

FINANCIAL STABILITY REPORT

2018
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.**

The data published in this report are as of 15.10.2018

The Central Bank of the Republic of Armenia
Vazgen Sargsyan 6, Yerevan 0010
Phone: (374 10) 58 38 41
Fax: (374 10) 52 38 52
Internet website: www.cba.am

TABLE OF CONTENTS

Preface	5
Abstract	6
1. Developments in the Global Economy	8
1.1. Macroeconomic Environment	8
1.2. International Financial Markets	11
2. Developments in the Macroeconomic Environment of Armenia	14
2.1. Macroeconomic Developments	14
2.2. Foreign Trade	16
2.3. Household Income and Debt Burden	17
2.4. Real Estate Market	19
3. Financial Markets Stability	21
3.1. Money and Capital Markets	21
3.2. Foreign Exchange Market	24
4. Financial Institutions Stability	26
4.1. Commercial Banks	26
4.1.1. <i>Financial intermediation and concentration</i>	26
4.1.2. <i>Credit risk</i>	27
4.1.3. <i>Liquidity risk</i>	29
4.1.4. <i>Market risk</i>	30
4.1.5. <i>Capital adequacy and profitability</i>	32
4.2. Credit Organizations	33
4.3. Securities Market Participants	34
4.4. Mandatory Pension Funds	35
4.5. Insurance Companies	36
5. Financial Market Infrastructures Stability	40
5.1. Interbank Payments via Electronic Payment System of the Central Bank	40
5.2. Credit Registry	43
Charts	45
Tables	47
Glossary of terms	48
Abbreviations	50

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.

On April 9, 2018, the financial stability became the main objective of the Central bank, parallel with the price stability (in accordance with the amendments of the Constitution of the Republic of Armenia, implemented in 2015).

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 2018, given the rallying economic activity and the stabilisation of income from external and internal economies, more stable income from abroad, the financial system stability of Armenia was strengthened, while credit expansion policy was maintained.

Positive developments in both foreign and domestic sectors had their favorable impact on the financial stability.

The pickup of global growth remained on track but with lower pace of expansion, with risks tilted to downside, according to the IMF's forecasts¹. The projected growth has become less synchronized among countries, and several developments and trends continue to cloud the optimistic expectations.

In the near term, the possibilities of escalating and sustained trade protectionism by advanced economies may lead to a weaker trade worldwide and slower growth rates of the global economy overall.

The anticipated decline of the current rate of the global economic growth may have some negative impact on the stability of domestic economy.

In the medium term, a slower-than-anticipated economic recovery of emerging markets and developing countries, a quicker-than-expected tightening of the financial conditions in the financial markets and their possible abrupt fluctuations, as well as geopolitical stance will be highlighted.

Given the current changes in the world economy, some countries kept on the ongoing withdrawal of monetary policy accommodation, while a feasible end of accommodative policies has been announced.

In emerging countries, the capital inflow declined, causing slower economic growth rates and depreciations of domestic currencies.

The positive pace of economic activity was maintained in the European Union countries and Russia; Armenia's main trade partners. The latter contributed to the growth of external demand, and money transfers to Armenia (for details, see section "Developments in the global economy"). However, the expectations for economic growth are on a declining pace in the aforementioned countries.

In the first half of 2018, the economic growth in Armenia was 8.3%. The latter was mainly contributed by manufacturing and service sectors, fuelled by high growth of domestic and foreign demand (for details, see section "Macroeconomic environment developments in Armenia").

¹ IMF, WEO October 2018.

In the first half of 2018, the Central Bank of Armenia kept its monetary policy direction unchanged, given both the domestic and foreign macroeconomic developments. The refinancing rate remained 6.0%.

The interest rates for loans and deposits of both individuals and legal entities declined. The same trace was recorded for interbank and securities' markets.

The commercial banks have been profitable and increased their loan and deposit portfolios. There has been some deterioration in loan quality and the share of non-performing loans has slightly increased. Parallel to more active lending by commercial banks in the credit market, a tendency of decreasing liquidity was observed. The capital adequacy ratio of the banking sector has also slightly decreased, as a result of the expansion of the loan portfolio and the implementation of the capital structure requirements of the Basel III accord. These indicators, however, continue to remain higher than the minimum regulatory requirements.

The financial system risks have not increased in the reporting period and remained manageable, not entailing any financial stability issues (for details see section "Financial institutions Stability").

Given the stabilization of macroeconomic conditions, banks have maintained their active credit and investment policies, while the declining tendency of the interest rates sustained.

1. DEVELOPMENTS IN THE GLOBAL ECONOMY ²

1.1. MACROECONOMIC ENVIRONMENT

In the first half of 2018, the pickup in growth continued in the global economy, though slower than before and uneven across countries. At the same time, the balance of risks has shifted further to the downside, both in the short term and medium term.

The global economic recovery slowed down, largely reflecting close-to-potential growth in a number of countries.

The positive outlook was weakened by possible growth in fluctuations of the global financial markets, the escalating trade protectionism and heightened geopolitical tensions.

The economic growth rates and trends observed in the first half of 2018 will be maintained in the second half, all other factors being equal. In particular, the high growth rates of economic activity in the USA will be maintained, the growth outlook of the euro area countries will slow down, while the economic growth in emerging market countries will become more uneven.

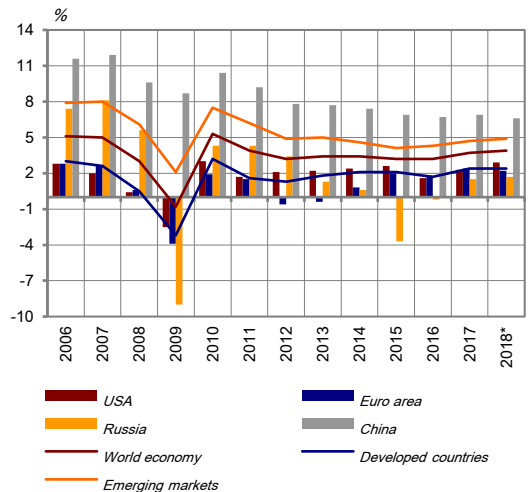
During the first half of the year, the trend of the global economic growth was sustained, though the risks to the downside became more tangible. According to the IMF projections, the global growth is estimated to remain 3.7% in 2018 (3.7% in 2017).

The economic growth in advanced economies is assessed to be 2.4% in 2018, which is very close to the previous year's rate. In developing countries the economic growth will amount 4.7% (4.7% in the previous year) ³.

The pickup of economic activity and high levels of prices in commodity markets, driven by a steady demand for them, drew to a relatively higher inflationary environment, as compared to the previous yearend. Accordingly, the IMF has estimated the inflation to be 2.0% in advanced countries and 5.0% in emerging market countries. Moreover, in 2019, the inflationary pressures may be more robust, given the probability of more rough trade tensions.

Macroeconomic positive trends of the previous year mainly sustained.

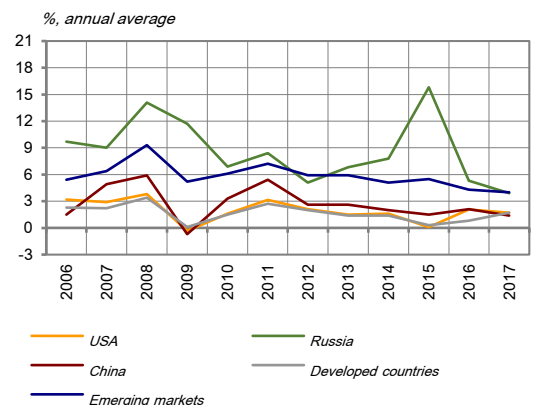
Economic growth by regions



*Indicators marked by asterisk in this chart and the ones following thereafter are the IMF estimates (October 2018).

Source: IMF.

Inflation in a number of countries



Source: IMF.

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 July 2018".

IMF Overview of the World Economic growth Projections, 2016-2018, in percent

Indicator (economic growth)	2016 assessments as of 15.10.2018	2017 assessments as of 15.10.2018	2018 assessments as of 15.10.2018
World economy	3.2	3.7	3.7
Developed countries	1.7	2.3	2.4
USA	1.5	2.2	2.9
Euro area	1.8	2.2	2.0
Developing countries	4.4	4.7	4.7
CIS	0.4	2.1	2.3
Russia	-0.2	1.5	1.7
China	6.7	6.9	6.6

Though a number of macroeconomic indicators suggest some moderation in the recovery of economic activity in advanced economies, the economic growth occurred in line with a solid level of investments and optimistic expectations. Overall, a 2.4% economic growth is expected for developed countries in 2018. This rate will not accelerate in the near term, given the trends for more tighter monetary policies in the key countries.

The **U.S.** growth forecast ⁴ is estimated 2.8% in 2018. The economic activity recorded in the previous year was preserved, mainly supported by the growth of investments' demand due to the US fiscal stimulus wane and the increase in private consumption volumes.

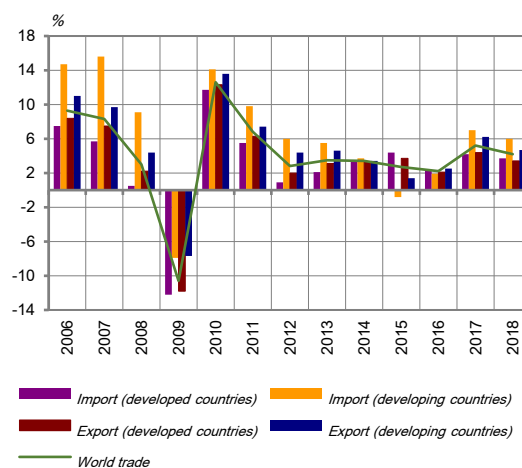
Apparently, the current accelerating level of the U.S. economic growth will continue in 2019, contributed mainly by increases in investments, households' revenue, as well as low level of unemployment and the positive developments of the real estate market.

In the **Euro area countries** a stable economic growth was maintained in the first half of 2018, though with lower rates, given the slower economic activity of the key member countries in the first quarter of the year. The main driving forces of sustainable economic growth were the increase in private consumption, as well as optimistic trends in investments and exports. Some political uncertainties and concerns around weaker trade turnover with main partner countries, as well as tighter financial conditions in a number of countries counterbalanced these positive factors.

The economic growth in the euro area is projected to be 2.1% in 2018.

The economic growth trend of developed countries was strengthened during the year.

Annual growth rate of world trade



⁴ The projections of the yearly economic growth in the USA, Euro area and Russia are the CBA forecasts, if other source is not mentioned.

In *emerging markets and developing countries*, the pace of the economic growth remained merely unchanged as compared to the previous year. The main contributors to the growth were the pickup in commodity prices, as well as the recovery of both domestic and foreign demand.

The global oil prices, the US dollar appreciation, geopolitical uncertainties and tensions in the international trade should be noted among the factors hindering the economic growth of emerging economies.

According to the IMF, a 4.7% economic growth will be recorded in the emerging market countries in 2018; the same as in 2017.

In *China*, the economic growth rates have not substantially changed over the course of the year. The accommodative fiscal policy and the increase in commodity prices contributed positively to the economic growth.

In the near term, the downside risks to the economic growth will stem from tighter financial sector adjustments, a decline in external demand, as well as likely inward-looking policies by advanced countries and geopolitical tensions ⁵.

The economic growth in China is estimated 6.6% in 2018.

In *Russia* ⁶, a 1.8% economic growth was recorded in the second quarter of 2018, according to the Ministry of economic development of Russian Federation, mainly contributed by high level of oil prices, the growth in domestic demand, both for consumer and investment goods and services.

The highest growth rates were recorded in services and manufacturing sectors. The construction sector continued to contribute negatively to the economic growth levels.

The high growth rate of the private demand was conditioned by the increased real disposable income of households, as well as lower inflation. Meanwhile, no stirring of the investment environment was noted in the first half of the year.

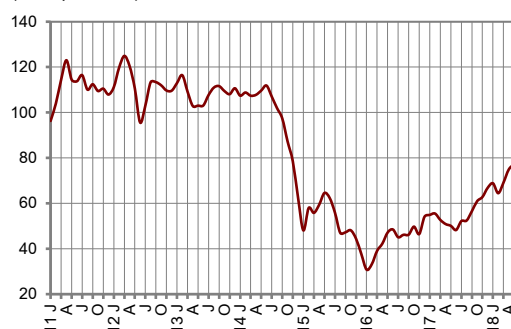
Evidences for weaker investment flows were the shrinkage in construction programs and a reduction in imports of investment goods.

During 2018, the assets of Russian banking sector grew slightly, parallel to the deterioration of their quality. Loans to non-financial corporations and households by the credit institutions increased by 7.1%. However, almost all sectors of economic activity a deterioration in credit quality was recorded.

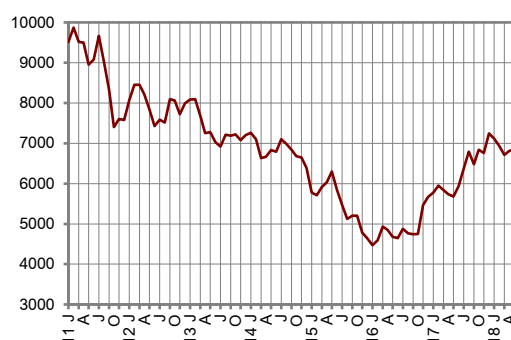
The Russian Ministry of Economic Development anticipates that the economic growth will remain within the existing positive territory in the near term, if the oil prices continue to increase with the current pace. The main factors hindering the economic growth will remain the geopolitical uncertainty and the series of trading and economic sanctions against Russia.

The economic growth rates did not vary in emerging markets.

Brent oil prices
(USD per barrel)

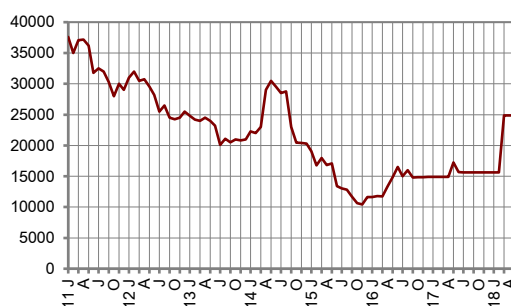


Copper prices
(USD per ton)



The trend of increasing prices sustained in the commodity markets.

