 45%, <i>in percent</i>	31.2

### 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.*

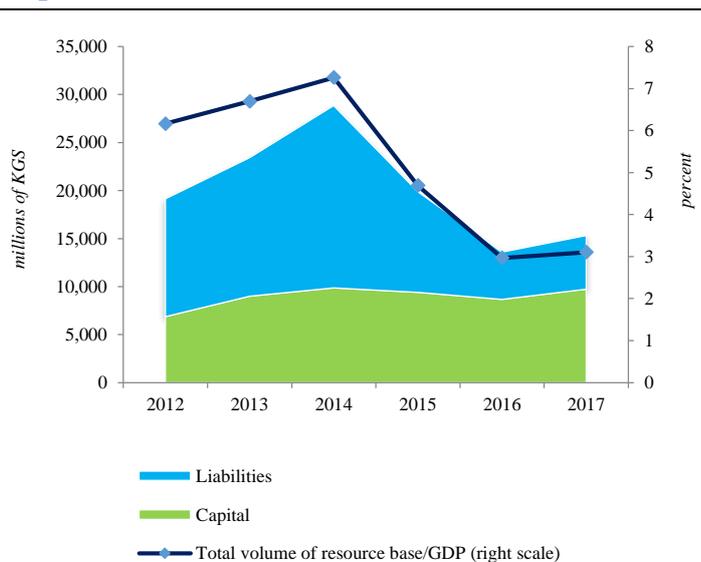
*The weighted average interest rates on loans of the microfinance organizations and credit unions decreased compared to 2016.*

#### 3.1. Main Trends

The system of non-banking financial-credit organizations subjected to licensing and regulation by the National Bank as of December 31, 2017 in the Kyrgyz Republic included: the specialized financial-credit organization – “FCCU” OJSC; 110 credit unions; 150 microfinance organizations (including 7 microfinance companies, 96 microcredit companies and 47 microcredit agencies) and 396 exchange offices and one credit bureau.

#### Resources

**Chart 3.1.1. Dynamics of NBFCOs Liabilities and Capital**

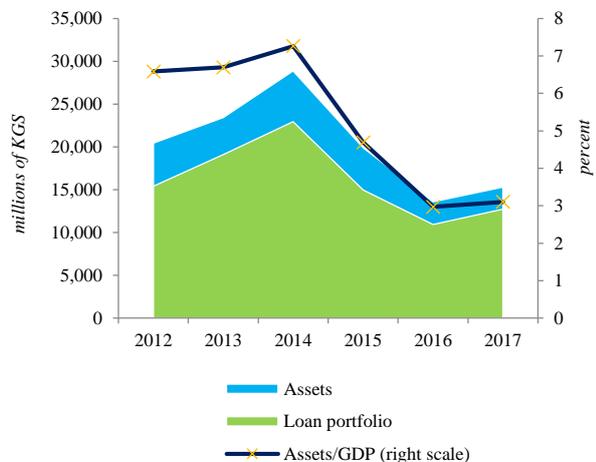


At the end of 2017, NBFCOs liabilities increased by 13.2 percent compared to 2016 and were formed in the amount of KGS 5,561.5 million. In 2017, NBFCOs capital increased by 12.2 percent and totaled KGS 9,741.7 million (Chart 3.1.1).

Source: NBKR

Assets

Chart 3.1.2. Dynamics of NBFCOs Assets and Loans



Source: NBKR

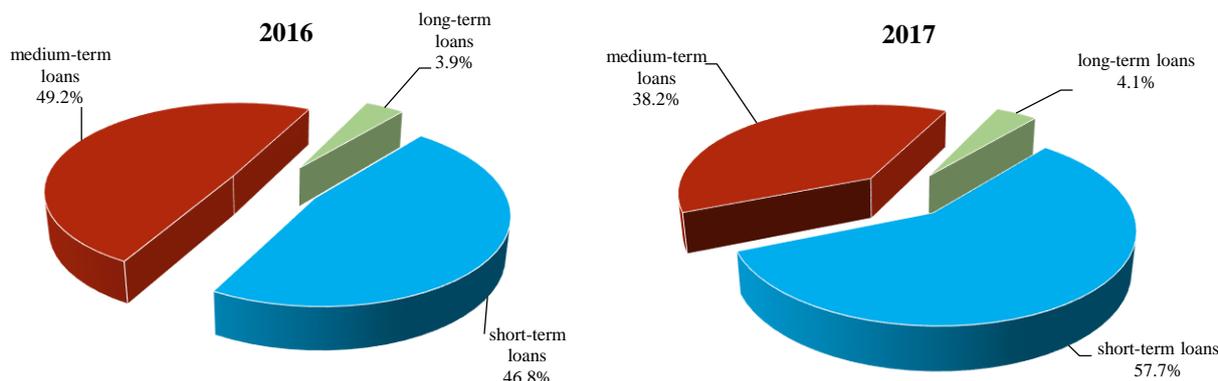
According to periodic regulatory reporting, the total assets of NBFCOs in 2017 increased by 12.6 percent and amounted to KGS 15,303.3 million<sup>23</sup>. This increase was due to growth in the loan portfolio of NBFCOs (Chart 3.1.2).

The main activity of NBFCOs remains lending. As of December 31, 2017, the loan portfolio of NBFCOs increased by 16.6 percent and was formed in the amount of KGS 12,732.1 million (Table 3.1.1).

As of December 31, 2017, the number of borrowers increased by 15.6 percent compared to and amounted to 272,021 borrowers.

