

## National Bank of the Kyrgyz Republic

# THE FINANCIAL SECTOR STABILITY REPORT OF THE KYRGYZ REPUBLIC

December 2015

**Bishkek** 

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This publication is released 2 times a year – in June and December. It is published in three languages: Kyrgyz, Russian and English.

### Other Publications of the National Bank of the Kyrgyz Republic

#### Annual Report of the National Bank of the Kyrgyz Republic

This document is an overall report of the National Bank of Kyrgyz Republic (NBKR) for the last year. It contains summary on economic development of the republic and monetary policy, as well as the National Bank financial statements, general information about the NBKR, statistical annexes. It is published in three languages: Kyrgyz, Russian and English.

#### Bulletin of the National Bank of the Kyrgyz Republic

This monthly informational publication includes statistical data on the basic macroeconomic indicators and economy sectors of the Kyrgyz Republic. It is published in three languages: Kyrgyz, Russian and English.

#### Balance of Payments of the Kyrgyz Republic

"The Balance of Payments of the Kyrgyz Republic" reflects development trend of the external sector and information about the balance of payment, foreign trade, international reserves, foreign debt and the international investment position of the Kyrgyz Republic. It is published quarterly in January, May, July and October in Kyrgyz, Russian and English.

#### Monetary Policy Report (Inflation Report in the Kyrgyz Republic)

The purpose of this publication is to provide the public at large with regular information about the main directions of monetary policy. This publication contains analysis of environment and macroeconomic situation development in the country, information about dynamics and inflation factors, inflation forecasts, development of real and external sectors of economy in the Kyrgyz Republic and in the countries-major trading partners.

#### Press-Release of the National Bank of the Kyrgyz Republic

"Press-release of the National Bank" describes current events related to the NBKR and the banking system, the major data on the financial market per a week and other information for mass media, legal entities and individuals. It is published weekly in Kyrgyz and Russian languages.

#### Statutory Acts of the National Bank of the Kyrgyz Republic

The purpose of the document is to publish statutory acts of the National Bank officially in order to provide commercial banks and public with statutory acts and official information on the National Bank activity, as well as propaganda of the Kyrgyz Republic banking legislation. Presumable publication frequency is once a month in Kyrgyz and Russian languages.

## Content

Preamble	5
Major Conclusions	7
I. Macroeconomic and Financial Environment	8
1.1. Macroeconomic Conditions and Risks	8
1.2. Structure of the Financial Sector	12
1.3. Status of the Financial Markets	14
1.3.1. Status of the Currency and Money Market	14
1.3.2. Status of the Securities Market	15
1.4. Real Estate Market	15
II. Banking Sector	21
2.1. Major Trends	21
2.2. Banking Sector Risks	27
2.2.1. Credit Risk	27
2.2.2. Liquidity Risk	33
2.2.3. Risk of Concentration	37
2.2.4. Currency Risk	37
2.2.5. Interest Rate Risk	39
2.2.6. Risk of "Contagion"	39
2.2.7. Country Risk	40
2.3. "Reverse" Stress Testing of the Banking Sector	42
2.3.1. "Reverse" Stress Testing of Credit Risk	42
2.3.2. "Reverse" Stress Testing of the Market Risk	43
2.3.3. "Reverse" Stress Testing of the Liquidity Risk	43
III. Non-bank Financial Institutions	45
3.1. Main Trends	45
3.2. Risks of Non-bank Financial Institutions	48
3.3. Stress Testing of the NBFIs System	51
IV. Payment Systems	53
V. Improvement of the Regulation over the Financial Sector	56
Financial Soundness Indicators of the Kyrgyz Republic	58
Glossary and Abbreviations	59

#### **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 uninterrupted operation 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 main directions of the NBKR monetary policy, banking regulation and development of the strategy for financial and credit institutions 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 issues of financial stability.

## **List of Boxes**

Box 1. Housing Affordability Index	18
Box 2. Stress Testing of Impact from Change in Prices in the Real Estate Market on the Banking Sector	19
Box 3. Results of the Survey of the Clients of Commercial Banks	32
Box 4. Assessment of "Irreducible" (Stable) Level of Demand Deposits during the Period of 2010 – first half of 2015 ("Irreducible" Balance of Deposits)	
Box 5. Credit Risk Through Indirect Currency Risk	38
Box 6. Assessment of NBFIs System Activity on the Basis of Concentration Indices	49
Box 7. Overview of Interest Rates, Net Cost and Profitability of the NBFIs Loans	50

#### **MAJOR CONCLUSIONS**

At the end of the first half of 2015, the results of macro prudential analysis, econometric modeling, as well as direct and "reverse" stress tests indicate that the financial sector of the Kyrgyz Republic is evaluated as sustainable and the financial strength is sufficient to withstand certain macroeconomic shocks.

Stable economic growth was observed during the first half of 2015 on the background of weak diversification and dependence of the Kyrgyz Republic economy on external factors. Virtually the entire growth was due to the positive contribution of all major sectors of economy: industry, services, construction and agriculture. Country risk still remains moderate for the banking sector. At the end of the first half of 2015, an increase was observed in the share of placed banks assets of non-residents (from 11.0 percent to 13.2 percent) and obligations to non-residents (from 15.9 percent to 22.8 percent) due to a growth in the share of foreign borrowings from OECD countries as compared to the same period of 2014.

Risks associated with deterioration of the macroeconomic environment in the countries - major trading partners can affect the banking sector of the Kyrgyz Republic indirectly through a potential deterioration of the macroeconomic environment in the Kyrgyz Republic and, it is likely to result in worsening financial condition of the banks clients in the Kyrgyz Republic related to foreign economic activity.

Despite volatility of the national currency exchange rate in the reporting period, the banking sector of the Kyrgyz Republic was still resistant to macroeconomic shocks. Results of macro-prudential analysis indicate that weakening of the national currency, besides change in the level of dollarization, did not affect significantly the sustainability of the banking sector in the Kyrgyz Republic. At the same time, conducted stress tests indicate that some banks have become more vulnerable to indirect exchange rate risk due to the possible insolvency of borrowers to service loans in foreign currency. Longlasting current trend can further result in increased risks.

**Decline in stocks of financial strength of the banking sector in the Kyrgyz Republic is still observed on the background of active growth of lending to the economy.** The results of financial modeling and "reverse" stress tests indicate a slight decline in stocks of financial strength at the end of the first half of 2015 compared to 2014 due to growth of lending to the economy and increase of risks in the banking sector of the Kyrgyz Republic.

#### Slowdown of increase in prices for real estate was observed in the real estate market.

The results of stress tests carried out in the commercial banks indicate that the banking sector of the Kyrgyz Republic is likely to suffer losses in case of decline in prices for real estate by more than 27 percent. Potentially, large banks can sustain losses in case of decrease in prices for real estate by more than 32 percent.

At the end of the first half of 2015, the payments systems of the Kyrgyz Republic operated **normally**, the level of system risks in the financial infrastructure was assessed as moderate.

#### I. MACROECONOMIC AND FINANCIAL ENVIRONMENT

#### 1.1. Macroeconomic Conditions and Risks

Taking into account inflation risks observed at the beginning of 2015, the National Bank carried out corresponding monetary policy focused on restriction of inflation monetary component and decrease of pressure on the exchange rate.

Macroeconomic risks are still observed in the country despite positive economic growth in the first half of 2015. Slowdown of business activity in the countries – major trading partners, weak diversification of economy and dependence on the economy on external macroeconomic environment are the main restraining factors.

#### **Gross Domestic Product**

During the first half of 2015, stable economic growth was due to increase in production output at gold deposit "Kumtor". At the end of January-June 2015, GDP¹ growth made 7.3 percent (excluding companies for the development of gold deposit "Kumtor", GDP increased by 4.4 percent). Meanwhile, in January-June 2014, GDP growth made 4.1 percent (excluding companies on the development of gold deposit "Kumtor", GDP increased by 3.5 percent). In the first half of 2015, GDP growth was supported by positive contribution of all main sectors of economy: industry (3.8 p.p.), services (1.5 p.p.), construction (0.7 p.p.) and agriculture (0.2 p.p.).

Growth in the volumes of industrial output in January-June 2015 by 24.1 percent against the same period of 2014 was primarily due to significant increase in production output at the enterprises on development of gold deposit "Kumtor" (by 50.2 percent). Increase of production output in the mining sector (by 104.3 percent) due to growth in metal ores mining (by 10.6 times). Moreover, decrease by 6.8 percent was observed in the sector of provision (supply) of electric energy, gas, steam and conditioned air due to reduction in electric energy generation by 10.5 percent. Significant decrease was observed in textile manufacture, production of clothing and footwear, manufacture of leather and leather products (-39.2 percent), production of chemical products (-52.0 percent).

In the first half of 2015, increase in agriculture made 2.4 percent, which is generally resulted from growth in animal production by 2.0 percent and initiation of crops harvesting.

Growth in the sector of construction made 11.2 percent, due to increase of investments in fixed capital by 6.8 percent. Growth of construction was due to increase in the volumes of performed construction contract and other capital works and expenses, overhaul and current repairs of buildings and structures.

In the sphere of services, increase was at the level of 2.8 percent due to growth in the sector of information and communication – by 5.1 percent, trade – by 4.6 percent and transport – by 4.1 percent.

<sup>&</sup>lt;sup>1</sup> Preliminary data.

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

			January	-June		
-		2014			2015	
	Share, percent	Growth ( rate, percent	Contribution in growth, <i>perc. points</i>	Share, percent	Growth rate, percent	Contribution in growth, perc. points
GDP	100.0	4.1	4.1	100.0	7.3	7.3
Agriculture, forestry and fishery	10.4	-0.2	-0.02	9.5	2.4	0.2
Industry	15.7	7.6	1.4	19.1	24.1	3.8
Mining	0.6	-3.8	-0.03	0.9	104.3	0.6
Processing sectors (Processing industry)	12.7	7.6	1.1	15.4	26.1	3.3
Provision (supply) of electric energy, gas, steam and conditioned air	2.2	11.1	0.25	2.5	-6.8	-0.1
Water supply, waste treatment and processing, receipt of recyclable materials	0.3	8.0	0.03	0.3	7.2	0.02
Construction	6.2	22.0	1.1	6.4	11.2	0.7
Services	52.6	1.9	1.0	51.3	2.8	1.5
Wholesale and retail trade; repair of cars and	4.5		0.7	1.0		0.0
motor-cycles	16.5	4.4	0.7	16.3	4.6	0.8
Transportation activity and storage of cargo	4.8	-0.3	-0.01	4.8	4.1	0.2
Information and communication	5.2	3.9	0.2	4.9	5.1	0.3
Activity of hotels and restaurants	1.5	5.5	0.1	1.5	6.0	0.1
Financial intermediation and insurance	0.5	-1.2	-0.01	0.5	0.7	0.004
Operations with real estate	2.7	-1.7	-0.05	2.6	0.2	0.01
Professional. scientific and technical activity	1.9	0.2	0.004	2.3	-0.01	-0.0002
Administrative and auxiliary activity	0.5	4.0	0.02	0.4	-1.0	-0.01
State administration and defence; obligatory						
social security	6.6	-2.5	-0.1	6.6	-0.2	-0.01
Education	6.6	1.7	0.12	6.2	1.3	0.1
Healthcare and social servicing of population	3.6	0.8	0.03	3.2	1.2	0.04
Art, entertainment and rest	0.8	3.0	0.02	0.8	1.4	0.01
Other servicing activity	1.2	-0.7	-0.01	1.1	1.0	0.01
Net (exclusive of subsidies) taxes on products	15.1	4.1	0.6	13.7	7.3	1.1

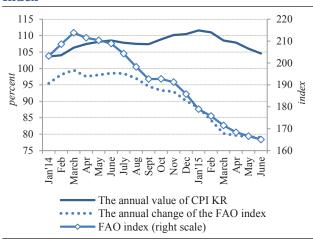
Source: NSC KR

Despite positive rates of GDP growth, this dynamics is unstable as it is based on operation of one enterprise. Moreover, growth in other sectors of economy during the first half year has not contributed significantly to such dynamics.

#### **Inflation**

Decrease of inflation pressure was observed in Kyrgyzstan during the first half year of 2015. At the beginning of the year, inflation rate was formed on the basis of raising tariffs for electric energy (the NSC KR adjusted the parameters of consumer goods basket based on the tariffs for electric energy) and increase in prices for alcoholic beverages and paid services. Preservation of the downward trend in world prices for food products and commodities, stabilization of price for imported wheat, together with the monetary policy conducted by the National Bank resulted in further easing of inflation development in the country. According to the NSC KR, at the end of June of 2015 annual inflation rate constituted 4.5 percent, meanwhile, at the beginning of the current year, annual inflation rate made 11.6 percent (the comparable indicator in 2014 made 8.5 percent). Meanwhile, in June, the annual core inflation rate was formed at the level of 7.0 percent, having decreased from 10.5 percent at the beginning of the current year.

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



Source: NSC KR, www.fao.org

During the first half of 2015, downward trend of the world prices for main food products was primarily driven by a record harvest gathered in 2014-2015 marketing season, and availability of significant carryover storage at the beginning of this year, which resulted in increased supply in the world. An additional factor in reduction of prices for food products was USD strengthening, which resulted in slight decrease of demand for imported goods from consumer countries. The average value of FAO Food Price Index, reflecting changing trend in the world prices, in the first half of 2015, made 171.0 points, having decreased by 18.3 percent against the value of 2014. The gap between FAO index and domestic inflation is primarily conditioned by the impact of decreased domestic

production output in the agricultural sector of the republic on the domestic prices at the end of 2014 due to adverse climatic conditions.

#### State Budget

According to the preliminary data of the Central Treasury of the Ministry of Finance of the Kyrgyz Republic, at the end of the first half of 2015, the state budget was executed with proficit of KGS 4.7 billion or 2.7 percent to GDP, meanwhile, at the end of the first half of 2014, the budget was executed with deficit of KGS 2.3 billion or 0.2 percent to GDP. Total financing of the budget deficit was carried out primarily by internal sources in the amount of KGS 9.7 billion (5.6 percent to GDP), by external sources – in the amount of KGS 0.3 billion.

