

FINANCIAL STABILITY REPORT

2017 1st HALF

This Financial Stability Report presents an assessment of potential risks that could threaten the stability of financial system of the Republic of Armenia as well as the capacity of the financial system to absorb such risks.

More detailed information on Armenia's macroeconomic environment and financial system analysis is available in the Central Bank's periodicals, such as Status Report on Monetary Policy Implementation and Armenian Financial System: Development, Regulation, and Supervision.

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Financial stability can be characterized as the concurrence of financial and macroeconomic conditions at a time when the financial system, i.e. financial institutions, markets and market infrastructures, is capable of withstanding probable shocks and instability, minimizing the probability of interruption of intermediation function.

In defining financial stability, it is taken into consideration that financial instability can emerge as a result of the interruption of internal functions of the financial system, as well as unfavorable developments in domestic and world economies, credit risk issues connected with major borrowers and lenders, shifts in economic policies and infrastructures.

Maintaining the financial stability involves efforts to identify main risk sources, poorly-managed financial risks, ineffective asset pricing and, finally, implementation of the policy as appropriate.

PREFACE

The Financial Stability Report of the Central Bank of the Republic of Armenia is prepared on a semiannual basis. It contains a broad assessment of risks that could threaten the stability of the financial system as well as the capacity of the financial system to withstand such risks. Through publishing information concerning a variety of reviews on financial stability, the Central Bank seeks to bring interested parties' attention to those risks and events that could undermine the financial stability of the Republic of Armenia as well as provide an opportunity to debate on how to minimize such risks.

The Central Bank is tasked with maintaining the stability and functionality of the financial system of Armenia. The Central Bank's statutory responsibility for the country's financial stability is directly related to its primary goal of price stability. Disruptions in the financial sector may create impediments to effective implementation of monetary policy and long-term and stable economic growth. At the same time, monetary and macroeconomic stability contributes to the minimization of risks threatening financial stability. The financial sector plays an important role in the overall economic system, and the financial sector needs to maintain continuity and sustainability of processes to contribute to the normal growth of the entire economy.

The Central Bank carries out an ongoing monitoring and analysis of financial stability for early disclosure of any changes and variations that could threaten financial stability. The report refers to the risks revealed in the macro-environment and the financial sector and their influence on the developments in all sectors of the economy and financial system.

Risks affecting the financial stability of Armenia can emerge in the domestic economy, external economy and the financial sector itself. In this sense, the main preconditions for financial stability are:

- favorable developments in the global economy and international financial markets,
- sound domestic macroeconomic environment whereby households and companies are creditworthy enough,
- effective financial system with risks that are prudent and manageable,
- financial infrastructures with operational continuity to the benefit of the financial system functioning.

Based on the abovementioned facts, risks that can potentially undermine financial stability of Armenia are presented in this report as follows:

- risks derived from developments in the global economy,
- risks derived from developments in the macroeconomic environment of Armenia,
- risks derived from developments in the financial market of Armenia,
- risks derived from financial institutions of Armenia,
- risks derived from financial infrastructures of Armenia.

The report addresses the risks revealed in those areas and measures their possible impact on the developments in the overall

economy and all parts of the financial sector. The report mainly focuses on the risks to the banking sector and development trends: assets of commercial banks account for almost 90 percent of entire financial system assets. Therefore, the banking sector stance mainly determines overall financial stability and development trends.

ABSTRACT

In the first half of 2017, given the positive foreign and domestic economic developments, a tendency for risk reduction in the financial system of Armenia was observed, while the financial stability was strengthened.

Positive developments in both foreign and domestic sectors impacted favorably the financial system stability.

Owing to the favorable macroeconomic environment as well as the Central Bank actions, the stability of financial markets was maintained, lending and fund-attraction grew slightly, while the banking system reported profit and financial stability indicators improved.

The growth tendency of base metal prices in international markets and the expanding economic activity in partner countries had a positive impact on the export volumes of Armenia. The economic recovery in the Russian Federation favorably affected the flow of private remittances to Armenia and, consequently, the recovery of domestic consumption.

Maintaining the current rate of global economic growth can have a positive impact on the stability of the domestic economy and financial system.

The pickup of global growth, which was in line with the IMF's forecasts, remains on track¹. During the first half of the year, a recovery of global trade and overall expectations and confidence has been recorded, parallel to stronger industrial production levels. The positive developments, however, have been accompanied by risks skewed to the downside. In the medium term, slower-than-anticipated economic recovery of developing countries will be highlighted, including China's economic slowing, as well as geopolitical tensions.

The monetary authorities of both developing and developed countries carried out expansionary monetary policy to support economic growth, while the US Fed Reserve maintained the path of interest rate rise.

In emerging countries, the capital outflow was revised to resilient inflow, contributing to the economic recovery. Meanwhile, the monetary authorities maintained their low-rates policies.

Significant improvements in European Union countries and Russia; Armenia's main trade partners were observed, contributed to the growth of external demand, capital investments and money transfers to Armenia (for details, see box "Economic developments in Russian Federation" and section "Developments in the global economy").

In the first half of 2017, the economic growth in Armenia was 6.0% (0.2% in 2016), contributed by manufacturing and service sectors, while the construction and agricultural sectors reported a

¹ IMF, WEO update, July 2017

fall (for details, see section “Macroeconomic environment developments in Armenia”). Given the recent deflationary environment, the Central Bank of Armenia continued easing its monetary conditions, which had a positive impact on the private consumption. The Central Bank’s reduction of the refinancing rate had its effect on the drop of the interbank, loan and deposit markets’ interest rates.

The commercial banks have been profitable and increased their loan and deposit portfolios. The capital adequacy and liquidity ratios declined slightly, in line with the expansion of loan market, still remaining higher than the minimum regulatory requirements.

The financial system risks had a declining trend and remained manageable, not entailing any financial stability issues (for details see sections “Stability of financial institutions” and “Stability of financial market infrastructures”).

Given the accelerating economic growth and stabilization of income from abroad, banks have maintained active credit and investment policies.

1. DEVELOPMENTS IN THE GLOBAL ECONOMY²

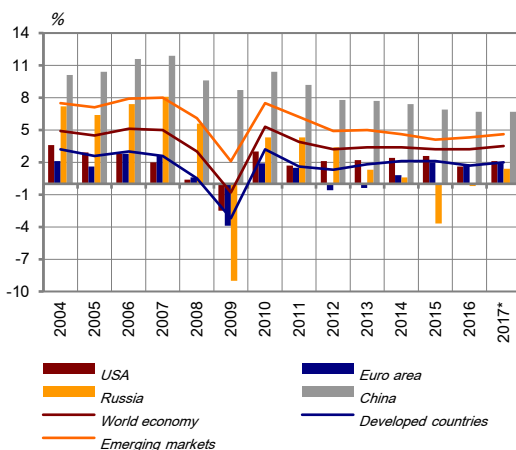
1.1. MACROECONOMIC ENVIRONMENT

The strengthening in global economic growth observed in the previous yearend remains on track in the first half of the current year. During the half of the year, parallel to stronger industrial production levels, a recovery of global trade and overall expectations and confidence has been recorded. Economic growth outlook has been strengthened mainly in advanced countries, particularly in the US and Japan. A number of emerging market economies are projected to see a sustained pickup in activity, mainly driven by growing domestic demand and recovering exports.

While risks around the global growth appear broadly balanced in the near term, they remain skewed to the downside over the medium term. In the short term the economic growth speed-up may be mainly driven by high projected economic growth in the United States under a fiscal easing policy, loosened political tensions in the euro area, as well as expected expansion of world trade and a rise in oil prices.

Positive trends of the previous yearend were mainly maintained and strengthened furthermore.

Economic growth by regions



**Indicators marked by asterisk in this chart and the ones following thereafter are the IMF estimates (April 2017).*

Source: IMF.

The global economy gained momentum during the first half of the year, while downside risks diminished.

The economic growth of the global economy will be preserved both in developed and developing countries in the second half of 2017 as well, and will likely continue in 2018.

The global growth forecast is estimated to be 3.6% in 2017, according to the IMF (3.2% in 2016).

During the first half of the year, the economic growth rate of developed and emerging countries accelerated notably, which is likely to persist in the second half.

The economic growth in advanced economies is assessed to be 2.2% in 2017, higher by 0.5 pp. as compared to the previous year. In developing countries the economic growth will be 4.6%, as opposed to 4.3% in the previous year³.

The pickup of economic activity and price hikes in commodity markets drew to a relatively high inflationary environment. Consequently, the IMF has estimated the inflation to be 1.7% in advanced countries and 4.2% in developing countries. Moreover, inflationary pressures will not be significant in the following year.

² International developments and predictions were based on information taken from IMF, World Bank, Economist Intelligence unit, Financial times, Bloomberg, RBC, the Institute of International Finance and other sources.

³ All the forecasts and assessments of IMF were taken from "World Economic Outlook update, July 2017"

*IMF Overview of the World Economic growth Projections,
2015-2017, in percent*

Indicator (economic growth)	2015 assessments as of 31.07.2017	2016 assessments as of 31.07.2017	2017 forecasts as of 25.10.2017
World economy	3.4	3.2	3.6
Developed countries	2.1	1.7	2.2
USA	2.6	1.6	2.2
Euro area	2.0	1.8	2.1
Developing countries	4.3	4.3	4.6
CIS	-2.2	0.4	2.1
Russia	-2.8	-0.2	1.8
China	6.9	6.7	6.8

During the reporting period, in line with the pickup in the economic growth, more positive expectations and higher inflationary environment were noticed. Meanwhile, the investments continue to stand at lower levels, mainly due to economic and political uncertainties.

The growth forecast in the **US** is 2.2%. The economic activity recorded in the second half of the previous year was also preserved in the first half of the current year. The recovery of investment as well as private consumption continued to boost the economic growth, while a moderate increase in oil prices in the first half of the year was another positive impulse. According to expectations, the pace of economic growth in 2017 will also be ensured due to the planned increase in public spending.

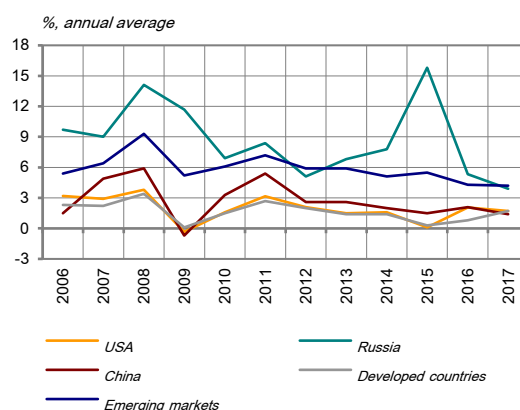
Apparently, the current level of US economic growth will continue in the coming years, contributed mainly by increase of investments, households' revenue, as well as unemployment reduction and stabilization of the real estate market.

According to the IMF estimates, a 2.3% economic growth will be recorded in the US in 2018.

In the **Euro area countries** a stable and higher-than-forecasted economic growth was recorded in the first half of 2017. The main driving force of sustainable economic growth was the increase in private consumption driven by the positive developments in the labour market. According to the IMF forecasts, the economic growth in the euro area will be 2.1% in 2017 as compared to 1.8% in the previous year. The economic growth will be driven by more large-scale investments, given the low rates and high yields of corporates, as well as continuous expansion of lending in line with the ECB's quantitative expansion actions.

Some political uncertainties around parliamentary elections in a number of European countries and lower trade levels with main partner countries may hinder the abovementioned positive factors and negatively impact the economic growth.

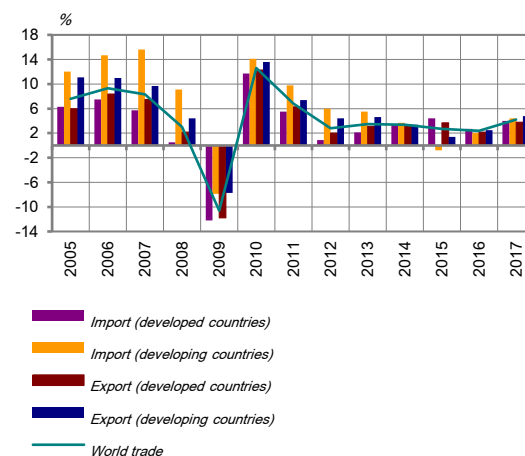
Inflation in a number of countries



Source: IMF.

The economic growth of developed countries accelerated significantly during the first half.

Annual growth rate of world trade



Source: IMF.

Some trends of economic growth were observed in emerging markets.

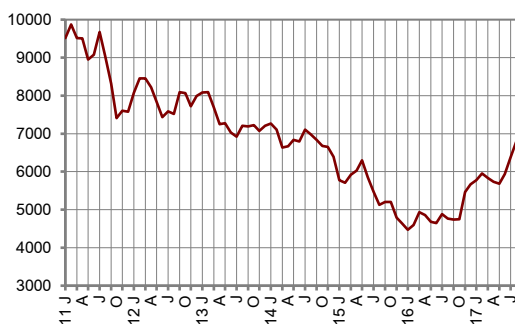
The increase of global trade was conditioned by growth of export levels in both developing and developed countries.

Brent oil prices
(USD per barrel)



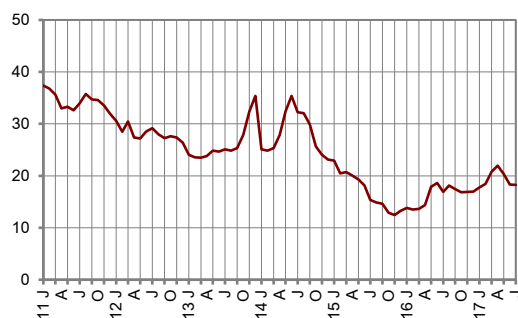
The trend of increasing prices of main commodities was maintained.

Copper prices
(USD per ton)



The prices for base metals have responded to the positive developments in the global economy

Molybdenum prices
(1000 USD per ton)



Source: Bloomberg Data Warehouse.

The UK's decision to leave the EU in June will continue to cause significant ambiguity regarding the future economic development of the euro area and influence the further macroeconomic stance.

As opposed to slowing economic growth in 2016, a number of growth triggers were recorded in the current year in **emerging markets and developing countries**.

Particularly, the growth of private consumption, public investment and external demand positively contributed to the economic growth rate. Private investments continue to remain low in midst of high uncertainty.

In the near future, the monetary tightening worldwide, weak exports and inevitability of economic reforms are the key risks hindering the developing countries' economic growth.

According to the IMF, a 4.6% growth will be recorded in the emerging countries in 2017, against 4.3% in the previous year.

In **China**, economic growth rates have not substantially accelerated over the course of the first half of the year and will remain subdued in 2017, according to forecasts.

The government measures for structural reforms continue to adversely affect investment in some sectors; however, private consumption has recorded a significant increase due to fiscal stimulus. Financial sector issues, in particular, high corporate debt burden and high prices in the real estate market, in turn, remain challenging for the policy makers

The economic growth in China remains 6.8% in 2017, which is the lowest since the global financial crisis. No evident recovery of economic growth rates is expected for the coming years, while 6.5% is forecasted for 2018.

A pickup in the global trade volumes was observed in 2017.

The increase in trade volumes is mainly conditioned by the recovery of exports in developed and emerging economies under stronger external demand, as well as by some increase in commodity prices and positive trends in the global economy. At the same time, current conservative foreign trade policies in many countries, sanctions imposed on some countries will hamper a notable increase in trade volumes in the medium term.

Given the IMF forecasts, the annual growth rate of global trade will be 4.2% in 2017, as compared to 2.4% of the previous year. The forecast for 2018 is 4.0%.

In the first half of 2017, the moderate growth level of international prices of main commodities of the previous yearend was maintained, conditioned by worldwide trends and distinctive developments in certain commodity markets.

Brent crude oil average semi-annual price was USD 52.1 a barrel. The growing trend of the previous yearend was maintained and the YoY growth constituted 29.6%. However, the oil price is still at its low.

The oil prices will have a fluctuating course in the short term, given the supply levels, an expected volatile US dollar, as well as economic developments worldwide.

In the first half of 2017, the growing trend of copper and molybdenum prices persisted, with an average semi-annual price of copper increasing by 22.6%, as compared to the same period of the previous year, to 5775.8 US dollars/tonne and an average semi-annual price of molybdenum by 27.9% to 19.6 thousand US dollars/tonne compared to the same period of the previous year.

International stock prices of base metals will continue to recover and remain subject to demand development trends of emerging market economies, in the short-term.

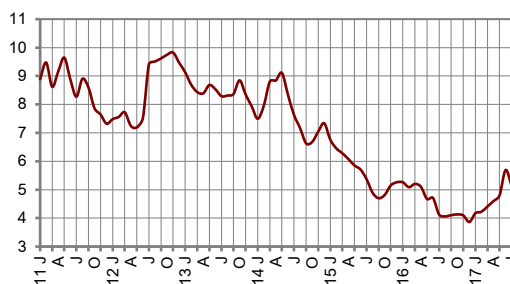
Wheat international prices have assumed a declining trend during the reporting period. The average semi-annual price was 4.5 US dollars per bushel in the first half of 2017, declining by 9.1% as compared to the same period of the previous year. In the short term, no expectations for wheat prices hikes are formed, conditioned by the oversupply, though a stabilization of prices is expected in the medium term.

The average semi-annual gold price amounted to USD 1238.8 per troy ounce in the first half of 2017, increasing by 1.5% YoY.

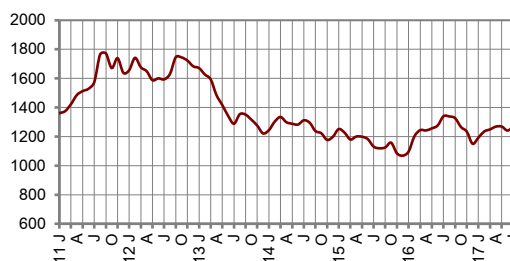
No significant change in gold prices is assumed in the short term, owing to expected recovery rate of the global economy.

The wheat prices decreased as compared to the same period of the previous year.

Wheat prices
(USD per bushel)



Gold prices
(USD per troy oz)



Source: Bloomberg Data Warehouse.

Economic developments in Russian Federation

In the first half of 2017, an economic recovery comprising many economic sectors was recorded in Russia. This improvement is explained by positive developments in consumer and investment demand.

From the supply side, the growth in manufacturing and agriculture, as well as smaller than last year fall in construction contributed to the positive drifts of the GDP. The oil prices' growth trend also impacted the recovery of economic growth.

The main factors hindering the economic growth remain the volatility of the national currency and the geopolitical uncertainty and tensions associated with Ukraine, due to which the United States and the European Union launched series of trading and economic sanctions against Russia, starting from March 2014.

A non-competitive business environment and weak development of infrastructures remain major impediments to Russian economic growth. Nonetheless, in the midst of increasing oil prices in the near term, the Russian Ministry of Economic Development anticipates that the economic growth will remain in a positive territory.

According to the Russian Federal State Statistics Service data, a 1.7% economic growth was recorded in the first half of 2017, moreover, an acceleration of economic growth is expected for the second half of the year, making up 2.7% growth*.