There have been slight changes in the structure of the loan maturity provided by NBFCOs in 2017. As of December 31, 2017, there was the increase in the share of short-term and long-term credit resources and the decrease in the share of medium-term loans. (Chart 3.1.3).

Chart 3.1.3. Structure of the NBFCOs Loan Portfolio by Maturity



Source: NBKR

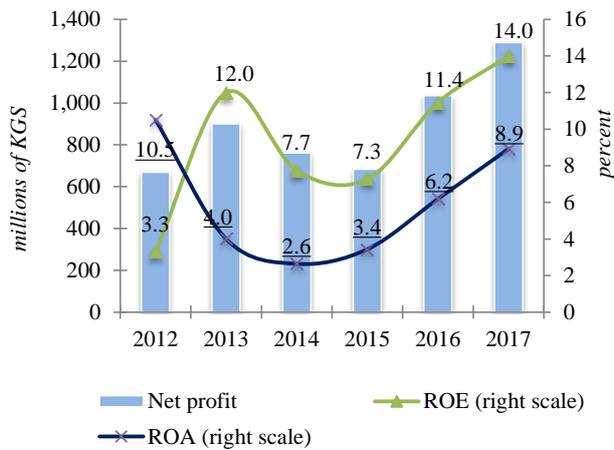
Note: data for the period

The main oblasts where the major share of NBFCOs is concentrated (71.7 percent of 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>23</sup> Exclusive of "FCCU" OJSC.

Revenue Position<sup>24</sup>

Chart 3.1.4. Dynamics of NBFCOs Revenue Position\*



At the end of 2017 net profit of NBFCOs increased by 24.5 percent compared to 2016 and amounted to KGS 1,289.1 million. At the end of 2017, ROA increased by 2.7 p.p. and amounted to 8.9 percent. ROE increased by 2.5 p.p. and constituted 14.0 percent (Chart 3.1.4).

Source: NBKR

\*Exclusive of "FCCU" OJSC

<sup>24</sup> ROA and ROE indices are provided in annual terms.

### 3.2. Risks of Non-banking Financial-Credit Organizations

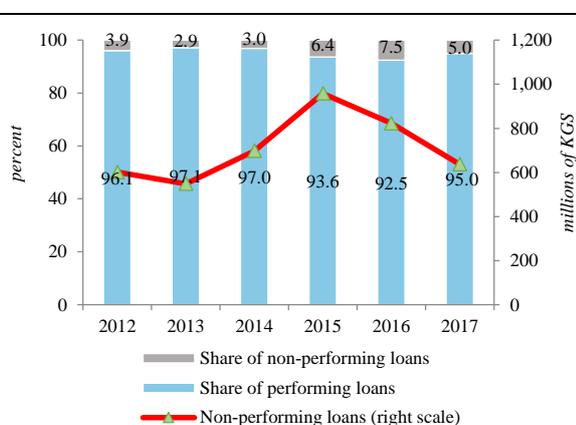
Major risk factors of the activities of NBFCOs are the quality of the loan portfolio, sectoral and institutional concentration, as well as status of the NBFCOs external debt.

#### Quality of the NBFCOs Loan Portfolio

As of December 31, 2017, the share of non-performing loans in the loan portfolio of NBFCOs constituted 5.0 percent, meanwhile, their nominal volume decreased slightly by KGS 186.0 million or 22.6 percent compared to 2016 (Chart 3.2.1).

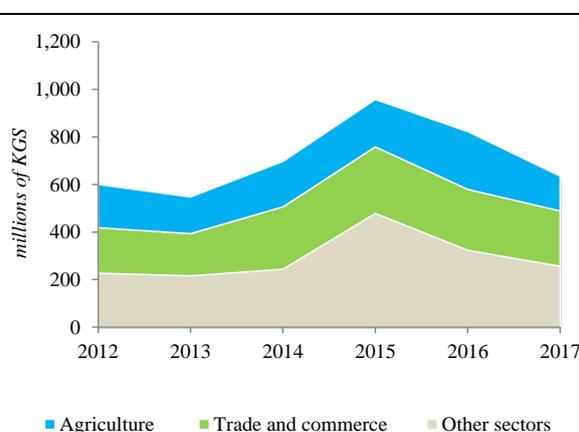
At the end of 2017, the structure of NBFCOs non-performing loans demonstrated decrease in the share of defaulting loans issued to agriculture (by 6.4 p.p. compared to 2016). The share of defaulting loans in the total non-performing loans of NBFCOs constituted 23.0 percent (Chart 3.2.2).

Chart 3.2.1. Quality of NBFCOs Loan Portfolio



Source: NBKR

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



Source: NBKR

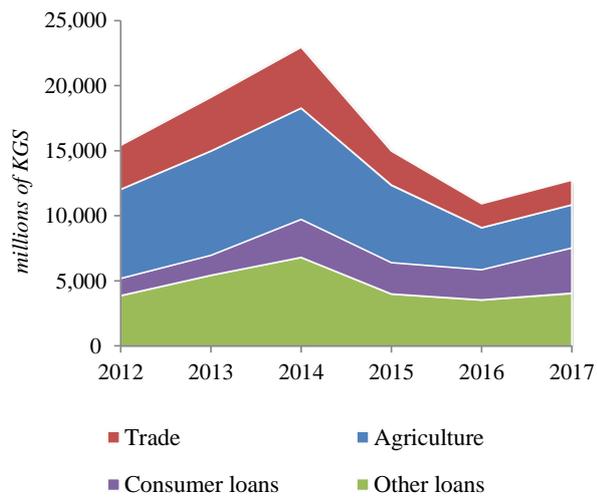
#### Sectoral Concentration

NBFCOs loan portfolio is concentrated in the sphere of consumer loans (27.6 percent of NBFCOs total loans), agriculture and trade (25.8 percent and 14.9 percent of the total loan portfolio, accordingly, Chart 3.2.3). Lending of agriculture is associated with a high risk because of their dependence of climate conditions.