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

	Jan-June 2015		Jan-Jun	e 2014
	billions of KGS	% to GDP	billions of KGS	% to GDP
Total incomes (including sales of non-financial assets)	59.9	34.7	49.2	34.4
including incomes from operational activity	59.9	34.7	49.2	34.4
sale of non-financial assets	0.0	0.0	0.0	0.0
Total expenditures (including purchase of non- financial assets)	55.2	32.0	51.5	34.6
including expenditures for operational activity	48.7	28.2	43.8	29.2
purchase of non-financial assets	6.6	3.8	7.7	5.5
Deficit(-) / Proficit (+)	4.7	2.7	-2.3	-0.2
<b>Budget financing</b>	10.1	5.8	9.8	8.4
External financing	0.3	0.2	11.6	3.3
Internal financing	9.7	5.6	-1.7	5.1

Previously used methodologies<sup>2</sup> applied in calculations reflect less significant proficit, which, according to the NBKR estimates, amounted to KGS 3.8 billion or 2.2 percent to GDP (at the end of the first half of 2014, budget proficit in comparable methodology amounted to KGS 10.9 billion or 7.2 percent to GDP).

In the first half of 2015, revenue part of the republican budget was executed by 131.3 percent, it resulted in overfulfillment of the plan primarily for collection of non-tax revenues by 3 times and tax revenues – by 102.6 percent. The plan for collection of non-tax revenues was overfulfilled due to profit of the National Bank of the Kyrgyz Republic and payment for the use of mineral resources with a view to develop Zherui Gold Mine. Meanwhile, the plan for the collection of taxes by the State Tax Service of the Kyrgyz Republic was fulfilled by 105.5 percent, the State Customs Service plan – by 100.0 percent. Financing of the republican budget expenditures was fulfilled by 95.8%.

#### Macroeconomic Risks

Macroeconomic risks related to the external and internal factors are still observed in the country. Slowdown of business activity in the countries - major trading partners, and in some cases the economic decline still has a negative impact on the economic growth of our country, and bears the risks for the stable development of the real sector.

There are assumptions about further reductions in the volume of exports and decline of imports due to change in USD exchange rate within the entry into the Eurasian Economic Union.

At the end of the first half of the year, GDP growth was positive, however, in the second half of the year, it is expected to slow growth mainly due to the situation in the manufacturing industry. According to the last press release<sup>3</sup>, Centerra Gold Company retained its previous forecast for 2015, according to it production output at "Kumtor" gold deposit will be reduced by 17 percent in real terms, which can essentially affect performance of the industrial sector, and GDP as a whole.

In conditions of a high dependence on conjuncture of the world food and commodity markets and insufficient domestic production, the risks to price stability are still observed in the country. In the coming period, the inflation processes in the Kyrgyz Republic will depend on the degree of influence of domestic non-monetary factors (gradual increase of tariffs for public utility services, inflation expectations of the population) and the dynamics of world prices for food products and commodities.

The expansion of the budget deficit, according to the amendments to the Law on budget for 2015, is a prerequisite for possible risks of acceleration in inflation rates and a threat to price stability in the coming period as a result of budget funds uneven spending.

<sup>&</sup>lt;sup>2</sup> According to the recommendations of the Accounting Chamber of the Kyrgyz Republic as a result of the audit of the report on execution of the republican budget for 2012, the Ministry of Finance made amendments to the Programme of State Investments in part of recredited funds which were registered not as expenses from September 2013 but as financial assets and accordingly reflected in the sources of budget deficit coverage (source: Rationale to the draft Decree of the Government of the Kyrgyz Republic "On the draft Law "On amendments to the Law of the Kyrgyz Republic "On the republican budget of the Kyrgyz Republic for 2013 and forecasts for 2014-2015").

<sup>&</sup>lt;sup>3</sup> Centerra Gold Company press release dated November 17, 2015

#### 1.2. Structure of the Financial Sector

Institutional structure of the financial sector in Kyrgyzstan is represented by commercial banks and other financial companies (non-bank financial institutions, insurance companies, investment and pension funds, stock exchanges).

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

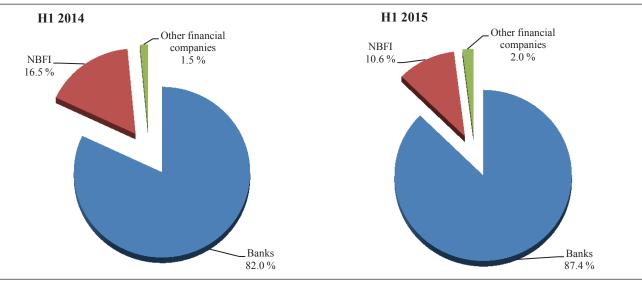
Financial institutions	2012	2013	2014	H1 2014	H1 2015
Commercial banks	23	24	23	24	23
Other financial companies, including:	837	794	689	<b>730</b>	620
Non-bank financial institutions (NBFI), including:	810	<b>765</b>	660	<b>701</b>	<b>591</b>
Microfinancial organizations, including:	320	277	215	230	176
microcredit companies	242	208	154	167	115
microcredit agencies	74	65	56	59	56
microfinancial companies	4	4	5	4	5
"FCCU" OJSC	1	1	1	1	1
Credit unions	183	153	135	143	127
Exchange offices	306	334	309	327	287
Insurance companies	16	18	17	18	17
Investments funds	8	8	9	8	9
Stock exchanges	1	1	1	1	1
Pension funds	2	2	2	2	2

Source: NBKR. NSK KR

As of the end of the first half of 2015, assets of the financial sector constituted KGS 178.8 billion or 46.8 percent to GDP, an increase was KGS 28.8 billion compared to the same period of 2014.

The banking sector's share in the total in the total assets of the financial sector constituted 87.4 percent. The share of NBFI and other financial companies accounted for 10.6 percent and 2.0 percent, respectively (Chart 1.2.1).

 ${\bf Chart~1.2.1.~Institutional~Structure~of~the~Financial~Sector~Assets~of~Kyrgyzstan~} \\ {\it percent}$ 



Source: NBKR

The total loan portfolio of banks and NBFIs in the first half of 2015 increased by 18.3 percent compared to the same period of 2014 and amounted to KGS 103.4 billion or 27.1 percent to GDP. The share of bank loans in the loan portfolio of the financial sector increased by 9.3 p.p. and as of the end of the first half of 2015 constituted 85.8 percent (Chart 1.2.2).

Chart 1.2.2. Structure of the Loan Portfolio

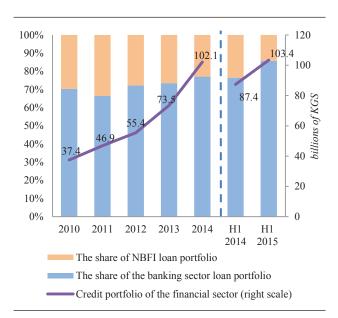
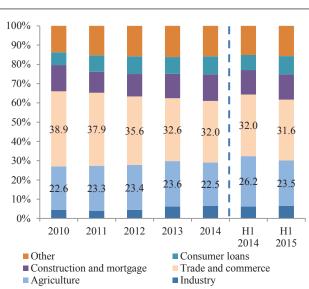


Chart 1.2.3. Sectoral Structure of the Loan Portfolio



Source: NBKR Source: NBKR

The concentration was still observed in the trading industry (banks) and agriculture (NBFI) within the sectoral structure of the loan portfolio of the financial sector. The aggregate share of the loan portfolio of the financial sector in the above-noted sectors of the economy at the end of the first half of 2015 constituted 55.1 percent of total issued loans or KGS 57.0 billion (Chart 1.2.3).

#### 1.3. Status of the Financial Markets

In the reviewed period, the situation in the domestic foreign exchange market was still characterized by increased pressure on the exchange rate. The national currency devaluated in nominal terms against deterioration of the geopolitical situation in the region, namely continuation of the embargo between Russia and Western countries.

The NBKR still carried out foreign exchange market interventions on sale and purchase of foreign currency in order to smooth out sharp fluctuation of the exchange rate.

The market of interbank borrowings was characterized by increase in the activity of its participants with simultaneous increase of an average weighted interest rate on repo operations. The rates in the market of the state treasury bills and bonds demonstrated upward trend.

#### 1.3.1. Status of the Currency and Money Market

#### Currency Market

In the first half of 2015, the currency market of the country was characterized by slight volatility, including the US dollar exchange rate. Dynamics of the foreign currency exchange rate in the domestic market of the Kyrgyz Republic was conditioned by the impact of fundamental factors – strengthening of the US dollar in the world due to recovery of the American economy and policy conducted by the US FRS on the one hand; increased volatility of the Russian ruble due to aggravation of geopolitical situation in the region, on the other hand. The official exchange rate of the US dollar increased since the beginning of the year by 5.4 percent, from KGS 58.8865 to 62.0788/USD 1 as of the end of the reviewed period.

In the reporting period, the effect of external shocks and speculative pressure was regulated by foreign exchange market interventions and other measures of the NBKR, which were focused on smoothing sharp fluctuations of the national currency exchange rate. The National Bank carried out foreign exchange market interventions on sale (to the amount of USD 179.1 million) and purchase of the US dollars (to the amount of USD 40.8 million).

#### Money Market

The activity of commercial banks increased in the inter-bank market of borrowings due to change in the basis of carrying out monetary policy. In particular, the volume of repo transactions increased by 1.5 times compared to the same indicator of 2014. In general, the situation in the market was stable, ensuring redistribution of liquidity among commercial banks at the expense of inter-bank transactions. Besides, the volumes of standard inter-bank credit transactions in the national currency decreased down to KGS 161.0 million.

#### 1.3.2. Status of the Securities Market

The market of the state treasury bills and bonds, issued by the Ministry of Finance changed in different directions.

In the state treasury bills market, which consisted of 3, 6 and 12 month securities, the total volume supply increased up to KGS 3.0 billion (+14.1 percent), the volume of placement – up to KGS 1.9 billion (+15.3 percent). The weighted average revenue of these securities increased by 4.1 percentage points, up to 12.4 percent.

2 and 3 year state treasury bonds were issued in the reporting period. The total volume of declared ST-Bonds issues constituted KGS 2.5 billion, an increase by 3.6 percent compared to the indicator of the same period of 2014. However, physically ST-Bonds were placed to the amount of KGS 1.7 billion, a decrease by 59.6 percent compared to the same indicator of the previous year. Thus, the total weighted average revenue increased by 1.8 percentage point, up to 15.6 percent.

#### 1.4. Real Estate Market

The real estate market of the Kyrgyz Republic experienced slowdown of the price index<sup>4</sup> growth rates. This is due to the negative growth of prices for apartments (prices decreased by 8.1 percentage points during the reviewed period), as well as increased growth rates of prices for individual houses (prices increased by 13.2 percentage points) compared to the same period of 2014.

Unchanged level of prices for real estate and increased average wage favorably influenced the housing affordability index, indicating the improvement of the situation in this sector.

Risks to the financial sector from the real estate market remain moderate due to underdeveloped mortgage credit lending.

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



At the end of six months of 2015, slowdown in growth rate of price index for residential property compared to the same period of 2014 was observed in Kyrgyzstan (Chart 1.4.1).

Source: SRS KR

As of June 30, 2015, the average price for 1 square meter of residential property (flats) in Bishkek and Osh decreased by 6.8 and 12.2 percent, respectively, compared to the same period of 2014 (Chart 1.4.2). The average price for 1 square meter of detached houses in Bishkek and Osh grew by 7.1 and 32.5 percent, respectively (Chart 1.4.3).

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

where K = number of real estate types;

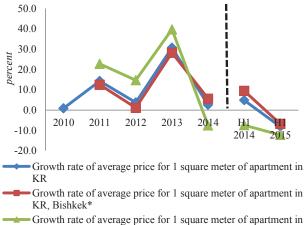
<sup>&</sup>lt;sup>4</sup>Laspeyres index method was used in developing the price index for real estate. In general, the Laspeyres index is computed as follows:

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

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

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

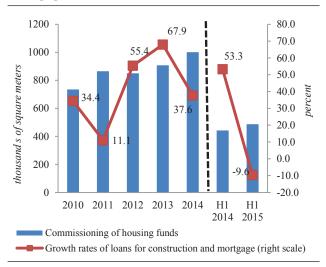
Chart 1.4.2. Dynamics of Change in Prices for **Flats** 



Source: SRS KR, NSC KR, NBKR calculations \*data on Bishkek and Osh cities up to 2010 are not available

KR, Osh\*

**Chart 1.4.4. Dynamics of Housing Commissioning** and Provided Loans for Construction and **Mortgage** 



Source: SRS KR, NSC KR, NBKR calculations Note: data for the reporting period

**Detached Houses** 

140.0

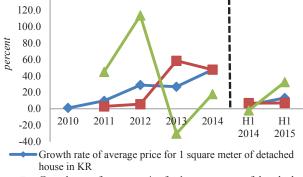


Chart 1.4.3. Dynamics of Change in Prices for

Growth rate of average price for 1 square meter of detached house in Bishkek\*

Growth rate of average price for 1 square meter of detached house in Osh\*

Source: SRS KR, NSC KR, NBKR calculations \*data on Bishkek and Osh cities up to 2010 are not available

At the end of six months of 2014, the increase in the aggregate level of commissioning of housing funds constituted 10.0 percent compared to the same period of 2014 (Chart 1.4.4). The main share of commissioned housing still accounted for Bishkek city and Chui oblast, as well as Osh city and Osh oblast (Table 1.4.1).

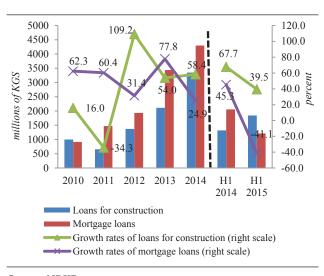
**Table 1.4.1. Geographic Structure of Commissioned Housing** 

	H1 20	014	H1 20145		
	Total Sha commissioned area, thous. sq. m.		Total commissioned area, thous. sq. m.	Share of total area, %	
Bishkek city and Chui oblast	211.5	47.8	236.4	48.6	
Osh city and Osh oblast	76.2	17.2	108.6	22.3	
Other oblasts of KR	154.8	35.0	141.7	29.1	
Total	442.5	100.0	486.7	100.0	

Source: NSC KR

In the reporting period, the volume of mortgage loans increased by 41.1 percent and the loans to finance the construction increased by 39.5 percent compared to the first half of 2014. The total volume of issued mortgages loans and the loans for construction amounted to KGS 3.1 billion, a decrease by KGS 325.2 million compared to the same period of 2014 (Chart 1.4.5).