The main contributors were trade (1.9% growth) and manufacturing (1.7%) sectors, during the first half of the year. The construction deceleration rates continue to slow down. The increased real disposable income of households were another positive impulse for the private demand and thus the economic growth overall.

The activation of the investment environment has also contributed to the acceleration of economic growth. More investments were grounded by the optimistic expectations and the recovery of consumer demand in the conditions of growing disposable income of households. The upward drift in oil prices and the positive developments in the external economic environment have raised future forecasts for economic growth.

According to the Russian Federal State Statistics Service data, the export in January-June amounted to USD 165.8 billion, representing a YoY 29.2% increase in relation to the same period of 2016.

Imports amounted to USD 106.6 billion, growing by YoY 27.4%. Thus, the trade balance surplus amounted to USD 59.2 billion or 8.2% of the GDP.

As of June 2017, the 12-month inflation was 2.3%, considerably lower than 5.4% reported in the end of last year.

According to the preliminary data provided by the Russian Ministry of Economic Development, the unemployment rate remains on its lowest, which, ignoring the seasonal factor, is an estimated 5.3% in the first half of 2017.

In the first half of 2017, the Russian currency strengthened as compared to the previous year, on account of some increase of international oil prices, growing capital inflows owing to positive developments of macroeconomic stance and relatively strict monetary policy of the Russian Central bank. The real appreciation of the Russian ruble against the US dollar amounted to 13.7%, against the euro to 15.0%. The international foreign currency reserves of Russia increased during the reporting period to USD 410.0 billion.

Taking into account the macroeconomic situation and the inflation expectations, the Central Bank of Russia has implemented a moderately strict monetary policy to reduce inflation to the target level of 4.0%, during the half of the year. The Central bank of Russia revised the refinancing rate during the first half of the year, reducing it to a 9.0% rate, given the high inflationary expectations in the medium term.

During the first half of 2017, the assets of the banking sector grew slightly, parallel to the improvement of their structure. Loans to non-financial corporations and households increased by 2.4%. The quality of both domestic-denominated and foreign-denominated currency credits improved. The share of non-performing loans in total loans decreased by 0.5 pp. to 9.2%.

The profitability of the banking sector increased during the first half of the year. The gross profit increased by 18% as compared to the previous year, totaling 650 billion rubles. ROA was 2.0% and ROE was 15.0%.

* Information on the Russian economic developments, as well as estimates and projections are taken from the periodical "Картина экономики, 2017" ("Economic stance, 2017") issued by the Russian Ministry of Economic Development. <http://economy.gov.ru>

1.2. INTERNATIONAL FINANCIAL MARKETS

In the first half of 2017, no significant fluctuations in international financial markets were observed.

Global macroeconomic trends have had a favourable impact on financial markets. Long-term interest rates have increased in a number of developed countries due to market expectations and weakening of US accommodative monetary policy. However, high prices for financial assets may further create market risks and trigger new fluctuations in the financial markets, both domestically and internationally.

A number of countries worldwide continued to implement accommodative monetary policy in order to stimulate global economic growth, while the US Federal Reserve pursued its rates hike policy.

The capital outflow in the emerging countries was changed to inflow leading to national currency appreciations.

The long-term US government bond yields grew in the first half of 2017, given the rates' gradual hike policy of Fed. A likewise trend was recorded in EU during the half of the year, owing to fewer uncertainties associated with the elections in some European countries and better macroeconomic indicators. The loan market stance was favourable for the real sector borrowers. Some improvements in lending conditions and higher demand for credit by households and companies continued.

In the first half of 2017, given the instable growth of global economy and economic challenges, the key developed countries, except the US, carried on low interest rate policy.

The ECB continued to conduct its asset purchase program with a smaller monthly volume of 60 billion euros in the first half of 2017⁴. The ECB maintained the refinancing rate at 0.0% and the deposit facility rate at -0.4%. Given the uncertainties about the further economic growth and lower-than-targeted unemployment rate, it is anticipated that the ECB will remain devoted to its accommodative monetary policy in the future.

The Bank of England kept monetary policy rate at a low level, the revision of which would not only depend on the rate of unemployment but also on changes of a number of economic activity indicators.

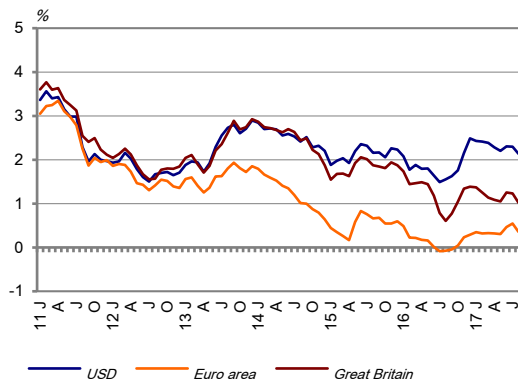
In December 2015, the US Fed hiked its benchmark interest rate for the first time since the global financial crisis to new target between 0.25 percent and 0.50 percent, owing to the stable recovery of the economy. The competent authorities have emphasized a gradual adjustment and solely under the conditions of sustainable economic growth. During the current year, the policy rate was increased by 0.25 pp. to 1.25%. Given the contracting unemployment and inflation recovery, the US Fed will continue to tighten its monetary policy⁵.

⁴ The ECB intends to carry out this project until end of 2017.

<https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html>

⁵<https://www.federalreserve.gov/newsevents/pressreleases/files/monetary20171017a1.pdf>

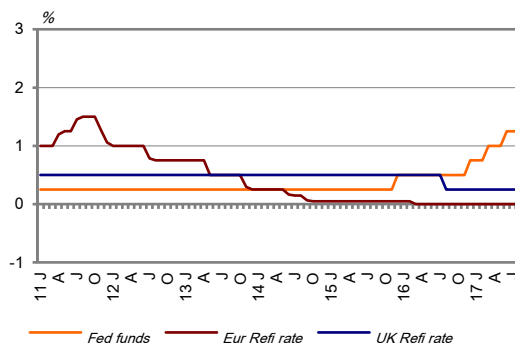
10-year government bond yield



Source: Bloomberg Data Warehouse.

Central banks of key developed and emerging market countries carried on accommodative monetary policy.

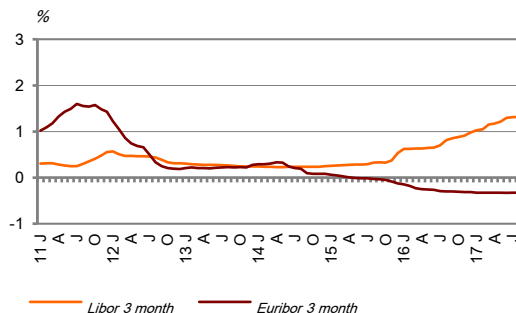
Interest rate policies of Central banks



Source: Bloomberg Data Warehouse.

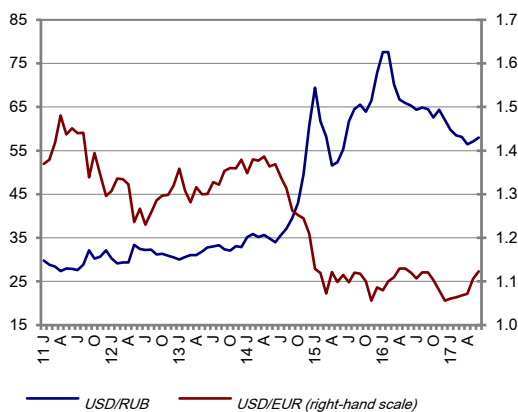
The subsequent hike of Fed rates took place in June 2017.

Interbank interest rates



Source: Bloomberg Data Warehouse.

Dynamics of USD exchange rate versus RUB and EUR



Source: Bloomberg Data Warehouse.

In view of the trend of increasing commodity prices and positive development in emerging markets, capital inflows were recorded in a number of emerging and developing countries. This, in turn, implies more investments and improved outlook for economic growth.

During the reporting half of the year, major currencies assumed volatile trends. The US dollar has gradually depreciated versus euro, as compared to the yearend, driven by expectations and the economic policies conducted by the United States and the European countries.

The appreciation trend of emerging markets' currencies continued during the first half of the year. The latter is explained by capital inflows and positive economic development trends. The currency appreciation patterns were partially attributable to the gradual increase of the Fed's policy rates. In future, the currency patterns will be conditioned by the Fed's policy and domestic developments across countries, such as need for external financing, domestic monetary policies, political stability, price patterns of commodities and sensitivity against the fluctuations of the US dollar.

Low base rates and global economic imbalances determined the preservation of low-level interbank interest rates.

SUMMARY

During the first half of 2017, the recovery of the world economy continued, conditioned by positive trends in both developed and emerging economies. Production and international trade grew. At the same time, an inflationary environment has been formed, mainly due to the increase in oil prices.

Positive trends in the global economy, recovery of economic growth in developing countries, and particularly favourable economic developments in Russia have positively affected the economic growth and export of Armenia by strengthening the creditworthiness of enterprises working in this sectors. Net current remittances and net remuneration of outbound workers have maintained the growth tendency, positively contributing to the household income and creditworthiness.

2. MACROECONOMIC ENVIRONMENT DEVELOPMENTS IN ARMENIA

2.1. MACROECONOMIC DEVELOPMENTS⁶

In the first half of 2017, a higher-than-forecasted economic growth was observed in Armenia, contributed by the expansion of Armenia's export through acceleration of economic growth in the main partner countries, growth of household income, as well as positive developments in the Armenian economy. The economic growth of the current half of the year was conditioned by high increase in manufacturing and services.

The expansionary monetary and fiscal policies of the Central Bank and the Armenian Government over the past two years contributed to gradual recovery of domestic demand, which resulted in a 6.0% economic growth for the first half of the year.

The latter is entirely conditioned by the high growth rates of added value in manufacturing and services. In particular, the growth of value added in manufacturing (7.6% YoY) was ensured by positive developments in all sub-branches, including 8.3% growth in mining and 11.3% in processing.

The growth of value added in services was 8.4%, with trade having the highest contribution, 7.4 pp. The growth in the trade sector is driven by growth rates in both wholesale and retail trades, 6.2% and 20.3% respectively.

In the agricultural sector, a 4.0% decrease in the value added was observed, which was mainly due to a drop in crop production output as a result of drought. Meanwhile, a 2.0% output growth was observed in cattle breeding.

The drop in the construction sector added value was maintained in the first half of 2017, making up 12.0% decrease.

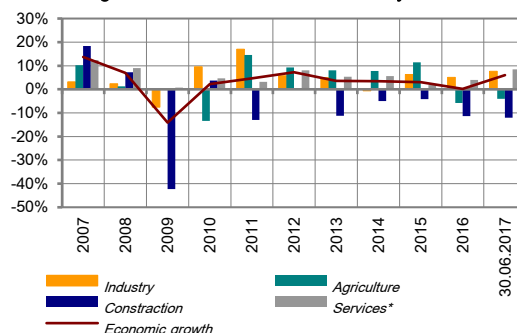
During the first half of the year, the recovery of the aggregate demand was contributed by the ongoing recovery in external demand and positive developments in the domestic economy. Private consumption and investments grew by 8.7% and 6.8%, respectively, which was conditioned by the recovery of lending to economy, accelerated growth of private money transfers and increase in external demand.

From the beginning of 2017, a tight fiscal policy has been implemented for the stabilization and more efficient management of Armenian public debt. As a result, the volume of state funds directed to investments was considerably reduced by 31.3% and a moderate growth of 2.2% was observed in spending.

According to the surveys conducted by the CBA, the stabilization of the business climate indicator (BCI) in the first half of 2017 is an evidence of an improved and recovered investment environment, with improvements observed in almost all sectors. In the second quarter of 2017, the BCI amounted 53.5 (within the range of stability). The index increased by 1 point compared to the end of the previous year, and by 3.2 points compared to the same

Due to the expansionary monetary and fiscal policies of the Central Bank and the Armenian Government over the past two years, a semi-annual economic growth has been observed.

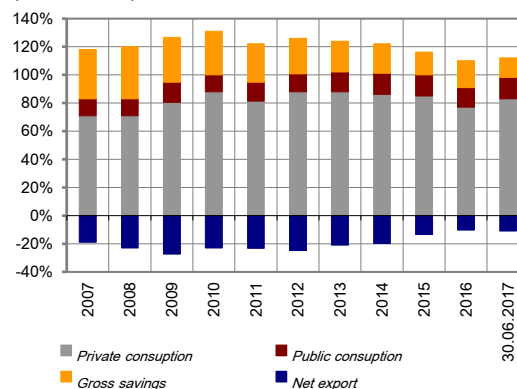
Real GDP growth and main sectors of economy



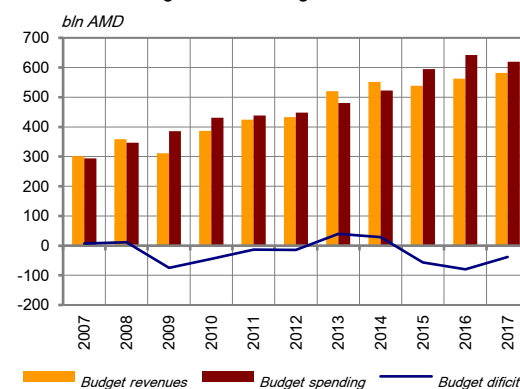
* In chart the sector of services includes trade and other service sectors' aggregate values.

The 8.4% growth of value added in services was accompanied by a double digit increase in the volumes of services and trade (10.9% and 12.6%).

GDP expenditure components (share in GDP)



Main indicators of government budget

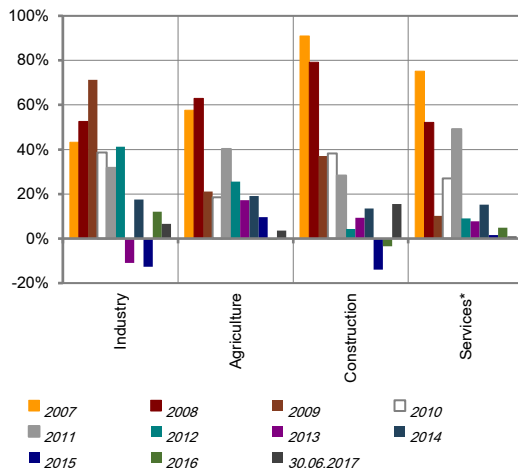


Source: National Statistics Service of Armenia.

⁶ For details on the developments of macroeconomic environment in Armenia, see "Inflation Report 2017, 1st quarter".

In 2017, lending to construction and consumer loans increased.

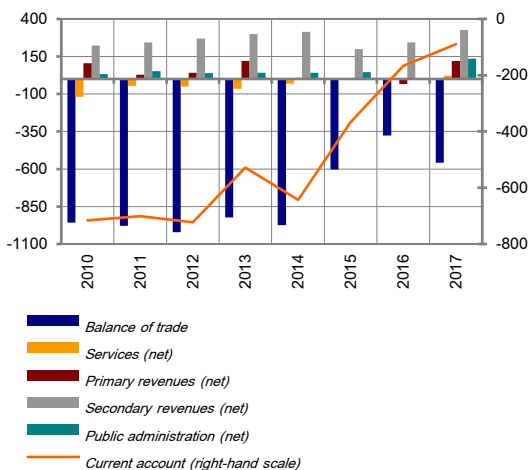
Growth of lending to main sectors of economy



Source: Central Bank of Armenia.

In June 2017, the 12-month inflation was 1.1%, gradually stabilizing to reach its target level.

**Main indicators of balance of payments
(mln USD)**



Source: Central Bank of Armenia.

period of the last year. The growth of the index was contributed by the restoration of optimism among entrepreneurs. Particularly the significant growth in the construction sector (slowdown in the decline) contributed to the improvement of the business climate indicator.

The recovery of the domestic demand and the macro-prudential policies carried out contributed to a 1.6% credit growth in the first half of the year (13.4% YoY). The easing of lending conditions and continuous growth of supply and demand, in turn, contributed to the lending growth. The volume of loans to manufacturing, construction and consumer sectors increased by 6.6% (19.5% YoY), 15.5% (4.6% YoY) and 7.4% (9.5% YoY), respectively. It is noteworthy that the growth of credit investments was accompanied by a 0.4 percentage point decrease in the share of non-performing loans and receivables in total loans and receivables of the banking sector (3.1% YoY). The share of NPLs was 5.8% at the end of the first half, and the share of non-performing loans increased only in agriculture and transport sectors.

According to the lending survey conducted in the second quarter of 2017, both demand and supply of lending expanded. The high liquidity with banks due to the replenishment of capital and the aggravation of competition between the banks affected the expansion of the lending supply. Lending demand has increased in all sectors. The increase in demand for loans was conditioned by the competitive improvements of the supply conditions and the ongoing economic growth. According to the expectations for the third quarter of 2017, a considerable easing of lending procedures and an expansion of lending supply and demand are expected.

A tighter fiscal policy was implemented in 2017 compared to the previous year, which was characterized by a 6.3% increase in state budget revenues and a 1.9% decline in expenditures. It should be noted that the growth of revenues was ensured both by tax and other revenues. Increase in tax revenues was mainly due to the increases in revenues from the value added tax, income tax, excise tax and customs services, respectively, 6.6%, 0.9%, 26.7% and 29.1%.

Resulted by the above mentioned shifts in expenditures and revenues, the state budget deficit amounted AMD 38.3 billion in the first half of 2017.

The 12-month inflation constituted 1.1% in June 2017, which was fully conditioned by a 3.3% growth in food prices, with an overall 1.5 pp. contribution to inflation. The prospects of improving global economic growth from the beginning of the year were maintained, and the prices in international commodity markets were stabilized, therefore no external significant inflationary pressures are expected during coming months. The positive developments observed in the Armenian economy in the first half of the year will be maintained in the near future. In case of the abovementioned development prospects for both the external and domestic economies, inflation will gradually be restored, stabilizing to reach its target level.

2.2. FOREIGN TRADE

In January-June 2017, the foreign trade turnover increased by 24.0% over the same period of the last year, while exports increased by 21.0% and imports by 25.8%. In the context of economic growth, the imports of goods and services were higher than anticipated, with significant share of investment products.

Given the CBA data, the current account deficit improved as compared to the same period of the last year and amounted AMD 89.8 million. In the first half of 2017, the current account to GDP ratio was 2.0%⁷.

The improvement of the current account was mainly due to better stance in external environment, involvement of new foreign markets and demand recovery. From the point of view of improved conditions of the global economy, it is worth mentioning the recovery of economic growth, activity and stability of the main partner countries, which resulted in a growth of export from Armenia and the volume of transfers to Armenia.