#### Institutional Concentration

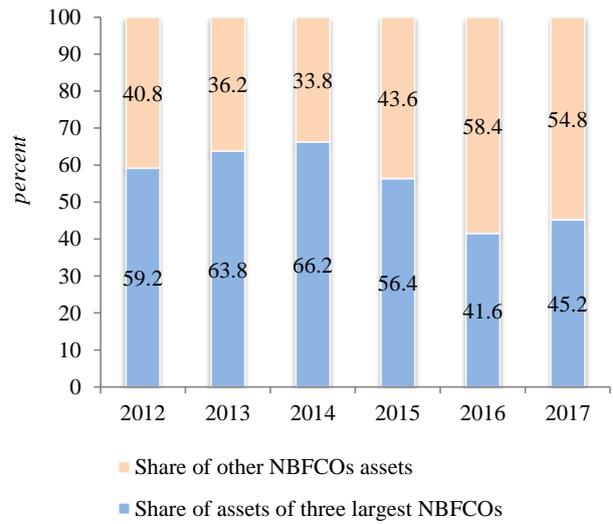
As of December 31, 2017, the share of assets of the three largest NBFCOs increased by 3.7 p.p. compared to 2016 and amounted to 45.2 percent of the total assets of NBFCOs system (Chart 3.2.4).

**Chart 3.2.3. Sectoral Structure of NBFcos Loan Portfolio**



Source: NBKR

**Chart 3.2.4. Institutional Structure of NBFcos Assets**



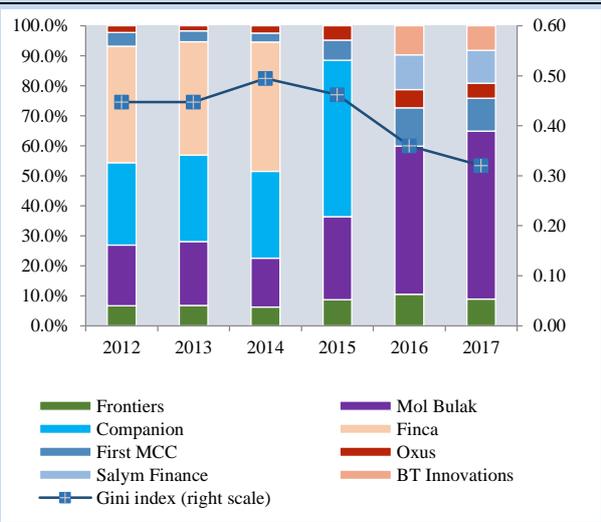
Source: NBKR

**Box 6. Concentration Indices based Assessment of NBFCOs System Activity<sup>25</sup>**

**The Herfindahl-Hirschman Index**

Herfindahl-Hirschman index was calculated for the purposes of concentration risk analysis in the NBFCOs system<sup>26</sup>. As of December 31, 2017, Herfindahl-Hirschman index for the NBFCOs system constituted 1,191.7 points. According to the rule of thumb<sup>27</sup>, resulting value indicates availability of moderate concentration of NBFCOs assets or moderate concentration of microfinance market.

**Chart 3.2.5. Dynamics of the Gini Index and Assets of 6 Largest NBFCOs**



Source: NBKR

**The Gini Index**

The Gini index was calculated for estimating the uniformity of the NBFCOs assets distribution. As of December 31, 2017, the index value constituted 0.419, which reflected the moderate distribution of assets among the largest microfinance institutions. Meanwhile, increase of concentration level was observed in 2017 (Chart 3.2.5).

CONTENT

<sup>25</sup> Concentration indices are calculated on the basis of data submitted by 6 largest NBFCOs.

<sup>26</sup>  $H = \sum_{i=1}^n (share_i)^2$ .

<sup>27</sup> The following rule of thumb was used for determining the level of market concentration:

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

### *External Debt Status of NBFCOs*

As of December 31, 2017, the external debt of NBFCOs amounted to USD 32.3 million. Major part of the external debt of NBFCOs are loans provided by the foreign commercial financial-credit institutions (98.2 percent of total external debt of NBFCOs), and the rest are loans of the international financial institutions (1.8 percent of total external debt of NBFCOs).

At the end of 2017, external debt of the largest NBFCOs increased by 58.4 percent compared to 2016 and amounted to USD 28.1 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;

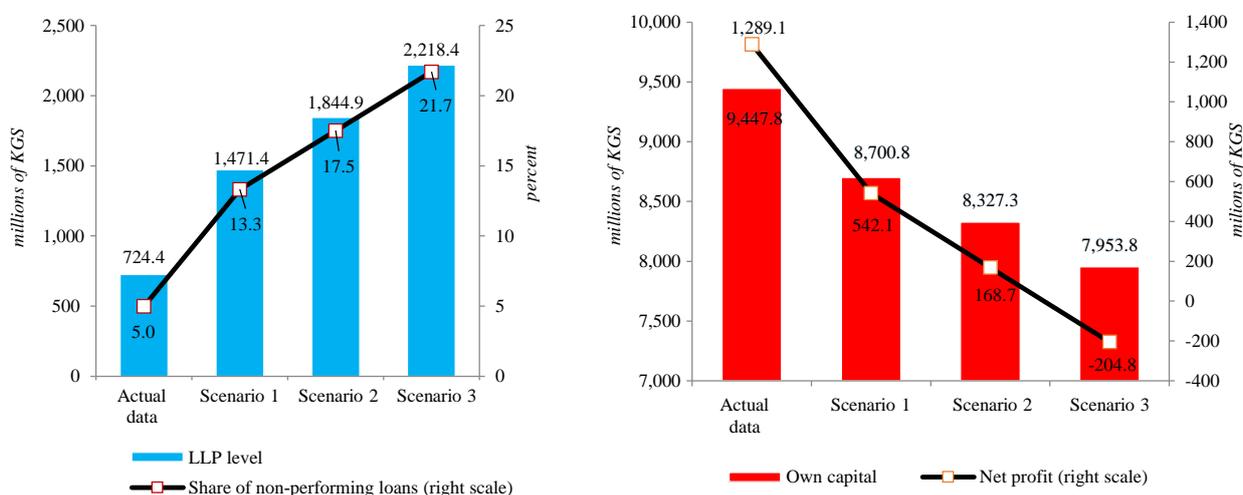
*Scenario 3:* 100% of loans transition from one category to another.