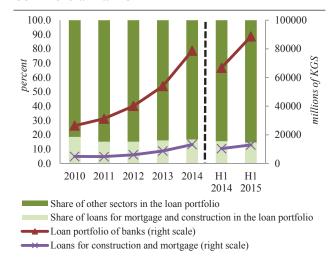
**Chart 1.4.5. Loans Provided for Construction and Mortgage** 



Source: NBKR

Note: data for the reporting period

Chart 1.4.6. Total Share of Loans for Mortgage and Construction in the Loan Portfolio of Commercial Banks

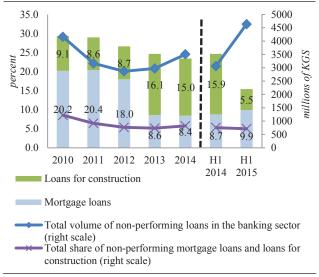


Source: NBKR

Note: data for the reporting period

As of June 30, 2015, the total loans for mortgage and construction grew by 24.9 percent compared to the same period of 2014 and amounted to KGS 12.9 billion or 14.6 percent of the total loan portfolio of commercial banks (decrease by 0.9 p.p. compared to the same period of 2014, Chart 1.4.6).

**Chart 1.4.7. Dynamics of Non-performing Loans** for Mortgage and Financing of Construction



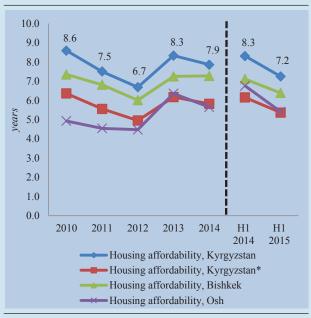
Source: NBKR

As of June 30, 2015, the share of gross troubled mortgage and construction loans in total non-performing loans decreased by 9.2 p.p. compared to the same period of 2014 and amounted to 15.4 percent or KGS 714.2 million (decrease by KGS 41.3 million, Chart 1.4.7).

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

As of June 30, 2015, the situation with housing affordability in the Kyrgyz Republic improved slightly (index value decreased by 1.1 year) compared to the same period of 2014. This is due to decrease in prices for flats in the real estate market of the Kyrgyz Republic (Chart 1.4.8).

Chart 1.4.8. Housing (Flats) Affordability Index Without Minimal Consumer Budget



Sources: NSC, SRS, NBKR calculations \* including non-registered income

**Chart 1.4.9. Housing (Flats) Affordability Index Including Minimal Consumer Budget** 



Sources: NSC, SRS, NBKR calculations \* including non-registered income

According to the results of six months of 2015, to purchase a flat of 54 square meters in Kyrgyzstan one should save all wages for 7.2 years (including unrecorded income $^5$  – 5.4 years).

By the end of the reporting period, a family in Kyrgyzstan with the minimum consumer budget of KGS 16188.9 (64.8 of total family income) will need 20.6 years (including unrecorded income – 10,3 years, Chart 1.4.9) in order to purchase housing.

<sup>&</sup>lt;sup>5</sup> According to the conclusions of the Working Group on the research of the black economy of the Kyrgyz Republic, the level of shadow income of the population constituted around 35 percent of the wages fund. This research was held by the Public Association "Investment Roundtable", Bishkek city, December 2012.

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

As of June 30, 2015, the loans, secured by pledged real estate, constituted the largest share of the loan portfolio of banks.

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

Stress testing<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. Loans Issued by the Banks and Secured by Pledged Real Estate as of June 30, 2015

Loan repayment balance <sup>8</sup> Total amount of loan <sup>9</sup>	Less than 20 %	20 - 40 %	40 - 60 %	60 - 80 %	More than 80 %	Total
Loan repayment balance, millions of KGS	1,980.4	5,006.2	11,649.0	22,596.0	44,306.8	85,538.4
Total volume of pledged real estate, <i>millions of KGS</i>	11,894.2	15,912.8	26,205.8	34,736.1	60,692.2	149,441.2
including – residential:	8,639.0	13,863.6	22,970.7	29,331.3	44,850.7	11,9655.3
– non-residential:	3,239.9	2,024.6	3,184.6	5,324.6	15,762.0	29,535.8

Scheme 2. Results of Stress Testing of Impact from Change in Prices in the Real Estate Market on the Level of Credit Risk of the Banking Sector

	Banking sector	<u>Large banks</u>
1) "Negative" scenario Price for real estate  by 40% for a year	Decrease in volume of pledged real estate is below the amount of loan repayment balance by KGS <u>9.6</u> billion	Decrease in volume of pledged real estate is below the amount of loan repayment balance by KGS <u>4.3</u> billion
2) "Historical" scenario* Price for real estate   by 23% for a year		
3) "Alternative" scenario Price for real estate for 2 years  by 40% (by 20% for a year)	Decrease in volume of pledged real estate is below the amount of loan repayment balance by KGS <u>2.4</u> billion (last group of loans)	
* At the end of 2008, prices for real estate in K	Lyrgyzstan decreased by 23%.	

<sup>&</sup>lt;sup>6</sup> Stress testing was conducted on the basis of data provided by the commercial banks by means of the survey as of June 30, 2015.

<sup>&</sup>lt;sup>7</sup> Based on the data of the commercial banks surveys.

<sup>&</sup>lt;sup>8</sup> The principal amount of a loan and interest.

<sup>&</sup>lt;sup>9</sup> The amount of a loan includes the amount of issued loan plus accrued interest for the whole loan term.

In addition to stress test, marginal level of decrease in prices for real estate, when banks suffer losses, was calculated. The banking sector suffers losses if prices for real estate decrease by 27 percent, large banks – by 32 percent.

Scheme 3. Comparative Analysis of the Results of Conducted Stress Tests

				Stress test as of June 30, 2015		
Banking sector	<u>Scenario 2:</u>			Scenario 1: - KGS 9.6 billion; Scenario 2: Scenario 3: - KGS 2.4 billion		
Large banks	Scenario 2 and 3:			Scenario 1: - KGS 4.3 billion Scenario 2 and 3: Banks at risk: 2 banks		
Separate banks	<u>Most vulnerable banks:</u> 4 banks <u>Banks at risk:</u> 4 banks			Most vulnerable banks: 4 banks Banks at risk: 2 banks		
Threshold level of decline in prices for real estate	for the banking sector:	Û	28 %	for the banking sector:	$\hat{\mathbb{I}}$	27 %

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 up to 20% of its market value. Taking into account aforementioned facts, the threshold level of decline in prices for real estate can increase by 20%.

#### II. BANKING SECTOR

Generally, development of the banking sector was characterized by growth of lending volume on the background of some diversification of the loan portfolio. Growth of major indicators of the banking sector: assets, loan portfolio and resource base was observed.

Growth of financial intermediation on the part of the banks remained on the background of the main indicators of the banking sector outrunning the rates of economic growth.

The results of stress testing indicate moderate level of risks in the banking sector.

#### 2.1. Major Trends

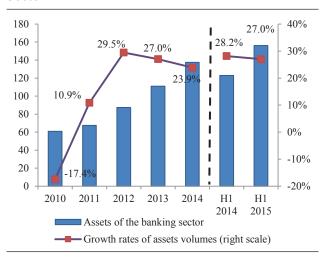
As of June 30, 2015<sup>10</sup>, 23 commercial banks (including the Bishkek branch of the National Bank of Pakistan) and 314 of their branches operated in the territory of the Kyrgyz Republic, among which there were 14 banks with foreign participation in the capital, including 9 banks with foreign participation in the amount of more than 50 percent. All banking institutions of the country are universal by the type of business.

The licenses of "Manas Bank" CJSC<sup>11</sup> and "Issyk-Kul" IB OJSC<sup>12</sup> for conducting banking operations were revoked.

#### **Assets**

Generally, growth in the volume of all types of the banking sector assets was observed at the end of the reporting period. Assets of the banking sector at the end of the first half of 2015 amounted to KGS 156.2 billion, having increased by 27.0 percent compared to the first half of 2014 (Chart 2.1.1).

**Chart 2.1.1. Dynamics of Assets in the Banking Sector** 



Growth of assets was primarily provided by increase of:

- the loan portfolio by 32.8 percent or KGS 21.9 billion;
- the correspondent accounts and cash by 36.6 percent or KGS 11.2 billion.

The share of loan portfolio in the structure of assets constituted 56.8 percent, having increased by 2.5 p.p. compared to the first half of 2014.

At the end of the first half of 2015, significant changes were not observed in the structure of the banking sector assets by sectors of economy (Chart 2.1.3). The total share of liquid assets (cash, correspondent accounts and securities) at the end of the first half of 2015 decreased by 0.6

p.p. compared to the same period of 2014 and amounted to 30.5 percent of the total volume of assets or KGS 47.7 billion.

<sup>&</sup>lt;sup>10</sup> The data are submitted according to periodic regulatory reporting of the commercial banks.

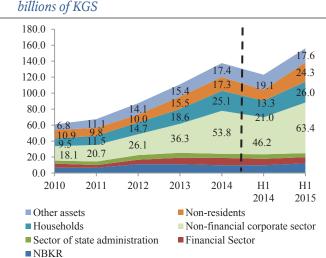
<sup>&</sup>lt;sup>11</sup> "Manas Bank" CJSC lisence was revoked on June 23, 2015.

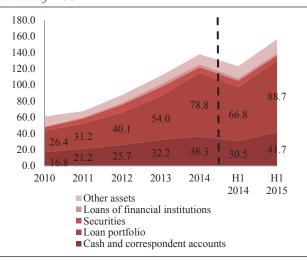
<sup>&</sup>lt;sup>12</sup> "Issyk-Kul" Investment Bank OJSC lisence was revoked on June 03, 2015.

**Chart 2.1.2. Change of Assets Structure in the Banking Sector** 

billions of KGS

# Chart 2.1.3. Institutional Structure of Assets in the Banking Sector





<sup>\*</sup> Loans and financial leasing to the clients exclusive of special loss provisions

#### Loan Portfolio

Growth of banks' loan portfolio in the first half of 2015 was primarily due to increase in the volume of lending to agricultural sector and trade.

At the end of the first half of 2015, the level of dollarization of the loan portfolio in the banking sector increased by 0.5 p.p. compared to the same period of 2015 and amounted to 52.7 percent (Chart 2.1.4).

**Chart 2.1.4. Dynamics of Loan Portfolio in the Banking Sector** *billions of KGS* 

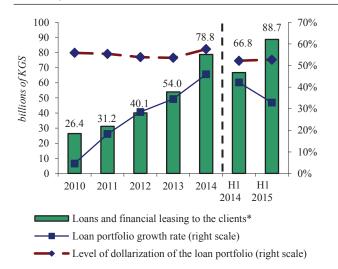
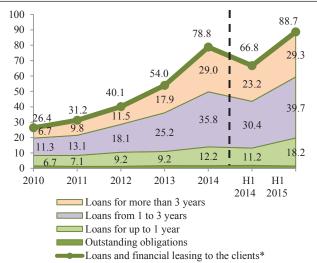


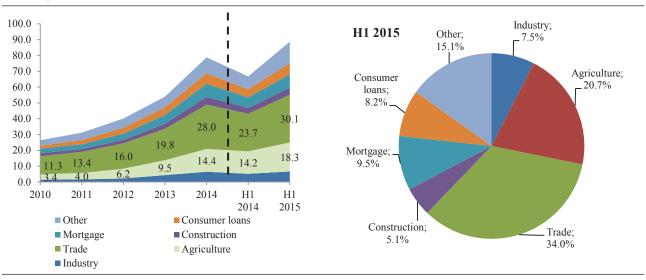
Chart 2.1.5. Structure of Loan Portfolio by Maturity
billions of KGS



<sup>\*</sup> excluding loans provided by FCI 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 44.8 percent at end of the first half of 2015 (Chart 2.1.5).

**Chart 2.1.6. Sectoral Structure of the Loan Portfolio** *billions of KGS* 



Decrease in the share of loans to the trade and agriculture was observed in the sectoral structure of the loan portfolio (Chart 2.1.6). Thus, the share of lending to trade in the loan portfolio at the end of the first half of 2015 decreased from 35.5 percent to 34.0 percent compared to the same period of 2014. The share of agricultural sector loans decreased from 21.3 percent to 20.7 percent. At the end of the first half of 2015, the volume of lending to agricultural sector increased by 28.8 percent compared to the same period of 2014 and amounted to KGS 18.3 billion.

#### Liabilities

At the end of the first half of 2015, liabilities of the banking sector amounted to KGS 133.7 billion, having increased by 28.2 percent compared to the same period of 2014.

Decrease in the share of households' and non-financial enterprises' funds was observed in the institutional structure of liabilities (Chart 2.1.7). Moreover, households' funds remained the major source of attracted banks' resources.

**Chart 2.1.7. Institutional Structure of Liabilities** 

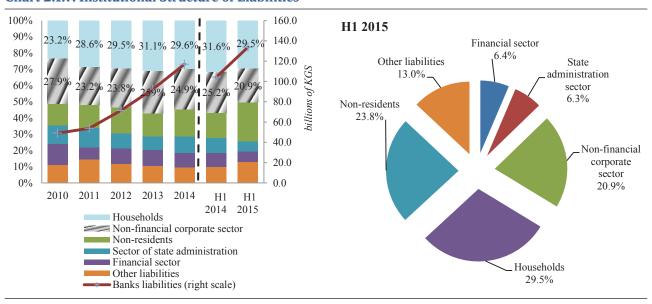
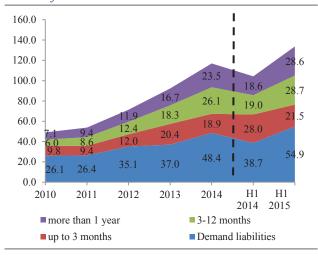


Chart 2.1.8. Structure of the Banking Sector Liabilities by Maturity

billions of KGS

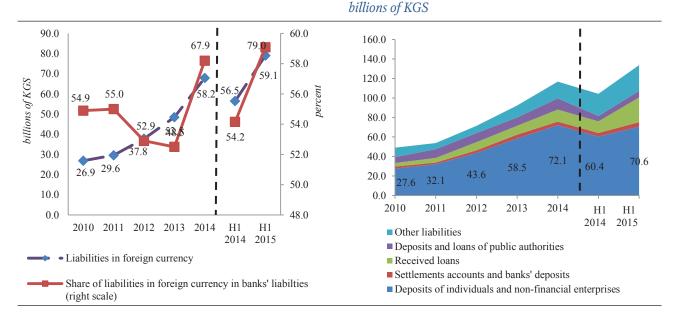


As of June 30, 2015, demand liabilities amounted to KGS 54.9 billion (the share of demand liabilities increased from 37.1 percent as of the end of the first half of 2014 to 41.1 percent). Liabilities with maturity of more than 1 year increased by 53.9 percent for the reporting year and amounted to KGS 28.6 billion or 21.4 percent of the total volume of banks' liabilities (Chart 2.1.8).