Molybdenum prices
(1000 USD per ton)



Source: Bloomberg Data Warehouse.

⁵ <http://www.imf.org/en/Publications/WEO/Issues/2018/03/20/world-economic-outlook-july2018>

⁶ www.economy.gov.ru

The economic growth of Russia is anticipated to be 1.7% in 2018.

A pickup in the **global trade** volumes observed in the previous year continued in the first half of 2018.

The increase in trade volumes was mainly conditioned by higher commodity prices and the recovery of the global economy, as well as higher rates of exports in both developed and emerging economies and bottomed up investments levels.

Further announcements of the U.S. trade tariffs and the retaliatory responses by the major trading partner countries have raised the likelihood of a wider range of protectionism policies, which is the main risk for the future growth of international trade volumes.

Given the IMF forecasts, the growth rate of the global trade will be 4.2% in 2018, as compared to 5.2% of the previous year.

In the first half of 2018, a continuous growth level of international prices of main commodities was maintained, conditioned by the recovery of global economy and distinctive developments in certain commodity markets. In comparison with the industrial commodities, the inflationary pressures on food commodities were weaker.

Brent crude oil average semi-annual price was 72.2 USD a barrel. The year-on-year growth constituted 38.7%. In the near term, the growing pace of crude oil prices will be maintained due to the U.S. sanctions on Iran and the drop of oil reserves in the United States.

Driven by some decrease in demand from China, the copper prices continually fell as compared to the end of the previous year. However, a price growth was recorded as compared to the same period of the previous year.

The average semi-annual price of copper increased by 16.8% year-on-year, to 6841.3 U.S. dollars / tone.

The average semi-annual price of molybdenum grew by 41.2%, as compared to the same period of the previous year.

In the short-term, the international stock prices of base metals will be maintained at the current levels, in case of neutralization of trade-related risks.

During the reported half of the year, the wheat average international prices increased by 20.0%, as compared to the previous year, due to low harvest levels caused by dry weather conditions. The average semi-annual price of wheat was 5.6 U.S. dollars per bushel.

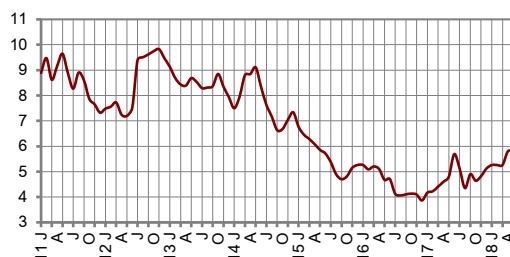
In the short term, no expectations for wheat prices' volatilities are formed.

In the first half of 2018, the average price for gold remained merely at the same level as in the same period of the previous year, amounting to USD 1309.3 per troy ounce.

No significant changes in gold prices are anticipated in the short term, owing to expected recovery rate of the global economy.

The prices for base metals have responded to the positive global economic developments.

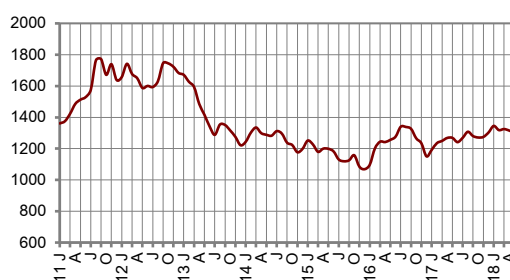
Wheat prices
(USD per bushel)



Source: Bloomberg Data Warehouse.

The wheat prices grew considerably, as compared to the same period of the previous year.

Gold prices
(USD per troy oz)



Source: Bloomberg Data Warehouse.

The main risk associated with the further growth of the global trade volumes is the implementations of protectionism policies.

1.2. INTERNATIONAL FINANCIAL MARKETS

The financial conditions were tightened in the international financial markets, given the intentions to change the course of easy monetary policy in the advanced market countries.

The trend of the tightening of financial conditions have led to some fluctuations in the capital markets as well, along with concerns about escalating international trade tensions and geopolitical uncertainties.

The high interest rates parallel to the U.S. dollar depreciation have led to increased external borrowing costs for emerging market countries, thereby reducing capital inflow to those countries.

Further tightening of financial conditions in the medium term can lead to disruptive portfolio adjustments, sharp exchange rate movements and the continued downturn of capital inflows to the most vulnerable emerging markets with weaker fundamentals.

The gradual tightening intension of monetary policy in advanced countries resulted in an increase in the yields on long-term government bonds in the U.S. and the Euro area (primarily in the first quarter of the year).

Given the relatively high inflationary pressures and the positive developments in the labor market, the U.S. Federal Reserve hiked its benchmark interest rate for 2 times, by 0.25 percentage point each, to reach a final 1.75 – 2.0% range. At the same time, some material expectations for further policy tightenings were formed in the financial markets.

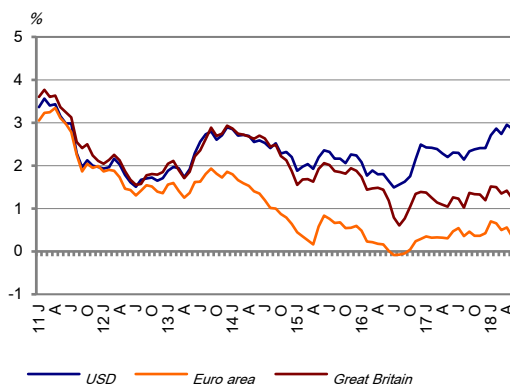
During the reported first half of the year, the ECB continued to conduct its asset purchase program with a smaller monthly volume of 30 billion euros, and announced about the probable reduction of these volumes to 15 billion euros in the fourth quarter of 2018. The ECB maintained the refinancing rate unchanged and has clearly signaled the low likelihood of its future hike, at least till 2019.

The Bank of England ⁷ has not changes its monetary policy rate during the first half of the year. According to the Bank's announcements, the revision of the policy rate would depend on the inflation rate, the rate of unemployment, as well as on changes of a number of economic activity indicators, which should signal positive trends in the economy.

The Central bank of Russia ⁸ have eased the monetary conditions during the first half of the year, given the macroeconomic stance and the inflationary expectations. The refinancing rate was lowered by 0.5 percentage point to 7.25%.

During the reporting period, the major currencies assumed volatile trends. The U.S. dollar has appreciated versus euro, driven by higher-than-expected economic growth and the recent course of the monetary policy.

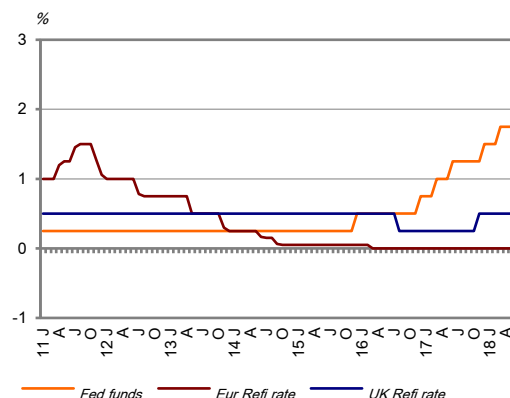
10-year government bond yield



Source: Bloomberg Data Warehouse.

Monetary authorities worldwide turn to policy tightenings.

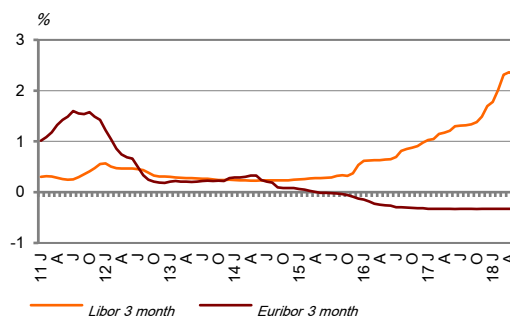
Interest rate policies of Central banks



Source: Bloomberg Data Warehouse.

The Fed continued to rise its rates and signaled the possible acceleration of the policy tightening.

Interbank interest rates



Source: ECB

⁷ <https://www.bankofengland.co.uk/monetary-policy-summary-and-minutes>

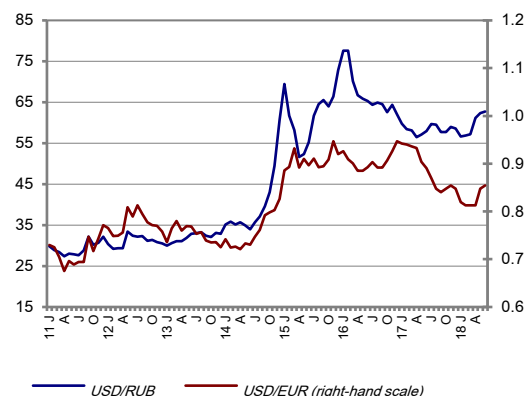
⁸ <https://www.cbr.ru>

Taking into account the capital flows and the developments in the international financial markets, the domestic currencies depreciated in a number of emerging markets during the reported half of the year.

In future, the currency patterns will be conditioned by the monetary policies implemented by the advanced countries, particularly the U.S. Fed's policy, as well as by domestic developments across countries, the demand for external financing, and the political stability.

The interbank interest rates mainly grew, responding to the increases in the policy rates in some countries.

Dynamics of USD exchange rate versus RUB and EUR



Source: Bloomberg Data Warehouse.

SUMMARY

During the first half of 2018, the recovery of the global economy continued, though the expansion became weaker and less even across countries.

The financial conditions became tighter in the international markets and the downside risks have become more salient, caused by developments in global trade and geopolitical stance.

At the same time, a continuous inflationary environment has been formed in almost all commodity markets.

Those trends in the global economy, the price developments in the metal markets and the economic situation in Russia did not have a negative impact on Armenia's economy and exports. Therefor the latter has not affected the creditworthiness of the enterprises working in these sectors. At the same time, net current remittances and net remuneration of outbound workers continued to grow, having a positive impact on household income and their creditworthiness.

2. DEVELOPMENTS IN THE MACROECONOMIC ENVIRONMENT OF ARMENIA

2.1. MACROECONOMIC DEVELOPMENTS ⁹

A higher-than-anticipated economic growth was observed in Armenia, mainly contributed by the growth in foreign demand and active investments on one hand, and by the expansionary monetary policy of the Central bank and by the growth of lending, on the other.

During the first half of the year, a higher-than-forecasted economic growth was recorded. Based on these developments, the CBA has revised the forecasts in favor for growth. In the near future driven by the contractionary effects of the fiscal policy the gross demand may gradually decrease, given the significant savings in the expenditures compared to the forecasts.

The economic growth was 8.3% for the reporting period. The latter was mainly conditioned by the growth rates of services, trade, agricultural and manufacturing sectors. These positive trends were due to faster-than-anticipated recovery of both domestic and foreign demand.

In particular, the faster-than-anticipated growth in services and trade sectors (9.6% year-on-year) was mainly driven by export growth. The growth in services was 12.8% year-on-year mainly driven by the developments and expansion in the tourism sub-sector and also by the new initiatives in information and communication, entertainment and recreation sectors.

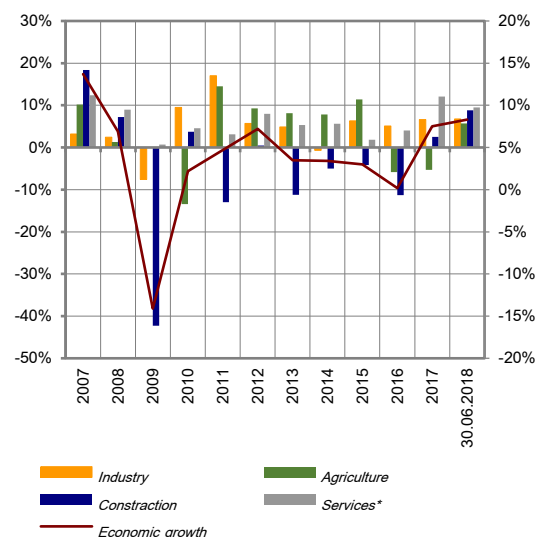
During the reporting period development initiatives in the agricultural sector were continued to be implemented, which in parallel with favorable climatic conditions and positive moves in plant propagation contributed to the growth of agricultural production and export. As a result, the growth rate of the sector amounted 5.7% year-on-year in 2018, while the export of fruits and vegetables in the first half of 2018 was almost 70% higher than in the same period of 2017.

Construction sector recorded an 8.8% year-on-year growth, which was mainly due to high investment activities through various programs funded by international loans and state budget.

During the reporting period, continuous growth of imports of investments goods led to the increase of domestic demand which in its turn contributed to the growth of aggregate demand. Private consumption and investments increased respectively by 2.4% and 89.6%, which was considerably contributed by high growth rate of investments by private sector, lending growth, continuous growth

A higher-than-anticipated economic growth was observed, due to increases in almost all sectors of the economy.

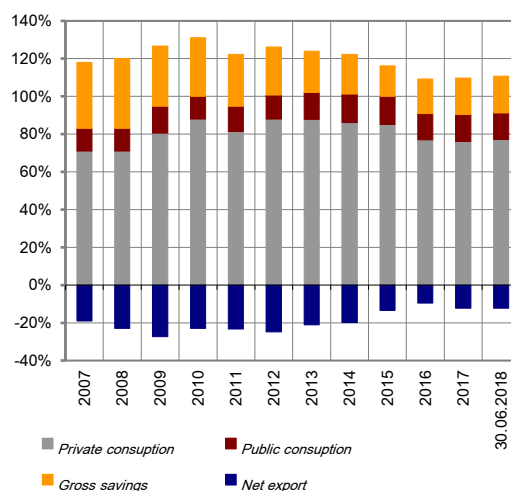
Real GDP growth and main sectors of economy



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

Trade and processing industry had the highest contributions to the economic growth.

GDP expenditure components (share in GDP)



Source: Statistical Committee of Armenia.

⁹ For details on the developments of macroeconomic environment in Armenia, see "Inflation Report 2018, 1st quarter".

of remittances, as well as the positive developments in the economies of the main partner economies.

The recovery of the domestic demand and the easing of lending conditions contributed to 8.9% credit growth (year-on-year). The increase in the volume of loans to construction, agriculture, trade, manufacturing sectors and consumer loans have had the biggest share in the overall lending growth. The growth of lending was accompanied by slight increase in the share of non-performing loans and receivables in total loans and receivables of the banking sector which by the end of the first half of 2018 amounted 6.0% (5.1% in 2017), posting a 1.0 percentage point increase compared to the previous year-end.