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>28</sup> in the loan portfolio of NBFCOs increased from 103.1 to 206.2 percent, depending on the scenario in conducting this stress testing (Chart 3.3.1).

**Chart 3.3.1. Results of Stress Testing of the Credit Risk as of December 31, 2017**

*millions of KGS/percent*



Source: NBKR, NBKR calculations

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 net profit decreases from KGS 1,289.1 million to KGS 542.1 million (a decrease by 57.9 percent). Potential implementation of the second and third scenario may result in decreased net profit of the NBFCOs sector down to KGS 168.7 million and losses – in the amount of KGS 204.8 million (Chart 3.3.1).

<sup>28</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:

- Standard – from 0% to 5%;
- Assets under supervision – 10%;
- Substandard – 25%;
- Doubtful – 50%;
- Losses – 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
<b>Scenario 1:</b> transition of 50% of loans from one category to another	13.3
<b>Scenario 2:</b> transition of 75% of loans from one category to another	17.5
<b>Scenario 3:</b> transition of 100% of loans from one category to another	21.7

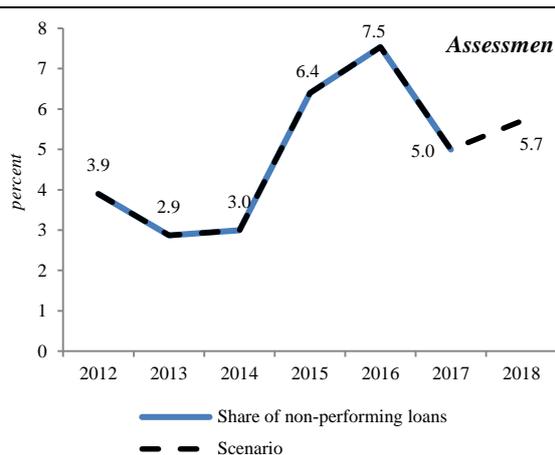
Source: NBKR, NBKR calculations

Implementation of the first scenario may result in an increase in the share of non-performing loans in the loan portfolio of NBFCOs by 8.3 p.p., to the level of 13.3 percent. In the case of the second scenario, non-performing loans may increase by 12.5 p.p., to the level of 17.5 percent, and in the implementation of the third scenario – by 16.7 p.p. and may reach the level of 21.7 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,**  
percent



Source: NBKR

In order to assess the impact of macroeconomic shock on the dynamics of the NBFCOs non-performing loans share the following scenario was considered:

- Reducing the rate of GDP growth by 10 percent.

An increase in the share of non-performing loans in the loan portfolio by 0.7 p.p., up to the level of 5.7 percent may occur in the process of this scenario implementation.

## IV. PAYMENT SYSTEMS

*In the reporting period, adopted set of measures aimed at minimizing financial and operational risks in the significant payment systems, ensuring uninterrupted operation of the system by monitoring the operation of the payment infrastructure, allowed to minimize the impact of risks on the stability of the financial sector.*

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

As of December 31, 2017, the following components of the payment system were operating in the Kyrgyz Republic:

1. Large Value Payment System of the National Bank – Real Time Gross Settlement (RTGS);
2. Systems of Retail Payments: the System of Batch Clearing of Small Retail and Regular Payments (SBC), Systems of Payment Cards Settlement, Money Transfer Systems;
3. Financial Messages Routing Infrastructure (SWIFT Multi-User Node, Inter-bank Communication Network).

In the reporting period, systemically important, significant and the national payment systems were identified in the territory of the Kyrgyz Republic in accordance with the established criteria, and the functioning national settlement system with Elcart payment cards was assessed for compliance with the international standards.

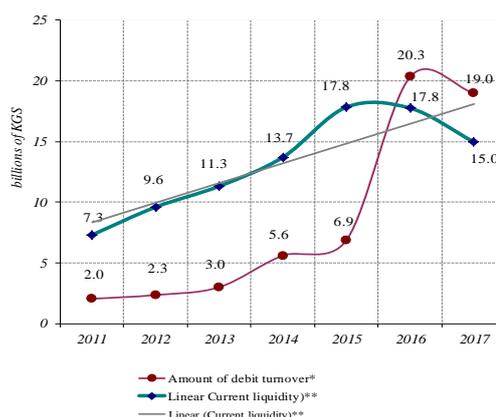
During 2017, the RTGS and the SBC were recognized as the systemically significant systems of the Kyrgyz Republic.

The RTGS functioned normally in the reporting period.

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 0.8 and the turnover ratio was 1.3). Average daily volume of liquid assets of participants showed decrease by 15.7 percent (compared to 2016) and amounted to KGS 15.0 billion (Chart 4.1).