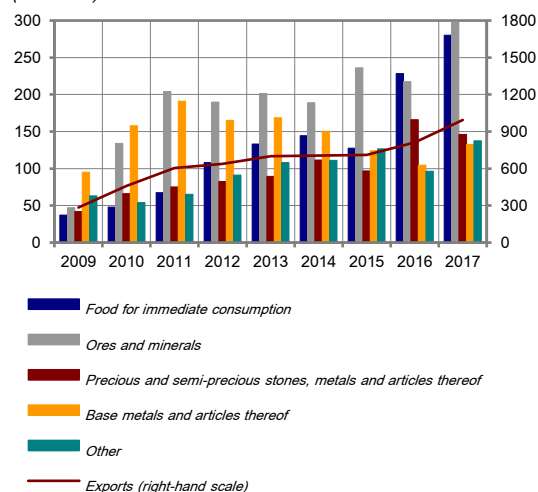
No significant changes in the structure of imports have taken place. The largest increase was observed in the "Chemicals and other chemical products"(12.6%), and in the "Machinery and equipment" (13.9%).

By structure of exports, the main increases were observed in "Preparation of food for immediate consumption", "Raw materials" and "Precious metals and articles thereof", whose share in the export structure was 24.2%, 29.9% and 13.4%, respectively.

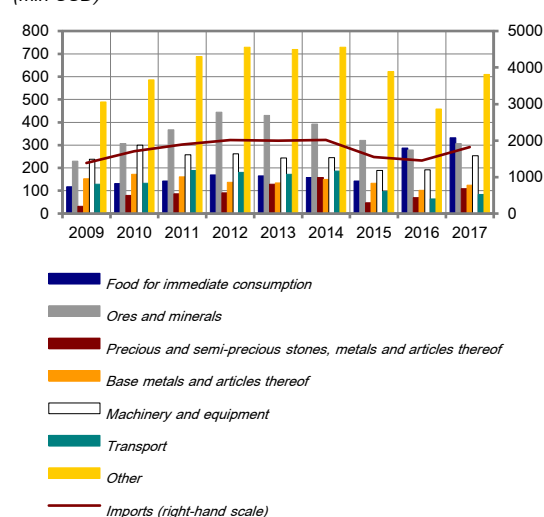
The concentration level of foreign trade has not changed significantly. Large trading partners remain the CIS and EU member states with the following export and import weights: CIS, 23.5% and 32.3%, EU, 30.3% and 20.6%, respectively. At the same time, the volume of goods exported to Iraq, Georgia and Canada increased, while export to China decreased.

The concentration of exports by goods grew in the first half of 2017, as compared to the end of the previous year. As a result, the Herfindahl-Hirschman index was 0.192.

Armenia's exports by commodity groups (semi-annual)
(mln USD)

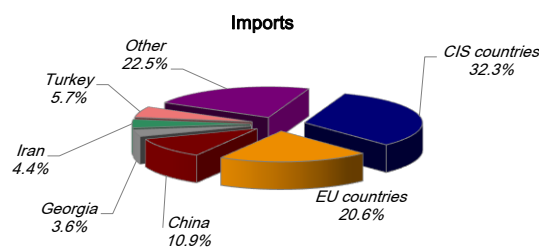
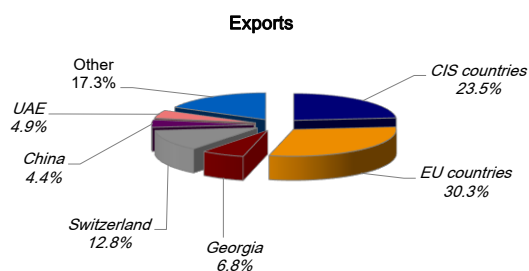


Armenia's imports by commodity groups (semi-annual)
(mln USD)



Source: Central Bank of Armenia.

Armenia's foreign trade, by country, as of 30.06.2017



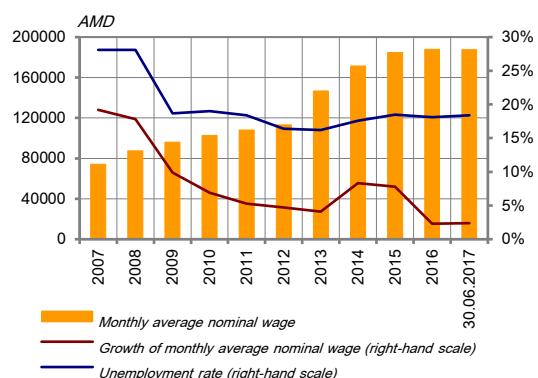
Source: National Statistics Service of Armenia.

⁷ Source:
https://www.cba.am/Storage/AM/downloads/stat_data_arm/PRESS%20RELEASE-2017Q2.pdf

2.3. HOUSEHOLD INCOME AND DEBT BURDEN⁸

The wages grew during the half of the year though slower than in the previous years.

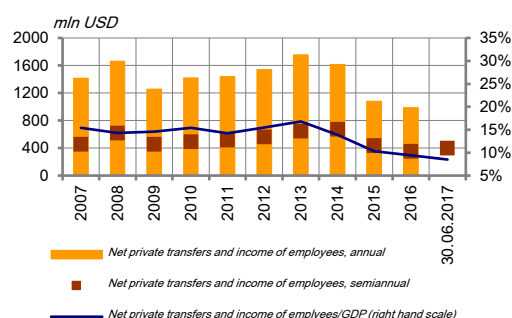
Nominal average wage and unemployment



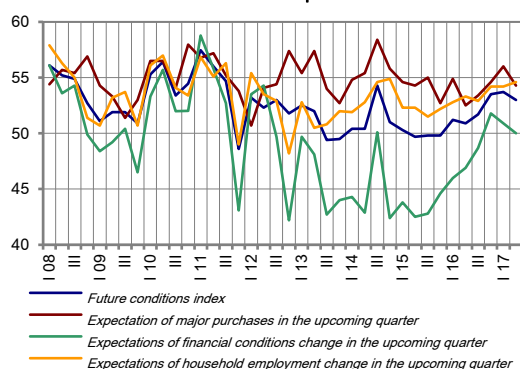
Source: National Statistics Service of Armenia.

The growth trend of net current private remittances and outbound workers' compensation was maintained.

Net private transfers and wages of seasonal employees

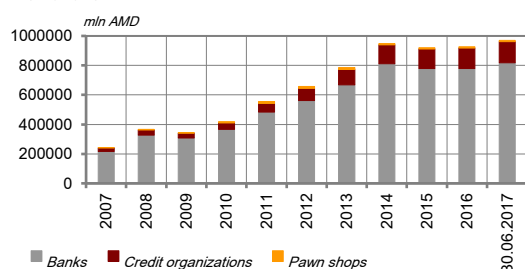


Future conditions index and its components



During the first half, the liabilities of households to financial institutions grew, leading to an increased debt burden.

The structure of household liabilities to financial institutions



Source: Central Bank of Armenia.

In the first half of 2017, the growth rate of the monthly average nominal wages was maintained at 2.4%, given foreign and domestic macroeconomic developments (2.8% in the first half of 2016). The wages grew in the private sector by 3.2% and in the public sector decreased by 0.2%. The unemployment rate remained unchanged compared to the same period of the previous year, 18.4%. Given the CBA assessments, the growth of wages will be 3.1% and unemployment rate will be 17.9% during 2017. In parallel with the acceleration of economic activity in the coming years, it is expected that the rate of wage growth will increase and unemployment will continually decline.

During the reported period, the increasing rates of remittances to individuals was maintained, having a positive impact on the revenues of households. In the first half of 2017, as compared to the first half of 2016, the net current private remittances and outbound workers' compensation increased by 12.9%. The 12-month ratio of the net current transfers and outbound workers' compensation to GDP remained unchanged, 9.5%, given the growth level of the GDP.

The low inflationary environment also positively affected the households' income during the first half of the year.

The household surveys conducted by the CBA⁹ are another evidence for the growth of households' revenues. According to those surveys, both indexes of current and future financial conditions increased as compared to the same period of the previous year. This contributed to increases in overall current and future conditions. Thus, the Consumer confidence index grew by 2.2 to 44.8 in the second quarter of 2017 compared to second quarter of 2016.

During the reported period, the household savings in bank deposits rose by 4.9% and amounted to AMD 1,213 billion (15.6% YoY). Moreover, dram-denominated deposits grew significantly amounting 35.0% of total deposits, against 32.2% of the previous year. However, the high share of foreign currency deposits continues to limit the ability of banks to allocate their funds in dram denominated assets, such as AMD lending to households. The deposit growth was accompanied by a decrease in interest rates on AMD and USD deposits from households.

The expected increase in remittances from Russia in 2017 and economic growth, as well as low inflationary environment in Armenia will have a positive impact on households' real income.

In the first half of the year, the demand for loans and the lending supply grew, therefore the volume of lending to resident households increased¹⁰, leading to a heavier debt burden of

⁸ Source: "Inflation Report" by the CBA, 3rd quarter, 2017.

⁹ Source: Summary of quarterly surveys on "Consumer confidence index" by the CBA, 1st half 2017.

¹⁰ Source: summary of quarterly surveys on "Lending conditions by banks and credit organizations of Armenia" by the CBA, 1st half 2017.

households. Resident households' total liabilities to the financial institutions have risen by 4.8% (4.9% YoY) to AMD 970.0 billion during the reported period, given a 4.9% growth in lending by banks and 4.6% growth in lending by credit organizations. Amidst accelerated growth of lending over GDP, the share of household loans in GDP grew by 0.4 pp. to 18.6%. The debt to deposit ratio remained unchanged at 80.0%. This means that households remain net creditors for credit institutions.

The most attractive type of lending to households remains the consumer lending, with high competition between credit institutions. In the first half of 2017, the volume of consumer loans increased by 8.0%, due to increases in all subsectors of consumer loans, except for car loans.

Overall, in the first half of 2017, the tendency of consumer loan terms and procedures easing was maintained due to the increase in competition between banks and other financial institutions, as well as the increase in liquidity created due to capital replenishments. Mitigations refer to almost all aspects of crediting (maturity, creditworthiness assessment, non-interest payments, and loan / collateral ratio) and are differentiated depending on the characteristics of individual customer groups.

In the period under review, mortgage lending by both banks and credit organizations improved by 1.8%, contributed mainly by a 2.4% increase in mortgage loans for real estate purchase.

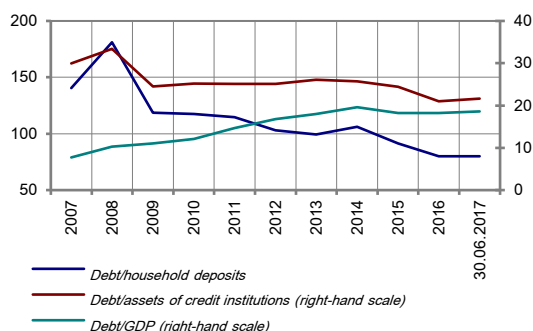
The amendments in the RA Law on Income Tax¹¹ and the refinancing projects of the National Mortgage Company, as well as the program "Housing for Youth" continue to contribute to the expansion of the mortgage market. Due to the above-mentioned programs, the share of dram-denominated mortgage loans for real estate purchase in total mortgage loans real estate purchase continued to grow and amounted 54.5%, positively impacting the credit risk management of this type of loans. The adoption of the draft law "On Housing Mortgage Crediting" may also have its positive impact on the risk management, which will increase the level of transparency in the mortgage market and ensure the protection of borrowers' interests.

Banks and credit organizations expect that the volume of consumer and mortgage lending will grow, due to easier lending conditions and increased demand for loans in the third quarter of 2017¹².

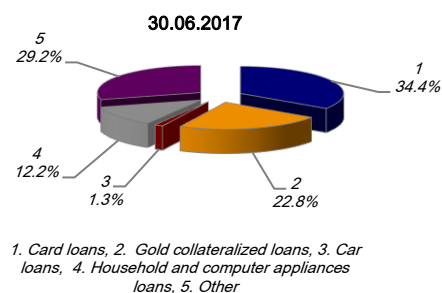
In the first half of 2017, the loan portfolio quality of households improved. The share of non-performing consumer loans with banks and credit organizations decreased by 0.6 percentage point to 7.8%. The share of non-performing mortgage loans in total mortgage loans decreased by 0.3 percentage point to 5.8%.

Overall, the risks arising from the household sector are manageable and no significant threat to the stability of the financial system arise.

Household debt burden indicators, %

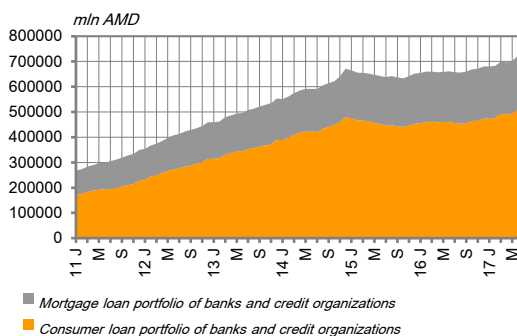


Consumer loan portfolio structure of banks and credit organizations

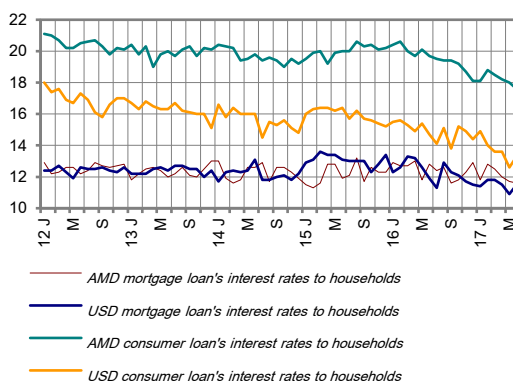


The risks arising from households' diligence in loan repayments recorded a descending trend.

Consumer and mortgage loan portfolio of banks and credit organizations



Lending interest rates to households



Source: Central Bank of Armenia.

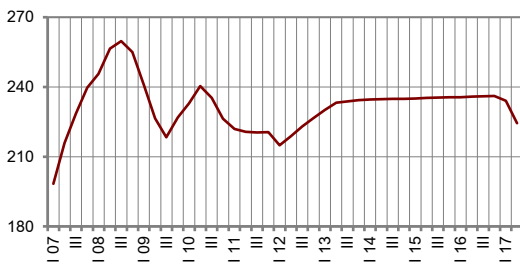
¹¹ No. 205-N decision of the RA Government on "Establishing the procedure of employees, individual entrepreneurs and notaries equal to amount of the interests paid for mortgage loans" February 19, 2015.

¹² Source: quarterly survey on "Lending conditions by banks and credit organizations of Armenia" by the CBA, 1st half 2017.

2.4. REAL ESTATE MARKET

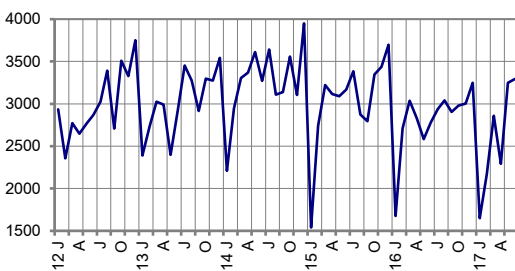
In the first half of 2017, the apartment prices fell.

Average apartment price index in Yerevan (sq m)



The real estate sale and purchase transactions increased, in comparison with the first half of the previous year.

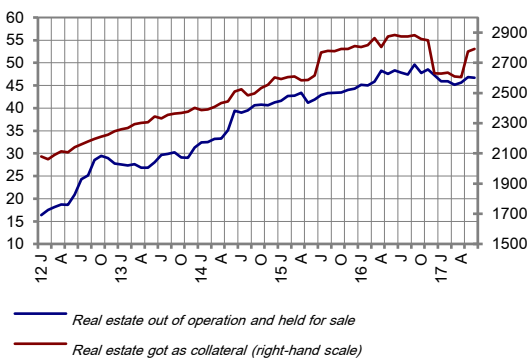
Number of real estate sale and purchase transactions



Source: State Committee of Real Estate Cadaster at the Government of Armenia.

Risks associated with the sale of collateral remain key risks.

Volume of real estate out of operation held for sale and got as collateral with the commercial banks (bln AMD)



Source: Central Bank of Armenia.

In the period under review, as compared to the two halves of the previous year, the market prices of apartments in residential apartment buildings in Yerevan and other towns decreased by 3.0 pp. each¹³. Relatively high growth was observed in the center of Yerevan, 1.7%. Simultaneously, the commercial banks kept on the loan-to-value ratio for property-backed loans in the range of 60-80%. In such case the credit risk derived from possible fluctuations in the real estate prices is significantly restrained (for details, see subsection "Market risk of commercial banks").

In the first half of 2017 as compared to the first half of 2016, the number of real estate and apartment sale and purchase transactions in Yerevan and other regions increased by 17.3% and 0.2%.

According to the quarterly surveys conducted by the Central bank of Armenia, the primary market of real estate transactions is more active, due to amendments to the law on Income tax, which came into force in January 2015. Given the financial stability issues, the collateral realization risk remains important and is relatively high for commercial real estate.

In the first half of 2017, both the volume and number of real estate purchase loans with banks and credit organizations grew by 2.4% and 3.4%, respectively (for details, see subsection "Household income and debt burden"). Simultaneously, the real estate loan portfolio quality improved and a 0.5 pp. decline in non-performing real estate loans was observed, which amounted 5.2% of total real estate purchase loans.

Loans provided for construction of residential and non-residential buildings increased by 14.3% and the portfolio improved. The share of non-performing loans in real estate construction loans decreased by 1.0 pp. to 5.7%.

Residential buildings completion by sources of financing

Sources of financing	Exploited residential buildings (sq. m) in 1 st half 2017	Share in total	Percentage change as to 1 st half 2016
Total, of which:	34,746	100%	4.9%
State budget	0	0	0
Corporations' funds	2,003	5.8%	-48.8%
Households' funds	32,743	94.2%	12.1%

Source: National Statistics service of Armenia.

¹³ As there is no single index of real estate average price in Armenia, the criterion for real estate price developments is considered the average price index of apartments in Yerevan

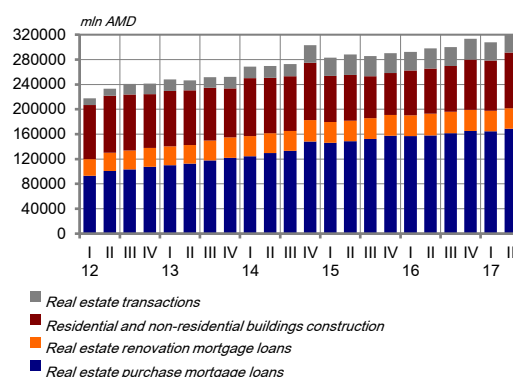
In the first half of 2017, the volume of residential houses commissioned to operate financed by companies decreased by 48.8%. As a result, the share of residential houses commissioned to operate financed by companies fell to 5.8%, as compared to 11.8% in the first half of 2016. An increase was observed in the volume of residential houses commissioned to operate financed by households, 12.1%, leading to a 4.9% growth in the volume of residential houses commissioned to operate.

The majority of construction companies consider the low demand as the main hindering factor for real estate construction¹⁴.

In midst of low activity of the real estate market, liquidity risks associated with the sale of collateral are persisting for the financial institutions. However, the fluctuations in the real estate market are insignificant from the financial stability viewpoint.

Mortgage lending increased during the half of the year.

Real estate lending



Source: Central Bank of Armenia.