The increase in the share of non - performing loans was contributed by the deterioration of the quality of agricultural loans, the main reason for which being the economic decline recorded in the agricultural sector over the past two years. The share of non-performing loan s also increased in public catering and other services. The quality of loans provided to construction and trade sectors improved, conditioned by the continuing growth in these sectors over the past two years.

Compared to the first half of 2017, lending supply side conditions improved across all components due to increased competition among financial institutions. As a result, general lending terms and conditions were eased, which resulted in a lowered interest margin, especially for consumer and other loans ¹⁰. However, due to the internal political situation some ongoing major projects were suspended. As a result, the demand for large business lending slowed down. The lending supply expansion was also conditioned by positive expectations concerning the recovery of economic activity.

The increase in demand for loans was conditioned by the significantly improved lending supply conditions which were the result of an increased competition and by a high economic growth.

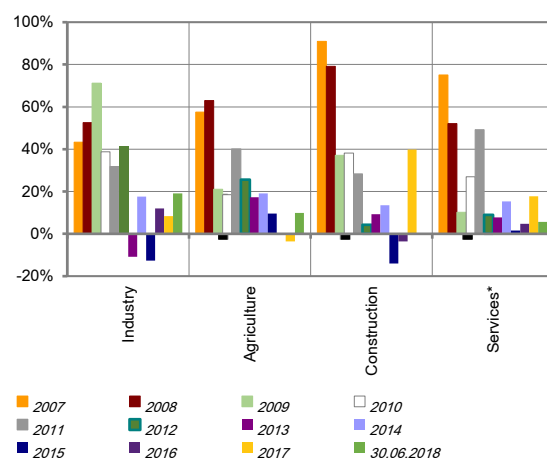
According to the surveys of the second quarter of 2018, in the next quarter also a considerable easing of lending procedures and an expansion of lending supply and demand for consumer and business lending are projected.

Overall, the fiscal policy had a restraining effect for gross demand both for expenditures' and revenues' sides. The indicators of state budget show a 4.3% increase in revenues and a 1.6% drop in expenditures. Resulted by the above mentioned shifts in expenditures and revenues, the state budget deficit declined significantly and amounted AMD 3.8 billion, which was a result of savings on domestic financing and lower-than-expected utilization of external lending resources.

From the beginning of 2018, given the issue of sustained stabilization and more efficient management of the public debt, a tight fiscal policy has been implemented, which may have an impact on economic activity in the future.

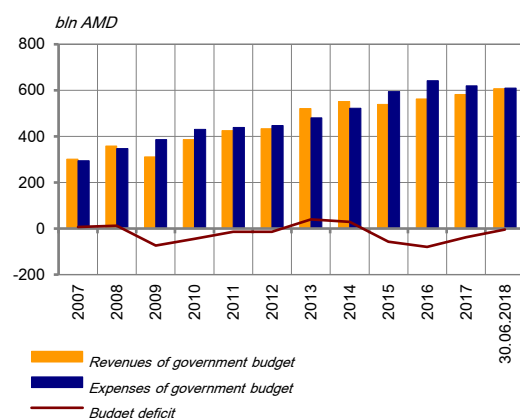
In the first half of 2018, a accelerated lending growth was observed.

Growth of lending to main sectors of economy



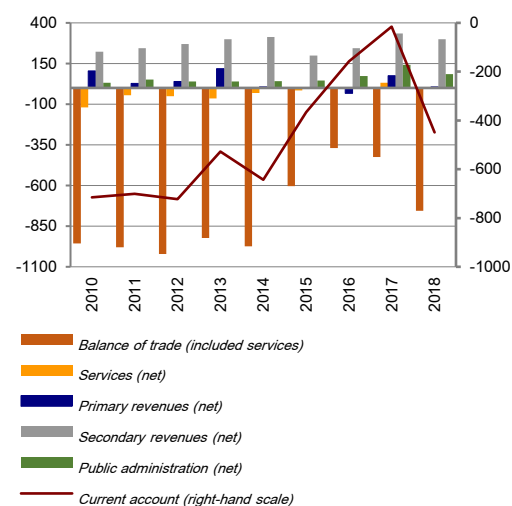
Source: Statistical Committee of Armenia.

Main indicators of government budget, semi-annual



Source: Statistical Committee of Armenia.

Main indicators of balance of payments (m/n USD)



Source: Statistical Committee of Armenia.

¹⁰ According to the lending survey conducted in the second quarter of 2018.

In June 2018 the 12-month inflation constituted 0.9% (instead of forecasted 2.7%), which was resulted by a higher-than-expected fall of prices for fruits and vegetables during May - June period.

According to the monetary policy program of the Central bank, the 12-month inflation will stay at the lower border of the acceptable limit range in the near future, and will stabilize to reach its target level in the medium term.

2.2. FOREIGN TRADE ¹¹

In January - June 2018, the foreign trade turnover increased by 29.4% over the same period of the previous year, while the real increase in exports constituted 11.8% and the real increase in imports - 17.9%.

The growth in exports was mainly conditioned by positive developments in the partner countries and by the increase of demand.

The growth of imports was due to a higher-than-expected economic growth and the increase of domestic demand driven by the expansionary monetary policy. The main part of imports constituted the purchase of capital equipments for production.

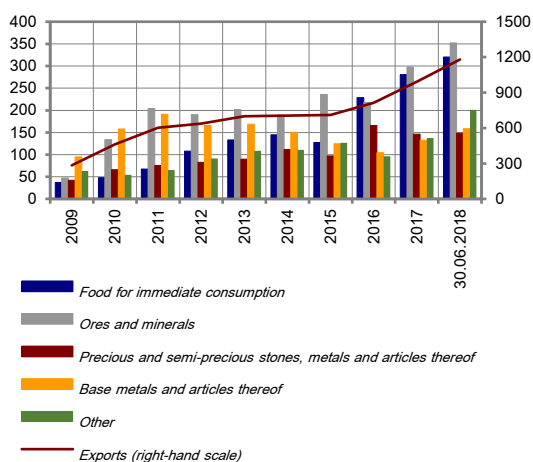
Given the accelerated growth of imports, the deficit of trade account grew to USD 1133.3 million, 22.1% of GDP (which was 16.6% in 2017).

In the first half of 2018, as a result of high growth of imports, the current account deficit to GDP ratio increased and amounted 8.8%, as opposed to 0.3% in first half of the previous year.

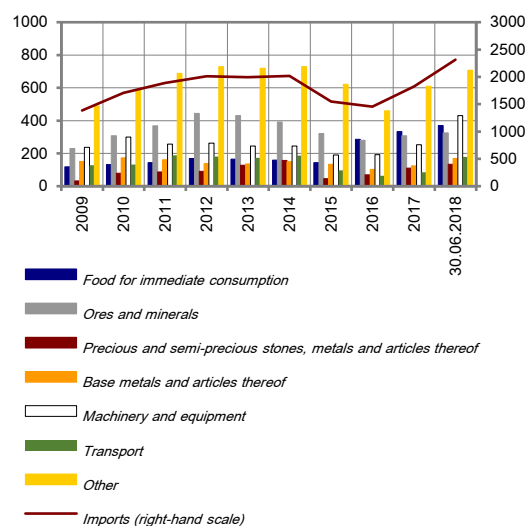
The concentration level of foreign trade of Armenia has not changed significantly. The main trading partners with the largest share remain the CIS and the EU member states with the following export and import weights (by the countries of origin): CIS, 26.7% and 30.8%, the EU, 31.3% and 23.2%, respectively. At the same time, the largest increase of the share of exports was registered for Romania, Netherlands and Switzerland, while exports to Georgia and Bulgaria decreased.

Compared to the previous year, the concentration of exports almost did not change and totaled 0.429 (0.430 in 2017).

Armenia's exports by commodity groups, semiannual (mln USD)

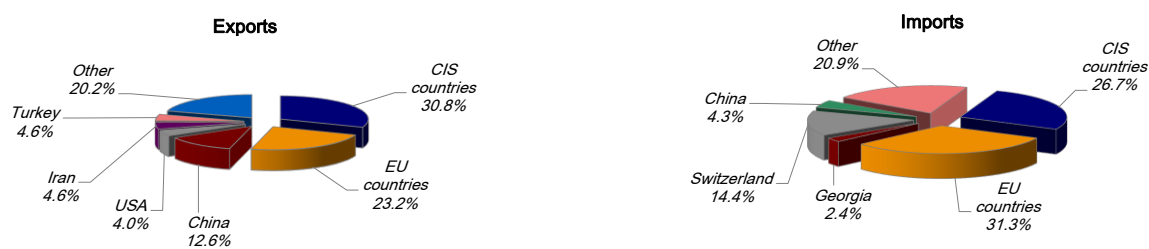


Armenia's imports by commodity groups, semiannual (mln USD)



Source: Statistical Committee of Armenia.

Armenia's foreign trade, by country, as of 2018



Source: Statistical Committee of Armenia.

¹¹ The indicators in this section are based on data from National Statistics service of Armenia.

2.3. HOUSEHOLD INCOME AND DEBT BURDEN

During the first half of 2018, developments in Armenian labor market had a positive impact on the household income. Parallel to the economic growth, the monthly average nominal wages registered some growth (for companies with one and more employees it was 4.0% ¹² year-on-year). The increase was mainly driven by the growth of wages in the private sector, which was 4.5% year-on-year. The increase of average monthly wages in the public sector was 1.2 %. During the reporting period, the unemployment rate decreased by 0.7 percentage point to 20.4%. Given the CBA assessments, the growth of wages and the decrease in the unemployment rate will be maintained during the second half of the year , as a result of which the nominal wages will grow by 6.5%, while the unemployment rate will drop up to 16.6% ¹³.

Increasing rates of remittances to individuals have had a positive impact on the revenues of households, which slowed down during the second quarter of 2018, as a result of the depreciation of the Russian ruble against the U.S. dollar. According to the Central bank's assessments, the growth trend of money transfers to Armenia will continue also during the second half of 2018 and will be in the range of 5.0-7.0%.

In the first half of 2018, the net current private remittances and outbound workers' compensations increased by 11.5 % and 8.7 %, respectively. During the reporting period, the ratio of the net current transfers and outbound workers' compensation to GDP totaled 9.6 % (9.9 percent by the end of 2017 and 9.5 percent in the first half of 2017).

Thus, the growth in wages, the increasing remittances to individuals, parallel to the low inflationary environment have positively affected the households' real income.

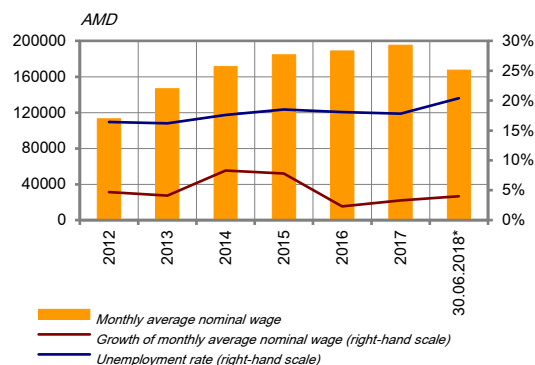
The resident households' savings in domestic bank deposits stayed almost unchanged at AMD 1,351 billion level. This was due to the fact, that banking sector observed deposit withdrawal during the political events in April - May 2018, nevertheless, by the end of the first half of the year the growth rate recovered. The foreign exchange denominated deposits continue to have major share in the deposit structure, with a 60.9% share, which is one of the reasons that limit the ability of banks to allocate their funds in dram denominated assets, especially such as AMD lending to households.

¹² Starting from January 2018, the National Statistics service of Armenia has revised its methodology for labor market, as a result the values of a number of indicators were revised. Accordingly, hereafter, monthly average nominal wages refer to companies with one and more companies. According to the previous methodology, the growth rate of monthly average nominal wages would be 5.1%.

¹³ Source: "Inflation Report" by the CBA, 3rd quarter, 2018

The nominal wages grew and unemployment declined during the first half of the year.

Nominal average wage and unemployment *

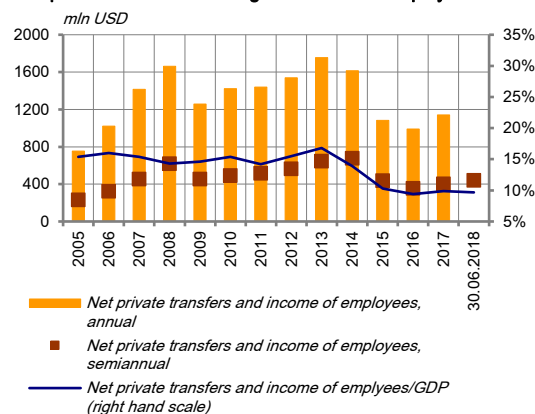


* Starting from January 2018, the RA Statistical Committee has revised the methodology for labor market statistics, within which the values of a number of indicators were changed. Accordingly, in the chart, the data related to the first half of 2018 is not comparable with the previous years' data.

Source: Statistical Committee of Armenia.

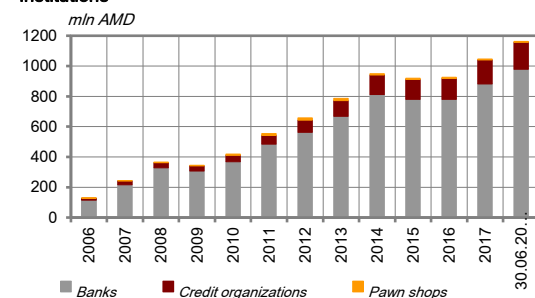
The volumes of net current private remittances and outbound workers' net compensation grew.

Net private transfers and wages of seasonal employees



Source: Central Bank of Armenia.

The structure of household liabilities to financial institutions



Source: Central Bank of Armenia.

During the first half of the year, the households' demand for loans and the lending supply by the financial institutions grew¹⁴, as a result the resident households' total liabilities to the financial institutions rose by 11.1% to AMD 1163.7 billion, conditioned by growth in lending by both banks and credit organizations. The share of household loans in GDP grew by 1.1 percentage point to 19.9%. The loans to deposit ratio increased by 9.3 percentage points to 86.8%. Nevertheless, the households remain net creditors for credit institutions.