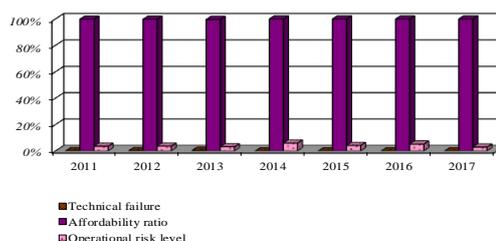
During 2017, the RTGS affordability ratio remained high and constituted 100.0 percent; meanwhile, the level of operational risk, taking into account prolongation of the transaction day, was 2.9 percent (Chart 4.2).

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



Source: NBKR calculations

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



	2010	2011	2012	2013	2014	2015	2016	2017
Technical failure	0.2%	0.1%	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%
Affordability ratio	99.8%	99.9%	99.8%	99.6%	100.0%	100.0%	100.0%	100.0%
Operational risk level	2.3%	3.6%	3.6%	3.1%	5.9%	4.1%	5.2%	2.9%

Source: NBKR calculations

In functioning of the **SBC** the level of financial risks in the reporting period was also low. Reserves exhibited by the participants to cover a debit net position were 4 times higher than the required level. During the reporting period, the system affordability index remained high and constituted 99.8 percent (in 2016 – 99.7 percent), meanwhile, operational risk level was 6.2 percent (Chart 4.3).

#### Systems of Bank Payment Cards Settlements.

As of January 1, 2018, five international payment card systems and one national system “ElCart” operated in the Kyrgyz Republic.

The commercial banks offer various additional banking services using payment cards. However, due to a number of reasons (low level of financial literacy of the population, weak marketing activities of the banks, inadequate stimulation and informing of their customers about offered services and banking products using payment cards, insufficient provision of peripheral devices in the regions, low payback of infrastructure) low level of penetration of the bank payment cards is still observed in the republic.

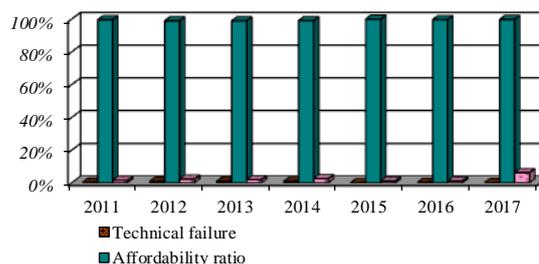
Meanwhile, there is an upward positive trend in the number of issued payment cards. Thus, as of January 1, 2018, the total number of payment cards in circulation increased by 22.8 percent compared to the same period of 2017 and amounted to 1,984.2 thousand units.

In 2017, the payment system “Elcart” was recognized as the national system with which 24 commercial banks worked.

According to the results of monitoring and analysis of operations, the system affordability index of the national system “Elcart” constituted 99.1 percent, and the level of operational risks in the system constituted 0.9 percent (Chart 4.4).

During 2017, receipt and transfer of international remittances without opening an account in the commercial banks was carried out by means of 14 **international money transfer systems** (Table 4.1.).

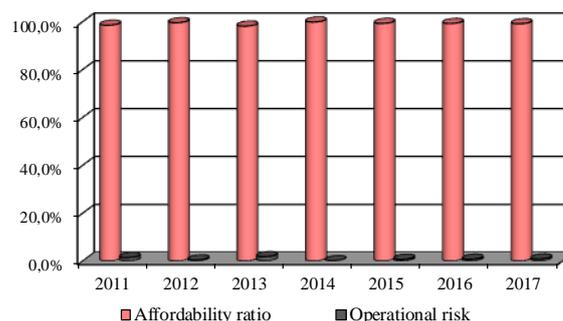
**Chart 4.3. Ratio of Affordability Index and Operational Risks in the SBC**  
percent



	2010	2011	2012	2013	2014	2015	2016	2017
Technical failure	0,8%	0,4%	1,0%	1,0%	0,9%	0,0%	0,3%	0,2%
Affordability ratio	99,2%	99,6%	99,0%	99,0%	99,1%	100,0%	99,7%	99,8%
Operational risk level	2,0%	1,5%	2,3%	2,0%	2,6%	1,2%	1,2%	6,2%

Source: NBKR calculations

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



	2010	2011	2012	2013	2014	2015	2016	2017
Affordability ratio	99,7%	98,5%	99,6%	98,2%	99,9%	99,3%	99,2%	99,1%
Operational risk	0,3%	1,5%	0,4%	1,8%	0,1%	0,7%	0,8%	0,9%

Source: NBKR calculations

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

percent

Money transfer system	Incoming		Outgoing	
	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	73.8	68.0	86.6	80.8
Unistream	15.1	20.4	4.5	10.6
Western Union	4.7	4.8	4.7	3.9
CONTACT	2.8	3.3	1.8	1.2
Money Gram	1.2	1.7	1.1	1.2
Other	2.4	1.8	1.3	2.4
Total	100.0	100.0	100.0	100.0

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

In the reporting period, the banks used six channels of the financial messages exchange for transfer and receipt of **cross-border payments/remittances**. However, the main flow of financial messages accounted for SWIFT telecommunication network (the average value of incoming and outgoing payments made 93.3 percent of the total number and 97.3 percent of the total volume of payments).

The results of monitoring over the functioning of the Kyrgyz Republic payment system show that during 2017 all significant payment systems and payment infrastructure functioned normally and did not cause any systemic risk for the financial system of the Kyrgyz Republic.