SUMMARY

In the first half of 2017, the favorable macroeconomic environment of the Republic of Armenia was conditioned by both growth of external demand and factor income, as well as the ongoing recovery of domestic demand. High economic activity was observed in the period under review owing to growth levels of manufacturing and services. At the same time, an increase in private remittances and outbound workers' compensation was observed, which contributed to the growth of household income and the reduction of credit risks arising from the household sector.

Thus, due to the reduction of regional macroeconomic uncertainties and the expansion of domestic economy, the risks rising from the macro economy dropped, strengthening the stability of the financial system.

¹⁴ Source: summaries of quarterly surveys on "Business environment index" conducted by the CBA, 1st half 2017.

3. FINANCIAL MARKETS STABILITY

3.1. MONEY AND CAPITAL MARKETS

In the first half of 2017, the financial market interest rates declined parallel to monetary conditions easing and strong liquidity position in banks.

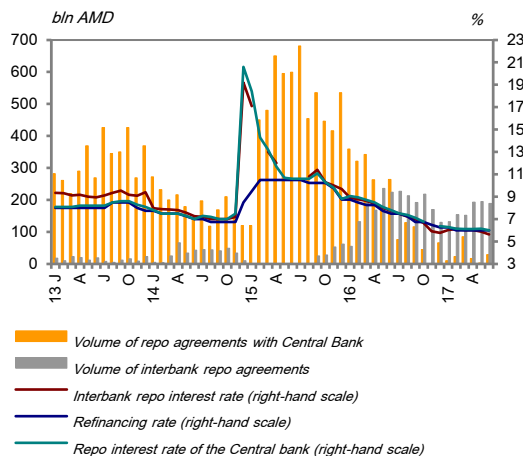
In the first half of 2017, the Central bank continued its accommodative monetary policy and lowered the refinancing rate from 6.25% to 6.0%.

The easing of monetary conditions, as well as the strong liquidity position of banks and other financial institutions fostered the decrease in the financial market rates.

In the first half of 2017, the declining trend of the short term rates of the financial market continued. The average monthly interbank repo rate was 5.6% in June 2017, reflecting 2.1 pp. decline as compared to June of the previous year. Moreover, the interbank repo rate fell lower than the refinancing rate in May and June.

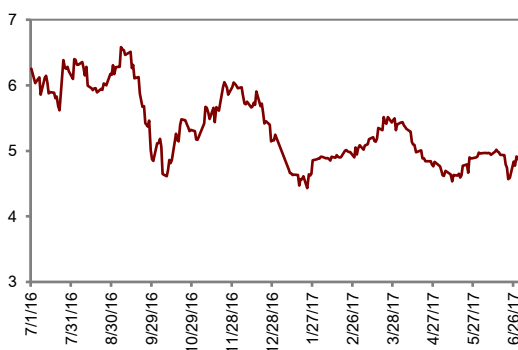
The yields of government bonds followed a downshift all along the curve¹⁵, by 1.0 pp. on average. The most pronounced decline was observed for the medium-term interest rates, by 1.4 percentage point. The interest rates on long-term bonds decreased merely by 0.4 percentage point, while the decrease in short-term interest rates was 1.0 percentage point. As a result, the spread between 10-year and 6-month bonds stood at 4.9% in June 2017.

Monthly volume of repo transactions and repo interest rates (interbank and with the CBA)



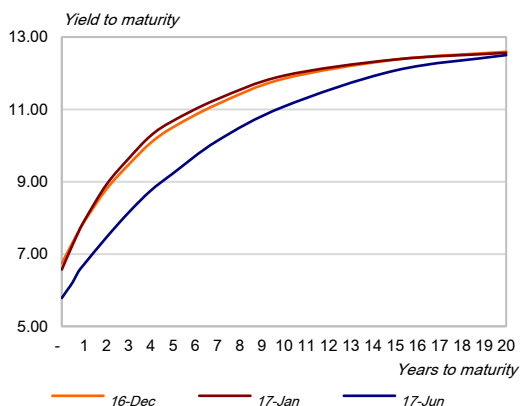
Source: Central Bank of Armenia.

Spread between 6-months and 10-years bonds



Source: Central Bank of Armenia.

Yield curves of Armenian government bonds



Source: Central Bank of Armenia.

¹⁵ The yield curve involves dependence between the yields and maturities of government bonds. Starting from July 2013, the Central Bank is using a new approach in building the yield curve by applying the Nelson and Siegel Model; this is a parametric statistical model and it approximates the yield curve of all periods as a function.

To summarize the current trends in the government securities market, the Central Bank calculates indices of government securities¹⁶, which are presented in the table below.

Indices of government securities in the first half of 2017

	TBI	G03	G05	G5I	GMI
Modified duration	0.29	1.30	1.91	6.27	3.71
Risk weighted yield	6.59	7.98	8.82	12.09	11.11
Average maturity (year)	0.30	1.47	2.28	14.48	7.34
Average weighted coupon %		9.37	9.74	12.20	10.76
Market Price of government securities (bln AMD)	47.12	174.72	269.11	190.92	460.03
Market value index change in case of +/-1% yield change (mln AMD)	+/- 135.2	+/- 2277.0	+/- 5129.1	+/- 11966.5	+/- 17087.3
Market value index change in case of yield change by the standard deviation ¹⁷ (mln AMD)	6.7	166.2	418.7	685.9	847.6

As of June 2017, the modified duration¹⁸ of government coupon bonds outstanding increased by 0.2 during the first half of the year and stood at 3.82, indicating to the sensitivity of bond prices to changes in the interest rates. The average maturity also grew to 7.41 years (7.15 in the previous yearend). These indicators for discount bonds were 0.46 and 0.30, respectively, registering a slight decrease.

The results of a stress test of 1% change in the government bonds' yields indicate that in case of an increase/decrease in the yield of government securities, investors' likely loss/gain could be about AMD 17.1 billion or 3.0% of the market value of government securities. Moreover, a notable portion of the change might come from the long-term securities, as they are more sensitive to the interest rate change.

Operations in securities markets (including repo and reverse repo transactions but excluding operations with the Central Bank) carried out by investment service providers¹⁹ increased by AMD 702 billion compared to the same period of the previous year and

¹⁶ There are 5 indices calculated for government securities, of which 4 for coupon bonds and 1 for discount bonds. The coupon bond indices are G03, G05, G5I, which cover bonds with maturities, respectively, from 0 to 3 years, 0 to 5 years and 5 years and more; and GMI, which is a coupon bond index. Indices include the bonds issued in AMD by the Ministry of Finance, with semi - annual fixed coupons and AMD 1 billion and higher turnover. Discount government bonds TBI include bonds with maturity of one week and more, with AMD 400 million and higher turnover. For details, see the CBA website: www.cba.am

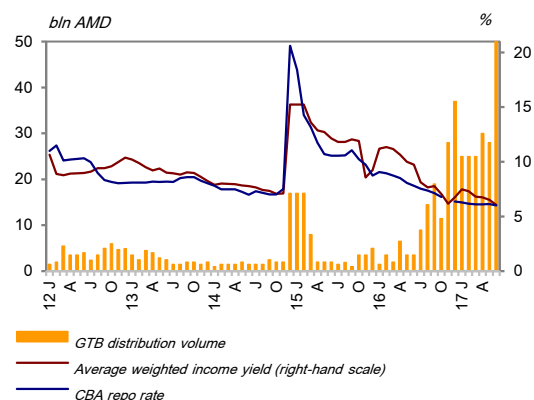
¹⁷ Standard deviation of risk weighted yield during 31.12.2016 and 30.06.2017.

¹⁸ Modified duration indicates the price change of a bond in case of its percentage change in the yield to maturity.

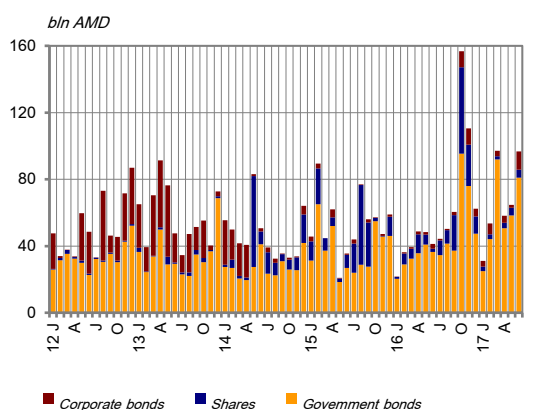
¹⁹ As of 30.06.2017, investment service providers included 17 commercial banks and 9 investment companies.

The government bond yields declined all over the yield curve.

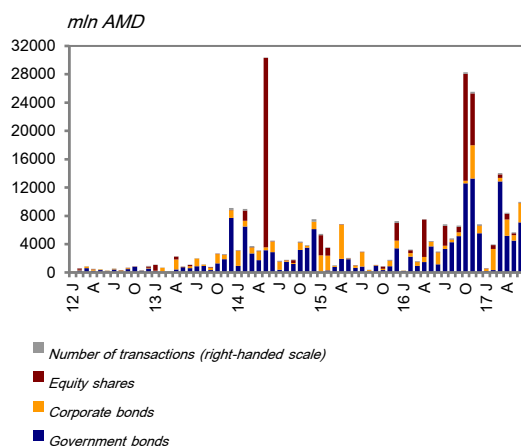
Short-term treasury bond allocation volumes and weighted average yields



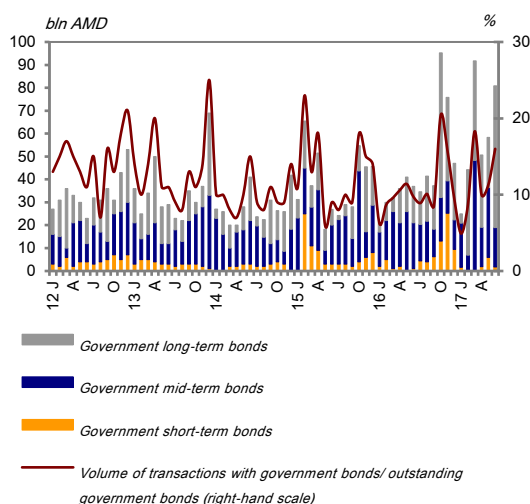
Security trades by investment service providers



Security trades and repo transactions at regulated market of securities

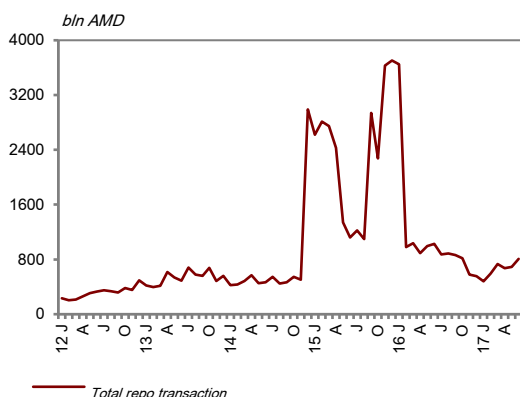


Volume of transactions with government securities and volume of transactions with government securities/outstanding government securities ratio



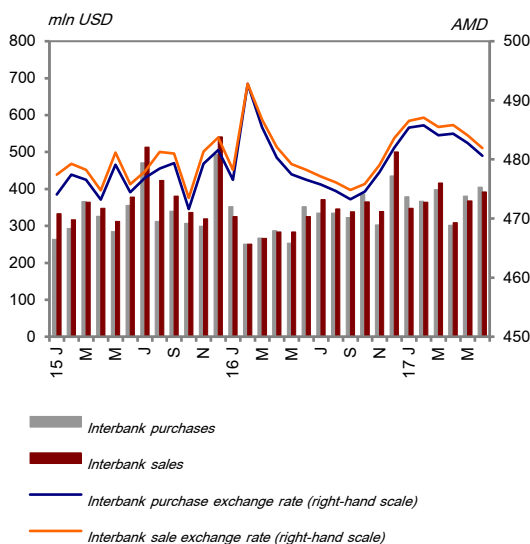
Source: Central Bank of Armenia.

Repo transactions by investment service providers (including repo transaction with the CBA)



Source: Central Bank of Armenia.

Exchange market operations and exchange rates



Source: Central Bank of Armenia.

amounted to AMD 4 trillion 166 billion. This upsurge was due to the gradual rise of repo transactions during the first half of the year, as well as large-scale operations in securities trading in March and June. The transactions involving securities' trades constituted 9.6% of the operations mentioned above.

In the first half of 2017, the liquidity of government securities market (according to the indicator describing the level of liquidity)²⁰ increased as compared to the same period of the previous year, registering a rather volatile trend. The liquidity level picked up in March and June. The standard deviation, which shows the volatility of the liquidity of the government securities market was 4.9, against 1.8 in the same period of the previous year.

Within the total trades of government securities the share of short-term security trades declined to 3.4%. The share of long-term security trades grew considerably and amounted to 57.1%, while the share of medium-term security trades was 39.5%.

The volume of repo and reverse repo transactions (excluding operations with the Central Bank) carried out by investment service providers increased as compared to the same period of the previous year, and amounted to AMD 3 trillion 765 billion. Again, almost all repo transactions involved government securities.

In the first half of 2017, the total volume of securities trades in regulated market amounted to AMD 41.9 billion. In the regulated market, transactions with government securities comprised the prevailing part, 72.0%. The trades with corporate securities and shares constituted 22.8% and 5.2%, respectively.

The share of regulated market in the structure of securities trades by investment service providers has been 3.7% since the beginning of the year.

The capitalization of securities market was AMD 138.0 billion, increasing by AMD 3.5 billion or 2.5% as compared to the previous year-end. The concentration of capitalization by issuers has increased compared to the previous year; the share of the first three issuers was 83.0%, while the share for the first five issuers was 98.5%.

Share of 3 and 5 largest issuers' by capitalization, 2012 – 2017 H1 (%)

Date	Capitalization of the 3 largest companies (%)	Capitalization of the 5 largest companies (%)
31.12.2012	78.8	96.2
31.12.2013	79.8	96.7
31.12.2014	86.5	97.2
31.12.2015	83.0	98.0
31.12.2016	80.4	95.2
30.06.2017	83.0	98.5

²⁰ The liquidity indicator of government securities market is calculated as a ratio between an amount of monthly trade transactions executed by investment service providers in the secondary market of government bonds and an amount of government bonds outstanding.

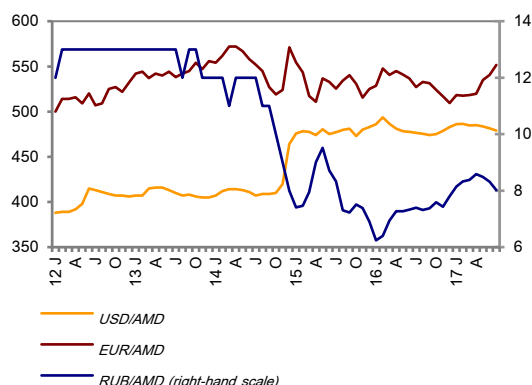
3.2. FOREIGN EXCHANGE MARKET

In the first half of 2017, the foreign exchange market remained relatively stable. Specifically, as of end of the first half of 2017, AMD appreciated against USD by 0.72% compared to the previous year-end. The AMD/RUB exchange rate depreciated by 2.72%, while AMD/EUR exchange rate depreciated by 6.55%.

At the end of the first half of 2017, the real effective exchange rate of Armenian dram depreciated by 1.98% as compared to the previous year-end. The nominal effective exchange rate of Armenian dram depreciated by 2.81%²¹, mainly due to the appreciation of partner countries' national currencies.

The foreign exchange market remained relatively stable.

Exchange rates in exchange market of Armenia (AMD)



Source: Central Bank of Armenia.

SUMMARY

In the first half of 2017, the stability of financial and foreign exchange markets remained relatively intact. The loosening of monetary policy by the Central bank was significantly reflected in the interest rates of the financial market.

The decline of the government securities yields led to a decrease in the yield curve, especially the short-term and medium-term.

The fluctuations in the financial markets did not cause substantial risks in the first half of 2017, and the financial stability was maintained.

²¹ For the exchange rate behavior and the foreign competitiveness, the nominal and real effective exchange rates are also considered, which are calculated based on the respective weights of foreign trade with twelve main partner countries (Euro area, Russia, Ukraine, South Korea, Bulgaria, Switzerland, Iran, the USA, Turkey, Georgia, Japan, China).

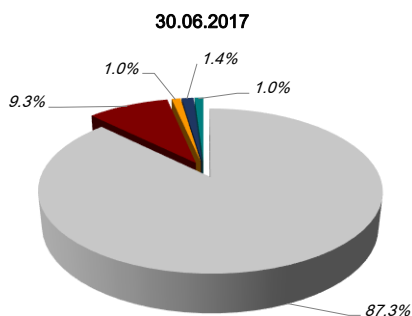
4. STABILITY OF FINANCIAL INSTITUTIONS

In the first half of 2017, the financial market participants kept on expanding the scope of financial intermediation, given the prospect of accelerating economic growth and stabilization outlook of income inflows from abroad. The financial sector ratios of assets-to-GDP and credits-to-GDP were 89.0% and 50.0%, respectively, at the end of the first half.

Armenia's financial system remains bank-dominated, with banks accounting for 87.3% of the financial system assets. In this context, identifying and evaluating banking sector risks is essential for the assessment of the domestic financial stability. The shares of insurance and securities market participants and other players of the financial market remain small enough, so their impact on the financial stability is negligible.

The risk management of banks is highly important in terms of financial stability.

Structure of financial system assets, by financial institutions



1. Banks, 2. Credit organizations, 3. Insurance companies, 4. Investment companies, 5. Other financial institutions

Source: Central Bank of Armenia.

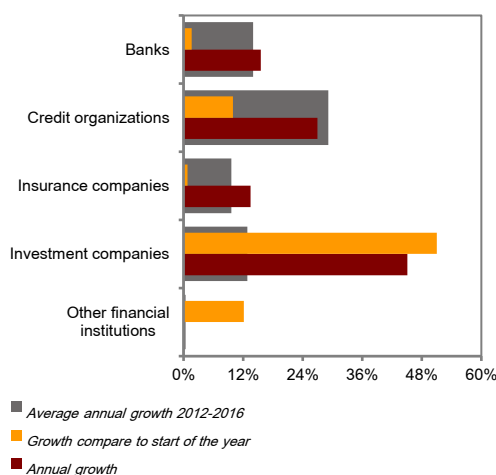
4.1. COMMERCIAL BANKS

Banking sector stability map

In the second quarter of 2017, relative to the second quarter of 2016, the elements of the stability map²² incurred some changes (for details, see subsections “Credit risk”, “Liquidity risk”, “Market risk”, “Capital adequacy and Profitability”).

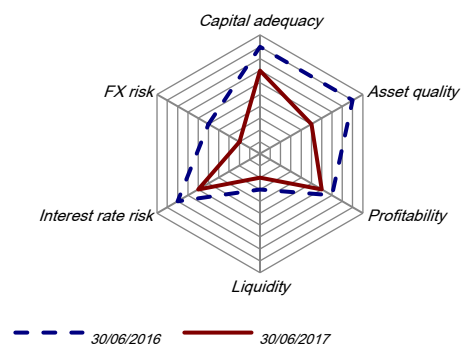
All components of the map improved (the chart data is near the midpoint of the map). In particular, a significant positive shift in asset quality and foreign exchange risk components was observed.