The most attractive type of lending to households remains the consumer lending, with the most competitive market. In the reporting period, the volume of consumer loans increased by 15.6%, moreover an increase was registered in all subtypes of consumer loans.

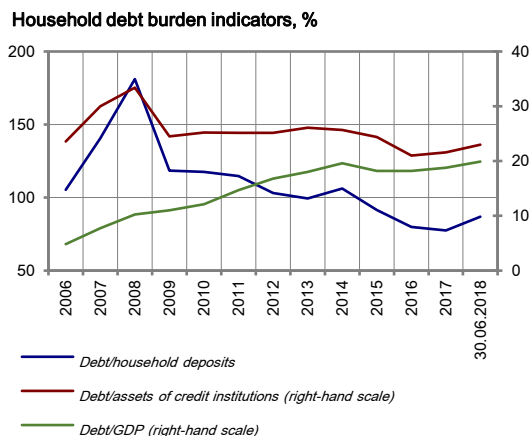
The growth rates of credit card loans, gold-backed loans and loans for household appliances and computers were outpaced by other types of consumer loans, which resulted in an overall 5.0 percentage points growth of their share in the total consumer lending, making up 37.4%.

In the period under review, the mortgage lending by both banks and other credit organizations improved by 4.5%, contributed both by the increase in mortgage loans for real estate purchase and renovation. The amendments in the RA Law on Income Tax¹⁵ 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 for real estate purchase continued to grow and amounted to 58.9%, positively impacting the credit risk management of this type of loans. In August 2018, Ministry of Finance initiated amendments to "Housing for Youth" program, which are aimed at improving accessibility of mortgage lending under this program. The amendments refer to interest rates, prepayment and the age restrictions of the borrowers.

In the future, the supply of mortgage lending may be affected by the adoption of amendments in the RA Law on Secured Mortgage Bonds, which came in effect in May 2018 and is aimed at providing additional incentives for the development of mortgage backed security market and increase attractiveness of mortgage backed securities for foreign investors.

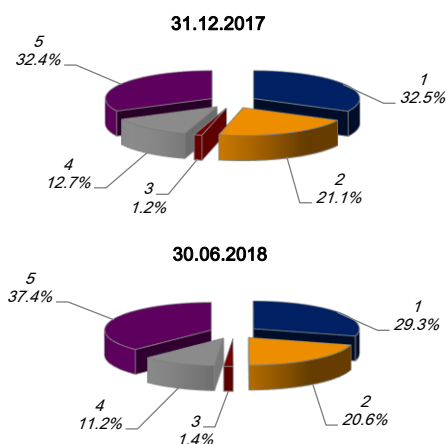
During the reporting period, the easing tendency of loan terms and procedures to the households was maintained, especially for consumer loans, due to the increase in competition between banks and other financial institutions¹⁶. The mitigations refer to almost all aspects of crediting, including maturity of loans and non-interest payments. At the same time, a decline of interest rates was

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



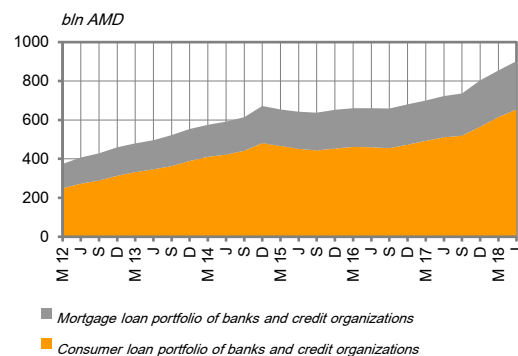
Source: Central Bank of Armenia.

Consumer loan portfolio structure of banks and credit organizations



1. Card loans, 2. Gold collateralized loans, 3. Car loans, 4. Household and computer appliances loans, 5. Other

Consumer and mortgage loan portfolio of banks and credit organizations



Source: Central Bank of Armenia.

¹⁴ Source: summary of quarterly surveys on "Lending conditions by banks and credit organizations of Armenia" by the CBA, 2018 1st half.

¹⁵ 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 19th, 2015.

¹⁶ Source: summary of quarterly surveys on "Lending conditions by banks and credit organizations of Armenia" by the CBA, 2018 1st half.

registered. According to summary results of the CBA's quarterly surveys among financial organizations, the decreasing trend of lending interest rates will be maintained in the second half of 2018 as well¹⁷.

In the first half of 2018, the share of non-performing consumer and mortgage loans increased by 2.1 and 0.4 percentage points respectively, reaching 8.2% and 4.1%. Nevertheless, the risks arising from the household sector are not a significant threat to the stability of the financial system.

2.4. REAL ESTATE MARKET

During the first half of 2018, as compared to the first and second halves of the previous year, the market prices for 1 square meter of an apartment in a residential apartment building in Yerevan increased by 3.9% and 5.4% respectively¹⁸. The increase in the prices in Center and Davtashen districts were the main drivers for overall price growth. Other things equal, the growth of average price of apartments contained the credit risks associated with the fluctuations of mortgage prices (for details see "Market risk of commercial banks" section).

Compared to the first half of 2017, the number of real estate and apartment sale and purchase transactions increased due to the increased number of sale transactions both of apartments and other types of real estate. The number of apartment sale transactions in Yerevan increased by 27.5%, mainly driven by the growth of transactions in the Center district. Compared to the first half of the previous year, the number of real estate transactions in regions also increased (by 33.4%). The initiative of refunding mortgage interest payments by income tax payments stipulated in the RA Law on Income Tax (effective January 2015) continues to have a positive impact on the activity of primary real estate market. According to the quarterly surveys conducted by the Central bank of Armenia in the next quarter also the real estate market and especially residential real estate market will continue to grow¹⁹.

The mortgage lending has some positive impact on the demand for real estate. In the first half of 2018, as compared to the end of 2017, both the volume and number of loans for real estate purchase with banks and credit organizations grew by 5.5% and 5.2%, respectively (for details, see section "Household income and debt burden"). At the same time, the quality of the real estate loan portfolio stayed merely unchanged. Compared to the end of 2017, the share of non-performing loans for real estate purchase increased by 0.2 percentage point and amounted 3.4% of total real estate purchase loans.

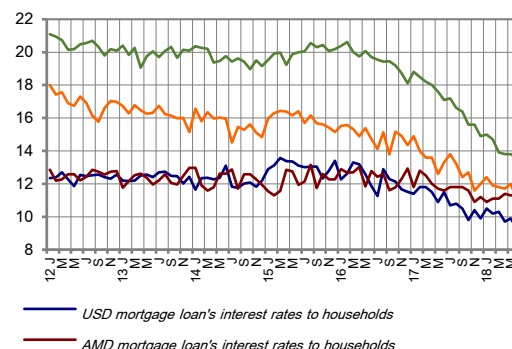
¹⁷ Source: summaries of quarterly survey on "Financial organizations of Armenia" by the CBA, 2018 1st and 2nd quarters.

¹⁸ 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

¹⁹ Source: summary of quarterly surveys on "Lending conditions by banks and credit organizations of Armenia" by the CBA, 2017.

The shares of consumer and mortgage non-performing loans grew in total consumer and mortgage loans, during the first half of the year.

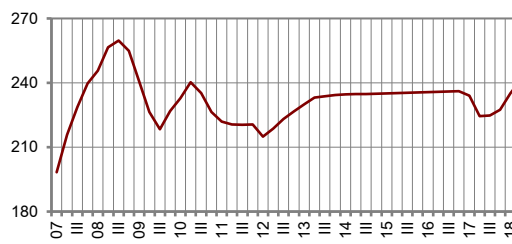
Lending interest rates to households



Source: Central Bank of Armenia.

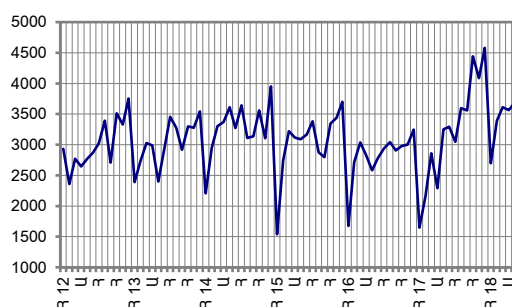
In the first half of 2018, compared to the first half of 2017, the real estate market was more active.

Average apartment price index in Yerevan (sq m)



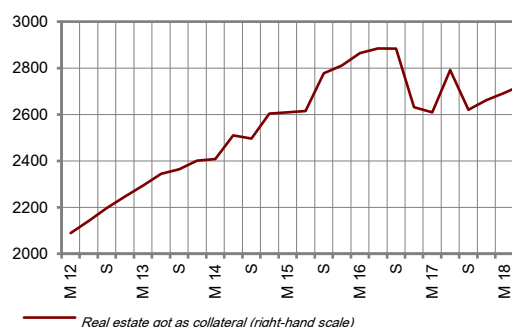
Source: State Committee of Real Estate Cadaster at the Government of Armenia.

Number of real estate sale and purchase transactions



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

Volume of real estate got as collateral with the commercial banks (bln AMD)



Real estate got as collateral (right-hand scale)

In the first half of 2018, loans provided for construction of residential and non-residential real estate increased by 1.3%, while the quality of the portfolio of such loans remained nearly unchanged. The share of non-performing loans in the real estate construction loans (both residential and non-residential) was 6.3%.

Residential buildings completion by sources of financing

Sources of financing	Exploited residential buildings (sq. m) in first half of 2018	Share in total	Percentage change as compared to the first half of 2017
Total, of which:	46,204	100%	33.0%
Corporations' funds	234	0.5%	-88.3%
Households' funds	45,970	99.5%	40.4%

Source: National Statistics service of Armenia.

Compared to the first half of 2017, in this reporting period, the volume of commissioned residential houses increased by 33.0% conditioned by a 40.4% rise in the volume of commissioned residential houses financed by households. The volume of commissioned residential houses financed by companies decreased by 88.3%, as a result of which the share of the latter decreased to 0.5% level (5.8% in the first half of 2017).

So, From the financial stability viewpoint, the growth of the number of real estate transactions and increasing prices had a positive impact.

SUMMARY

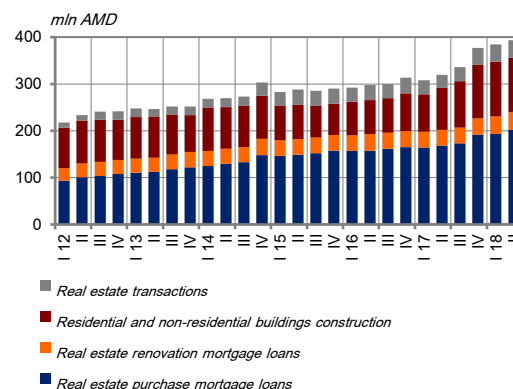
The high economic activity registered in the first half of 2018 was mainly conditioned by the growth of private investments. Economic recovery was also positively impacted by the growth of lending and expansion of foreign demand.

In the light of economic growth, increasing salaries and private remittances, decreasing unemployment and low inflation had a positive impact on the household real income. The real estate market of Armenia was also active.

In general, as a result of the growth of domestic economic activity, as well as the increase of households' income and the rise in real estate prices, the risks rising from the macroeconomic environment decreased, while the stability of the financial system strengthened.

The volume of lending for real estate grew during the first half of the year.

Real estate lending



Source: Central Bank of Armenia.

The volume of commissioned residential houses financed by companies continued to decrease.

3. FINANCIAL MARKETS STABILITY

3.1. MONEY AND CAPITAL MARKETS

During the first half of 2018, the Central bank of Armenia maintained its refinancing rate unchanged, at 6.0%, continuing the accommodative monetary policy. The CBA Board's decision not to change the refinancing rate was based on the need to strengthen the steady growth rates of the domestic demand, which came amidst a weak inflationary foreign environment. The 6.0% refinancing rate is the lowest since 2010, contributing to decreases in interest rates of the financial market, including a moderate decrease in interest rates on loans granted and deposits attracted by commercial banks. Taking into account the anticipated macroeconomic developments, the Central Bank of Armenia emphasizes an accommodative monetary stance, and signals a gradual offsetting of the expansionary monetary conditions ²⁰.

Historically, the changes in the CBA refinancing rate were reflected in the behavior of the interbank repo interest rates, which were mainly close to the refinancing rate. This trend was also maintained in the first half of 2018. Moreover, the impact of the political events of April-May 2018 was insignificant on the market rates due to the measures taken by the Central bank of Armenia. In particular, the CBA used some liquidity instruments to mitigate the tension in the financial market by injecting the necessary liquidity to the system. The average monthly interbank repo interest rate was 6.45% in June 2018, increasing by 0.3 percentage point as compared to December 2017.

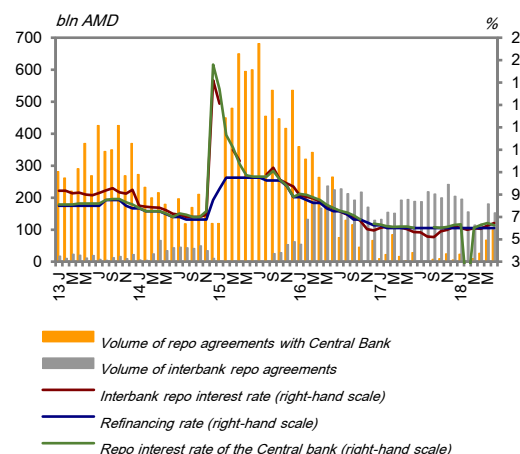
Over the past two years, the interbank repo market has been more active, which is partly due to the excess liquidity in the overall banking sector. This trend continued in the first half of 2018, as well. High liquidity stimulated the commercial banks to give more preference for interbank transactions while allocating their excess liquidity.

The yields of government bonds changed differently all along the curve ²¹. The fall of interest rates is more emphasized in parallel with their maturity increase. Thus, the long-term interest rates declined by 0.4 percentage point on average. The interest rates on medium-term and short-term bonds decreased by 0.25 and 0.14 percentage points, respectively.

As a result, the spread between 10-year and 6-month bonds stood at 3.6 basis points, as of end of June 2018, falling by 0.8 percentage point, as compared to December 2017.

In the first half of 2018, the CBA maintained its accommodative monetary policy trace.