## V. IMPROVEMENT OF THE FINANCIAL SECTOR REGULATION

*In the reporting period, improvement of the regulatory and legal framework regulating financial-credit organizations' activities, as well as the financial-credit organizations carrying out operations in accordance with the Islamic principles of the banking and financing, was mainly focused on bringing the normative and legal acts of the National Bank of the Kyrgyz Republic in line with the new laws of the Kyrgyz Republic "On the National Bank of the Kyrgyz Republic, banks and banking activity" and "On bringing into force the Law of the Kyrgyz Republic "On the National Bank of the Kyrgyz Republic, banks and banking activity".*

### 1. Licensing of Banks and NBFCOs Activities

In order to establish the requirements for the minimum amount of the authorized and equity (regulatory) capital of the commercial banks, taking into account the norms of banking legislation, the Board of the National Bank of the Kyrgyz Republic approved the Resolution "On the minimum amount of the authorized and equity (regulatory) capital of the commercial banks" No. 2017-R-12/23-3-(NLA) dated June 8, 2017. The requirements for the terms and amount of formation of the minimum authorized and equity capital of the operating banks (including branches of non-resident banks) are established according to this resolution.

A new version of the Regulation "On licensing banks activities" was approved by the Resolution of the Board of the National Bank No. 2017-R-12/23-1-(NLA) dated June 8, 2017 to update the requirements governing the licensing of commercial banks.

The terms "impeccable business reputation" and "fiduciary duties of officials" were introduced according to the new version of the Regulation "On licensing banks activities". The requirements for establishment of a bank, the founders, the members of the Board of Directors and other bank officials have been revised. The requirements for technical strengthening for the field cash offices of the commercial banks are excluded, which will increase the population's access to banking services in the future.

The Regulation "On the procedure of providing the branch with the funds used as capital by the foreign bank" was approved by the Resolution of the Board of the National Bank of the Kyrgyz Republic No. 2017-R-12/23-2-(NLA) dated June 8, 2017, this Regulation establishes the requirements for the procedure of establishing a branch by the foreign banks in the territory of the Kyrgyz Republic, the restrictions were imposed on inclusion of funds used as the capital for the branch, as well as on calculating the liquidity prudential standard.

The amendments and addenda were approved in the number of normative legal acts of the National Bank by the Resolutions of the Board of the National Bank No. 19/14 dated May 17, 2017 and No. 2017-R-12/25-11-(NLA) dated June 15, 2017 in order to bring them in compliance with the Law "On the basics of administrative activities and administrative procedures". These amendments related to licensing the activities of the non-banking financial-credit organizations with regard to introduction of uniform terminology, registration of the administrative acts adopted by the National Bank, as well as the possibility and time frames of the appeals against the decisions taken by the National Bank.

The Board of the National Bank of the Kyrgyz Republic approved the Resolution "On the amount of fees and charges for the licenses issued by the National Bank of the Kyrgyz Republic" No. 2017-R-12/23-4-(NLA) dated June 8, 2017, the purpose of this Resolution is to establish the rules regulating the requirements to payment for licenses issued by the National Bank of the Kyrgyz Republic".

### 2. Corporate Governance System

#### *Corporate Governance*

A new version of the Regulation "On corporate governance in the commercial banks of the Kyrgyz Republic" was approved by the Resolution of the Board of the National Bank No. 19/12 dated May 17, 2017. This document establishes the requirements for creation and implementation of activities by the mandatory

committees, such as the Risk Management Committee, the Audit Committee, the Appointment and Remuneration Committee and the corporate secretary of the commercial bank.

The purpose of establishing the Risk Management Committee is to assist the Board of Directors of the bank in determining the priority areas of the bank's activities in the field of banking risks and to assist in creating conditions for proper risk management.

The National Bank strengthened the requirements for the activities of the Audit Committee, according to which the Committee shall consist of at least three members of the Board of Directors of the bank. Two of three members of the Board of Directors shall be independent members. Meanwhile, one independent member of the Board of Directors of the bank, who does not head the Risk Committee, must be the chairman of the Audit Committee.

The Appointment and Remuneration Committee is created in the bank irrespective of the types of activities to improve the efficiency of the Board of Directors of the bank and to optimize the decisions made. The Committee's activities shall be focused on strengthening control over the appointments and remuneration of the Board's members, managers and employees of the internal audit, risk management and compliance control services, as well as the key employees identified by the bank.

### ***Internal Control and Audit System***

The Rules for formation of the internal control and internal audit system in the banks and non-banking financial-credit organizations licensed and regulated by the National Bank of the Kyrgyz Republic were approved by the Resolution of the Board of the National Bank No. 2017-R-12/25-3-(NLA) dated June 15, 2017 to improve the effectiveness of the internal control system.

The rules establish the requirements for compliance with the rules for formation of the internal control system in the bank that ensures effective control by the Board of Directors, the bank's Board over the activities of the bank and its financial condition. Such control is carried out through the risk management, compliance and internal audit services.

These services provide the supervisory board and top management with objective information about the quality and effectiveness of the bank's internal control, risk management, administration system, assisting the supervisory board and top management in supporting the bank's proper operation and its reputation.

### ***External Audit***

The Regulation "On minimum requirements for the external audit of the banks and other non-banking financial-credit organizations licensed by the National Bank of the Kyrgyz Republic" was approved by the Resolution of the Board of the National Bank No. 2017-R-12/25-2-(NLA) dated June 15, 2017 as part of improving the requirements for external audit of the banks.