Growth of financial system sectors' assets



Source: Central Bank of Armenia.

Banking sector stability map



Source: Central Bank of Armenia.

²² The banking sector stability map contains indicators denoting capital adequacy, assets quality, liquidity, profitability, interest rate risk and foreign exchange risk. These indicators were firstly measured on a 1 to 10-scale basis and then calculated in accordance with the IMF methodology. Note that the nearer the value to the center of the map, the lower the level of risks associated with the indicator, and vice versa. The banking sector stability map shall not be interpreted as an indication of the level of financial stability, rather it provides a picture whether the level of risks involved has increased or decreased.

4.1.1. Financial intermediation and concentration

In the first half of 2017, parallel to improved economic activity, the growth rate of nominal GDP was in line with the banking intermediation development. As a result, during the half of the year the banking intermediation remained merely unchanged. The banking sector assets-to-GDP and credits-to-GDP ratios were 77.8% and 45.2%, respectively. The deposits-to-GDP and broad money-to-GDP ratios were 43.3% and 43.2%, respectively.

Total capital of the banking sector grew by 1.2% (20.6% YoY) while total assets, by 1.6% (17.5% YoY), relative to the beginning of the year. As a result, the leverage ratio (total capital to total assets) decreased to 16.2%. The increase of total capital was due to statutory capital replenishments and net profit. The banking sector replenished their statutory capital by a total of AMD 3.2 billion, of which 1.4 billion were from non-resident sources. As a result, the share of non-resident participation in the statutory capital of the banking sector decreased by 0.6 percentage points to 60.8%.

The Herfindahl-Hirschman Concentration Index

Indicator	31/12/14	31/12/15	31/12/16	30/06/17
Total assets	0.0728	0.0764	0.0859	0.0842
Total liabilities	0.0751	0.0800	0.0953	0.0906
Total capital	0.0627	0.0630	0.0580	0.0643

Source: Central Bank of Armenia.

Given the concentration indicators of the main balance sheet items (assets, liabilities and total capital) the concentration risk of the banking sector to the financial stability remains low. Compared to the beginning of the year, the shares of assets, liabilities and capital of 4 largest banks decreased by 2.0, 2.0 and 1.8 percentage points to 47.7%, 50.3% and 34.5% respectively.

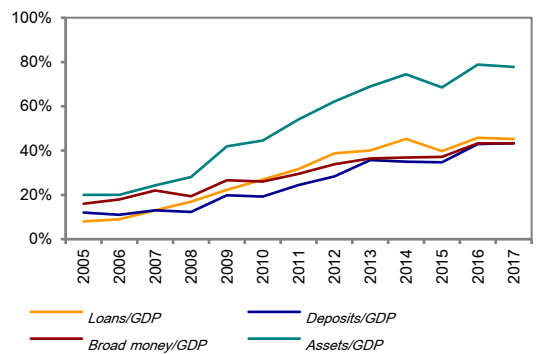
The summary indicators of the Herfindahl-Hirschman Index decreased somehow during the year

4.1.2. Credit risk

The credit risk remains the most important risk to the financial stability in terms of ensuring the solvency of the banking sector. The share of credit risk in risk-weighted assets of commercial banks accounts for 86.4%. In this context, the prudent management of credit risk is extremely important.

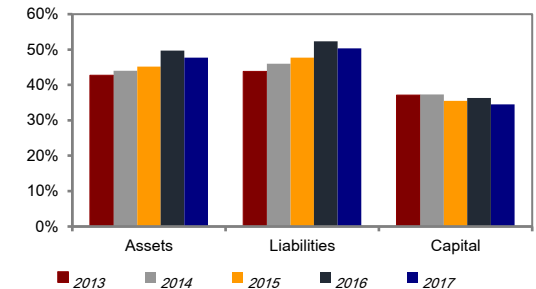
During the half of the year, loans to economy increased by 1.6% (13.2% YoY). Lending to legal entities increased by 1.6%, while lending to individuals, by 1.2%.

Banking intermediation



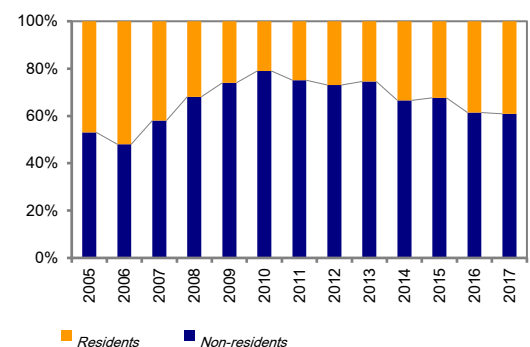
Source: Central Bank of Armenia.

The shares of assets, liabilities and capital of 4 largest banks in the banking sector



Source: Central Bank of Armenia.

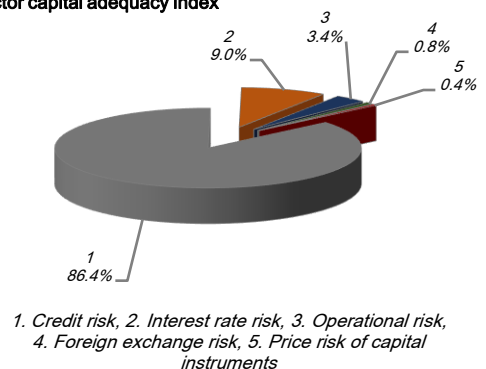
Foreign investors' participation in statutory capital of Armenian banking sector



Source: Central Bank of Armenia.

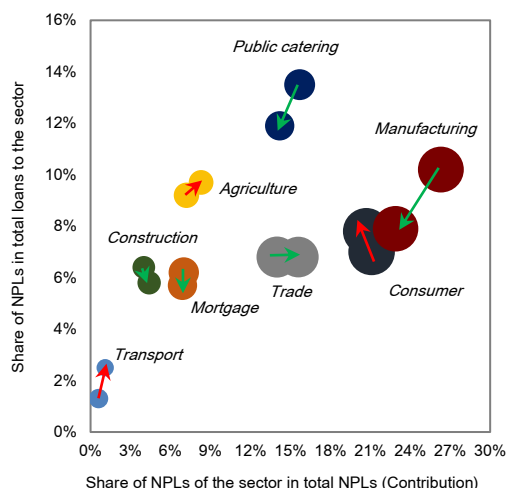
The credit risk is declining.

Structure of risk weighted assets calculated in banking sector capital adequacy index



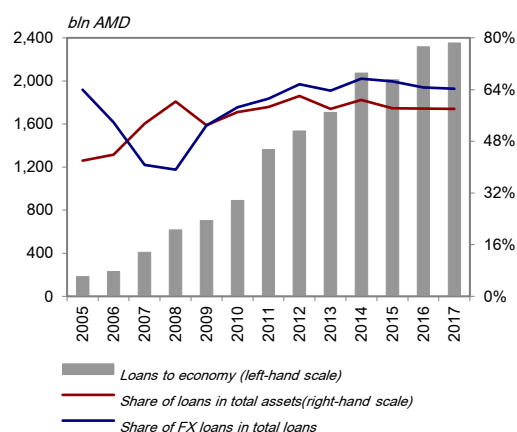
Source: Central Bank of Armenia.

Change of NPLs share in lending to economy sectors
(The end of the arrow shows data as of 30.06.2017, the beginning, as of 31.12.2016)



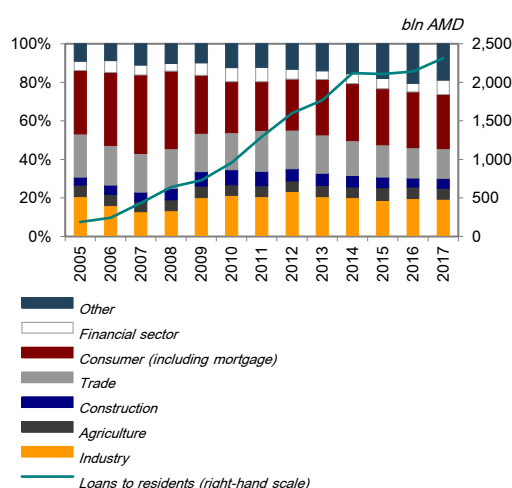
Source: Central Bank of Armenia.

Lending to economy



Source: Central Bank of Armenia.

Structure of bank loans to residents, by economy sectors



Source: Central Bank of Armenia.

The consumer loans, manufacturing and trade loans had largest shares in total lending to residents, making up 20.2%, 19.3% and 15.4%, respectively.

The share of non-performing loans and receivables (classified as “watched”, “substandard”, and “doubtful”) decreased by 1.0 percentage point to 5.8% of total loans and receivables. The shares of “watched”, “substandard”, and “doubtful” loans and receivables were 1.7%, 1.6% and 2.4%, respectively. The share of non-performing loans and receivables is relatively high in public catering and other services, as well as agricultural and manufacturing sectors, constituting 11.9%, 9.7% and 7.9%, respectively.

The Herfindahl-Hirschman sectorial concentration index for lending remained the same as 0.11 at the end of the first half of the year, pointing to a moderate concentration of loans in the banking sector. The same indicator calculated using the banks’ average amounted to 0.2. The higher value of indicator of sectorial concentration according to the banks’ average in comparison with the banking sector indicates relatively high sectorial concentration of loan portfolios in some banks.

The share of loans to large borrowers has increased by 4.5 percentage points to 24.9% of total loan portfolio as compared to the beginning of the year²³.

Credit risk stress scenarios²⁴

30.06.2017	Stress scenarios		
	25 % of watched, substandard and doubtful loans classified into losses	75 % of doubtful loans classified into losses	30 % of standard loans classified into watching loans
Loss of the banking sector	AMD 25.4 billion or 3.8% of regulatory capital of the banking sector	AMD 19.9 billion or 3.0 % of regulatory capital of the banking sector	AMD 70.1 billion or 10.6% of regulatory capital of the banking sector
Total capital adequacy of the banking sector in case of stress scenario	18.9%	19.0%	18.2%

Source: Central bank of Armenia.

The results of credit risk stress tests improved at the end of the first half of 2017 as compared to the beginning of the year. This was attributable to the banks’ loan quality improvement. The strictest stress scenario revealed cases of infringement of the capital adequacy requirement at some banks. However, these banks have sufficient capital to absorb plausible losses arising from credit risk. In this context, the probability of emergence of insolvency problems in the banking sector is estimated to be low.

²³ The bank’s risk on large borrowers exceeds 5% of average monthly regulatory total capital, considering the interdependence.

²⁴ This and further stress scenarios are not forecasting emergence of any risks, but rather are aimed to reveal the weaknesses of the financial system, as well as to assess its ability to absorb such risks.

Stress scenario of credit risk derived from off-balance sheet contingent liabilities

30.06.2017	Stress scenarios
	When 50% of off-balance sheet contingent liabilities performed
Banking sector capital adequacy ratio before the stress	19.5%
Banking sector capital adequacy ratio after the stress	19.2%

Source: Central bank of Armenia.

The results of stress scenario of credit risk derived from off-balance sheet contingent liabilities denote that no infringement of the ratio by any bank is reported. In this context, the impact of credit risk arising from off-balance sheet contingent liabilities on the financial stability is estimated to be insignificant.

4.1.3. Liquidity risk

The liquidity of commercial banks displayed a decreasing trend owing to better lending activity of commercial banks. Prudential ratios of total and current liquidity fell by 0.3 and 13.7 pp. to 32.5% and 170.8%, respectively, relative to the beginning of the year (with minimum thresholds of 15.0% and 60.0%). Prudential ratios of total liquidity and current liquidity for Group 1 foreign currencies decreased by 0.2 and 16.6 percentage points to 20.8% and 86.3%, respectively (with minimum thresholds of 4.0% and 10.0%).

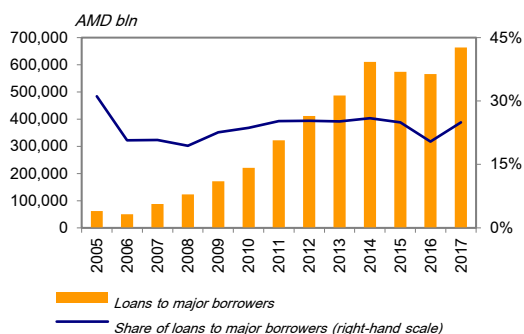
As for assets and liabilities by maturity baskets, the cash inflows practically cover cash outflows, in up to 3-month timeframe, in case if the liabilities are not being refinanced. In a near term horizon, there is a significant liquidity gap of only 91-365-day maturity basket. This is a coherent outcome of longer maturities for loans parallel to the deepening of banking intermediation. As of 30.06.2017, the ratios of assets to liabilities for up to 30-day (including demand), up to 3-month and up to 1-year maturity baskets amounted to 109.3%, 95.2% and 88.4%, respectively.

In terms of maintaining the current liquidity, it is particularly important to consider the aligned cash flows of assets and liabilities for up to 1-month maturity basket. In the post-crisis period, the ratio of assets-to-liabilities of the above-mentioned maturity basket has always been in the range of 90% to 110%, pointing to the banks' ability to assure current liquidity on a continuous basis.

During the reporting year, the declining trend of concentration of the funds attracted during the last 3-4 years was maintained, improving the liquidity risk profile of commercial banks. The share of large liabilities in total liabilities dropped by 2.7 pp. to 16.2% at the end of the first half of the year²⁵.

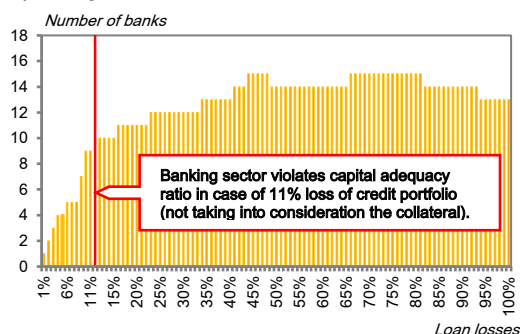
²⁵ Bank's liabilities for major creditors exceed 5% of total liabilities without considering the interconnectedness.

Loans to major borrowers to total loans



Source: Central Bank of Armenia.

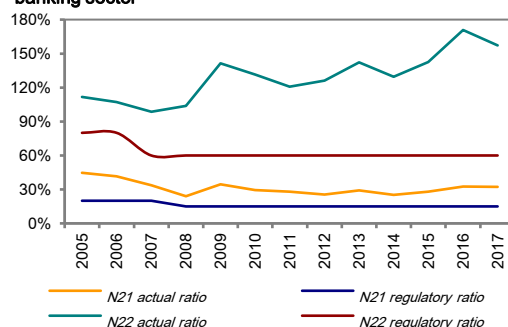
Number of banks violating total capital adequacy in case of dynamic growth of loan losses



Source: Central Bank of Armenia.

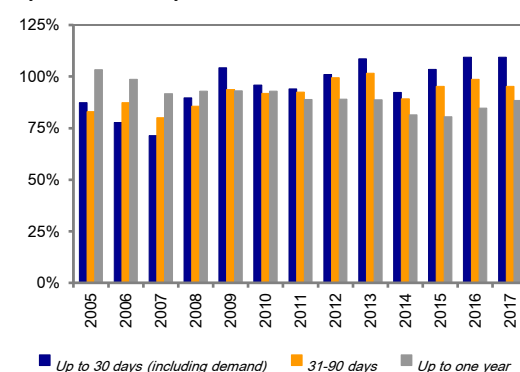
The liquidity ratios of commercial banks are twice higher than the regulatory minimum requirements.

The dynamics of actual and regulatory liquidity ratios of the banking sector



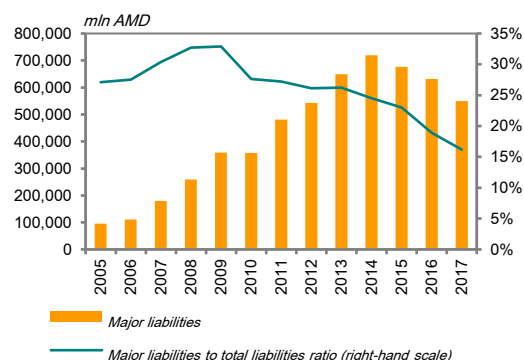
Source: Central Bank of Armenia.

The ratio of the banking sector assets to liabilities by terms to maturity



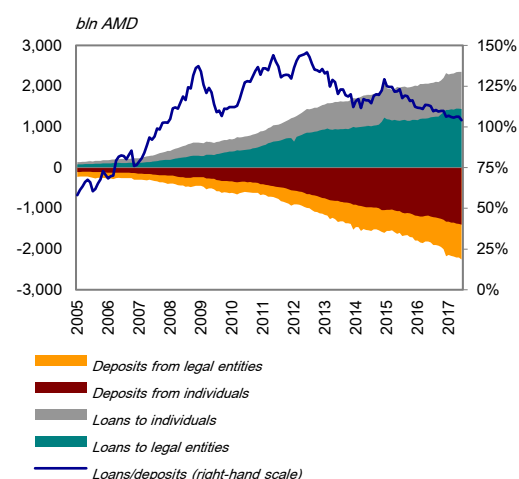
Source: Central Bank of Armenia.

The ratio of the banking sector major liabilities to total liabilities



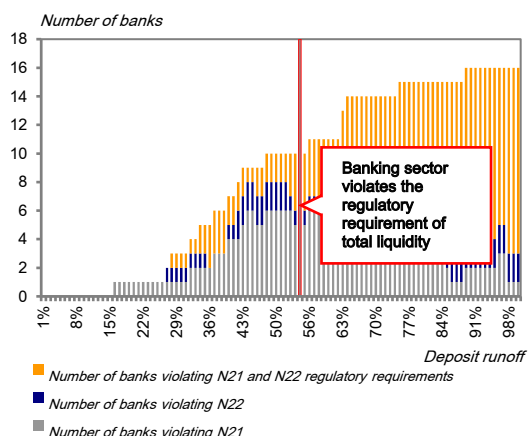
Source: Central Bank of Armenia.

The structure of loans and deposit funds of the banking sector



Source: Central Bank of Armenia.

Number of banks violating liquidity regulatory ratios in case of individuals' call and time deposits runoff



Source: Central Bank of Armenia.

The foreign borrowings of commercial banks have decreased by 8.5%. The funds attracted from international financial institutions felt by 5.6% to 24.1% of total foreign borrowings. The main lender countries include Netherlands (22.5%), Luxembourg (18.7%), the USA (6.5%) and Great Britain (5.3%). The share of long-term liabilities remained unchanged compared to the beginning of the year, 91.1%.

From the perspective of the stability of loan financing sources, some risk narrowing. The loans to deposits ratio decreased by 2.1 percentage points relative to the beginning of the year and stood at 104.3%²⁶.