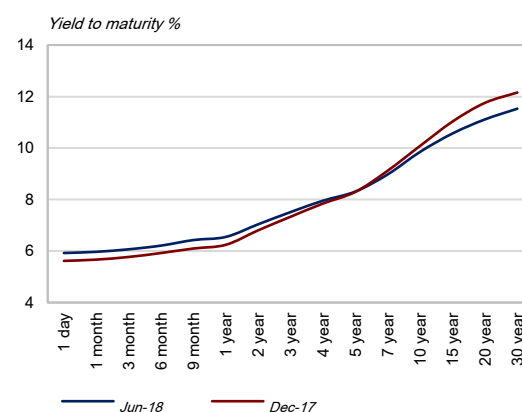
Monthly volume of repo transactions and repo interest rates (interbank and with the CBA)



Source: Central Bank of Armenia.

The yields of government bonds changed in different directions all along the yield curve.

Yield curves of Armenian government bonds



Source: Central Bank of Armenia.

²⁰ https://www.cba.am/AM/News/Pages/news_03-05-17.aspx#sthash.MLwE23m2.dpbs

²¹ 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 of the first half of 2018, the Central Bank calculates indices of government securities²², which are presented in the table below.

Indices of government securities in the first half of 2018

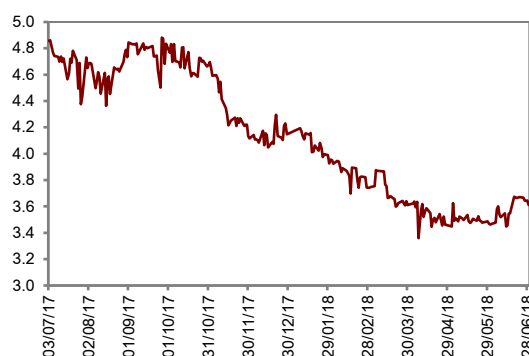
	TBI	G03	G05	G5I	GMI
Modified duration	0.37	1.46	1.91	6.67	4.43
Risk weighted yield	6.15	6.91	7.27	10.49	9.84
Average maturity (year)	0.36	1.63	2.22	15.75	9.10
Average weighted coupon %		9.35	9.16	12.25	10.82
Market Price of government securities (bln AMD)	20.8	189.4	270.2	303.7	573.9
Market value index change in case of +/-1% yield change (mln AMD)	+/-77.96	+/-2,760.01	+/-5,161.99	+/-20,259.85	+/-25,427.76
Market value index change in case of yield change by the standard deviation ²³ (mln AMD)	2.4	94.9	144.7	849.7	908.7

The average semiannual modified duration²⁴ of government coupon bonds outstanding was 4.43, increasing by 0.51 during the first half of the year. The average maturity also grew to 9.10 years (8.18, as of end of 2017). These indicators for discount bonds also grew to 0.37 and 0.36, respectively (0.43 and 0.45, as of end of 2017).

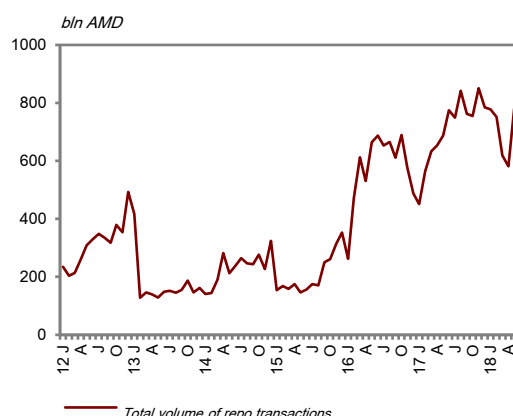
The results of a stress test of a 1% parallel change in the government bonds' yields indicate that in case of an increase / decrease in the yield of government securities, the investors' likely loss / gain could be AMD 25.4 billion or 4.4% of the market value of government securities. Moreover, a notable portion of the loss / gain might come from the long-term securities, as they are more sensitive to the interest rate change.

In the first half of 2018, the operations in securities' markets (including repo and reverse repo transactions but excluding operations with the Central Bank) carried out by investment service providers increased by 12.2%, as compared to the same period of the previous year, and amounted to AMD 4 trillion 673 billion²⁵.

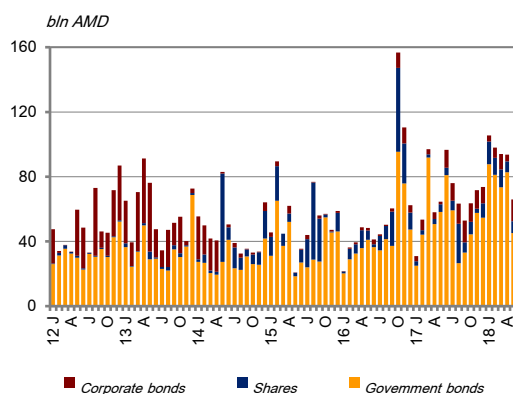
Spread between 6 month and 10 year government securities



Repo transactions carried out by investment service providers (excluding transactions with the CBA)



Security trades by investment service providers



Source: Central Bank of Armenia.

²² 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

²³ Standard deviation of risk weighted yield during 30/06/2017- and 31/12/2017.

²⁴ Modified duration indicates the price change of a bond in case of its percentage change in the yield to maturity.

²⁵ The aforementioned transactions include repo and reverse repo operations (including extended repo operations), as well as securities trading transactions.

It should be noted that repo and reverse repo operations have the biggest share in the transactions carried out by the investment service providers, while securities trading transactions accounted for 10.4% of the aforementioned turnover during the first half of the year (9.6% in the same period of the previous year). However, the liquidity of securities remains low.

The volume of repo and reverse repo transactions (excluding operations with the Central Bank) carried out by investment service providers; banks and other companies, increased by 11.2%, as compared to the same period of the previous year, and amounted to AMD 4 trillion 188 billion. Moreover, almost all repo transactions involved government securities. However, in the first half of 2018, as compared to the first half of 2017, the investment service providers conducted more repo and reverse repo operations with corporate bonds, which can be considered as a tendency of more active corporate bonds' market.

In the first half of 2018, the indicator describing the level of liquidity²⁶; the 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, decreased gradually and amounted 2.4 as of end of June 2018 (9.9, in December 2017, and 20.4 in June 2017). This was attributable to the government bond placements. The standard deviation of the aforementioned ratio, which shows the volatility of the liquidity of the government securities' market increased and was 5.2, against 4.0 in the previous year (4.9 in the first half of 2017).

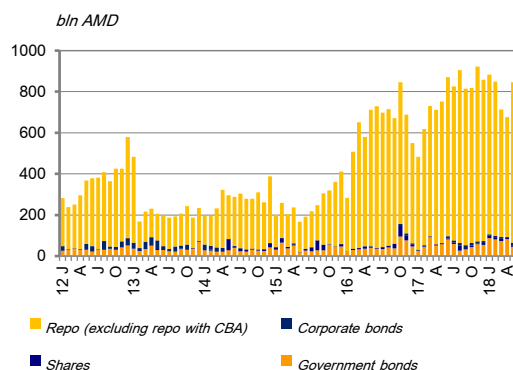
Within the total trades of government securities the share of short-term security trades increased to 4.1% during the first half of the year (3.4%, in the first half of 2017, and 2.4% in the end of 2017). The share of long-term security trades grew markedly and amounted to 75.7% (57.1% in the first half of 2017, and 59.6% in the end of 2017) while the share of medium-term security trades decreased and was 20.2% of total security trades.

The share of regulated market in the structure of securities' trades by investment service providers has been 8.5%, since the beginning of the year.

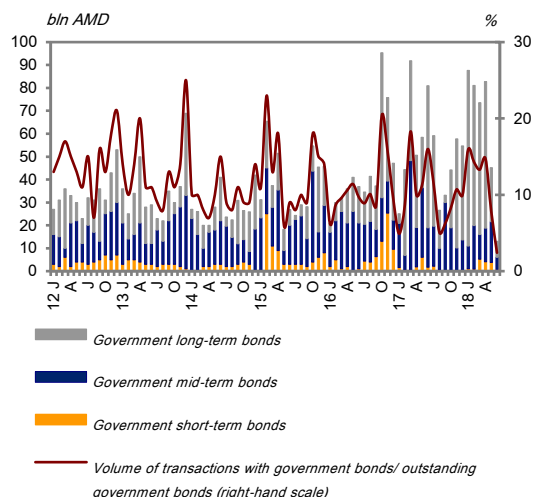
In the first half of 2018, the total volume of securities' trades in the regulated market amounted to AMD 41.5 billion. In the regulated market, transactions with government securities comprised the prevailing part, 61.6%. Trades with corporate securities and shares constituted 33.8% and 4.5%, respectively.

As of June 30th 2018, the capitalization of equity shares' market was AMD 143.8 billion, remaining unchanged as compared to the previous year-end. The concentration of capitalization by issuers also remained the same compared to the previous year; the share of the first three issuers was 83.3%, while the share for the first five

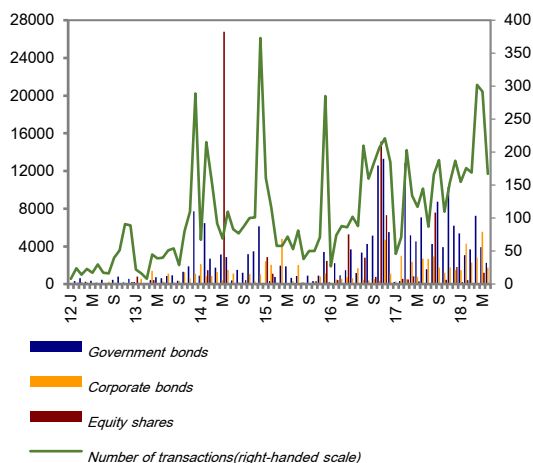
Security trade transactions carried out by investment service providers (including repo and reverse repo transactions, but excluding transactions with the CBA)



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



Security trade and repo transactions carried out in the regulated market of securities (mln AMD)



Source: Central Bank of Armenia.

²⁶ 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.

issuers was 98.5%. This denotes the high concentration of share issuers.

The share of 3 and 5 largest issuers, by capitalization, in 2012 – 2018 (%)

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
31.12.2017	83.3	98.5
30.06.2018	83.3	98.5

Source: Nasdaq OEMEX Armenia.

3.2. FOREIGN EXCHANGE MARKET

In the first half of 2018, the foreign exchange market remained relatively stable.

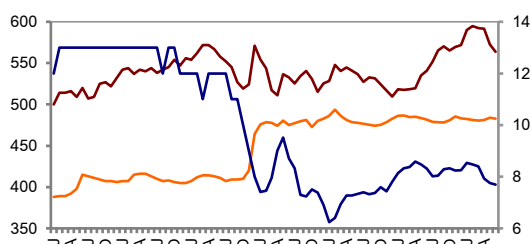
The political events in April and May did not cause significant fluctuations in the dram exchange rate due to the announcements made and the measures taken by the CBA. In particular, taking into account the temporary nature of demand for foreign currency liquidity, that occurred under the political events, the CBA has satisfied it through short-term foreign currency swap operations. At the same time, with the sharp decline in the volume of transactions in the interbank currency market, the CBA found it expedient to sell small volumes of foreign currency to facilitate the normal functioning of the foreign exchange market.

In June 2018, as compared to December 2017, the Armenian dram appreciated versus USD by 0.1%, and against euro by 1.4%, given the average monthly currency rates. The most pronounced appreciation was against Russian ruble, by 6.8%.

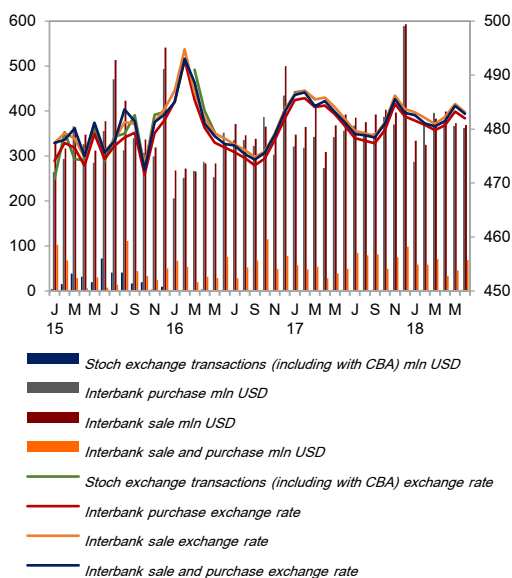
As of June 2018, the real effective exchange rate of Armenian dram remained merely the same, as compared to December 2017. The nominal effective exchange rate of Armenian dram appreciated by 3.2 percentage points ²⁷.

The foreign exchange market remained relatively stable.

Exchange rates in exchange market of Armenia



The volume of transactions in the foreign exchange market of Armenia and the interest rates



²⁷ 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).

SUMMARY

The domestic financial and foreign exchange markets were stable during the first half of the year, and the political events that took place during the period have had no important impact on both the financial and foreign exchange markets.

The financial market interest rates have decreased and the monetary easing and the strong liquidity of the banking sector continued to have a significant impact on the decline in interest rates.

Yields of government bonds dropped down, parallel to the growth of its maturity.

4. FINANCIAL INSTITUTIONS STABILITY

In the first half of 2018, the financial market participants maintained high activity in credit and investment markets, given the accelerating growth of economic activity and higher income inflows from abroad. The financial sector ratios of asset-to-GDP and credit-to-GDP were 91% and 52%, respectively.

Armenia's financial system is bank-dominated, with banks accounting for 85% of the financial system assets. In this context, identifying and evaluating banking sector risks is essential for the assessment of the stability of domestic financial institutions. The shares of insurance and securities' market participants and other players of the financial market are small and their impact on the financial stability is still low.

4.1. COMMERCIAL BANKS

Banking sector stability map

In the second quarter of 2018, relative to the second quarter of 2017, the elements of the stability map²⁸ incurred some changes (for details, see subsections “Credit risk”, “Liquidity risk”, “Market risk”, “Capital adequacy and Profitability”).

Some positive shifts were observed in the foreign exchange risk, interest rate risk, as well as asset quality indicators and profitability indicators (the chart data came closer to the midpoint of the map). The capital adequacy indicator incurred some changes caused by some decrease in the capital adequacy ratio.