The share of liabilities in foreign currency in the total volume of attracted funds increased by 4.9 p.p. and amounted to 59.1 percent or KGS 79.0 billion (Chart 2.1.9).

Chart 2.1.9. Banks' Liabilities in Foreign Currency

Chart 2.1.10. Structure of Banks' Liabilities by the Reserve Sources



Deposits of individuals and non-financial enterprises increased by 16.8 percent at the end of the first half of 2015 and amounted to KGS 70.6 billion (Chart 2.1.10). The share of deposits of individuals and non-financial enterprises in banks' liabilities decreased by 5.2 p.p. and constituted 52.8 percent.

#### Financial Results<sup>13</sup>

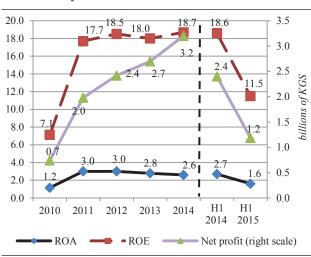
Generally, insignificant change of profitability indicators<sup>14</sup> at the end of the first half of 2015 was observed compared to the same period of 2014 (Chart 2.1.11):

- ROA decreased by 1.1 p.p. and constituted 1.6 percent;
- ROE decreased by 7.1 p.p. and constituted 11.5 percent.

<sup>&</sup>lt;sup>13</sup> For the purposes of this publication the main indicator of profitability of the banking activity is rate of return on assets (ROA), defined as the ratio of profits to average assets, as well as the rate of return on equity (ROE), defined as the ratio of profits to the average size of the regulatory capital of the 1 level.

<sup>&</sup>lt;sup>14</sup> ROA, ROE indicators are presented in annual terms.

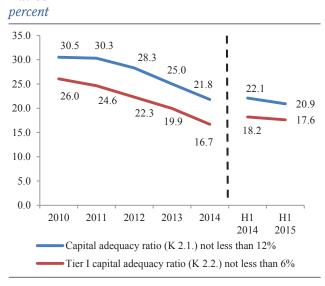
Chart 2.1.11. Indices of the Banking Sector Profitability for the Period



Meanwhile, net profit of the banking sector decreased by 50.0 percent, compared to the first half of 2014, and amounted to KGS 1.2 billion.

#### Capital Adequacy

**Chart 2.1.12. Dynamics of Capital Adequacy Ratios** 



With statutory minimum capital adequacy at 12.0 percent, at the end of the first half of 2015, this figure amounted to 20.9 percent (Chart 2.1.12), having decreased by 31.2 p.p compared to the same period of 2014.

Decrease of capital adequacy was due to growth rates of risk weighted assets and off-balance sheet liabilities (+27.3 percent) outstripping growth rates of net total capital (+20.7 percent).

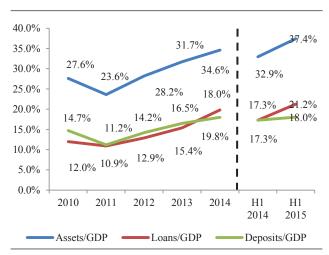
At the same time, the actual level of capital adequacy in the banking sector generally formed according to the results of the first half of 2015 can further increase the volume of risky and earning assets by 1.7 times, without exceeding established level of capital adequacy.

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 operation in future.

#### Financial Intermediation of the Banking Sector

# Chart 2.1.13. Indicators of Financial Intermediation



The role of the banking sector as a financial intermediary, accumulating financial resources for their further redistribution among creditworthy borrowers and sectors of the economy, directly depends on the level of development and efficiency of banks operation.

Growth of financial intermediation was still observed at the end of the first half of 2015 (Chart 2.1.13). However, growth rates of major indicators in the banking sector outstrip economic growth. Dynamic growth in the amount of borrowers and depositors was observed in the banking sector of the Kyrgyz Republic.

At the end of the first half of 2015, increase of financial intermediation indicators in the banking

sector of the Kyrgyz Republic compared to the same period of 2014 was the following:

- Assets to GDP from 32.9 percent to 37.4 percent;
- Loans to GDP from 17.3 percent to 21.2 percent;
- Deposits to GDP from 17.3 percent to 18.0 percent.

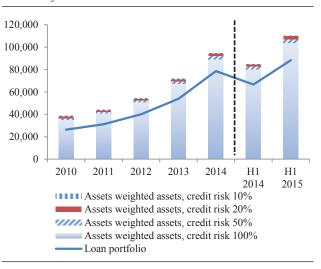
#### 2.2. Banking Sector Risks

#### 2.2.1. Credit Risk<sup>15</sup>

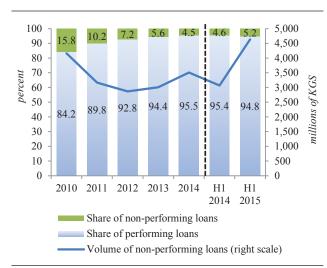
A *credit risk* is one of the main risks that accompany banking operation.

At the end of the first half of 2015, increase of lending to economy was observed against increase of risk weighted assets and credit risks in the banking sector (Chart 2.2.1). The share of non-performing loans in the loan portfolio of banks increased by 0.6 percentage points, compared to the first half of 2014, and formed at the level of 5.2 percent (Chart 2.2.2).

**Chart 2.2.1. Structure of Risk Weighted Assets,** *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>16</sup>, which contributes to determining the possible level of potential losses from loans default and compensating them in time through creation of appropriate reserves.

Non-performing and overdue loans, reflecting the first signs of deterioration in the quality of loan portfolio, require particular attention during analysis of the loan portfolio quality. In the reporting period, there was insignificant increase in the share of non-performing loans against decrease in the share of over due loans, as well as loans placed in a non-accrual status (Chart 2.2.3).

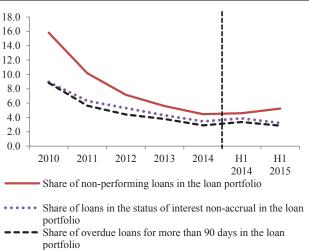
At the end of the first half of 2015, the indicator of the risk of default on assets (the ratio of special loss provisions and loan portfolio) constituted 2.8 percent.

<sup>&</sup>lt;sup>15</sup> Banking transaction, carrying credit risk, are considered within the framework of this section.

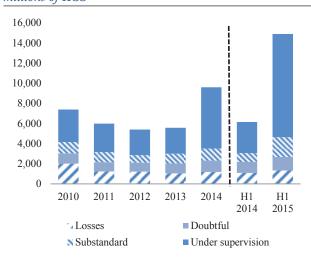
<sup>&</sup>lt;sup>16</sup> In order to assess the quality of the loan portfolio, all loans are usually divided into six categories, depending on the client's current capacity to fulfill the obligations to the bank (listed in declining order of classification): normal, satisfactory, under supervision, 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-operating" or "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



**Chart 2.2.4. Change of Loan Portfolio Classification in the Banking Sector** *millions of KGS* 



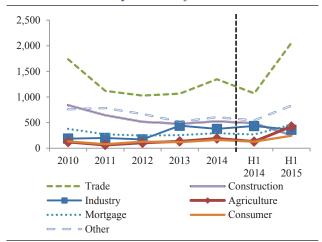
Change in the volume of loans classified as loans "under supervision" is among the factors that may influence improvement or deterioration of the loan portfolio quality in the future (Chart 2.2.4). The share of such loans in the reporting period increased by 7.0 percentage points of the total loan portfolio and constituted 11.6 percent.

Aggregate reserves created by the commercial banks constituted 5.1 percent of the total loan portfolio (as of June 30, 2014 this index constituted 4.9 percent). Meanwhile, the share of special loan loss provision as of June 30, 2015 constituted 55.5 percent of the total reserves (Chart 2.2.5).

**Chart 2.2.5. Total and Special Reserves,** *millions of KGS* 



**Chart 2.2.6. Volume of Non-performing Loans by Sectors of Economy,** *millions of KGS* 



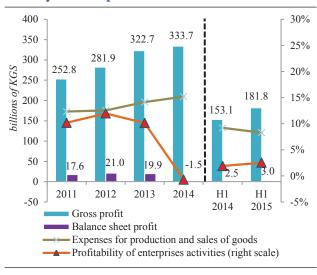
General increase in the volume of non-performing loans in many sectors of economy was observed during the reviewed period, except for decrease in the volume of non-performing loans in the industrial and construction sectors by KGS 71.4 million and KGS 233.8 million, respectively (Chart 2.2.6).

As of the end of June 30, 2015, the highest concentration of credit risks was still observed in the trade and agricultural sectors of economy.

#### Financial Status of Medium and Large Enterprises

In the first half of 2015, growth of major financial indicators was observed in the corporate sector. Meanwhile, the internal and external debt of enterprises still demonstrated growth, increasing risks of debt sustainability in the real sector.

**Chart 2.2.7. Results of Financial and Economic Activity of Enterprises** 



An increase in the balance sheet profit and profitability of enterprises was observed amid continued upward trend in the corporate sector debt at the end of the first half of 2015 compared to the same period of 2014.

The following financial results of enterprises operation in the corporate sector (Chart 2.2.7) were observed at the end of the reporting period:

- gross profit increased by 18.7 percent and amounted to KGS 181.8 billion;
- expenses for production and sales of goods decreased by 8.8 percent and amounted to KGS 120.9 billion;
- balance sheet profit increased by 20.9 percent and formed at the rate of KGS 3.0 billion;
- profitability of enterprises operation increased by 0.6 percentage points to the level of 2.5 percent.

In the first half of 2015, the gross debt of enterprises of the corporate sector increased by 46.4 percent compared to the same period of 2014 and amounted to KGS 206.9 billion or 49.5 percent to GDP.

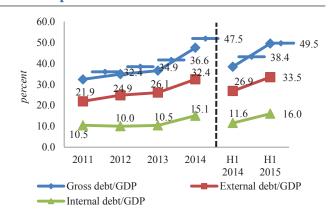
In the first half of 2015, *the external debt* of the corporate sector increased by 41.7 percent compared to the same period of 2014 and constituted KGS 139.9 billion or 33.5 percent to GDP (Chart 2.2.8 and 2.2.9).

At the end of the first half of 2015, *the internal debt* of enterprises of the corporate sector increased by 57.3 percent compared to the same period of the last year and amounted to KGS 67.0 billion or 16.0 percent to GDP.

Chart 2.2.8. Dynamics of External and Internal Debt in the Corporate Sector

100% 150.0 80% 100.0 60% 68.3% 69.9% 71.4% 40% 50.0  $\Diamond$ 20% 0% 0.0 2011 2012 2013 2014 H1 H1 2014 2015 Share of internal debt Share of external debt External debt (right scale) Internal debt (right scale)

**Chart 2.2.9. Indicators of Debt Sustainability in the Corporate Sector** 

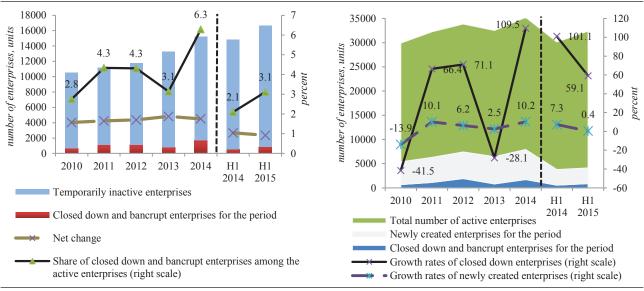


Source: NBKR

#### **Business Activity of Corporate Sector**

Slight slowdown of the business activity was observed in the corporate sector during the period under review. In particular, there was increase in the number of temporarily inactive (idle) enterprises (by 10.7 percent compared to the first half of 2014); however, there was decrease in the growth rate of newly created enterprises (down to 0.4 percentage points compared to the first half of 2014, Chart 2.2.10).

**Chart 2.2.10. Business Activity of the Corporate Sector** 



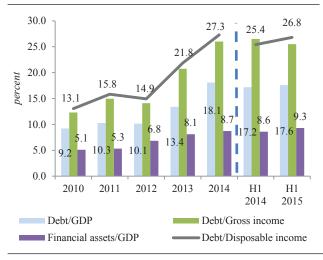
Source: NSC KR, NBKR calculations

#### Financial Status of Households17

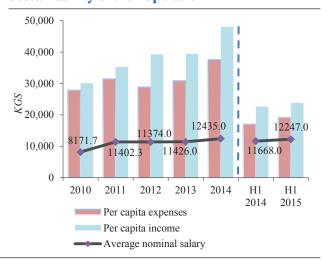
There was a slight deterioration in the financial sustainability of households due to growth of the population debt to the financial sector outstripping growth of their incomes.

Growth of debt sustainability indicators at the end of the reporting period was due to an increase in loans issued to the population by the banks and NBFIs (Chart 2.2.11). As of June 30, 2015, the ratio of households' debt to gross income decreased from 26.5 percent to 25.5 percent compared to the same period of 2014.

Chart 2.2.11. Financial Sustainability Indicators of Households



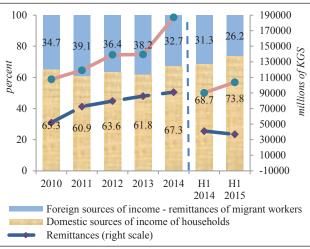
**Chart 2.2.12. Factors of Financial Balance Sustainability of the Population** 



Source: NSC KR, NBKR calculations Source: NSC

<sup>&</sup>lt;sup>17</sup> According to the official statistics data of NSC KR based on the random sampling method of households' survey.

Chart 2.2.13. Structure of Households' Income by Sources



Source: NSC KR, NBKR

At the end of the first half of 2015, in the structure of households' income, the major share was accounted for labor income, which constituted 73.8 percent of the population gross incomes.