Liquidity risk stress scenarios

30.06.2017	Stress scenarios		
	Withdrawal of 25% of individuals' time deposits	Withdrawal of 25% of demand liabilities	Withdrawal of 25% of demand liabilities and of 25% of individuals' time deposits
Total liquidity ratio of banking sector	26.6%	28.5%	22.4%
Current liquidity ratio of banking sector	119.5%	175.7%	125.9%

Relative to the results of liquidity risk stress tests conducted at the beginning of the year, no significant change was noticed in the stress test results of the end of the first half of 2017. All banks have sufficient level of high liquid assets to absorb the simulated liability outflow, even in case of the worst stress scenario. In this context, the emergence of liquidity problems undermining financial stability is estimated to be negligible.

Stress scenario of liquidity risk derived from off-balance sheet contingent liabilities

30.06.2017	Stress scenarios
	When 50% of off-balance sheet contingent liabilities performed
Banking sector total liquidity ratio	28.4%
Banking sector current liquidity ratio	138.6%

According to the results of the stress tests to assess liquidity risk arising from off-balance sheet contingent liabilities, all banks have sufficient high liquid assets to cover contingent liabilities. In this context, the liquidity risk arising from off-balance sheet contingent liabilities is estimated insignificant in terms of leaving an impact on the financial stability.

²⁶ In the calculation of this ratio, loans include loans to real sector, while deposits include funds attracted from individuals and companies.

4.1.4. Market risk

Foreign exchange risk

The Armenian dram exchange rate fluctuations against other currencies drove the domestic banking sector to revaluation gains reaching AMD 822 million. The banking sector generated net revenue of AMD 6.5 billion from foreign exchange transactions and derivatives.

During the half of the year, the reduction trend of dollarization of the banking system's balance sheet was maintained. Moreover, the dollarization level of deposits dropped more considerably. The share of foreign currency deposits declined by 2.9 percentage points to 67.8% of total deposit portfolio. The share of foreign currency loans has decreased by 0.3 percentage point to 64.3% of the total loan portfolio.

The banking sector's foreign currency net short position (including derivatives) amounted to AMD 8.7 billion or 1.3% of total regulatory capital (as of 31.12.2016, it was AMD 21.8 billion or 3.5% of total regulatory capital)²⁷.

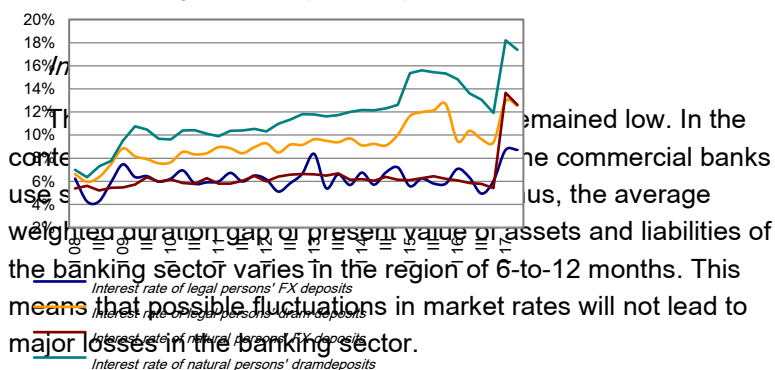
Foreign exchange risk stress scenarios

30.06.2017	Stress scenarios		
	Profit (loss) in case of 5% appreciation (depreciation) of AMD/USD	Profit (loss) in case of 5% appreciation (depreciation) of AMD/EUR	Possible maximum 10-days loss estimated through VaR Model
Banking sector's profit/loss from foreign currency revaluation	AMD 345 million or 0.05% of regulatory capital (AMD 345 million)	AMD 167 million or 0.03% of regulatory capital (AMD 167 million)	AMD 151 million or 0.02 % of regulatory capital

Source: Central Bank of Armenia.

If the worst possible stress scenarios reviewed in the above stress test²⁸ unfold, bank losses resulting from an open FX position will be insignificant and the impact of such losses on the financial stability will be weak.

Interest rate of legal and natural persons' deposits

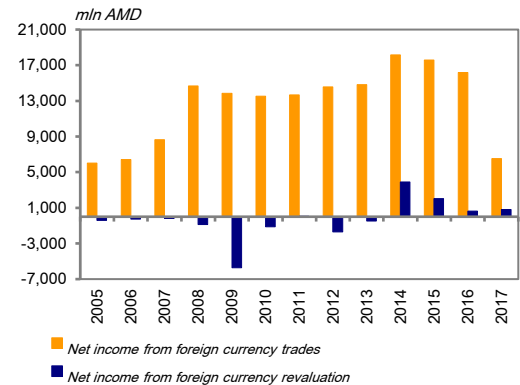


²⁷ The derivative instruments include the derivative contracts signed with foreign governments, central (national) banks, financial organizations and international institutions that are rated A + (A1) or higher than A+ (A1) for long-term deposits by Standard & Poor's or Fitch (Moody's)

²⁸ The calculation of losses estimated through stress - scenarios and the VaR Model (the VaR Model is not considered as a stress - scenario since the calculation of the model considers historical exchange rate series of currencies) is based on FX positions of commercial banks as of 30.06.2017.

The probable impact of market risk on the financial stability is estimated to be insignificant.

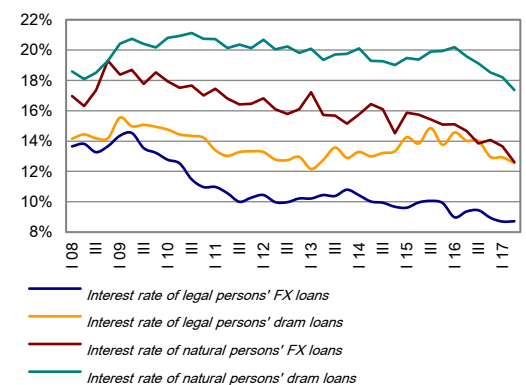
The net income of the banking sector from foreign currency



Source: Central Bank of Armenia.

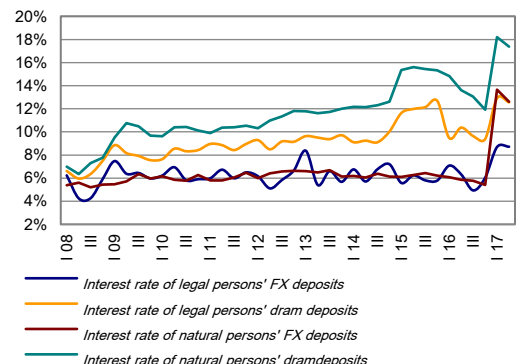
The interest rates of loans and deposits for individuals and legal entities decreased in line with stronger liquidity with banks and the easing of monetary policy.

Interest rate of legal and natural persons' loans



Source: Central Bank of Armenia.

Interest rate of legal and natural persons' deposits



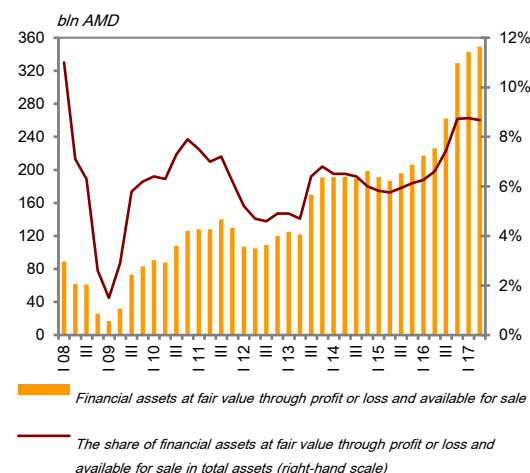
Source: Central Bank of Armenia.

Interest rate risk stress scenarios

30.06.2017	Impact of 2 pp. increase (decrease) of market interest rates on the economic value of capital, estimated through the "Duration Method"	Deviation of net interest income from expected income of the three months ahead in case of 2 pp. increase (decrease) of market interest, estimated through the "Interest rate-sensitive assets and liabilities Gap Method"
Banking sector's profit/loss	AMD -20.2 billion or 3.1% of banking sector capital (AMD 20.2 billion or 3.1% of banking sector capital)	AMD -486 million or 0.1% of banking sector capital (AMD 486 million or 0.1% of banking sector capital)

Source: Central Bank of Armenia.

Share of financial assets at fair value through profit or loss and available for sale in total assets



Source: Central Bank of Armenia.

In case of the worst possible stress scenarios, possible losses of banks resulting from interest rate will be approximately 3.5% of the total capital. This implies that losses of the banking sector resulting from interest rate fluctuations are insignificant and the impact of such losses on the financial stability will be weak.

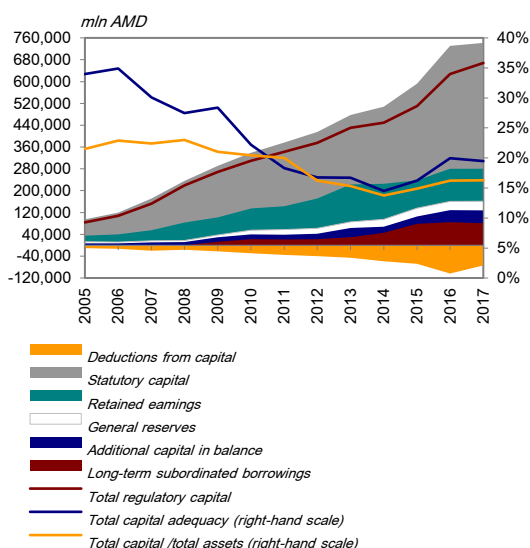
Price risk

The price risk of the banking sector remains low, owing to small amount of financial assets available-for-sale and held at fair value through profit or loss in the balances of banks. The share of the abovementioned assets was 8.7% in total assets as of end of the first half of the year.

The net income generated by the banking sector from revaluation of financial assets available-for-sale and held at fair value through profit or loss was AMD 3.2 billion.

Risks associated with the real estate price fluctuations remained manageable. Domestic commercial banks further provided mortgages with loan-to-value ratio mostly between 60-80%, while taking quite a strict approach in evaluating borrowers' creditworthiness. Such restrictions significantly lower the possibilities of loan losses from real estate price volatilities.

The structure of total regulatory capital



Source: Central Bank of Armenia.

Real estate price change stress scenarios

30% depreciation of real estate	30.06.2017
The banking sector's loss due to revaluation of own real estate property (price risk)	AMD 10.6 billion (or 1.6% of banking sector capital)
The banking sector's loss due to a 30% loss of vulnerable credit portfolio ²⁹ (taking into consideration that the collateral involved has been sold at a depreciated cost), if a stress-scenario occurs (credit risk)	AMD 26.1 billion (or 3.9% of banking sector capital)
The banking sector's loss due to a 100% loss of vulnerable credit portfolio (taking into consideration that the collateral involved has been sold at a depreciated cost), if a stress-scenario occurs (credit risk)	AMD 86.9 billion (or 13.1% of banking sector capital)

Source: Central Bank of Armenia.

²⁹ Vulnerable loan portfolio represents the sum of loans outstanding, the residual values of which exceed the 30% devaluated values of the real estate used as collateral.

In case of stress scenario of 30% depreciation of real estate price, maximum potential losses of commercial banks associated with price risk and credit risk derived from the price risk increased compared to the beginning of the year, mainly due to the expansion of the loan portfolio secured by real estate collateral in the banking system. Nevertheless, in view of the moderate fluctuations of the real estate price and the last years' developments, the financial stability is assessed not vulnerable to the impact of credit and price risks.

4.1.5. Capital adequacy and profitability

In the first half of 2017, commercial banks' total capital adequacy ratio decreased by 0.5 percentage point to 19.5%. This decrease was mainly due to expansion of the loan portfolio and reduction of long-term subordinated loans' attraction. The growth of statutory capital and generated net income positively impacted the capital adequacy at banks.

Total regulatory capital of commercial banks increased by 5.5% to AMD 661 billion compared to the beginning of the year. The structure of total regulatory capital has high quality in terms of its risk absorption capacity. The share of CET1 capital is 81.8% of total regulatory capital.

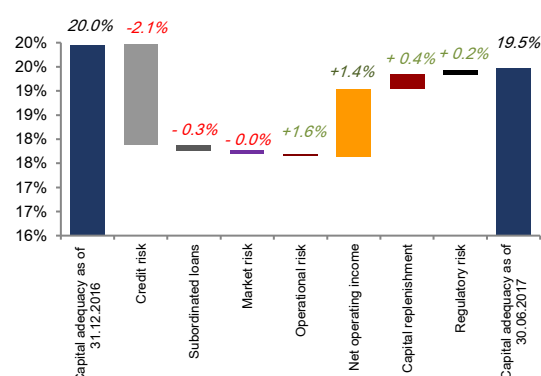
The banking sector's net profit, calculated in accordance with the Central Bank supervisory reports³⁰, amounted to AMD 20.2 billion, with 15 banks reporting profit and 3 banks incurring losses. The ROA and ROE were 1.0% and 6.2% (0.9% and 5.8% in the previous yearend). The return on equity improved due to the increase of the return on every unit of assets, while the decreased leverage ratio left its negative impact on it. The return on assets increased mainly as a result of relative cost-savings of non-interest expenses. In comparison with the previous year, non-interest expenses to assets ratio declined by 0.3 percentage point.

According to the International Financial Reporting Standards (IFRS), the net profit of commercial banks was AMD 19.1 billion. The ROA and ROE profitability ratios of the banking sector were 0.9% and 5.7%, respectively (0.5% and 3.0% in the previous yearend).

The shares of interest and non-interest income decreased in the banking sector income and expenditure structure, while the shares of interest expenses, recoveries from asset loss provisions and allocations for asset loss provisions increased. These structural changes are due to some relative cost-savings of non-interest expenses, as well as high volatility of the share of NPLs in total loan portfolio and their risk categories.

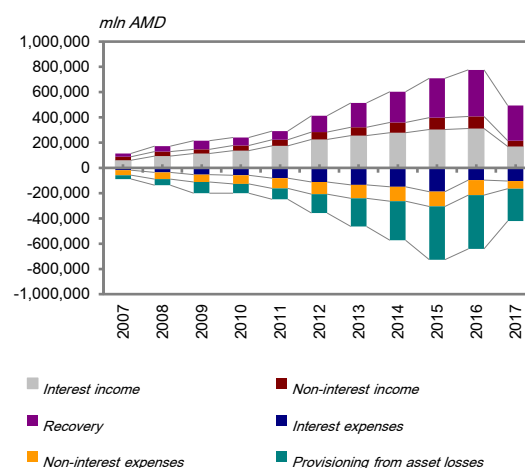
The strengthened capital provides a high level of risk absorption for banks.

Total capital adequacy with banks- Waterfall



Source: Central Bank of Armenia.

Income and expenses of the banking sector

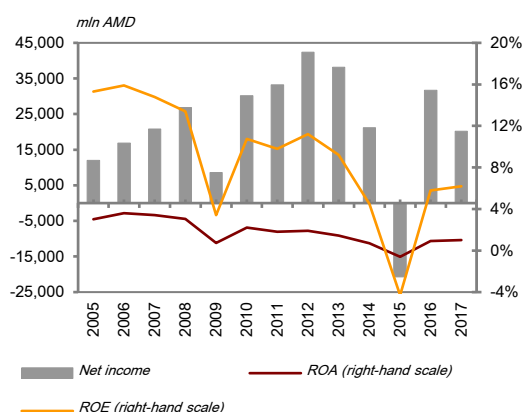


Source: Central Bank of Armenia.

³⁰ This differs from IFRS mainly on the part of contributions to assets loss provisioning.

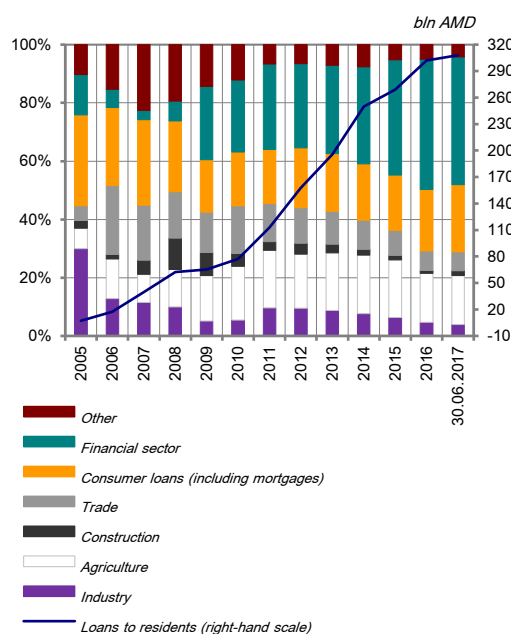
4.2. CREDIT ORGANIZATIONS

Profitability ratios of the banking sector



Source: Central Bank of Armenia.

Balance of loans to residents by credit organizations, by sectors



Source: Central Bank of Armenia.

Credit organizations represent the second largest sector of Armenian financial system, with their assets making up 9.3% of the financial system's total assets. During the reporting year, assets, liabilities and total capital of credit organizations increased considerably.

Assets, liabilities, capital and profit of credit organizations

(thousand AMD)

Indicator	31.12.2016	30.06.2017	Growth (%)
Assets	391,978,700	430,982,766	10.0%
Liabilities	209,939,988	223,648,356	6.5%
Capital	182,038,712	207,334,410	13.9%
Net profit	19,231,554	21,678,314	12.7%

Source: Central Bank of Armenia.

The total capital of credit organizations demonstrated a growth rate outpacing that of the total assets by 3.9 percentage points. As a result, the total capital-to-assets ratio (leverage ratio) has increased by 1.7 pp. to 48.1%.

The profit of credit organizations, calculated in accordance with the IFRS, totaled AMD 22.2 billion, with return on assets (ROA) and return on equity (ROE) having reached 10.5% and 22.7%, respectively.

The ROA and ROE grew by 6.7 and 13.7 percentage points relative to the same period of the previous year to 10.3% and 22.2%, respectively, calculated in accordance with the Central Bank supervisory reports. During the first half of the year, 30 credit organizations posted profit and 3 reported losses.

In the first half of 2017, the share of non-performing loans and receivables fell by 0.5 percentage point to 4.1%. The share of non-performing loans and receivables is relatively high in consumer loans, loans to public catering and other services, as well as transport and communication sectors, amounting to 16.1%, 10.0% and 7.6%, respectively.

Relative to the same period of the previous year, the ratio of net asset loss provisioning to total assets has increased by 0.2 pp. to 1.5%.

In all maturity time bands of assets and liabilities (up to 180-day (including demand instruments), from 180-day to 1-year, more than 1-year), the amount of assets was in excess of the amount of liabilities. This is a clear indication, ceteris paribus, that the level of liquidity risk of credit organizations is low.

Credit risk assessment stress scenarios ³¹

30.06.2017	Stress scenarios		
	25 % of loans in watched, substandard and doubtful categories classified into loss loans	75 % of loans in doubtful category classified into loss loans	30 % of loans in standard category classified into watched loans
Total loss of credit organizations	AMD 3.0 billion or 1.7% of regulatory capital	AMD 758.6 million or 0.4% of regulatory capital	AMD 7.4 billion or 4.1% of regulatory capital

Source: Central Bank of Armenia.