4.1.1. Financial intermediation and concentration

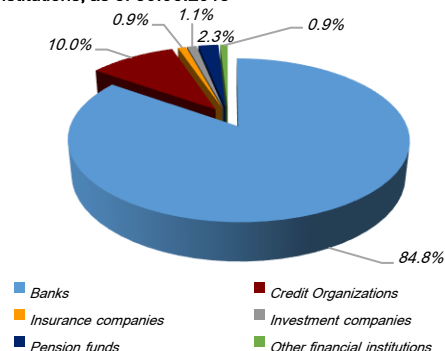
In the first half of 2018, the banks became more active in the credit market, so the credit intermediation increased. The banking sector credits-to-GDP ratio increased by 1.7 percentage points to 46.8%. The banking sector deposits-to-GDP and broad money-to-GDP ratios decreased by 2.9 and 2.6 percentage points and were 41.2% and 44.1%, respectively.

The total capital of the banking sector grew by 5.6%, while total assets increased by 3.6%, relative to the beginning of the year. As a result, the leverage ratio (total capital to total assets) increased by 0.3 percentage point to 16.0%. The increase of total capital was due to the statutory capital replenishments and the net profit. The banking sector statutory capital grew by 3.8%, which is AMD 17.4 billion, and constituted a total of AMD 481.1 billion. The share of non-resident participation in the statutory capital of the banking sector amounted 61.5% at the end of the first half of the year.

²⁸ 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.

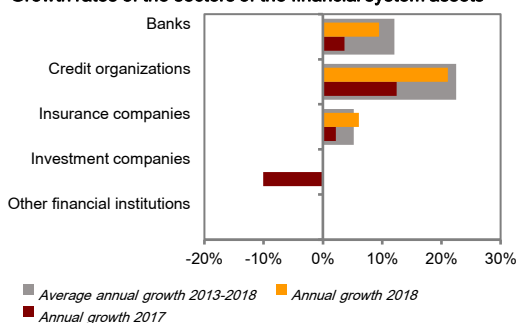
The risk management of banks is highly important in terms of overall financial stability of the system.

Structure of financial system assets, by financial institutions, as of 30.06.2018



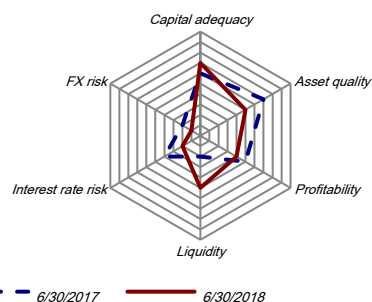
Source: Central Bank of Armenia.

Growth rates of the sectors of the financial system assets



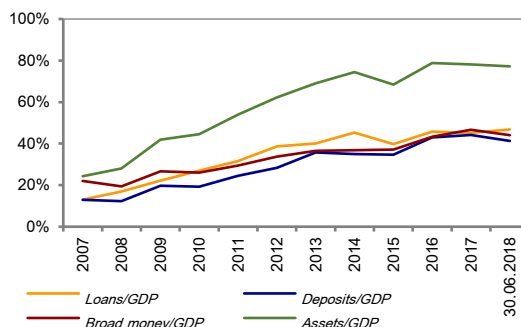
Source: Central Bank of Armenia.

Banking sector stability map



Source: Central Bank of Armenia.

Banking intermediation



* Loans include lending to residents and non-residents. Meanwhile, broad money includes currency in circulation in AMD, deposits and borrowings of residents (both in AMD and in foreign currency)

Source: Central Bank of Armenia.

The Herfindahl-Hirschman Concentration Index

Indicator	31/12/15	31/12/16	31/12/17	30/06/18
Total assets	764	859	868	869
Total liabilities	800	953	938	932
Total capital	630	580	655	667

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 remains low. The shares of assets, liabilities and capital of the 4 largest banks amounted 49.0%, 51.5% and 36.8% respectively, at the end of the first half of 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 the credit risk in the risk-weighted assets of commercial banks accounts for 87.6%.

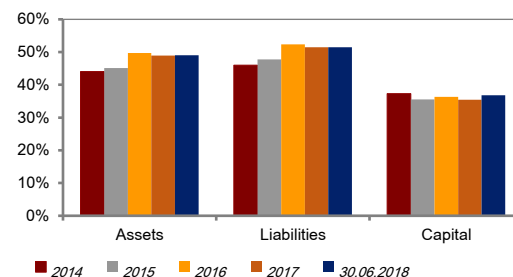
During the first half of the year, loans to economy increased by 8.9%. Lending to legal entities increased by 9.4%, while lending to individuals, by 8.1%.

The consumer, manufacturing and trade loans had the largest shares in total lending to residents, making up 21.0%, 19.4% and 15.5%, respectively.

The share of non-performing loans and receivables (classified as “watched”, “substandard”, and “doubtful”) increased by 0.9 percentage point to 6.0% of total loans and receivables. Regarding each category of loans and receivables, the shares of “watched”, “substandard”, and “doubtful” loans and receivables were 2.4%, 1.6% and 2.0%, respectively (as of 31.12.2017, they were 1.4%, 2.0% and 1.7%, respectively). The share of non-performing loans and receivables is relatively high in agricultural sector, public catering and other services, as well as consumer loans, constituting 11.4%, 10.1% and 7.0%, respectively.

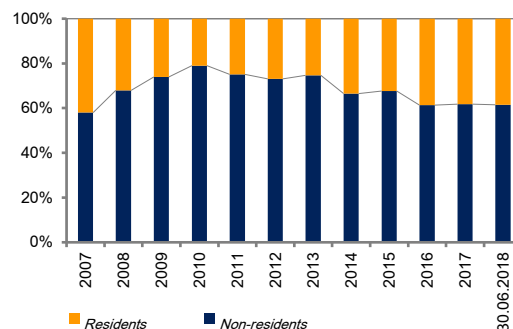
The Herfindahl-Hirschman sectorial concentration index for lending remained merely same, constituting 1079 at the end of the first half of the year, pointing to a moderate concentration of loan allocation in the banking sector. The same indicator calculated using the banks' average amounted to 2083. The relatively high value of the sectorial concentration index calculated using the banks' average indicates a relatively high concentration of lending portfolios with some banks. Nevertheless, the sectorial concentration of credit portfolios of the aforementioned banks is mostly the result of the large share of consumer loans, therein the credit portfolio of the same banks is sufficiently diversified, in terms of the volume of the loans.

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



Source: Central Bank of Armenia.

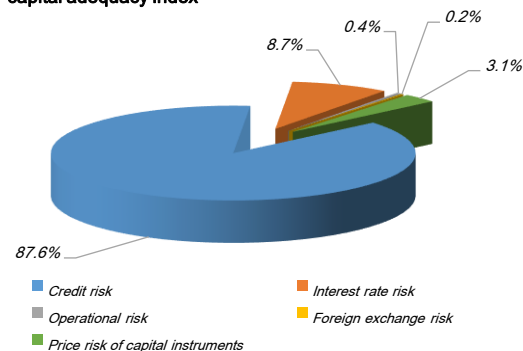
Foreign investors' participation in statutory capital of Armenian banking sector



Source: Central Bank of Armenia.

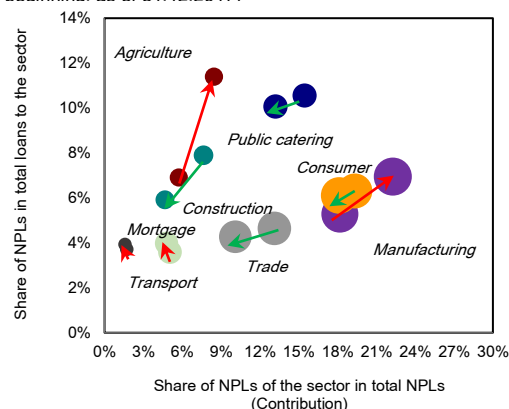
The credit risk is in stabilizing phase.

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 30.06.2018, the beginning as of 31.12.2017)



Source: Central Bank of Armenia.

In terms of the loan portfolio concentration, the share of loans to large borrowers increased by 1.7 percentage point to 27.2% of total loan portfolio as compared to the beginning of the year ²⁹.

Credit risk stress scenarios ³⁰

30.06.2018	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 32.0 billion or 4.6% of regulatory capital of the banking sector	AMD 19.8 billion or 2.8 % of regulatory capital of the banking sector	AMD 82.9 billion or 11.9% of regulatory capital of the banking sector
Total capital adequacy of the banking sector in case of stress scenario	17.5%	17.8%	16.4%

Source: Central Bank of Armenia.

The results of the credit risk stress tests deteriorated somehow at the end of the first half of the year, as compared to the beginning of the year. This was attributable to the decrease in capital adequacy, and a growth in the share of non-performing loans and receivables in total loans and receivables. The strictest stress scenario revealed cases of infringement of the capital adequacy requirement at some banks. However, the capital adequacy indicators in these banks remain quite close to the regulatory requirements, and the total capital will be sufficient enough to absorb plausible losses arising from the credit risk. In this context, the probability of emergence of insolvency problems in the banking sector is estimated to be low.

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

30.06.2018	Stress scenarios
	When 50% of off-balance sheet contingent liabilities performed
Banking sector capital adequacy ratio before the stress	18.2%
Banking sector capital adequacy ratio after the stress	18.0%

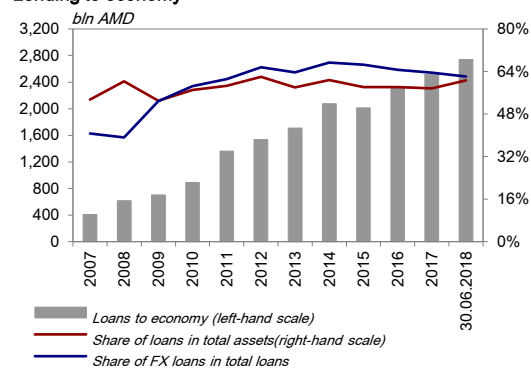
Source: Central Bank of Armenia.

The results of stress scenario on 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 the credit risk arising from off-balance sheet contingent liabilities on the financial stability is estimated to be insignificant.

²⁹ The bank's risk on large borrowers exceeds 5% of average monthly regulatory total capital, considering the interdependence.

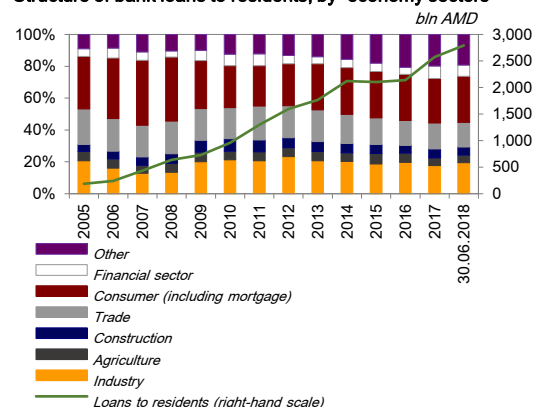
³⁰ This and further stress scenarios are not forecasting emergence of any risks, but rather are aimed to reveal the weaknesses of the financial system, as well as to assess its ability to absorb such risks.

Lending to economy



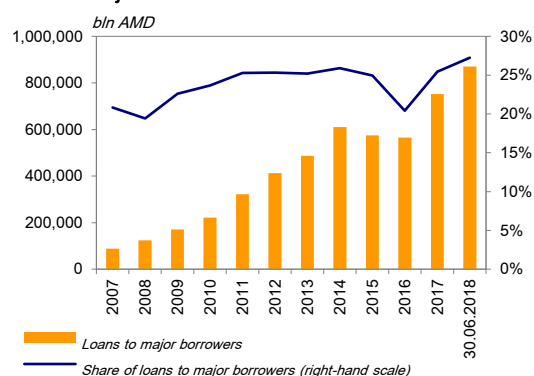
Source: Central Bank of Armenia.

Structure of bank loans to residents, by economy sectors



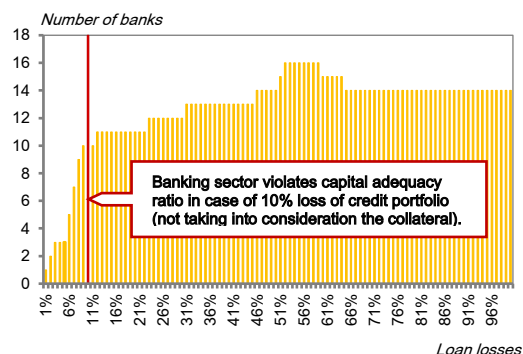
Source: Central Bank of Armenia.

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.

4.1.3. Liquidity risk

The liquidity of commercial banks displayed a decreasing trend owing to lending activity of commercial banks. Prudential ratios of total and current liquidity fell by 5.5 and 9.6 percentage points to 27.0% and 132.1%, respectively, relative to the beginning of the year (with minimum thresholds of 15.0% and 60.0%, respectively). Prudential ratios of total liquidity and current liquidity for convertible foreign currencies (Group 1) decreased by 6.5 and 16.4 percentage points to 14.1% and 62.9%, respectively (with minimum thresholds of 4.0% and 10.0%, respectively).

As for assets and liabilities by maturity baskets, 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 30.06.2018, 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 94.9%, 89.3% and 78.7%, respectively (102.4%, 97.9% and 91.4%, as of 31.12.2017) ³¹.

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.

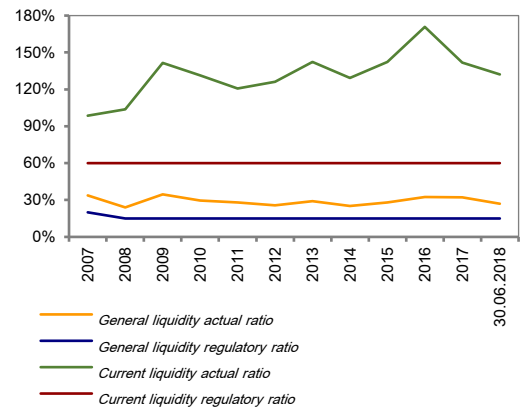
In the reporting half of the year, the declining trend of concentration of the funds attracted during the last 3-4 years was maintained, improving the liquidity risk profile of commercial banks. The share of large liabilities in total liabilities dropped by 1.3 percentage point to 11.6% at the end of the first half of the year, as compared to the beginning of the year ³².