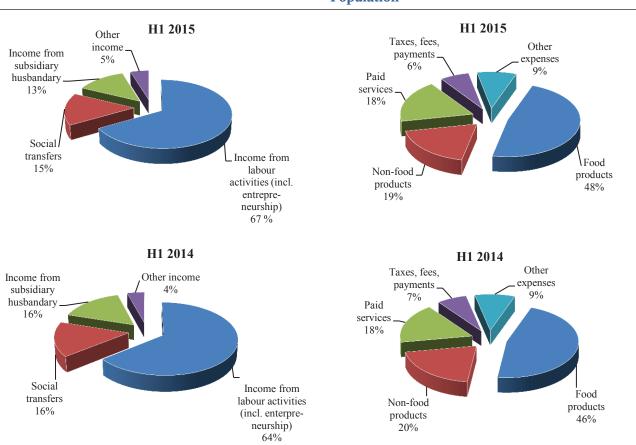
At the end of the first half of 2015, the share of remittances decreased by 5.1 percentage points, to 26.2 percent of the population gross incomes (Chart 2.2.13). Meanwhile, remittances of migrant workers were still a significant source of household income.

In the structure of household expenditures the main share was given to consumption (Chart 2.2.15), which restricted the increase in savings and investment costs, which restrained growth of savings and expenditures for investment purposes.

Significant share of consumer spending, that constituted 85.0 percent of total expenditure in the first half of 2015, may influence the ability of households to meet their obligations in the case of revenues reduction.

**Chart 2.2.14. Revenue Structure of the Population** 

**Chart 2.2.15. Expenditure Structure of the Population** 



Source: NSC KR

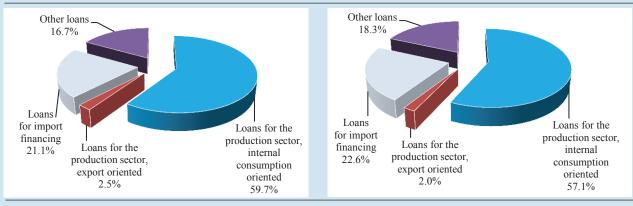
#### Box 3. Results of the Survey of the Clients of Commercial Banks<sup>18</sup>

A significant portion of the loans (59.7 percent) given to borrowers is used in the manufacturing sector of the economy, thereby reflecting contribution of the banking sector in creation of the country's GDP; less than 1/5 of issued loans (21.1 percent) are forwarded for financing of imports.

Sectoral Focus of Borrowers Activity

Chart 2.2.16. Sectoral Structure of Loans as of June 30, 2015

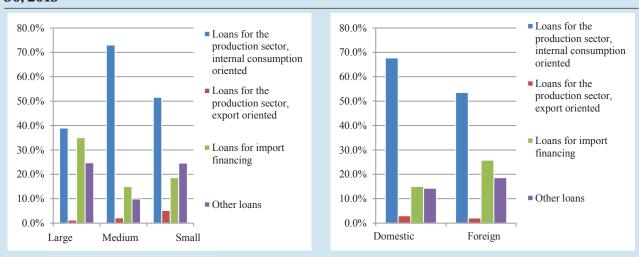
Chart 2.2.17. Sectoral Structure of Loans as of June 30, 2014



The major share of loans at the end of the first half of 2015 was still concentrated in the manufacturing sector of economy<sup>19</sup> (59.7 percent of total borrowers' loans). The share of loans financing the imports amounted to 21.1 percent (Chart 2.2.17).

Domestic banks forward 67.7 percent of the loan portfolio to the manufacturing sector (GDP) and 15.0 percent – to finance imports. Generally, foreign banks also provided loans to the manufacturing sector of economy (53.5 percent). In the reviewed period, the share of loans forwarded to finance imports constituted 25.8 percent of the loan portfolio (Chart 2.2.18).

Chart 2.2.18. Sectoral Structure of Loans by the Groups of Banks and Forms of Ownership as of June 30, 2015



Source: data were received as a result of surveys conducted in the commercial banks

<sup>&</sup>lt;sup>18</sup> According to the data of survey (questionnaire) of commercial banks.

<sup>&</sup>lt;sup>19</sup> The manufacturing sector means the activity of the bank clients connected with the production of goods and services (construction, communication and vehicle service station services, transportation services, real estate leasing, hotels, restaurants, etc.).

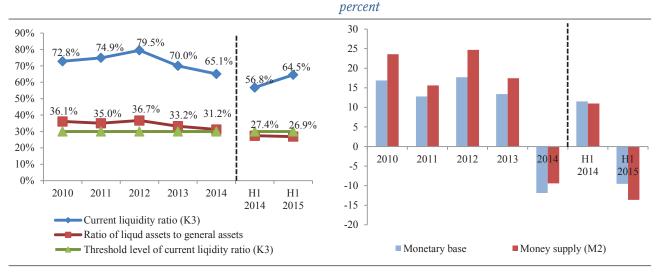
#### 2.2.2. Liquidity Risk

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>20</sup>.

At the end of the first half of 2015, current liquidity ratio increased from 56.8 percent (as of June 30, 2014) to 64.5 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



In terms of the groups of banks, insignificant decrease of liquidity as of June 30, 2015 was observed in the medium banks (Scheme 2.2.1).

Scheme 2.2.1. Current Liquidity Ratio (K3) by the Groups of Banks

1 <sup>st</sup> half of 2014		1 <sup>st</sup> half of 2015
50.5 %	$\qquad \qquad \Longrightarrow \qquad \qquad \\$	66.8 %
62.0 %	$\qquad \qquad \Longrightarrow \qquad \qquad$	57.7 %
71.9 %		81.0 %
	50.5 % 62.0 %	50.5 %

At the end of the reporting period, short-term financial liabilities of the banks up to 1 year outstripped growth rates of short-term financial assets. Finally, this dynamics contributed to increase of negative gap between financial assets and liabilities of the banks with a maturity period of up to 1 year.

The most significant gaps by maturity were still observed in the "demand" category (Table 2.2.1), therefore the banks kept a substantial amount of low-income high quality liquid assets in the structure of assets.

<sup>&</sup>lt;sup>20</sup> *Economic current liquidity ratio* is one of the mandatory standards for the bank established by 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 30 percent of short-term liabilities.

Table 2.2.1. Cumulative  $Gap^{21}$  by Maturity of Financial Assets and Liabilities, as of June 30, 2015, *millions of KGS* 

Total	demand	up to 1 month	up to 3 months	up to 1 year	up to 3 years	Grand total
Total financial assets	32,660	51,005	59,215	87,711	155,938	155,938
Total financial liabilities	48,481	58,772	69,984	98,660	127,271	127,271
Gap (gap interval)	-15,821	-7,767	-10,770	-10,949	28,668	28,668
Gap in % of assets	-10.1%	-5.0%	-6.9%	-7.0%	18.4%	18.4%
Gap in % of net total capital	-84.8%	-41.6%	-57.7%	-58.7%	153.7%	153.7%

in foreign currency	demand	up to 1 month	up to 3 months	up to 1 year	up to 3 years	Grand total
Total financial assets	17,497	30,479	33,726	44,762	84,441	84,441
Total financial liabilities	29,572	34,923	40,370	56,500	76,937	76,937
Gap (gap interval)	-12,075	-4,444	-6,644	-11,738	7,504	7,504
Gap in % of assets in foreign currency	-14.3%	-5.3%	-7.9%	-13.9%	8.9%	8.9%
Gap in % of net total capital	-64.7%	-23.8%	-35.6%	-62.9%	40.2%	40.2%

in national currency	demand	up to 1 month	up to 3 months	up to 1 year	up to 3 years	Grand total
Total financial assets	15,163	20,526	25,489	42,949	71,497	71,497
Total financial liabilities	18,910	23,850	29,614	42,160	50,334	50,334
Gap (gap interval)	-3,746	-3,324	-4,126	789	21,163	21,163
Gap in % of assets in national currency	-5.2%	-4.6%	-5.8%	1.1%	29.6%	29.6%
Gap in % of net total capital	-20.1%	-17.8%	-22.1%	4.2%	113.4%	113.4%

**Table 2.2.2. Maturity of Financial Assets and Liabilities, as of June 30, 2015,** *millions of KGS* 

Name	up to 1 total month	1-3 months	3-6 months	6-12 months	more than 12 months	Grand total
Total financial assets	51,005	8,210	9,544	18,953	68,227	155,938
Including loans and financial leasing to the clients	4,381	4,189	7,185	15,630	56,973	88,358
Total financial liabilities	58,772	11,212	14,436	14,240	28,610	127,271
Including deposits of individuals and fixed deposits of legal entities	19,802	5,899	7,217	7,728	9,743	50,389
Gap	-7,767	-3,002	-4,892	4,713	39,617	28,668
Including on loans and deposits	-15,421	-1,710	-32	7,902	47,230	37,968

 $<sup>^{21}</sup>$  Cumulative gap is the amount of possible expenses for support of solvency, estimated for each range of maturity.

# Box 4. Assessment of "Irreducible" (Stable) Level of Demand Deposits during the Period of 2010 – first half of 2015<sup>22</sup> ("Irreducible" Balance of Deposits)

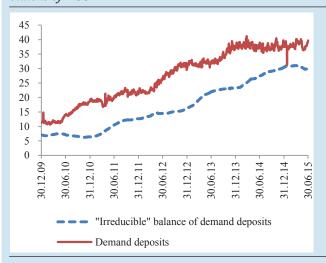
The purpose of determining the "irreducible" level of demand deposits is to reveal volumes of banks' demand deposits, which are permanently at banks' disposal ("irreducible" balance<sup>23</sup>) and are used in assessment of so called "excess liquidity".

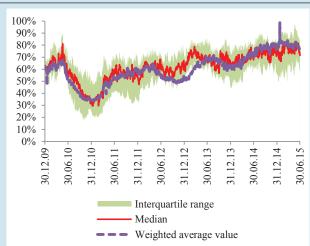
Chart 2.2.21 shows that during the first half of 2015, demand deposits of commercial banks<sup>24</sup> had a fairly weak volatility. At the end of the reporting period, the volume of demand deposits increased by KGS 0.8 billion compared to the same period of the last year and amounted to KGS 39.7 billion. "Irreducible" balance of demand deposits increased as well, and at the end of the first half of 2015 amounted to KGS 29.9 billion or 75.5 percent of the total volume of demand deposits (Chart 2.2.22).

Chart 2.2.21. Volume of "Irreducible" Balances of Demand Deposits

**Chart 2.2.22 Share of "Irreducible" Balances in Demand Deposits** 







"Unstable" share of demand deposits constituted 24.5 percent, respectively.

Divided by the banks, the interquartile range<sup>25</sup> of minimum "stable" level of demand deposits at the end of the first half of 2015 constituted 49.1-71.0 percent of the total volume of demand deposits (Chart 2.2.22).

At the end of the first half of 2015, there was growth in the volume of banks assets; finally it resulted in increased value of the positive cumulative gap between the financial assets and liabilities by maturities up to one month and up to one year (Chart 2.2.2). Thus, taking into account "irreducible" balance, financial assets exceeded financial liabilities of banks.

<sup>&</sup>lt;sup>22</sup> Conducted calculations did not include demand deposits and settlement accounts of troubled banks, as well as relatively new banks possessing restricted historical data series for analysis.

<sup>&</sup>lt;sup>23</sup> Volumes of "irreducible" balances of commercial banks are calculated on the basis of demand deposit daily balances since 2010 as the difference between arithmetical average and 2.33 of standard deviations. Credibility level of 99 percent was chosen in the calculations.

<sup>&</sup>lt;sup>24</sup> Including settlement (current) accounts.

<sup>&</sup>lt;sup>25</sup> Share of "irreducible" balance of demand deposits ranged among the banks from the largest to the smallest. Interquartile range reflects the smallest and the largest shares.



# 2.2.3. Risk of Concentration

Generally, as of June 30, 2015, slight increase of *concentration risk* was observed compared to the same period of 2014.

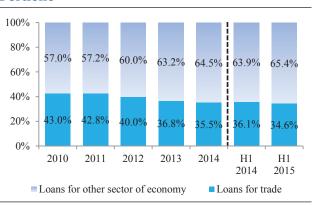
# Concentration of the Largest Sources of Financing

The results of stress testing show that some banks are exposed to the risks of reduction in liquidity due to outflow of funds of the largest sources of financing<sup>26</sup>.

#### **Loan Concentration**

Potential default of one to five largest borrowers<sup>27</sup> in separate banks may decrease regulatory capital below economic standard of the National Bank of the Kyrgyz Republic.

**Chart 2.2.23. Sectoral Concentration of the Loan Portfolio** 

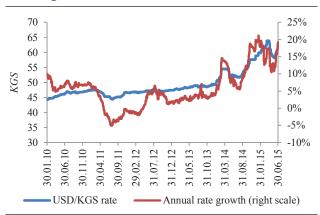


Insignificant decrease of the level of trade loans concentration was observed in the sectoral structure of loan portfolio amid increase of lending to the agricultural sector. Based on the results of the first half of 2015, the share of loans for trade decreased from 36.2 percent to 34.6 percent (Chart 2.2.23).

#### 2.2.4. Currency Risk

At the end of the first half of 2015, *direct currency risk* was at a moderate level.

# Chart 2.2.24. Dynamics of USD/KGS Nominal Exchange Rate



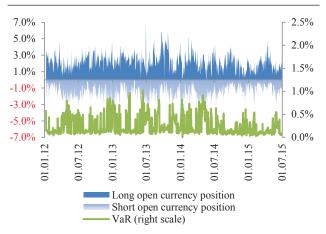
The risk of currency position overestimation in the banking sector is minimum (VaR: 0.1–0.9 percent of the net total capital, Chart 2.2.24).

The devaluation of the national currency, besides changes of the dollarization level, did not have significant impact on the stability of the banking sector in the Kyrgyz Republic. Meanwhile, some banks have become more vulnerable to indirect currency risk due to the possible insolvency of borrowers to service loans in foreign currency.

<sup>&</sup>lt;sup>26</sup> The largest sources of financing (LSF) are the most significant amounts of creditors and depositors funds (received loans, settlement accounts, demand deposits and fixed deposits), including funds of the government sector.

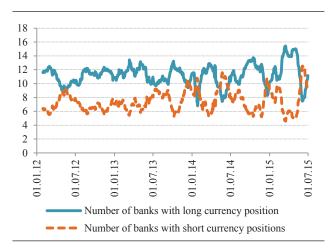
<sup>&</sup>lt;sup>27</sup> Total debt of five largest borrowers of one bank is meant.