This regulatory legal act establishes the norms for effective organization of the bank's activities in attracting the services of audit organizations, introducing generally accepted procedures for their selection, ensuring that the bank's auditors retain their independence when providing audit services and preventing conflicts of interest. The external auditor shall be independent of the bank, which means the ability to act independently, regardless of someone else's influence on the results of the audit report, conclusions, and in circumstances that exclude any outside impact on the expression of the external auditor's opinion.

An external auditor is obliged to provide any information related to the audit at the request of the National Bank. According to the banking legislation, provision of such information shall not be considered disclosure of confidential information during an external audit.

Moreover, the standards for the external auditor are established to assessment of the internal control system of the bank. In the course of studying audit-relevant controls, an external auditor analyzes their structure and, through additional procedures, determines whether these controls are implemented in practice or not.

### **3. Bank Risks Management**

A new version of the Regulation “On minimum requirements for risk management in the banks of the Kyrgyz Republic” was adopted by the Resolution of the Board No. 2017-R-12/25-8-(NLA) dated June 15, 2017, this Regulation provides for such new terms as risk-compliance and compliance-controller, concentration risk and risk of legalization (laundering) of criminal proceeds and financing of terrorist or extremist activities.

#### ***Classification of Assets and Related Allocations to the LLP***

The term “refinanced assets” was introduced and the term “rescheduled assets” was revised in the Regulation “On asset classification and related allocations for loan loss provision” according to the Resolution of the Board of the National Bank No.6/4 dated February 22, 2017 to apply the best international practice and introduce an adequate classification of the bank assets. Moreover, the amount of loan loss provision extended by the banks in foreign currency were reduced in the event of a reduction in the interest rates on them, and the requirements for assets classification in terms of the application of classification categories depending of the terms of arrears were relaxed.

#### ***Requirements for Bank Operations with Affiliated and Bank Related Entities***

Norms on risk reduction in carrying out the operations/transactions with affiliated and bank-related entities on extending loans and/or raising funds on more favorable terms, as well as on preventing the similar operations/transactions with such entities were approved in the new version of the Instruction “On requirements for the bank’s operations with affiliated and bank-related entities” by the Resolution of the Board of the National Bank No. 21/5 dated May 31, 2017. The threshold sizes of operations/transactions, which require the approval of the bank’s Board of Directors or the general meeting of shareholders, have been changed according to this Instruction. A requirement was also established for the banks to maintain a register of the bank-related entities.

Similar amendments were adopted in the new version of the Instruction “On requirements for operations of microfinance companies attracting deposits with affiliated and microfinance company-related entities” approved by the Resolution of the Board of the National Bank No. 2017-R-12/25-6-(NLA) dated June 15, 2017.

#### ***Establishment of Criteria for the Banks and NBFCOs Systemic Nature***

The Regulation “On criteria for systemic nature of the commercial banks and non-banking financial and credit organizations”, which aims at implementing adequate banking supervision, preventing negative changes in the banking system, protecting the interests of depositors and creditors, determining approaches and criteria of the commercial banks’ system significance, was approved by the Resolution of the Board of the National Bank on June 8, 2017.

#### ***Development of the Precious Metals Market***

Amendments and addenda were introduced into some regulatory legal acts of the National Bank by the Resolution of the Board of the National Bank No. 2017-R-12/23-10-(NLA) dated June 8, 2017 to develop the precious metals market and manage risks in carrying out transactions with precious metals. The amendments and addenda established the requirements to arrangement of internal control over the transactions with precious metals and the limits of the open position in precious metals for the banks engaged in the transactions with precious metals.

The amendments and addenda also provide an opportunity for the commercial banks to operate with metal accounts.

### **Requirements for Work with Bank Accounts and Safes**

Amendments and addenda, aimed at simplifying the implementation of settlements and payments using loans extended for the purpose of conducting and developing agriculture were introduced into the Instruction on operation of the bank accounts and the accounts on bank deposits by the Resolution of the Board of the National Bank No. 19/10 dated May 17, 2017. Moreover, new terms such as “non-cash settlement”, “deposit agreement under other repayment terms” and “special accounts” were introduced, and a list of documents confirming the identity of bank customers was revised.

## **4. Applying Enforcement Actions to Banks and Some Other NBFCOs**

The normative legal acts regulating application of the enforcement actions to the banks, non-banking financial-credit organizations and other legal entities licensed by the National Bank in accordance with the legislation were improved by the Resolutions of the National Bank No. 21/7, No. 21/8 and No. 2017-R-12/25-4-(NLA) dated May 31, 2017.

Thus, the list of enforcement actions was updated; it was brought in compliance with the norms of the banking legislation. Also, the penalties applied to the banks, microfinance organizations and their officials were increased.

A new version of the Regulation “On pre-judicial settlement of disputes between the National Bank of the Kyrgyz Republic and the commercial banks, organizations carrying out certain types of banking operations and their founders (participants), legal entities and individuals” was approved by the Resolution of the Board of the National Bank No. 19/13 dated May 17, 2017 to simplify the procedure for appealing against the decisions of the National Bank.

The forms of special regimes were revised and new documents were approved to ensure the stability of the banking system and the safety of the bank assets in case of occurrence of the signs of problems in the banks’ activities.

Thus, a new normative legal act - the Regulation “On provisional administration” was adopted by the Resolution of the Board of the National Bank No. 2017-R-12/23-8-(NLA) dated June 8, 2017. The regime of the provisional administration clearly regulates the actions of the provisional administrator and excludes duplication of functions of the previous regimes of temporary management and conservation.

The National Bank shall be entitled to introduce provisional administration in the bank to establish control over the bank, to ensure the security of assets, documents and information; to establish the real state of affairs in the bank and determine its future activities; to protect the rights and legitimate interests of depositors and other creditors of the bank, to ensure stability and security of the banking system of the Kyrgyz Republic.