The foreign borrowings of commercial banks have increased by 15.3%, as compared to the beginning of the year. The funds attracted from international financial institutions increased by 2.0%, with a 22.9% share in total foreign borrowings. The main lender countries include Netherlands (22.7%), Luxembourg (17.3%) and Germany (10.6%). The share of long-term liabilities in total foreign borrowings amounted 89.3%.

From the perspective of the stability of loan financing sources by deposits, the loans to deposits ratio increased by 11.5 percentage points relative to the beginning of the year and stood at 113.6% ³³ at the end of the first half of the year.

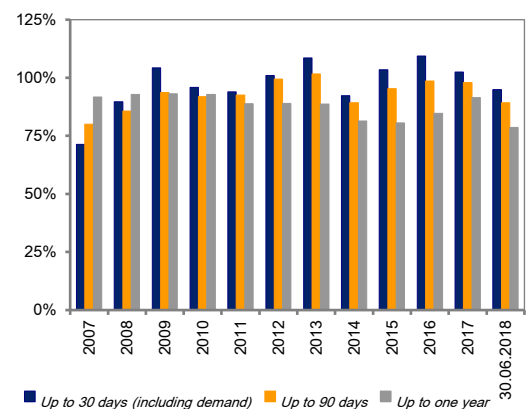
The liquidity ratios of commercial banks are twice higher than the regulatory minimum requirements.

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

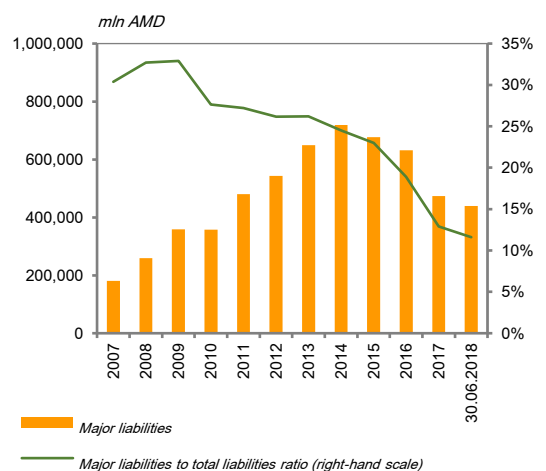


Source: Central Bank of Armenia.

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



The ratio of the banking sector major liabilities to total liabilities



Source: Central Bank of Armenia.

³¹ In the calculation of the ratio of assets and liabilities according to time baskets, the off-balance sheet contingent liabilities were included by a share of 20%

³² Bank's liabilities for major creditors exceed 5% of total liabilities without considering the interconnectedness.

³³ In the calculation of this ratio, loans include loans to real sector, while deposits include funds attracted from individuals and companies.

Liquidity risk stress scenarios

30.06.2018	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	21.4%	23.1%	16.8%
Current liquidity ratio of banking sector	96.9%	142.6%	95.8%

Source: Central Bank of Armenia.

Compared to the liquidity risk stress tests done at the beginning of the year, the results of the stress tests of the end of the first half deteriorated. This was caused by a cut in the share of high liquid assets in the balance sheet of banks. However, 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 low.

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

30.06.2018	Stress scenarios
	When 50% of off-balance sheet contingent liabilities performed
Banking sector high liquid assets to total assets	23.2%
Banking sector high liquid assets to demand liabilities	113.1%

Source: Central Bank of Armenia.

According to the results of the stress tests to assess liquidity risk arising from the 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.

4.1.4. Market risk

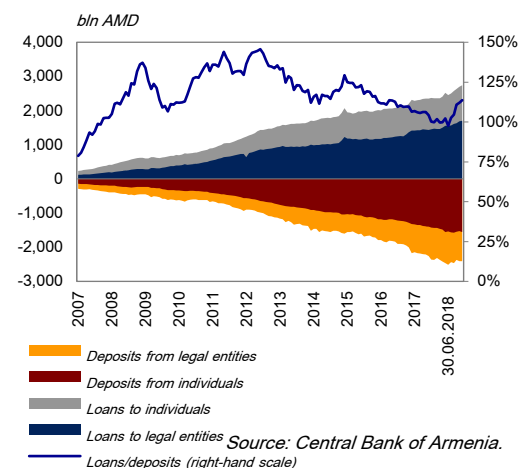
Foreign exchange risk

The Armenian dram exchange rate fluctuations against other currencies drove the domestic banking sector to revaluation gains reaching AMD 865 million. The banking sector generated net revenue of AMD 10.0 billion from foreign exchange transactions and transactions with derivatives.

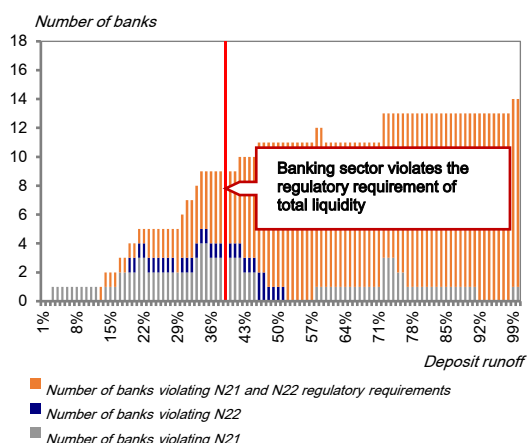
During the first half of the year, the declining trend of dollarization of the banking system's balance sheet was maintained. The share of foreign currency loans declined by 1.4 percentage point to 62.1% of total loans to economy. The share of foreign currency deposits decreased by 1.1 percentage point to 61.7% of total deposits.

The banking sector's foreign currency net short position (including derivatives) amounted to AMD 3.6 billion or 0.5% of

The structure of loans and deposit funds of the banking sector



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



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

total regulatory capital (as of 31.12.2017, it was AMD 9.7 billion or 1.4% of total regulatory capital) ³⁴.

Foreign exchange risk stress scenarios

30.06.2018	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 171 million or 0.02% of regulatory capital (AMD 171 million)	AMD 70 million or 0.01% of regulatory capital (AMD 70 million)	AMD 101 million or 0.01% of regulatory capital

Source: Central Bank of Armenia.

If the worst possible stress scenarios reviewed in the above stress test ³⁵ 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 risk

The interest rate risk of the banking sector remained low. In the context of asset and liability management, the commercial banks use strict limits for maturity time baskets. Thus, the average weighted duration gap of present value of assets and liabilities of the banking sector varies in the range of 1/2 to 1 year. This means that possible fluctuations in the market rates have low direct impact on the possible losses of the banking sector.

Interest rate risk stress scenarios

30.06.2018	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 -24.2 billion or 3.5% of banking sector capital (AMD 24.2 billion or 3.5% of banking sector capital)	AMD -380 million or 0.05% of banking sector capital (AMD 380 million or 0.05% of banking sector capital)

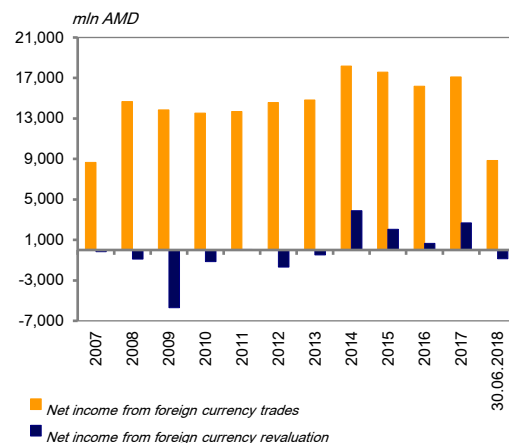
Source: Central Bank of Armenia.

In case of the worst possible stress scenarios, possible losses of banks resulting from interest rate changes will approximately be 3.6% of the total capital. This implies that losses of the banking sector resulting from the interest rate fluctuations are insignificant and the impact of such losses on the financial stability will be negligible.

³⁴ 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)

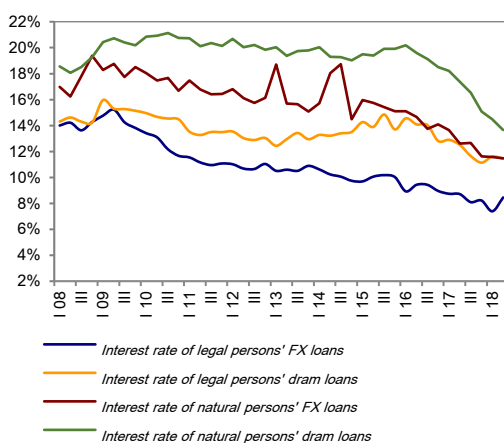
³⁵ The calculation of losses estimated through stress - scenarios and the VaR Model (the VaR Model is not considered as a stress - scenario since the calculation of the model considers historical exchange rate series of currencies) is based on FX positions of commercial banks as of 31.12.2017.

The net income of the banking sector from foreign currency trades and revaluation



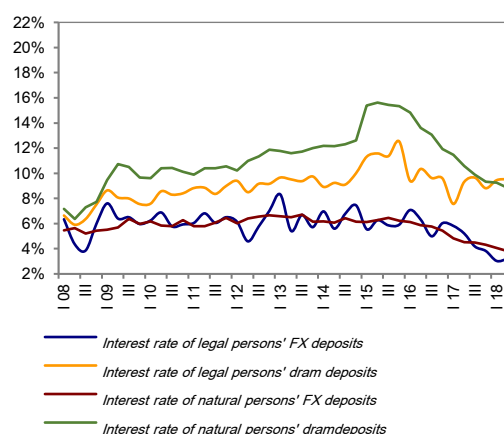
Source: Central Bank of Armenia.

Interest rates of loans to legal and natural persons



Source: Central Bank of Armenia.

Interest rates of deposits from legal and natural persons



Source: Central Bank of Armenia.

Price risk

The price risk of the banking sector remains low, owing to the banks' preference for holding government securities and the small amount of financial assets available-for-sale and held at fair value through profit or loss in the balance sheets of banks. Relative to the beginning of the year, the share of the abovementioned assets decreased by 1.7 percentage point to 8.0% 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 1.7 billion.

Risks associated with the real estate price fluctuations remained manageable. Domestic commercial banks further provided mortgages with loan-to-value ratios 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 fluctuations.

Real estate price change stress scenarios

30% depreciation of real estate	30.06.2018
The banking sector's loss due to revaluation of own real estate property (price risk)	AMD 20.6 billion (or 3.0% of banking sector capital)
The banking sector's loss due to a 30% loss of vulnerable credit portfolio ³⁶ (taking into consideration that the collateral involved has been sold at a depreciated cost), if a stress-scenario occurs (credit risk)	AMD 27.5 billion (or 4.0% 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 91.7 billion (or 13.2% of banking sector capital)

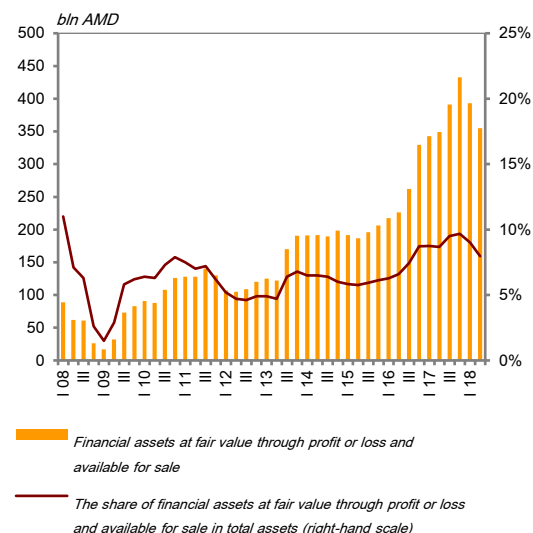
Source: Central Bank of Armenia.

In case of stress scenario of 30% depreciation of real estate prices, the 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 sector. Nevertheless, in view of the moderate fluctuations of the real estate prices in the last years, the impact of the credit risk deriving from the real estate prices on the financial stability is assessed to be rather weak.

4.1.5. Capital adequacy and profitability

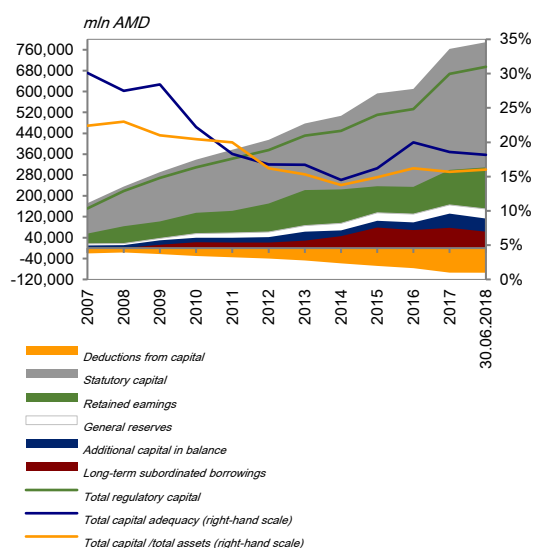
During the first half of 2018, the total capital adequacy ratio of commercial banks decreased by 0.4 percentage point to 18.2%. This decrease was mainly due to expansion of the loan portfolio, as well as the reduction of the share of the additional capital, which

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



Source: Central Bank of Armenia.

The structure of total regulatory capital



Source: Central Bank of Armenia.

The capital of commercial banks provides a high level of risk absorption.

³⁶ 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.

occurred due to the implementation of the capital structure requirements of the Basel III accord. The statutory capital replenishments and generated net income positively impacted the capital adequacy at banks.

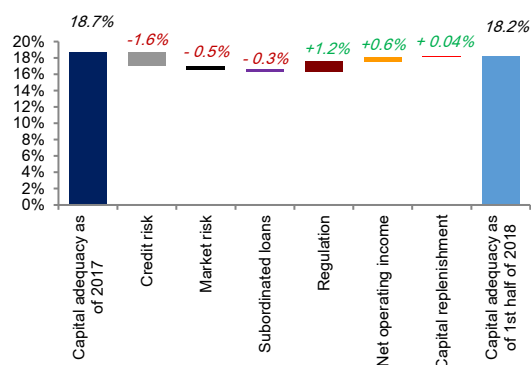
The total regulatory capital of commercial banks increased by 1.9% to AMD 695 billion, compared to the beginning of the year. The structure of the total regulatory capital has high quality in terms of its risk absorption capacity. In particular, the share of CET1 capital constitutes 86% of the total regulatory capital.