**Chart 2.2.25. Dynamics of Open Currency Position (OCP) and Revaluation Risk (VaR)\***, *in percent of NTC* 



<sup>\*</sup> excluding troubled banks

**Chart 2.2.26. Currency Position of the Banks\***, *units* 



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

As of the end of the first half of 2015, 42.0 percent of the total loan portfolio was accounted for the loans, which were repaid in foreign currency, while the income of the borrowers were generated in the national currency (Chart 2.2.27). 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 2.2.28 that displays the proportion of non-performing loans by groups of loans:

- Group 1 5.2 percent, basic incomes of the borrower are generated in the national currency, and the loans are repaid in foreign currency;
- Group 2 2.1 percent, basic incomes and loans payable by the borrower, are in the same currency.

Chart 2.2.27. Loan Portfolio by Groups of Loans\*

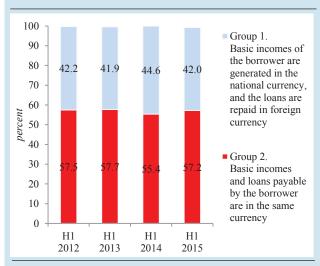
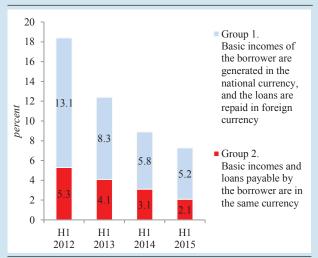


Chart 2.2.28. Share of Non-performing Loans by Groups of Loans\*



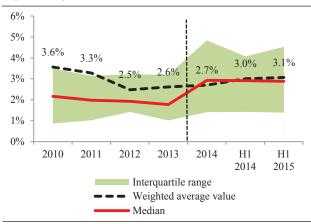
\* Group 3 "Basic income of a borrower are generated in foreign currency, loans are repaid in the national currency" is not included in the chart as the share of this group in the loan portfolio is insignificant (0.8 percent of the total loan portfolio as of June 30, 2015).

#### 2.2.5. Interest Rate Risk

At the end of the first half of 2015, *interest risk* was moderate.

# Chart 2.2.29. Dynamics of Interest Rate Risk (VaR)

in percent of NTC



Slight increase of interest rate risk (VaR) from 3.0 percent to 3.1 percent of net total capital (or from 42.3 percent to 61.5 percent of net profit) was resulted from increase of gaps by maturities between financial assets and liabilities vulnerable to interest rates dynamics.

Average value of interest rate risk during the period of 2010 – the first six months of 2015 was within accessible limits (2-4 percent of net total capital).

Chart 2.2.30. Dynamics of Average Weighted Interest Rate of Individuals' Time Deposits

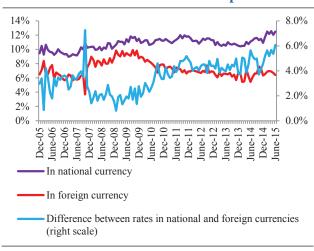
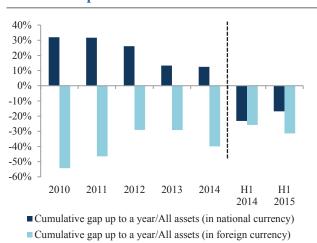


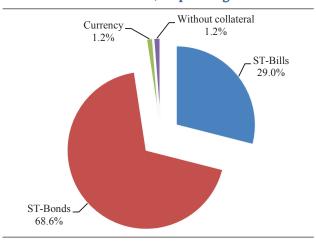
Chart 2.2.31. Cumulative Gap of Assets and Liabilities Exposed to Interest Rate Risk



# 2.2.6. Risk of "Contagion"

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

Chart 2.2.32. Distribution of Interbank Loan Transactions Made during the first half of 2015 between Resident Banks, Depending on Collateral



The loans in the interbank market are covered by collateral in the form of highly liquid government securities or foreign exchange (Chart 2.2.32) in the banking sector of Kyrgyzstan.

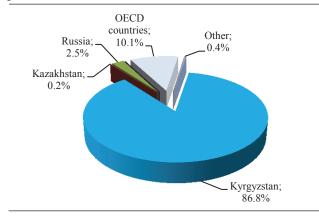
In general, the "contagion" risk in the interbank credit market of Kyrgyzstan was insignificant.

# 2.2.7. Country Risk

The banking sector of the Kyrgyz Republic as of June 30, 2015 remained poorly integrated in the global financial markets.

The volume of disposed assets of non-residents constituted KGS 20.7 billion or 13.2 percent of total banking sector assets. The highest concentration of dispositions was observed in the OECD countries – 10.1 percent of total assets (Chart 2.2.33).

Chart 2.2.33. Geographic Structure of Assets as of June 30, 2015



The main share of the assets placed abroad was focused in correspondent or deposit accounts and constituted KGS 18.4 billion or 89.1 percent of total disposed assets of non-residents.

Meanwhile, 74.5 percent of total assets disposed aboard accounted for five banks.

At the end of the first half of 2015, banks' liabilities to non-residents of the Kyrgyz Republic totaled KGS 28.9 billion or 22.8 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 27.6 billion or 95.3 percent of the total liabilities to non-residents.

As of June 30, 2015, 83.6 percent of the total volume of liabilities drawn from non-residents accounted for seven banks.

Chart 2.2.34. Geographic Structure of Liabilities as of June 30, 2015

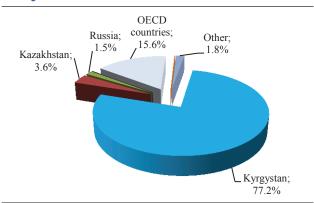
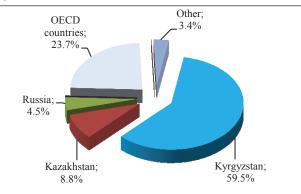


Chart 2.2.35. Authorized Capital by Countries as of June 30, 2015



At the end of the first half of 2015, foreign capital amounted to KGS 5.5 billion or 40.8 percent of the total authorized capital of the banking sector.

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

# 2.3.1. "Reverse" Stress Testing of 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 "unclassified" (performing) loans into the category of troubled loans<sup>28</sup>. "Reverse" stress testing allows calculating the growth rate of non-performing (troubled) loans under which the capital adequacy (K2.1) will drop to the threshold level of 12 percent.

The results of calculations using the aforementioned method show that as of June 30, 2015 the possible share of "unclassified" (performing) loans, which can become troubled, constituted approximately 20.8 percent (Chart 2.3.1).

Thus, the banking sector has the potential to sustain a significant deterioration in the quality of the loan portfolio, which may require the creation of additional LLP approximately up to 41.3 percent of net total capital (Chart 2.3.2).

Chart 2.3.1. Maximum Possible Share of "Performing"<sup>29</sup> Loans that May Become "Non-performing" Loans<sup>30</sup> in percent of unclassified loans

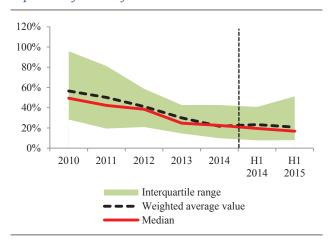
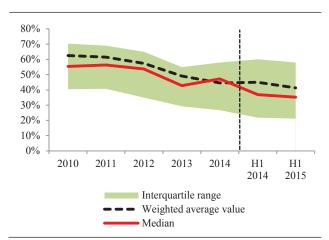


Chart 2.3.2. Additional LLP, in Creating thereof CAR Decreases to 12 Percent in percent of NTC



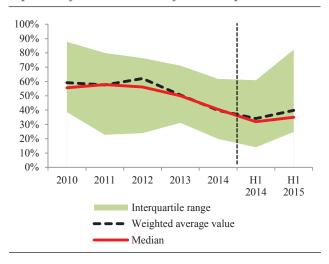
<sup>&</sup>lt;sup>28</sup> Herewith, transition of "performing" loans to the category of "non-performing" loans is fulfilled smoothly by three categories ("substandard", "doubtful" and "losses").

<sup>&</sup>lt;sup>29</sup> Exclusive of "normal" loan category.

<sup>&</sup>lt;sup>30</sup> When CAR decreases to the level of 12 percent.

# 2.3.2. "Reverse" Stress Testing of the Liquidity Risk

Chart 2.3.3. Scope of Potential Outflow of Deposits when K3 May Drop to 30 Percent in percent of the total volume of clients' deposits



For the evaluation of the banking sector liquidity risk, the liquidity ratio was calculated on the basis of the scenario - the maximum amount of the outflow of individuals and non-financial enterprises deposits, which may reduce the liquidity ratio to the threshold level of 30 percent

The results of the "reverse" stress testing show (Chart 2.3.3), that as of June 30, 2015 the actual amount of liquid assets of the banking sector was able to potentially cover the outflow of an average of 41.0 percent of total deposits of population and non-financial enterprises (Table 2.3.1).

# "Reverse" Stress Testing of the Market Risk

In general, the results of the "reverse" stress testing of the market risk indicate that the banking sector still 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 11.2 p. p. can reduce the level of capital adequacy ratio to 12 percent (Table 2.3.1).

**Scenario 2** – decrease of average weighted interest rate on loans, when net profit of the commercial banks declines to the zero level.

The results of the "reverse" stress testing show that upon decrease of interest rates on loans by 2.7 p. p., net profit of the commercial banks decreases to the zero level (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 the zero level.

The results of stress testing indicate that with increase/decrease of the USD/KGS exchange rate by 575.2 percent, net profit of the commercial banks drops to the zero level (Table 2.3.1).

Table 2.3.1. General Results of the "Reverse" Stress Tests as of June 30, 2015

		Banking sector				
Credit risk						
Scenario1	Share of unclassified loans transferring to the category of "non-performing" loans, <i>in percent</i>	20.8				
	Interest rate risk					
Scenario 1	Decrease of interest rate on loans, when CAR declines to 12%, in percentage points	11.2				
Scenario 2	Decrease of interest rate on loans, when net profit declines to the zero level, <i>in percentage points</i>	2.7				
	Currency risk					
Scenario 1	Growth rate of USD/KGS (±) exchange rate, when CAR declines to 12%, <i>in percent</i>	Commercial banks overcome the effect of				
Scenario 2	Growth rate of USD/ KGS (±) exchange rate, when net profit declines, <i>in percent</i>	the direct currency risk (change of currency rate for more than 100 percent)				
	Liquidity risk					
Scenario 1	Outflow of clients' deposit share of the total deposits, when current liquidity ratio declines to 30%, <i>in percent</i>	41.0				

# III. NON-BANK FINANCIAL INSTITUTIONS

In general, the state of the non-bank financial institutions (NBFI) system is assessed as rather stable. There was decrease of the major indicators: assets, loan portfolio, and recourse base. The share of troubled loans in the non-banking sector increased significantly. Stress test results indicate that the credit risk of the NBFI system is moderate.

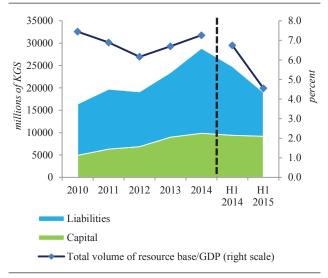
The weighted average interest rates on the loans of microfinance institutions and credit unions increased compared to the same period of the last year (MFI – by 0.6 p.p. compared to the first half of 2014, CU – by 0.7 p.p.).

#### 3.1. Main Trends

The system of non-bank financial institutions subjected to licensing and regulation by the National Bank as of June 30, 2015 in the Kyrgyz Republic included: a specialized financial institution – "FCCU" OJSC; 127 credit unions; 176 microfinance institutions (including 5 microfinance companies, 115 microcredit companies and 56 microcredit agencies) and 287 exchange offices.

#### Resources

Chart 3.1.1. Dynamics of NBFIs Liabilities and Capital



Source: NBKR

Note: since 2015 data are specified exclusive of "Finca" MCC CJSC

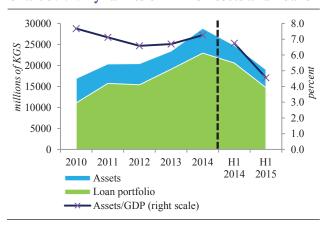
liabilities decreased by 36.0 percent compared to the same period of 2014 and were formed in the amount of KGS 9 839.2 million. At the end of six months of 2015, NBFI capital decreased by 2.3 percent and totaled KGS 9 186.8 million (Chart 3.1.1). Resource base reduction was mainly due to withdrawal by "Finca" MCC CJSC the NBFIs membership and reorganization there of into "FINCA Bank" CJSC.

At the end of six months of 2015, NBFIs

The main volume of the resource base of the NBFIs was accounted for the loans received from non-residents (as of June 30, 2015 the share of these loans constituted 72.1 percent).

#### Assets

Chart 3.1.2. Dynamics of NBFIs Assets and Loans



Source: NBKR

Note: since 2015 data are specified exclusive of "Finca" MCC

CJSC

According to periodic regulatory reporting, the total assets of NBFIs over the six months of 2015 decreased by 23.2 percent and amounted to KGS 19 026.0 million. This decrease was due to reduction in the loan portfolio of NBFIs (Chart 3.1.2).

The main activity of NBFIs remains lending. As of June 30, 2015, the loan portfolio of NBFIs decreased by 28.5 percent and was formed in the amount of KGS 14713.6 million (Table 3.1.1).

As of June 30, 2015, the number of borrowers decreased by 25.2 percent compared with similar period of 2014 and amounted to 324 222 borrowers.

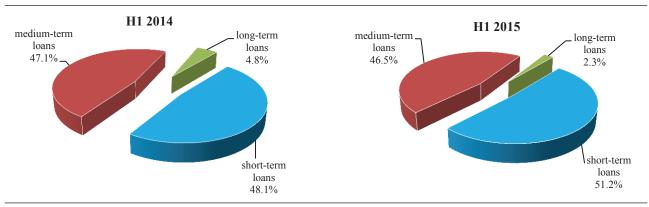
**Table 3.1.1. Structure of Assets in NBFIs** 

	30.06.	2014	30.06.2015		
	millions of KGS	share, %	millions of KGS	share, %	
Financial assets, including:	22,667.2	91.5	17,388.7	91.4	
net loans and borrowings*	20,055.9	80.9	14,182.4	74.5	
correspondent accounts in commercial banks	1,418.7	5.7	1,629.0	8.6	
deposits in commercial banks	381.4	1.5	1,061.3	5.6	
other financial assets	811.1	3.3	515.9	2.7	
Non-financial assets, including:	2,117.7	8.5	1,637.2	8.6	
fixed assets	812.4	3.3	620.1	3.3	
other non-financial assets	1,305.2	5.3	1,017.2	5.3	
Total assets	24,784.9	100.0	19,026.0	100.0	

Source: NBKR \*exclusive of LLP

There have been slight changes in the structure of the maturity of loans provided to NBFIs over the reporting period. As of June 30, 2015, an increase in the share of short-term credit resources and the decline in the share of the long-term and medium-term loans were observed (Chart 3.1.3).