The Regulation “On banks liquidation” was adopted by the Resolution of the Board of the National Bank No. 2017-R-12/23-5-(NLA) dated June 8, 2017. Systematization of the normative legal acts with regard to the procedure for voluntary and compulsory liquidation of the banks, establishment of qualification requirements for the bank liquidators and the rules for maintaining the accounting records of a liquidated bank, the procedure for reporting by a bank liquidator and establishment of the rights and obligations for a liquidator by adopting a single regulatory legal act governing this issue, as well as the elimination of conflicts in the current normative legal acts is the main reason for adoption of this normative legal act.

## **5. Islamic Principles of Finance**

A number of regulatory legal acts were amended to regulate the activities of the financial-credit organizations carrying out operations in accordance with the Islamic principles of banking and finance, as well as to bring them in line with the banking legislation.

Thus, displaced commercial risk specific for the Islamic banks was among the key addenda introduced in the Regulation “On minimum requirements for risk management in the banks carrying out operations in accordance with the Islamic principles of banking and finance” by the Resolution of the Board of the National

Bank No. 21/10 dated May 31, 2017. The bank may waive its rights for a part or all of the profits attributable under the mudaraba contract to satisfy and preserve the sources of financing.

The Regulation “On corporate governance in the banks of the Kyrgyz Republic carrying out operations in accordance with the Islamic principles of banking and finance” was amended by the aforementioned Resolution. Establishment of the right of a bank with an “Islamic window” to approve the regulation governing the activities of the Shariah Council by the bank’s Board of Directors, if the share of the bank’s assets does not exceed 50 percent of the balance currency, was among aforementioned amendments.

A new version of the Regulation “On requirements for formation of the financial statements of the commercial banks carrying out operations in accordance with the Islamic principles of banking and finance” was approved by the Resolution of the Board of the National Bank No. 21/13 dated May 31, 2017. According to the requirements, the Islamic banks must prepare consolidated financial statements, which include information about its subsidiaries, affiliates and related companies. A report on the sources of the formation and use of qard funds shall be also provided as part of the financial statements.

Periodic regulatory reporting of the financial-credit organizations was amended by the Resolution of the Board of the National Bank No. 2017-R-12/51-13-(NLA) dated December 13, 2017 to improve the regulation of the activities implemented by the financial-credit organizations that provide services in accordance with the Islamic principles of banking and finance. According to the adopted amendments, the financial-credit organizations shall reflect information on the full value of the banking products provided in accordance with the Islamic principles of banking and finance. Moreover, a requirement to separate information on financing and loans, as well as the average weighted percentage value of markup/income and weighted average interest rates as part of the regulatory reporting was established for the financial-credit organizations that have an “Islamic window”.

## GLOSSARY AND ABBREVIATIONS

A *bank deposit* is the amount of money, accepted by a financial and credit institution 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.

*Deposit institutions* are financial corporations, except the central bank, the main activity of which is to accept deposits and subsequently place these funds on their behalf.

*Household* is an individual or a group of individuals who live together, run a joint household, combine all or part of their income and property and who consume certain types of goods and services (mainly, housing and food). Households may exercise any economic activity, including the production.

*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.

*Duration* is the weighted average term to maturity of the instrument. It can be used as a measure of the sensitivity of the cost of financial assets to interest rate changes, but not as maturity as such.

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

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

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

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

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

*Living wage* is the valuation of the minimum set of benefits and services that are equal to the value of the minimum consumer basket, necessary for the preservation of human life and his/her health, and the amount of required payments and fees.

*Disposable income* is income that goes to private consumption and is free from tax. Personal disposable income is the difference between personal income and the amount of taxes or, appropriately, is the sum of consumption and the amount of savings.

A *real interest rate* is the nominal interest rate adjusted for inflation.

A *securities market* is organized exchanges and structures such as 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.

A *financial market* is defined as a market in which economic actors sell and purchase financial claims in accordance with the established rules of behavior of participants.

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

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  
FCI – Financial-Credit Institution  
FRS – Federal Reserve System  
GDP – Gross Domestic Product  
GS – Government Securities  
HUS – Housing and Utilities Sector  
IMF – International Monetary Fund  
KR – Kyrgyz Republic  
KSE – Kyrgyz Stock Exchange  
LLP – Loan Loss Provisions  
LSF – large sources of financing  
LTV (Loan-to-Value Ratio) – ratio of the volume of issued loans to the value of collateral  
MCC – Microcredit Company  
MFC – Microfinance Company  
MF KR – Ministry of Finance of the Kyrgyz Republic  
MFO – Microfinance Organization  
MY – Marketing Year  
NBFCOs – Non-banking Financial-Credit Organizations  
NLA – Normative Legal Act  
NBKR – National Bank of the Kyrgyz Republic  
NBRK – National Bank of the Republic of Kazakhstan  
NGS – Non-Government Securities  
NSC KR – National Statistical Committee of the Kyrgyz Republic  
NTC – Net Total Capital  
OJSC – Open Joint-Stock Company  
OECD – Organization for Economic Cooperation and Development  
p.p. – percentage points  
PRBR – Periodic Regulatory Bank Reporting  
R – Resolution  
RF – Russian Federation  
RK – Republic of Kazakhstan  
RTGS – Real Time Gross Settlement  
S – Securities  
SBC – System of Batch Clearing  
SRS GKR – State Registration Service under the Government of the Kyrgyz Republic  
ST-Bills – State Treasury Bills  
ST-Bonds – State Treasury Bonds  
USA – United States of America