As compared to the banking sector, the credit organizations are much more capitalized. According to various stress scenarios, credit organizations are fully capable to absorb potential risks.

4.3. INSURANCE COMPANIES

During the first half of 2017, the assets of insurance companies increased by 0.8% to AMD 47.0 billion and the amount of liabilities, by 1.3% to AMD 27.5 billion. Total capital remained unchanged, AMD 19.5 billion. The share of insurance companies' assets in the financial system remained 1.0% of total assets of the financial system. The amount of premiums written, the main indicator of insurance activity, increased by 5.8% as compared to the same period of the previous year to AMD 17.2 billion (this indicator increased by 1.5% during the same period of the previous year).

The premium to GDP ratio, another key indicator of insurance companies, was 0.66%³², increasing by 0.01 pp. The annualized premium per capita ratio was AMD 11,433 versus AMD 11,070 reported in 2016.

The insurance companies' expense ratio has increased by 4.2 percentage points to 55.2%³³. The loss ratio of insurance companies grew by 0.3 pp. to 30.1%³⁴.

The shares of risk-weighted assets and required solvency in the insurance sector's capital adequacy ratio were 37.7 and 62.3 percent, respectively. The regulatory capital adequacy ratio of the insurance sector was 191.6% at the end of the first half (the marginal value of regulatory capital adequacy is 100%).

³¹ Stress scenarios are built on an assumption that the amounts of loans of credit organizations are unchanged and the secured property is ignored (which means when loans are classified as loss, a possible sale of the collateral is not considered).

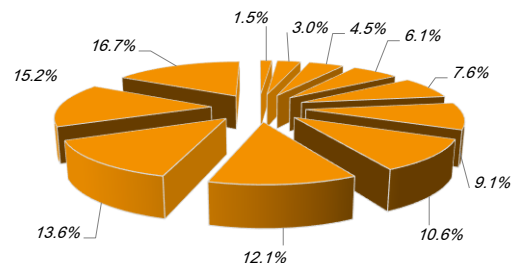
³² Based on the 2016 data, the premiums to GDP ratio on non-life insurance was 3.6% on average in developed industrial countries and 1.5% in emerging market countries (source: Swiss Re, Sigma No 3/2017, May 2017).

³³ The expense ratio has been calculated using the following formula: non - interest expense / (earned insurance premiums – sums refunded on the contracts terminated- change of UIPR).

³⁴ The loss ratio has been calculated using the following formula: (net accrued indemnity + net provisions to technical reserves + other transaction costs on insurance) / (earned insurance premiums – sums refunded on the contracts terminated- change of UIPR).

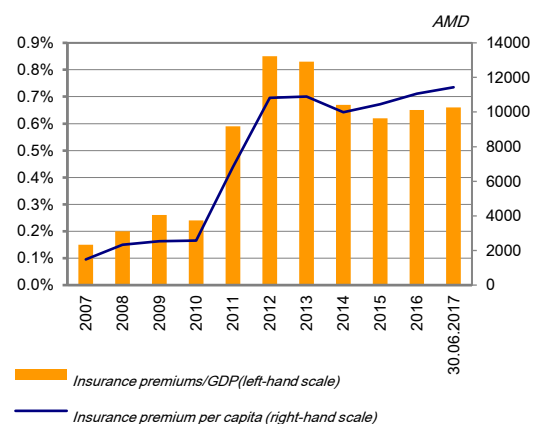
Insurance sector assets

30.06.2017



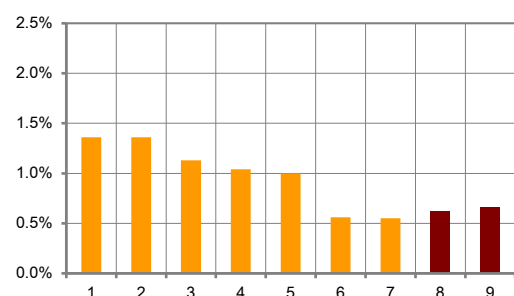
1. Deposits with banks, 2. Government and non-government securities (including securities sold under repo agreements), 3. Sums receivable on direct insurance, 4. Reinsurers' share in insurance reserves, 5. Fixed assets, 6. Costs for future periods and prepayments on insurance, 7. Bank accounts and cash, 8. Interest receivables, 9. Claims to reinsurers on compensation, 10. Borrowings, 11. Other assets

Main ratios of the insurance sector



Source: Central Bank of Armenia.

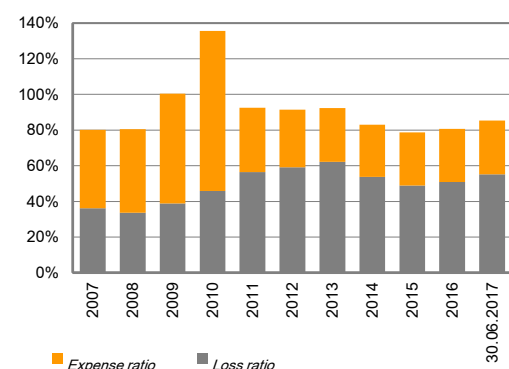
Insurance premiums/ GDP in EEC and CIS (2016)



1. Ukraine, 2. Turkey, 3. Russia,
4. Georgia, 5. Romania,
6. Kazakhstan, 7. Azerbaijan,
8. Armenia 2016, 9. Armenia 2017

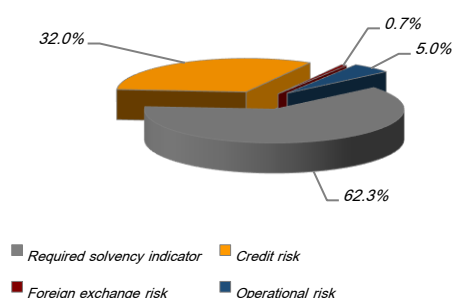
Source: Central bank of Armenia,
Swiss Re, Sigma No 3/2017.

Loss and expense ratios of the insurance sector



Source: Central Bank of Armenia.

The shares of risk weighted assets and required solvency in the capital adequacy ratio of the insurance sector



Source: Central Bank of Armenia.

Solvency risk

The change in solvency level of insurance companies was assessed in case if stress-scenarios shown below unfold (a 10.0% rise in the indemnification rate and a 5.0% growth of insurance payments). Results suggest that the level of solvency will not incur notable changes, so the likelihood of risks undermining financial stability in the insurance sector is very low.

Solvency assessment stress scenarios

30.06.2017	Stress scenarios	
	Growth of reimbursement rates, 10%, and insurance payments increase, 5 %	Shocking growth of outstanding claims reserves, 25%
Required growth of UIPR of the insurance sector, if the stress scenario occurs	AMD 0.9 billion or 4.7% of regulatory capital of the sector	AMD 0.5 billion or 2.6% of regulatory capital of the sector
Total capital adequacy ratio of the insurance sector, if the stress scenario occurs	182.6%	186.5%

Source: Central Bank of Armenia.

Credit risk

Allocating funds of the insurance sector in low-risk assets allows keeping the investment risk at a low level. Assets equivalent to technical reserves are invested primarily in time and demand deposits with commercial banks as well as government and non-government bonds.

Credit risk assessment stress scenarios

30.06.2017	Stress scenarios	
	Classifying 30% of "standard" assets into "watched" category	Classifying 5% of "standard" assets into "loss" category
Loss of the insurance sector	AMD 0.9 billion or 4.4% of regulatory capital	AMD 1.6 billion or 8.1% of regulatory capital
The total capital adequacy ratio of the insurance sector, if the stress scenario occurs	185.0%	179.4%

Source: Central Bank of Armenia.

The results of the stress tests of credit risk assessment show that potential loss of the insurance sector is low.

Foreign exchange risk

The results of the foreign exchange stress scenario suggest that the loss of insurance companies resulting from foreign exchange risk is not considerable.

Foreign exchange risk assessment stress scenarios ³⁵

30.06.2017	Stress scenarios		
	Gain (loss) in case of 5% AMD appreciation (depreciation) versus USD	Gain (loss) in case of 5% AMD appreciation (depreciation) versus EUR	Maximum potential 10-day loss valued through VaR method
Insurance sector's gain/loss in case of foreign exchange revaluation	AMD 19.9 million or 0.1% of regulatory capital (AMD -19.9 million)	AMD 3000 (AMD -3000)	AMD 2.4 million or 0.01% of regulatory capital

Source: Central Bank of Armenia.

Liquidity risk

The liquidity risk to the insurance sector is low, given the results of the stress scenario.

Liquidity risk assessment stress scenario

30.06.2017	Stress scenarios
	Sharp increase of outstanding claims reserves, 25%
Required growth of outstanding claims reserves when the stress scenario occurs	AMD 0.5 billion or 2.6% of regulatory capital
Liquidity of insurance companies when the stress scenario occurs	502.1%

Source: Central Bank of Armenia.

The share of insurance sector in the financial system remains small. Risks to the insurance companies are controllable and non-vulnerable in the financial stability point of view.

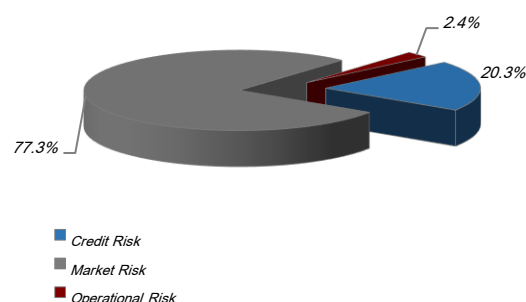
4.4. SECURITIES MARKET PARTICIPANTS ³⁶

As of June 2017, 42 classes of securities of 17 reporting issuers were admitted to trading in the regulated market. Two issuers were accountable on both shares and bonds.

As of end of the first half of the year, the total amount of shares issued was AMD 46.2 billion, while that of bonds was AMD 48.9 billion. The share of equity securities issued by three commercial banks was 61% of total issuance of securities, while the share of bonds issued by three commercial banks was 71% of total issuance of bonds. 20 of these 32 bonds were in foreign currency, with their share making up 79%.

There were 17 banks providing investment services and 9 investment companies in the securities market of Armenia.

The structure of assets in the capital adequacy ratio of the investment company



Source: Central Bank of Armenia.

³⁵ The calculation of losses estimated through stress - scenarios and the VaR Model (the VaR Model is not considered as a stress - scenario since the calculation of the model considers historical exchange rate series of currencies) makes an assumption that FX position of insurance companies would not change in a 10 - day time - span.

³⁶ The participants of the securities' market of Armenia involve the issuers of securities and investors in securities, investment service providers, investment funds' managers, the Central Depository and the regulated market operator.

The total assets and total capital of investment companies increased by 42.2% and 10.2% and amounted to AMD 59.1 billion and 7.1 billion, respectively. Total profit of investment companies was AMD 1.1 billion. Moreover, all companies posted profit.

The regulatory capital adequacy of investment companies decreased by 10 pp. to 18.6% in June as compared to the previous yearend. The credit risk of investment companies accounted for 20% of risk-weighted assets, the market risk constituted 77% and the operational risk, 2%. Remarkably, the interest rate risk had the largest share in market risk of investment companies (85.3%), while foreign exchange and share price risks constituted 14.0% and 0.7%, respectively. The capital adequacy of investment companies is higher than the required minimum level, and the abovementioned risks are manageable.

As of 30.06.2017, there were 2362 security registers and 105422 owners in the Central Depository of Armenia.

The investment companies have low-risk level activity in terms of financial stability vulnerability.

4.5. MANDATORY PENSION FUNDS

As of 30.06.2017, there were 2 investment fund managers with permission to operate as mandatory pension fund managers in Armenia. Each of the two manages three mandatory pension funds.

Net Asset Value - NAV of Mandatory pension funds as of 30.06.2017

Name of the manager	Name of the pension fund	Net asset value (NAV)
AMUNDI-ACBA Asset Management Armenia CJSC	Balanced fund	AMD 1.1 billion
	Conservative fund	AMD 39.6 billion
	Fixed income fund	AMD 580 million
C-QUADRAT AMPEGA Asset Management Armenia LLC	Balanced fund	AMD 431 million
	Conservative fund	AMD 38.4 billion
	Fixed income fund	AMD 269 million

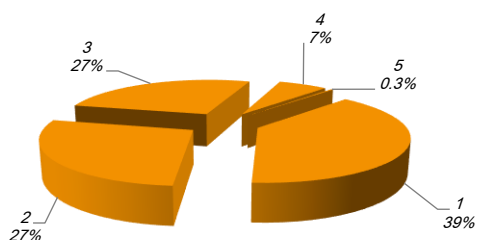
The net asset value of the pension funds was AMD 80.4 billion, increasing by AMD 17.2 billion during the half of the year. The net assets-to-GDP ratio was 1.6%, increasing by 0.3 pp.

As of the end of the first half of 2017, there were 175,000 active participants in pension funds.

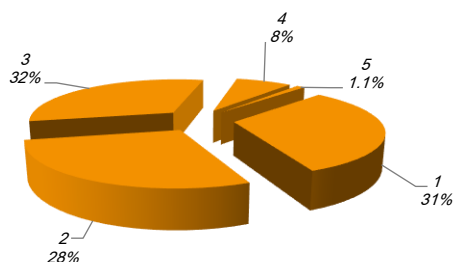
The Herfindahl-Hirschman concentration index for pension fund investments decreased as compared to 2016 to 0.28.

In the first half of 2017, the investments in cash and deposits increased by AMD 8.8 billion or by 51.9%, those in shares by AMD 5.5 billion or by 31.6%, in non-government bonds by AMD 2.0 billion or by 49.0% and the share of investments in government bonds by AMD 782 million or by 3.2%.

Pension fund investments as of 31.12.2016



Pension fund investments as of 30.06.2017



1. RA Government bonds, 2. Equity securities, 3. Cash and deposits 4. Other bonds, 5. Other assets

Source: Central Bank of Armenia.

The share of foreign exchange assets of the funds is 34.9% or AMD 27.6 billion, the majority of which (AMD 22.8 billion) were shares.

The annualized return of funds was 13.5% in the first half of 2017. The cumulative return since 2014 till June 2017 made up 33.5 percent.

The 31.4% or AMD 25.5 billion of the fund's assets are invested in government bonds. The investments in Eurobonds amounted to AMD 391.3 million. The weighted average maturity of the fund invested government bonds is 7.4 years and the weighted average yield (before maturity) is 10.3%.

SUMMARY

In the first half of 2017, under the acceleration of economic growth rates and stabilization of demand and income from the external sector, the banks maintained their credit expansion policy. Given the easing of monetary policy and increasing liquidity, declining trend of interest rates on loans and deposits has been preserved.

A stabilization trend of credit risk has also been observed in line with lending growth. The share of non-performing loans slightly decreased. Given the lending growth, a slight decrease in capital adequacy and liquidity of the banking system was observed. Nevertheless, the banking sector ratios of capital adequacy and liquidity are rather high than the minimum regulatory limits.

Non-bank financial institutions underwent volumetric expansion, while the regulatory ratios remained within the required range.

Under the macroeconomic developments, the stability of the financial system was strengthened, the system recorded improvements in profitability, and reduction of financial risks.

5. FINANCIAL MARKET INFRASTRUCTURES STABILITY

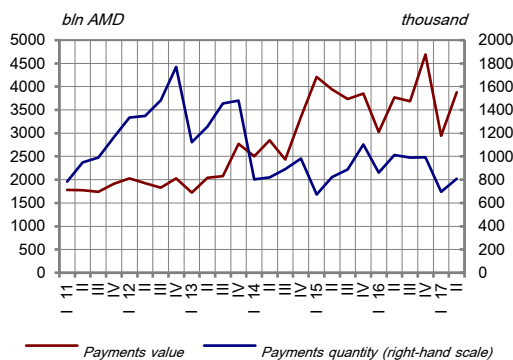
Given the importance and the impact of payment and settlement systems on the monetary policy and the financial stability of Armenia, the Central Bank further pays due attention to the systemically important payment and securities settlement systems and the telecommunication networks supporting their activity.

In Armenia, over 99 percent of interbank settlements are made via the Central Bank systems³⁷.

5.1. INTERBANK PAYMENTS VIA ELECTRONIC PAYMENT SYSTEM OF THE CENTRAL BANK

The results of monitoring of the EPS functioning suggest that the system is safe and does not create problems in terms of the financial stability.

Payments by Electronic Payment System
(without stock exchange market transactions)



Source: Central Bank of Armenia.

In the first half of 2017, there were about 1.5 million payments (payment messages), totaling AMD 6825.1 billion, executed via the Electronic Payment System (EPS) of the Central Bank of Armenia.

After a sharp seasonal decrease in the beginning of the reporting period, the pace of growth of the value of EPS payments recovered. The value of payments remained merely unchanged, while the number of payments decreased by 19.6% as compared to the first half of the previous year.

The interbank payments have the biggest share in the value of EPS payments (42%). Maintaining its share, the total value of interbank payments decreased by 17.4% during the reported period as compared to the first half of 2016. The operations with the Central bank had considerable impact on the growth of value of EPS payments. An upsurge was observed mainly in May, 2.5 times more than in April, and the value grew by 23% semi-annually compared to the first half of 2016. The operations with the Central bank mainly comprise cash flows of the funds attraction tools of the CBA, which are rather liquidity flows and not payments.

The interbank payments impact the number of EPS payments, as the majority is executed using a single message type, while the number of operations with the CBA is very small and is insignificant in total payments.

The risks in the system are reviewed separately for each area described below.

Credit risk

Credit risk to the settlement bank (i.e. the Central Bank of Armenia) in the system is non-existent since the participant can use an intraday repo instrument in case of insufficient funds on their correspondent account, which is secured by government

There is no credit risk identified in the EPS.

³⁷ Payments via the Central Bank systems involve Electronic Payment System (EPS) payments without stock exchange trades, also transactions concerning the CBA indirect monetary instruments, as well as final settlements of ArCa cards system and the cash leg of the transactions of the Government Securities Accounting and Settlement System (GSASS). For details, see paper "Payments and Securities Settlement Systems in the Republic of Armenia", 2010.

bonds of the Republic of Armenia, securities of the Central Bank of Armenia, and/or high-rated corporate bonds. The size of the attracted fund is calculated using the percentage subtracted from the market value of the bond (haircut). Nor is there credit risk to the recipient as it receives the notice of the payment only after the payment is made final and irrevocable³⁸.

Liquidity risk

In the period under review the daily average indicator of own liquidity used for assessment of liquidity risk³⁹ maintained its high level, the semi-annual average was 4.4, reaching its maximum in March, 5.1 (in 2016 the maximum was 5.3 in March).

This overall high liquidity ratio was due to amendments in the regulatory framework of reserve requirements implemented in December 2014. As a result, the liquidity held in AMD correspondent accounts of banks with the Central bank notably increased.

The ratios of average daily liquidity at the beginning of the day remained on the same level during the reporting period, while the value of payments (account debit turnover) decreased, registering some growth in the second quarter. The high level of own liquidity indicator positively affects liquidity risk management in the system.

In assessing the liquidity risk, it should be noted that the calculation of the abovementioned indicator does not include incoming payments (crediting of the account) and/or funds from other sources to increase liquidity.