Chart 3.1.3. Structure of the NBFIs Loan Portfolio by Maturity



Source: NBKR

Note: data for the period

The main oblasts where the major share of loan portfolio of NBFIs is concentrated (66.9 percent of total loan portfolio) are Bishkek city, Chui, Osh and Jalal-Abad oblasts (Table 3.1.2), which is due to the highest level of business activity in these oblasts of the republic.

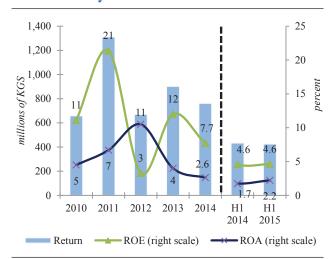
**Table 3.1.2. Geographic Structure of the NBFIs Loan Portfolio** 

	30.06.	2014	30.06.2015		
	millions of KGS	share, %	millions of KGS	share, %	
Bishkek city and Chui oblast	6,635.6	32.2	4,969.6	33.8	
Jalal-Abad oblast	3,227.8	15.7	2,152.9	14.6	
Osh oblast	3,262.7	15.8	2,725.8	18.5	
Batken oblast	1,630.5	7.9	880.1	6.0	
Issyk-Kul oblast	1,875.8	9.1	1,425.1	9.7	
Naryn oblast	1,203.2	5.8	822.6	5.6	
Talas oblast	1,129.3	5.5	661.7	4.5	
Outside Kyrgyzstan	1,622.0	7.9	1,075.8	7.3	
Total	20,586.9	100.0	14,713.6	100.0	

Source: NBKR

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

**Chart 3.1.4. Dynamics of NBFIs Revenue Position\*** 



Source: NBKR \*exclusive of FCCU At the end of six months of 2015 net profit of NBFIs decreased by 1.8 percent compared to the last month and amounted to KGS 425.3 million. ROA at the end of the reporting period increased by 0.5 p.p. and amounted to 2.2 percent; ROE remained unchanged and constituted 4.6 percent (Chart 3.1.4).

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

#### 3.2. Risks of Non-Bank Financial Institutions

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

# Quality of the Loan Portfolio of NBFIs

As of June 30, 2015, the share of non-performing loans in the loan portfolio of NBFIs constituted 6.1 percent, meanwhile, their nominal volume slightly increased by KGS 3149,3 million or 53.4 percent compared to the same period of 2014 (Chart 3.2.1).

At the end of the reporting period, the structure of NBFIs non-performing loans noted significant increase in the share of defaultful loans in other sectors (by 11.1 p.p. compared to the first half of 2014). In the total volume of the NBFIs non-performing loans the share of defaultful loans constituted 43.2 percent (Chart 3.2.2).

**Chart 3.2.1. Quality of NBFIs Loan Portfolio** 

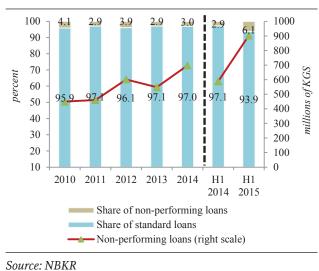
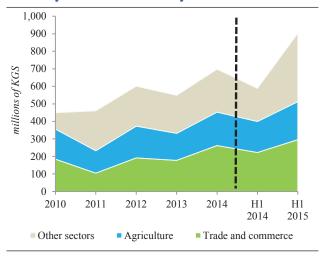


Chart 3.2.2. Structure of NBFIs Non-performing Loans by Sectors of Economy



Source: NBKR

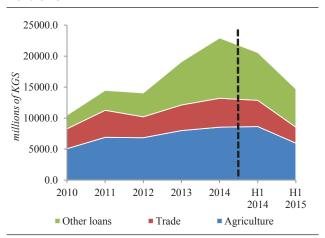
#### **Sectoral Concentration**

NBFI loan portfolio is concentrated in agriculture (40.4 percent of NBFIs total loans), trade and consumer loans (17.5 percent per each of the total loan portfolio, Chart 3.2.3). Lending of agriculture is associated with a high risk because of their dependence of climate conditions.

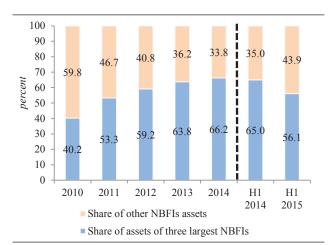
#### **Institutional Concentration**

As of June 30, 2015, the share of assets of the three largest NBFIs decreased by 8.9 p.p. compared to the same period of 2014 and amounted to 56.1 percent of the total assets of NBFIs system (Chart 3.2.4).

# **Chart 3.2.3. Sectoral Structure of NBFIs Loan Portfolio**



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



Source: NBKR Source: NBKR

# Box 6. Assessment of NBFIs System Activity on the Basis of Concentration Indices<sup>32</sup>

#### The Herfindahl-Hirschman Index

Herfindahl-Hirschman index<sup>33</sup> was calculated for the purposes of concentration risk analysis in the NBFIs system. As of June 30, 2015, Herfindahl-Hirschman index for the NBFIs system constituted 1 413.8 points. According to the rule of thumb<sup>34</sup> resulting value indicates availability of moderate concentration of NBFIs assets or average concentration of microfinance market.

Chart 3.2.5. Dynamics of the Gini Index and 6 Largest NBFIs



Note: since 2015 data are specified exclusive of "Finca" MCC CJSC

#### - The Gini Index

The Gini index was calculated for estimating the uniformity of NBFIs assets distribution. As of June 30, 2015, the index value constituted 0.450, which reflected the moderate distribution of assets among the largest microfinance institutions. Meanwhile, decrease of concentration level was observed in the reporting period (Chart 3.2.5).

<sup>&</sup>lt;sup>32</sup> Concentration indices are calculated on the basis of data submitted by five largest NBFIs.

 $<sup>^{33}</sup> H = \sum_{i=1}^{n} (\text{share } i) ^2$ 

<sup>&</sup>lt;sup>34</sup> The following rule of thumb was used for determining the level of market concentration:

<sup>•</sup> index value is below 0.1 (or 1.000) – insignificant market concentration,

<sup>•</sup> index value is from 0.1 to 0.18 (or from 1.000 to 1.800) – average market concentration,

<sup>•</sup> index value is above 0.18 (or 1.800) – high market concentration.

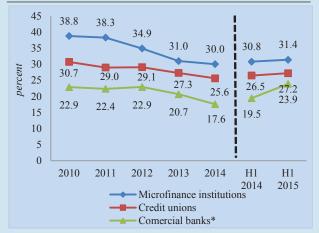
#### **External Debt Status of NBFIs**

As of June 30, 2015, the external debt of NBFI amounted to USD 97.8 million. In the institutional structure of the NBFI external debt, a substantial proportion falls under five largest NBFIs established and funded by international financial institutions. The largest share of the external debt of NBFIs are loans provided by the international financial institutions (88.2 percent of total external debt of NBFIs), and the rest are loans of international financial institutions (11.8 percent of total external debt of NBFIs).

At the end of six months of 2015, external debt of the largest NBFIs decreased by 60.2 percent compared to the same period of 2014 and amounted to USD 94.1 million.

Box 7. Overview of Interest Rates, Net Cost and Profitability of the NBFIs Loans

Chart 3.2.6 Dynamics of Weighted Average Interest Rates on NBFIs Loans\*



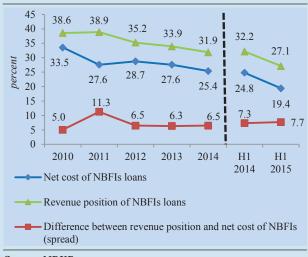
Source:NBKR

In the reporting period, the tendency of increase of interest rates on NBFIs loans was observed. The weighted average interest rates of MFIs increased by 0.6 p.p. and CU – by 0.7 p.p. (Chart 3.2.6).

As of June 30, 2015, the net cost<sup>35</sup> of loan resource of NBFIs decreased by 5.5 p.p., due to decrease in the net cost of five largest NBFIs loans by 11.9 p.p. (Charts 3.2.7 and 3.2.8).

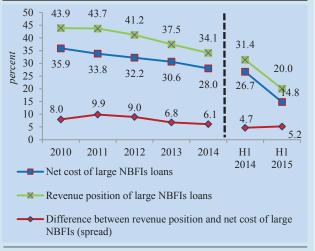
Meanwhile, the net cost of the largest NBFIs loans was less than the average net cost of loans in the NBFIs system in general.

**Chart 3.2.7. Dynamics of Net Cost and Yield of NBFIs Credit Resources** 



Source: NBKR

Chart 3.2.8. Dynamics of Net Cost and Yield of Credit Resources of 6 Largest NBFIs



Source: NBKR

Generally, decrease rates of the NBFIs interest incomes exceeding decrease rates of the average annual loan portfolio affected decrease of NBFIs loan profitability<sup>36</sup> (Charts 3.2.7 and 3.2.8).

<sup>\*</sup> interest rates are presented in the national currency

<sup>&</sup>lt;sup>35</sup> Loans net cost or breakeven point = (Gross expenditures – Non-credit incomes)/Annual average loan portfolio.

<sup>&</sup>lt;sup>36</sup> Loan profitability is calculated as a ratio of interest incomes to annual average loan portfolio.

# 3.3. Stress Testing of the NBFIs System

# Stress Testing of the NBFIs Credit Risk

Stress testing, when the effect of deterioration of the loan portfolio quality on the NBFIs system taken as a whole is computed, was conducted.

The following three scenarios were considered when conducting stress testing:

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

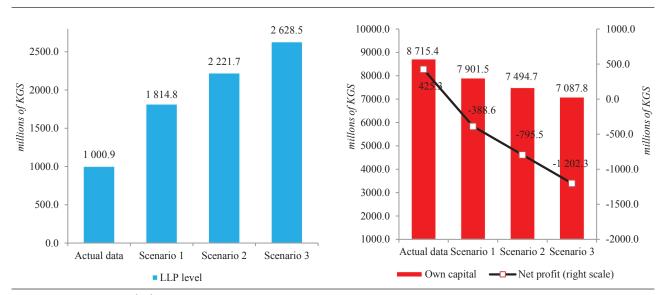
*Scenario 2*: 75 percent of loans transition from one category to another;

Scenario 3: 100 percent 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 LLP<sup>37</sup> in the loan portfolio of NBFIs increased from 81.3 to 162.6 percent, depending on the scenario in conducting this stress testing (Chart 3.3.1).

Chart 3.3.1. Results of Stress Testing of the Credit Risk as of June 30, 2015



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 NBFIs. In the case of the first scenario, the NBFIs become unprofitable and suffer losses in the amount of KGS 388.6 million. Implementation of the second and third scenarios may result in increase of losses up to KGS 795.5 million and KGS 1 202.3 million, respectively (Chart 3.3.1).

<sup>&</sup>lt;sup>37</sup> MFIs create general and special LLPs for relevant categories of classifications implementing the following allocations indicated in percentage from the amount of assets:

<sup>-</sup> Standard – from 0% to 5%

<sup>-</sup> Assets under supervision - 10%

<sup>-</sup> Substandard – 25%

<sup>-</sup> Doubtful - 50%

<sup>-</sup> 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 NBFIs
<b>Scenario 1:</b> transition of 50% of loans from one category to another	11.3
<b>Scenario 2:</b> transition of 75% of loans from one category to another	13.9
<b>Scenario 3:</b> transition of 100% of loans from one category to another	16.5

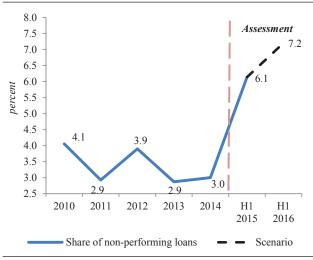
Source: NBKR, NBKR calculations

Implementation of the first scenario may result in an increase in the share of troubled assets in the loan portfolio of NBFIs by 5.2 p.p., to the level of 11.3 percent. In the case of the second scenario, troubled loans may increase by 7.8 p.p., to the level of 13.9 percent, and in the implementation of the third scenario – by 10.3 p.p. and may reach the level of 16.5 percent.

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

This stress testing was carried out on the basis of an econometric model, which characterizes the dependence of NBFIs classified loans on macroeconomic factors.

**Chart 3.3.2. Dynamics of NBFIs Troubled Loans** 



Source: NBKR

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

- Reducing the rate of GDP growth by 10 percent.

An increase in the share of troubled loans in the loan portfolio by 1.1 p.p., up to the level of 7.2 percent may occur in the process of this scenario implementation.

#### IV. PAYMENT SYSTEMS

During the reporting period, the Law of the Kyrgyz Republic "On payment system of the Kyrgyz Republic (hereinafter referred to as the "Law") was adopted and work on harmonization of the regulatory framework of the payment system, on interaction with operators of payment systems and payment organizations as part of their licensing and registration procedures was carried out; cooperation with the central banks of the EEU member-states on payment systems oversight was improved. The measures taken are aimed at minimizing the financial and operational risks in the payment system of the Kyrgyz Republic and are part of an integrated package of measures to be implemented.

The level of financial risks of systemically important payment systems was minimum and conditioned by remaining sufficient level of liquidity on the correspondent accounts of the participants in the National Bank, providing uninterrupted conducting of interbank payments in the national currency.

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

As of July 01, 2015, 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. Clearing Payments System the System of Batch Clearing of Small Retail and Regular Payments (SBC), Systems of Payment Cards Settlement, Money Transfer Systems.

During the first half of 2015, RTGS system operated normally.

The level of financial risk in RTGS remained low due to high level of liquidity on the participants' accounts in relation to the turnover in the system (liquidity ratio was 2.89, the turnover ratio -0.35). Average daily volume of liquid assets of participants showed an increase by 21.09 percent (compared to the same period of 2014) and amounted to KGS 17.43 billion.

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

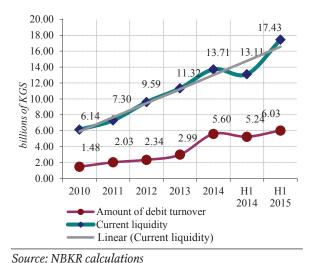
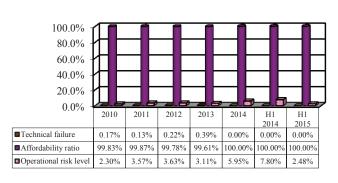


Chart 4.2. Ratio of Affordability and Operational Risk in the RTGS



Source: NBKR calculations

During the first half of 2015, the results of monitoring showed that affordability ratio of the system remained high and constituted 100.0 percent, and the level of operational risk, taking into account prolongation of the transaction day, constituted 2.48 percent.

It should be noted that RTGS system is systemically important payment system, failures thereof can cause serious shocks, both for the banking system and the financial system as a whole.

Besides, *payments in queue and outstanding payments for insufficiency of participants' funds*<sup>38</sup> are the indicators of possible financial risks in the RTGS. 10 payments in queue were registered in the reporting period (Table 4.1.). Average duration of idle time for one payment in the queue was 16 minutes (it is not significant).

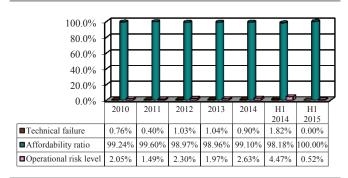
Table 4.1. Summary Data on Payments of the RTGS

Name	2009	2010	2011	2012	2013	2014	H1 2014	H1 2015	Growth (%)	Increase
Payments in queue:										
- Quantity	46	40	204	215	210	526	149	10	0.1	-139.0
- Total time (minutes)	1987	1312	6904	11469	10730	2543	1105	157	-85.8	-948.0
Outstanding payments for lack of liquidity:										
- Quantity	2	3	8	4	7	6	6	0	-100.0	-6.0
- Volume (millions of KGS)	185.4	22.0	32.3	1.3	17.2	715.1	715.1	0.0	-100.0	-715.1

Source: NBKR calculations

Fixed payments in queue did not entail financial risks to other participants, as they were related to the time lag between the receipt of funds to the correspondent account of the participant and sending payment to the system. In accordance with the rules of the system, in case of lack of liquidity of the individual participants, these payments are placed in the queue and are automatically rejected by the system at the end of the trading day.

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



Source: NBKR calculations

In the SBC the level of financial risks in the reporting period was low. Reserves exhibited by the participants to cover a debit net position were 4 times higher than the required level. According to the results of monitoring of the SBC system functioning, the system accessibility index in the first half of 2015 remained high and constituted 100.00 percent (in the same period of 2014 – 98.18 percent), meanwhile, by extending the work schedule, operational risk level was 0.52 percent, having decreased by 3.96 percentage points.

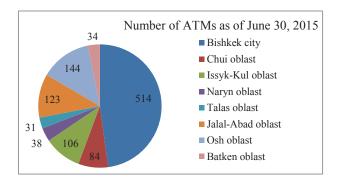
**Systems of Bank Payment Cards Settlements.** As of June 30, 2015, 5 international card payment systems and the national system "ElCart" of payment cards settlements operated in the Kyrgyz Republic.

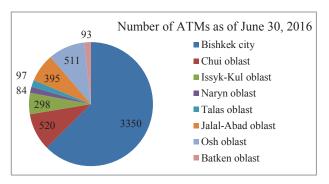
Currently, as on average only every 4th person has payment card (taking into account the fact that the number of capable of working and adult capable of working population is 3 945.8 thousand people). At the same time, there was a positive trend of increasing in the number of issued payment cards. Thus, the total number of bank payment cards in circulation as of June 30, 2015, amounted to 1 045.8 thousand units, having increased by 31.2 percent compared to the same period of the last year.

With regard to the peripheral units the situation was as follows: the total number of operating terminals and ATMs constituted 1 074 ATMs and 5 348 terminals (thereof: 4 080 terminals are installed in the points of sale and trade and 1 268 terminals are installed in the branches and savings offices of

<sup>&</sup>lt;sup>38</sup> Such situation occurs in case of lack of participants' funds on the correspondent account opened in the National Bank.

the commercial banks), installed in the territory of the whole republic (compared to the same period of the last year, increase of ATMs made 20.8 percent, and terminals – 36.0 percent). The main share is accounted for the peripheral units installed in Bishkek city.

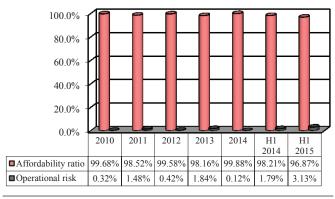




Within the framework of implementing the State program to increase the share of non-cash payments and settlements in the Kyrgyz Republic for 2012-2017 (joint decree of the Government and the National Bank of the Kyrgyz Republic No. 289/5/1 dated May 14, 2012), as well as the Agreement on the bank equipment import to the territory of the Kyrgyz Republic for 2015-2017, commercial banks are conducting works to expand the infrastructure for the bank payment cards servicing in all regions of the republic.

Moreover, since 2015, the National Bank has implemented a number of activities aimed at improving the financial literacy of the population: seminars in secondary schools, universities, budget organizations were organized; "ABCs of money" was published. Higher educational institutions of Kyrgyzstan are also beginning to introduce courses in the educational process on financial literacy. A corresponding manual was elaborated.

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



Source: NBKR calculations

During the first half of 2015, 22 commercial banks provided services in *the national system "ElCart"* and according to the results of subsequent monitoring and analysis of operations the system affordability index constituted 96.87 percent. The level of operational risks, taking into account technical failures in the system, constituted 3.13 percent.

In respect of the *international* settlement systems by means of payment cards, commercial banks operated with such international payment systems as Visa, MasterCard, American Express, Union Pay and Zolotaya Korona.

During the first half of 2015, receipt and transfer of money without opening an account in the commercial banks was carried out by means of 18 *international money transfer systems*.

Number and volume of incoming payments compared to the previous period showed decline, which by the number of remittances constituted 15.58 percent, and by the volume – 11.69 percent or KGS 50.06 billion. Moreover, increase was observed in the number outgoing remittances by 12.81 percent, meanwhile, the volume of transferred remittances decreased by 9.59 percent. The total volume of transferred remittances amounted to KGS 14.18 billion.

# V. IMPROVEMENT OF THE REGULATION OVER THE FINANCIAL SECTOR

Work on improvement of regulatory and legal base regulating the activity of financial and credit institutions was still carried out in the reporting period. Special attention was given to the issues of improving the oversight function of the National Bank, protecting the rights of financial services consumers, as well as bringing normative legal acts in compliance with amendments in legislation of the Kyrgyz Republic.

# Licensing of Banks and Non-Bank Financial Institutions Activities

At the beginning of 2015, the National Bank has set the minimum amount of the authorized capital for existing commercial banks (including branches of non-resident banks) in the amount of at least KGS 600 million. Meanwhile, in order to progressively increase the minimum amount of the authorized capital of operating banks (including branches of non-resident banks) the following dates for its formation were determined:

- up to July 1, 2015 KGS 300 million;
- up to July 1, 2016 KGS 400 million;
- up to July 1, 2017 KGS 600 million.

Amendments and additions were introduced to the Regulation "On licensing of banking" in order to improve the procedure of examining the bank officials' documents and to simplify the procedure of opening structural subdivisions of the commercial banks.

In the second quarter of 2015, requirement to the minimum amount of the circulating funds necessary in opening exchange offices was decreased down to KGS 500 000 from April 01, 2015 to July 01, 2015.

#### **Enforcement Actions**

During the reporting period, amendments and additions were approved with regard to a number of normative legal acts concerning the rules for applying enforcement measures to officials and/or significant shareholders of the bank in accordance with the legislation of the Kyrgyz Republic, as well as on establishing the procedure of recognizing the bank activity as unhealthy and unsafe banking practice within the framework of improvement of the regulatory and legal acts of the National Bank of the Kyrgyz Republic on the implementation of enforcement measures to the commercial banks and non-bank financial institutions.

#### Regulatory Bank Reporting

Amendments and additions were introduced into the relevant documents in order to bring in line the regulatory legal acts of the National Bank governing provision of the periodic regulatory bank reporting.

#### Risk Management and Other Issues

Amendments and additions to the Manual on work with bank accounts, accounts on deposits were adopted in order to promote the development of agriculture and support of agricultural producers. Amendments and additions include the ability to open current accounts for individuals (residents)-agricultural producers involved in crop production and animal husbandry, without providing documents on state-registration (patent/certificate) in order to receive and service a loan.

Meanwhile, the individuals shall submit the documents certifying the right to use land in accordance with the requirements of the legislation of the Kyrgyz Republic or the documents on the presence of livestock to the Bank. The bulk of the loan payments must be made in a non-cash form.

#### **Contract Financing**

In order to create conditions for the development of banking products and reduction of the associated risks the Bank introduced amendments and additions into certain regulatory and legal acts related to credit activities on providing such banking product as a contractual financing.

# Regulation of Non-Bank Financial Institutions

Within the framework of bringing the normative legal acts of the National Bank in compliance with amendments and additions to the laws regulating activities of the non-bank financial institutions, the National Bank approved amendments and additions in the normative legal acts regulating activities of the microfinance and microcredit companies.

Microfinance and microcredit companies were entitled to borrow funds from founders (shareholders)-individuals and founders (shareholders)-legal entities.

# Regarding USD Loans

In order to reduce dollarization and minimize indirect currency risks when lending in foreign currency, the National Bank tightened the requirements towards newly provided loans in foreign currency and loosened requirements towards new loans in the national currency. In particular, banks shall create more significant volumes of reserves for new loans in foreign currency and smaller reserves for new loans in the national currency and when restructuring loans in foreign currency into the loans in KGS certain conditions shall be observed. Thus, in providing loans the banks shall pay particular attention to the structure of the client's income, the amount of income the clients receive in the national currency, and in foreign currency.

# Islamic Principles of Financing

Amendments to normative legal act on standardization of the standard agreement concluded between financial institutions and clients on the transaction corresponding to the Islamic principles of banking and financing were elaborated and approved due to adopted additions to the Laws "On microfinance organizations in the Kyrgyz Republic" and "On credit unions" providing microfinance organizations and credit unions with the right to carry out operations in accordance with the Islamic principles of the banking and financing.

# Financial Soundness Indicators of the Kyrgyz Republic<sup>39</sup>

(in percent)

	2013	2014	H1 2014	H1 2015
Banking sector				
Indicators of the capital adequacy				
Regulatory capital to assets, weighted by risk	24.5	21.8	22.1	20.9
Tier I capital to assets, weighted by risk	19.5	16.4	18.2	17.6
Equity to total assets	17.0	16.2	16.3	15.7
Ratio of classified loans to equity	6.5	6.6	6.1	8.9
Equity to total liabilities	20.7	19.5	19.6	18.7
Quality of assets				
Ratio of non-performing loans to loan portfolio	5.5	4.5	4.6	5.2
Loan loss provisions to loan portfolio	3.3	2.6	2.8	2.8
Loan loss provisions to non-performing loans	59.6	58.8	61.0	54.0
Ratio of currency loans to loan portfolio	53.6	57.6	52.2	52.6
Returns indicators				
ROA	2.8	2.6	2.4	1.6
ROE	18.0	18.7	16.0	11.5
Interest margin to total income	57.3	58.6	57.3	53.4
Spread between reference rate on deposits and loans	7.7	7.7	7.9	7.8
Liquidity indicators				
Ratio of high liquid assets to total assets	33.2	28.3	27.4	26.9
Ratio of high liquid assets to short-term liabilities	69.9	65.0	56.8	64.5
Sensitivity of market risk				
Ratio of net foreign exchange position to equity	5.6	8.3	8.4	1.0
Other financial corporations*				
Ratio of assets to total assets of the financial system	17.2	17.6	16.5	10.6
Ratio of assets to GDP	6.7	8.0	6.7	4.6
Corporate sector (medium- and large-sized enterprises)				
Return on assets (ROA)	5.5	-0.3	n/a	n/a
Return on equity (ROE)	16.4	-1.2	n/a	n/a
Ratio of total liabilities to equity (leverage)**	2.1	2.9	n/a	n/a
Current liquidity ratio	1.3	1.2	n/a	n/a
Households sector				
Ratio of the households' debt to GDP	13.4	18.1	15.9	18.0
Ratio of households' debt to disposable income	21.8	27.3	25.3	27.2

Source: NBKR, NSC KR, calculations: NBKR

<sup>\*-</sup> other financial corporations are presented by NBFIs

<sup>\*\* -</sup> equity of the corporate sector is represented exclusive of shares of Centerra Gold Company

<sup>&</sup>lt;sup>39</sup> Financial soundness indicators are calculated according are calculated according to the methodology of the IMF ("Instruction on identification of financial soundness indicators", IMF, 2007).

# 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 term 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 repayment 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.

*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.

*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.

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

*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.

*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.

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).

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

*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.

*Macro prudential 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.

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.

*Real interest rate* is the nominal interest rate adjusted for inflation.

*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.

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 probable events.

*Unemployment rate* is the percentage of the actual number of unemployed to the total economically active population.

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

ADB – Asian Development Bank GDP – Gross Domestic Product

POL — Petroleum and Oil
GS — Government Securities
EEU — Eurasian Economic Union
HUS — Housing and Utilities Sector
CJSC — Closed Joint-Stock Company

CPI – Consumer Price Index CAR – Capital Adequacy Ratio

KR – Kyrgyz Republic

KSE – Kyrgyz Stock Exchange

IMF – International Monetary Fund

MY – Marketing Year

MF KR – Ministry of Finance of the Kyrgyz Republic

MFO – Microfinance Organization

NBKR – National Bank of the Kyrgyz Republic

NSC KR – National Statistical Committee of the Kyrgyz Republic

NBFIs – Non-Bank Financial Institutions NGS – Non-Government Securities OJSC – Open Joint-Stock Company

OECD - Organization for Economic Cooperation and Development

RK – Republic of Kazakhstan LLP – Loan Loss Provisions RF – Russian Federation

CIS – Commonwealth of Independent States

USA – United States of America

FAO – Food Agriculture Organization of the United Nations

FI – Financial Institution

CBRF – Central Bank of the Russian Federation

NTC – Net Total Capital