The above indicator was monitored across the individual banks as well, and the results of the monitoring suggest that the likelihood of liquidity risk is estimated to be minimal.

Reported rejections in the system and their share in total payments made through the system are also important measures for the assessment of the liquidity risk.

The number of rejections due to insufficient liquidity as well as its share in the EPS payments remain negligible – a maximum of 0.2% by value and 0.002% by number.

These rejections are due to individual cases and may be a result of improper management of liquidity (payment flows) by the participants, so this could not affect the liquidity of the system.

Intraday distribution of payments

In the reported period, 36% of the value and 19% of the number of payments were settled during the peak hours (10:00-11:00 and 15:00-16:00, respectively).

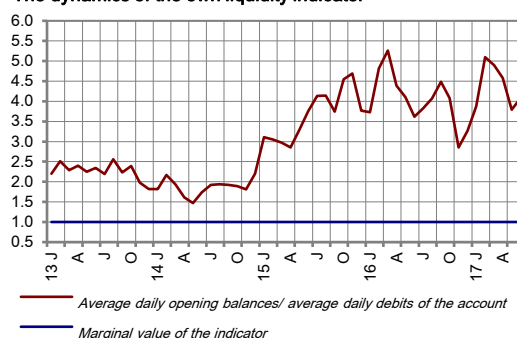
2 peak hours for value of payments were again observed in the system. One at the beginning of the operational day (10:00-11:00), 36% of value, and the other at the end of the operational day (15:00-16:00), 14% of value.

³⁸ For details, see "Financial Stability Report", 2007, and paper "Payments and Securities Clearance and Settlement Systems in the Republic of Armenia", 2010.

³⁹ The daily average indicator of own liquidity is calculated on the basis of a ratio of opening liquidity on dram correspondent accounts of commercial banks to debits (payments) through the account. Incoming payments are not included in the indicator so that a stress-scenario can assess the likelihood of bank rejections if additional liquidity is not available within a day, namely to which extent would banks generate their payments using only opening balances of their own funds. The calculation does not include cash enhancements through their own accounts of commercial banks. The indicator is calculated for a system level (aggregate for all banks), so indicators may vary across commercial banks.

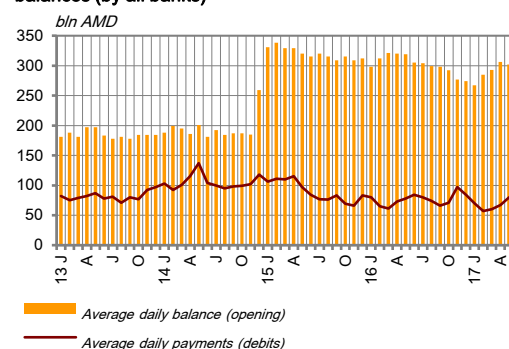
The likelihood of emergence of liquidity risk and systemic problems in the EPS is negligible.

The dynamics of the own liquidity indicator



Source: Central Bank of Armenia.

Average daily payments and average daily opening balances (by all banks)

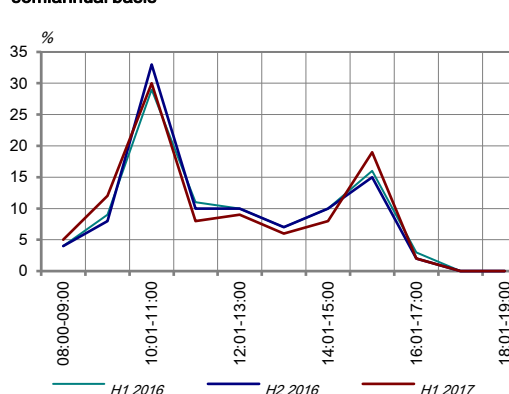


Source: Central Bank of Armenia.

The rejections due to insufficient liquidity are negligible.

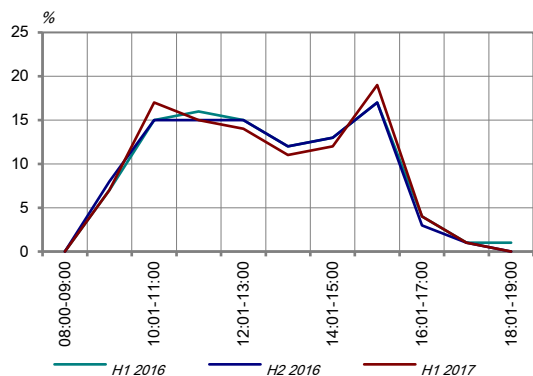
Some concentrations during certain hours of the operational day did not pose problems.

Intraday distribution of value of payments on an average semiannual basis



Source: Central Bank of Armenia.

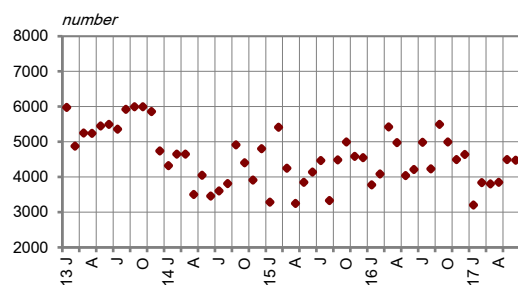
Intraday distribution of number of payments on an average semiannual basis



Source: Central Bank of Armenia.

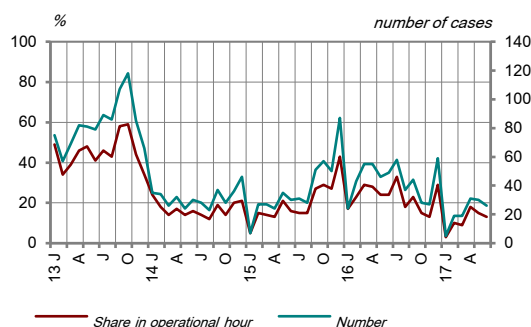
During the reported period, the payments per hour increased, but the probability of risk emergence to the system capacity is low, overall.

The maximum number of payments per hour, by months



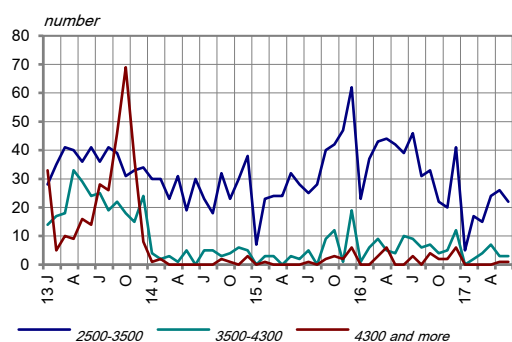
Source: Central Bank of Armenia.

The dynamics of 2500 and more payments per hour and their share in the operating hour in the given month



Source: Central Bank of Armenia.

Dynamics of payments exceeding the threshold of 2500, 3500 and 4300 payments per hour



Source: Central Bank of Armenia.

No changes were observed in the daily distribution of the number of payments.

Taking into consideration the sufficient level of system capacity, positive outcomes of liquidity and operational availability indicators and negligible share of rejections in total payments (for details, see previous subsections), the uneven distribution and concentration of payments during certain hours of the day did not lead to problems in the first half of 2017 and the likelihood of emergence of risk to the system is generally low.

System capacity

In the first half of 2017, the hourly maximum of payment flows (the maximum number of payments per hour for each month) slightly decreased.

The maximum hourly indicator was 4494 payments per hour, against 5500 payments/hour in 2016, which was also due to overall decrease of the number of payments. The peak hour was recorded in May, from 15:00 to 16:00, making up 26.1% of the number and 19.4% of the value of the day's payments.

The maximum daily indicator (number of payments per day) remained merely unchanged, 22087, against 27450 payments/day in 2016.

The shares of all marginal indicators (showing the significant flow of payments per hour) have decreased, which positively impacts the system overload.

Taking into account that the minimum potential capacity indicator estimated in the system is higher than 6000 payments per hour, and that the cases of the abovementioned levels have a small share in total payments flow, as well as the decrease of payments per hour, the probability of emergence of capacity-related risks is estimated to be low.

Operational availability of the system

In the period under review, no significant incident affecting the operational availability of the EPS was reported. Due to this, the operational availability of the EPS has been 100%⁴⁰.

5.2. CREDIT REGISTRY AND ACRA CREDIT BUREAU

The Credit Registry

The Credit Registry is functioning within the Statistical department of the CBA since 2003 and is designed to collect reliable data for effective monitoring and analysis. The Credit Registry keeps record of loans in excess of AMD 1.5 million and

⁴⁰ According to the EPS participation agreement the operational availability of the system should be at least 98.0% yearly.

loans of all amounts that were overdue and were classified. As of the end of the first half of 2017, the number of loans recorded in the Credit Registry was 3,211,604 loans to individuals and 181,773 loans to legal persons, totaling 3,393,377 loans.

Number of loans in the Credit Registry as of end of the first half of 2017

Number of loans	Outstanding	Repaid	Total
Loans to individuals	707593	2504011	3211604
Loans to legal persons	17645	164128	181773
Total	725238	2668139	3393377

As compared to the first half of the previous year, the total number of loans in the Credit Registry increased by 559,767 loans. The Credit Registry possessed information on 139,867 loans outstanding, in the first half of the previous year, and 186,584 loans outstanding, in the first half of this year.

Regulatory framework and business processes were revised and appropriate IT solutions were introduced in the Credit Registry.

In particular, the Credit Registry has stopped providing credit data to the banks and the credit organizations for their ongoing monitoring starting January 1, 2014. Both natural and legal persons may obtain data from the Credit Registry about their credit history free of charge once a year.

A new IT system was launched on the 2nd of September 2017, which will significantly ease the burden of banks and credit organizations by allowing them to provide information to the Credit Registry and ACRA Credit Bureau in one united report.

The new IT system includes new methods for identification of natural and legal entities. Moreover, the restriction on the information to the Credit Registry was renegotiated, so that the banks and the credit organisations will provide information on their total loan portfolio.

These amendments may lead to a more efficient use of information provided by the Credit Registry for monitoring and analysis.

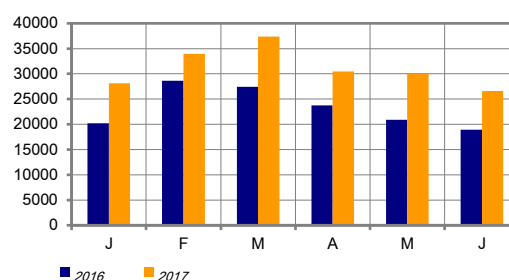
The ACRA Credit Bureau

In the first half of 2017, the number of customers registered in the ACRA Credit bureau has increased by 0.1%, relative to end of 2016, and amounted to 1,589,769 borrowers as of June 30. Of this number, 98 percent are individuals.

The number of loans in the database grew by 6.6% in June 2017 compared to December 2016 and amounted 14,001,802.

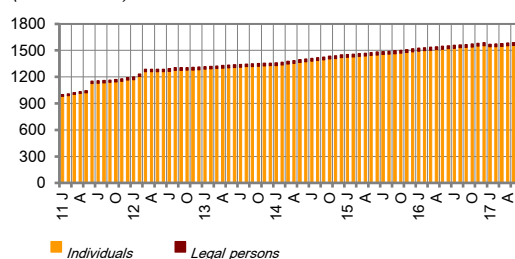
Each natural or legal person may obtain information on their credit history from the Credit bureau. Starting from 2016, owing to the cooperation between the ACRA Credit Bureau and "HAYPOST" CJSC, each natural and/or legal person has the opportunity to order and receive their credit report by submitting an application in any post offices operating in Armenia. Individuals may get their credit history through registering in "My ACRA" online profile.

Number of loans registered in the Credit Registry in the first halves of 2016 and 2017

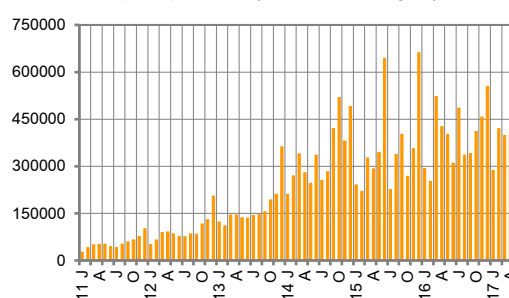


Source: Central Bank of Armenia.

Number of borrowers in ACRA database (in thousands)

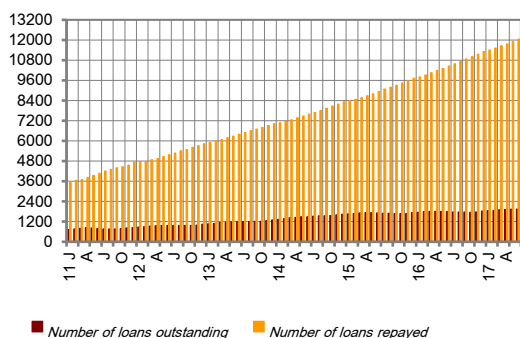


Number of reports provided by ACRA credit registry



Source: ACRA Credit Bureau.

Number of loans in ACRA database (in thousands)



Source: ACRA Credit Bureau.

In order to get information on the credit history of one's customer or partner, the legal person must sign a contract with the Credit bureau and obtain the written consent of the owner of the credit history.

Starting from 2017, the ACRA Credit Bureau receives information from "First Factoring Company" and "Export Finance" CJSC Universal credit organizations.

The Credit Bureau has started providing reports since April 2007. In the first half of 2017, the number of reports grew by 6.0% as compared to the same period of 2016.

In 2016, due to the strategic partnership between the ACRA Credit bureau and Fair Isaac Corporation, a "FICO score" system was implemented in Armenia.

A multi-level coding system has been developed to protect the information owned by the Credit bureau and to prevent its illegal usage by third parties whatever. The system traces all actions, as well as an ongoing monitoring of the system is in place to prevent suspicious and unauthorized actions.

SUMMARY

The results of monitoring assure that the credit and liquidity risks are minimized in the EPS. The system capacity is sufficient and ensures the continuity of payments during the day. No operational risks were recorded in the system; the operational availability of the system was maintained on an internationally accepted level.

Overall, the functioning of the EPS is assessed satisfactory enough; the developments in the payment and settlement system are manageable in terms of the financial stability and no risks exposed to the system arise.

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GLOSSARY OF TERMS

<i>Economic growth</i>	The growth of volume of goods and services produced in the economy during a certain period of time.
<i>Inflation</i>	An increase in the general level of prices of goods and services.
<i>Consumer price index</i>	An index of the variation in prices paid by typical consumers for retail goods and other items. The consumer price index measures the changes in the price of a market basket of consumer goods and services purchased by households.
<i>Balance of payments</i>	A system of recording of all economic transactions of Armenia (residents and non-residents) with the rest of the world over a reporting period (a quarter, a year).
<i>Foreign trade</i>	This involves an exchange of capital, goods and services across international borders or territories, in the form of exports and imports.
<i>Gross external debt</i>	Gross external debt, at any given time, is the outstanding amount of those actual current, and not contingent, liabilities that require payment(s) of principal and/or interest by the debtor at some point(s) in the future and that are owed to nonresidents by residents of an economy.
<i>Credit risk</i>	Credit risk refers to the risk that a borrower will default on any type of debt by failing to make payments which it is obligated to do. The risk is primarily that of the lender and includes the lost principal and interest, disruption to cash flows and increased collection costs.
<i>Liquidity risk</i>	Liquidity risk is the risk that a given security or asset cannot be traded by the financial institution quickly enough in the market to prevent a loss (or make the required profit).
<i>Foreign currency risk</i>	Foreign currency risk is the risk that a change in exchange rate in the market will adversely affect profits and/or capital of the financial institution.
<i>Interest rate risk</i>	Interest rate risk is the risk that interest rate volatilities in the market will adversely affect profits and/or capital of the financial institution.
<i>Price risk</i>	Price risk is the risk that a change in price of securities in the market or price of similar financial instruments on balance sheets will adversely affect profits and/or capital of the financial institution.
<i>Standard asset</i>	An asset which is serviced under a contract, and is not problematic.
<i>Watched asset</i>	An asset which is serviced under an original contract yet certain circumstances have emerged that may undermine the borrower's ability to serve that asset.
<i>Substandard asset</i>	An asset the contractual obligations towards which are not performed due to the borrower's fragile financial standing or inability to repay the debt.
<i>Doubtful asset</i>	An asset the contractual obligations towards which are not performed; it is more problematic, making its collection at the given time very difficult or impossible.
<i>Loss asset</i>	An asset non-collectable and fully impaired uncollectible, so that its recording on the balance sheet is no longer reasonable.
<i>Nonperforming asset</i>	An asset which has been classified by the bank as watched or substandard or doubtful or bad.
<i>Return on assets (RoA)</i>	A ratio of net annual profit to average annual total assets.
<i>Return on equity (RoE)</i>	A ratio of net annual profit to average annual total capital.
<i>Total liquidity</i>	A ratio of high liquid assets to total assets.
<i>Current liquidity</i>	A ratio of high liquid assets to demand liabilities.
<i>Regulatory total capital</i>	The difference between total capital as shown in statement on financial standing and deductions as specified in Central Bank "Regulation 2 on Banks and Banking".
<i>Capital adequacy</i>	A ratio of regulatory total capital to risk weighted assets.

<i>Leverage</i>	A ratio of total assets to total capital.
<i>Off-balance sheet contingent asset</i>	Off-balance sheet contingent assets include outstanding credit lines, credit cards and overdrafts as well as letters of credit, guarantees and warranties provided.
<i>Net provisioning</i>	The difference between provisions to and recoveries from assets loss reserve fund.
<i>Net foreign currency position</i>	The difference between assets and liabilities in FX assets and local currency assets containing FX risk.
<i>Gross foreign currency position</i>	This position measures the sum of absolute values of positions of various currencies.
<i>The Herfindahl-Hirschman index</i>	This index is defined as the sum of the squares of the market shares. It varies between 0 and 1, characterizing the level of concentration (values near to 0 denote lower concentration).
<i>Economic cost of capital</i>	The difference of the present value of total assets and present value of total liabilities.
<i>Spread</i>	The difference between deposit and credit interest rates
<i>Current liquidity</i>	A ratio of high liquid assets to demand liabilities.

ABBREVIATIONS

AMD	Armenian Dram
BCI	Business Climate Index
CBA	Central Bank of the Republic of Armenia
CDA SSS	Securities Accounting and Settlement System of the Central Depository of Armenia
CIS	Commonwealth of Independent States
CJSC	Close Joint Stock Company
DVP	Delivery versus Payment
ECB	European Central Bank
EPS	Electronic Payments System
EU	Euro Union
FRS	Federal Reserve System
GDP	Gross Domestic Product
GSASS	Government Securities Accounting and Settlement System
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
LLC	Limited Liability Company
NPL	Non-performing Loans
NSSA	National Statistics Service of Armenia
OD	Operational Day
OTC	Over-the-counter
RA	Republic of Armenia
RoA	Return on assets
RoE	Return on equity
UIPR	Unearned insurance premium reserves
UK	United Kingdom
USA	United States of America
YOY	Year on Year