According to the supervisory reports of the CBA, the banking sector's net profit amounted to AMD 26.9 billion, with 15 banks reporting profit and 2 banks incurring losses³⁷. The annualized ROA and ROE were 1.2% and 7.5%, respectively. The return on equity improved due to the increase of the return on assets, as compared to the previous year, while the decreased leverage ratio left its negative impact on it. The return on assets increased mainly as a result of the decrease in loan portfolio losses. In comparison with the previous year, the annualized ratio of net provisions to assets declined by 0.9 percentage point.

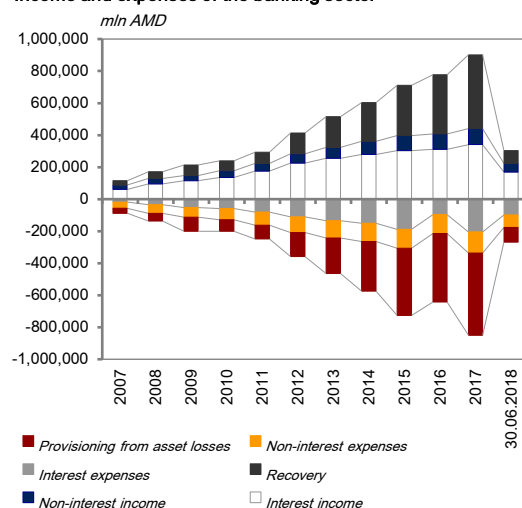
According to the International Financial Reporting Standards (IFRS) the net profit of commercial banks was AMD 36.3 billion. The annualized ROA and ROE ratios were 1.6% and 10.0%, respectively (0.9% and 5.6%, in the previous year).

The shares of recoveries from asset loss provisions and allocations for asset loss provisions decreased in the banking sector income and expenditure structure. These structural changes took place due to a decrease in the volatility of the non-performing loans in total loan portfolio and the reduction of the write-offs.

Total capital adequacy with banks- Waterfall



Income and expenses of the banking sector



Source: Central Bank of Armenia.

4.2. CREDIT ORGANIZATIONS

Credit organizations represent the second largest sector of Armenian financial system, with their assets making up 10.0% of total assets of the financial system. During the reporting period, assets, liabilities and total capital of credit organizations increased considerably.

Assets, liabilities, capital and profit of credit organizations

thousand AMD

Indicator	31.12.2017	30.06.2018	Growth (%)
Assets	474,750,664	533,835,426	12.4%
Liabilities	217,389,789	292,536,134	34.6%
Capital	257,360,874	241,299,291	- 6.2%

Source: Central Bank of Armenia.

³⁷ This differs from IFRS mainly on the part of contributions to assets loss provisioning.

The total assets of credit organizations had a growth rate outpacing that of the total capital. As a result, the total capital-to-assets ratio (leverage ratio) has decreased by 9.0 percentage points to 45.2%.

The net profit of credit organizations amounted to AMD 27.9 billion. Moreover, 34 credit organizations posted profit and 2 reported losses ³⁸.

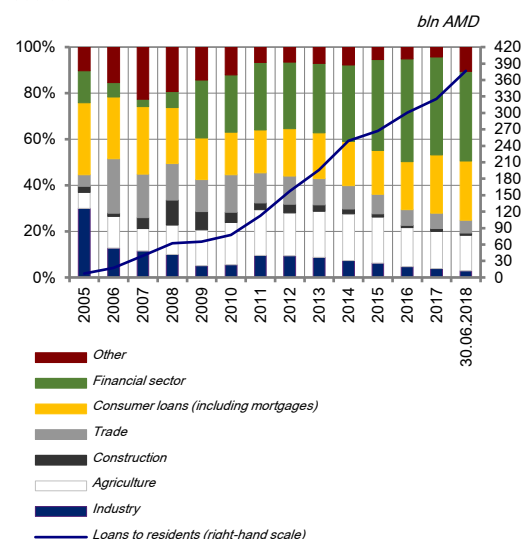
The return on assets (ROA) and return on equity (ROE) grew by 0.6 and 1.3 percentage points, relative to the same period of the previous year, to 10.9% and 23.5%, respectively.

In the first half of 2018, the share of non-performing loans and receivables grew by 1.1 percentage point to 4.3% in the total loan portfolio. 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 19.1%, 9.4% and 6.9%, respectively.

Relative to the same period of the previous year, the ratio of net asset loss provisioning to total assets has decreased by 0.3 percentage point to 1.2 percent.

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.

Balance of loans to residents by credit organizations, by sectors



Source: Central Bank of Armenia.

Credit risk assessment stress scenarios ³⁹

30.06.2018	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 3.9 billion or 1.7% of regulatory capital	AMD 704 million or 0.3% of regulatory capital	AMD 9.4 billion or 4.2% 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. SECURITIES MARKET PARTICIPANTS ⁴⁰

As of end of June 2018, 66 classes of securities of 22 reporting issuers were admitted to trading in the regulated market of securities. Two issuers were accountable on both shares and bonds.

³⁸ The net profit of credit organizations, calculated in accordance with the IFRS amounted to AMD 24.6 billion.

³⁹ 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).

⁴⁰ 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.

As of end of the first half of the year, the total amount of shares issued was AMD 57.7 billion, while that of bonds was AMD 122.4 billion. The share of equity securities issued by four commercial banks was 88.1% of total issuance of securities, while the share of bonds issued by eight commercial banks was 86.9% of total issuance of bonds. 35 of these 66 bonds were in foreign currency, with their share making up 80.1%.

There were 17 banks providing investment services and 9 investment companies in the securities market of Armenia, as of end of the first half of 2018.

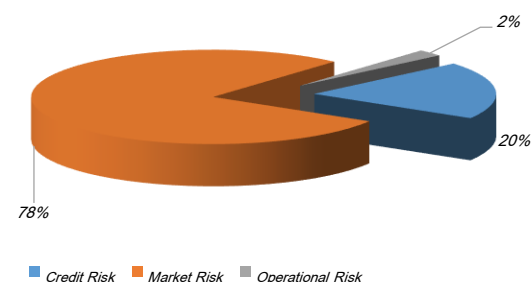
The total assets and total capital of investment companies decreased by 10.1% and 1.1% and amounted to AMD 57.8 billion and 9.7 billion, respectively. Total profit of investment companies was AMD 1.4 billion.

The regulatory capital adequacy of investment companies decreased by 0.5 percentage point, as compared to June of the previous year and was 17.4%, as of end of June 2018. The credit risk of investment companies accounted for 19.7% of risk-weighted assets, the market risk constituted 78.0% and the operational risk, 2.3%. Remarkably, the interest rate risk had the largest share in the market risk of investment companies (89.6%), while foreign exchange and share price risks constituted 9.0% and 1.3%, respectively. The capital adequacy of investment companies is higher than the required minimum level, and the abovementioned risks are manageable.

As of 30.06.2018, there were 2,443 security issuers' registers and 103,832 owners' accounts in the Central Depository of Armenia.

Overall, the investment companies have low-risk level activity in terms of financial stability vulnerability.

The structure of assets in the capital adequacy ratio of the investment companies, as of 30.06.2018



Source: Central Bank of Armenia.

4.4. MANDATORY PENSION FUNDS

As of July 2018, there were 2 investment fund managers with permission to operate as mandatory pension fund managers in Armenia. Each of the two manages three pension funds.

Net Asset Value - NAV of pension funds as of 30.06.2018

Name of the fund manager	Name of the pension fund	Net asset value (NAV)
AMUNDI-ACBA Asset Management Armenia CJSC	Balanced fund	AMD 1.5 billion
	Conservative fund	AMD 60.7 billion
	Fixed income fund	AMD 829 million
C-QUADRAT AMPEGA Asset Management Armenia LLC	Balanced fund	AMD 637 million
	Conservative fund	AMD 59.4 billion
	Fixed income fund	AMD 393 million

The net asset value of the pension funds was AMD 123.5 billion. The net assets-to-GDP ratio was 2.2%, increasing by 0.3 percentage point as compared to the end of 2017.

As of end of the first half of 2018, there were around 207,000 active pension plan participants.

In 2018, the Herfindahl-Hirschman concentration index for pension fund investments decreased, as compared to 2017, and amounted to 0.26.

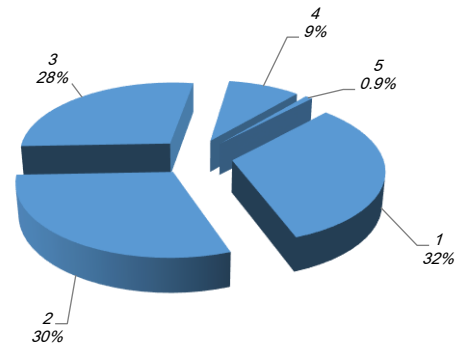
During the first half of 2018, the investments in non-government bonds increased by 2.2 percentage points to 11.2% of total assets in the investments' structure of pension funds, which indicates the rising activity of asset managers in the non-government bond market. The investments in cash and deposits rose by 1.9 percentage point to 31.9% of total assets, while those in securities of foreign investment funds remained merely unchanged and amounted 28% of total assets. The share of government bonds decreased by 3.7 percentage points, during the same reporting period.

The share of foreign exchange assets of the funds was 33.7% or AMD 41.7 billion, at the end of the first half of the year. The majority of foreign exchange assets (AMD 34.4 billion) were securities of foreign investment funds.

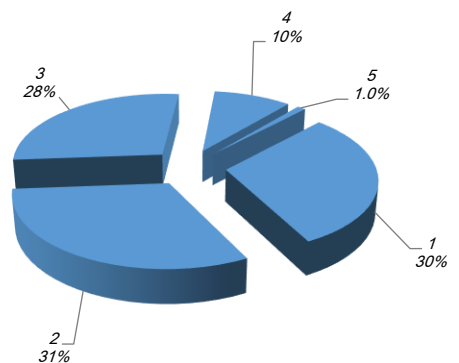
The profitability of funds was 5.2% in the first half of 2018. Starting from 2014, the cumulative average return for the last four years made up 45.9 percent. The average price of one pension fund unit for all 6 funds was AMD 1000 during the establishment of the funds, which rose by AMD 459 and stood at AMD 1459, as of 30.06.2018.

The 28.6% or AMD 35.2 billion of the fund's assets are invested in the Armenian government bonds. The investments in Eurobonds amounted AMD 386 million. The weighted average maturity of the fund invested government bonds was 9.2 years and the weighted average yield (before maturity) was 9.0%.

Pension fund investments as of 31.12.2017



Pension fund investments as of 30.06.2018



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

Source: Central Bank of Armenia.

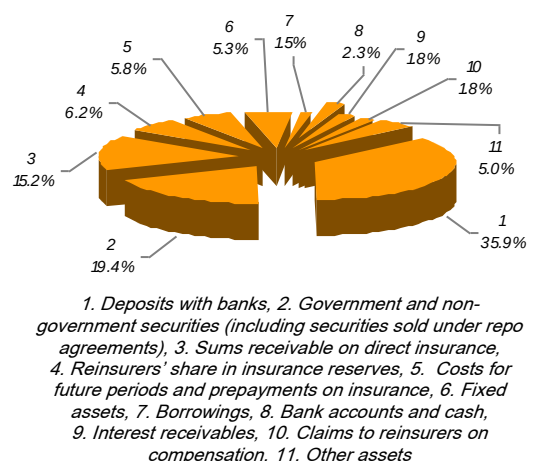
4.5. INSURANCE COMPANIES

During the first half of 2018, the assets of insurance companies increased by 2.2% to AMD 50.6 billion, as of 30.06.2018, and the amount of liabilities grew by 6.1% to AMD 32.1 billion. Total capital decreased by 3.9% and made up AMD 18.5 billion.

The share of the insurance companies in the structure of the financial system of Armenia decreased by 0.1 percentage point and amounted 0.9% (it was 1.0% in June 2017).

The amount of premiums written, the main indicator of insurance activity, increased by 29.5%, as compared to the same period of the previous year, to AMD 22.3 billion (this indicator increased by 5.8% during the same period of the previous year).

The structure of insurance companies' assets as of 30.06.2018



Source: Central Bank of Armenia.

The premium to GDP ratio, another key indicator of insurance companies, was 0.69% ⁴¹ as of 30.06.2018, increasing by 0.06 pp. as compared to 2017. The premium per capita ratio was AMD 13,577 (annualized), versus AMD 11,835 in December 2017.

The insurance companies' expense ratio has increased by 5.1 percentage points, as compared to the same period of the previous year, and amounted 64.8% ⁴². The loss ratio of insurance companies fell by 1.2 percentage point compared to the previous year and amounted to 28.7% ⁴³.

The shares of risk-weighted assets and required solvency in the insurance sector's capital adequacy ratio were 35.0 and 65.0 percent, respectively. The regulatory capital adequacy ratio of the insurance sector was 156.9% (the marginal value of regulatory capital adequacy is 100.0%).

Solvency risk

The change in solvency level of insurance companies was assessed in case if stress-scenarios shown below unfold. The 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

30.06.2018	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 1.2 billion or 6.5% 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	146.6%	152.8%

Source: Central Bank of Armenia.

Credit risk

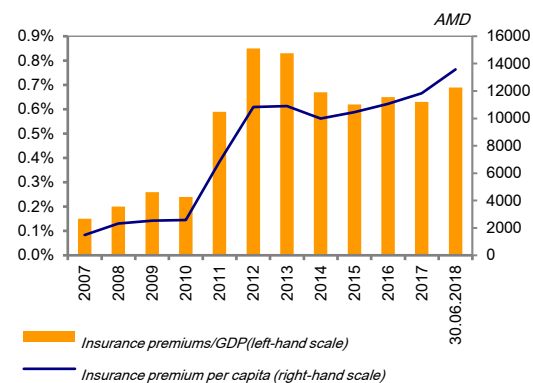
Allocating funds of the insurance sector in low-risk assets allows keeping the investment risk at a low level. Assets equivalent to technical reserves are invested primarily in time and demand deposits with commercial banks as well as government and non-government bonds.

⁴¹ Based on the 2017 data, the premiums to GDP ratio on non-life insurance was 3.57% on average in developed industrial countries and 1.48% in emerging market countries (source: Swiss Re, Sigma No 3/2018, May 2018).

⁴² 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).

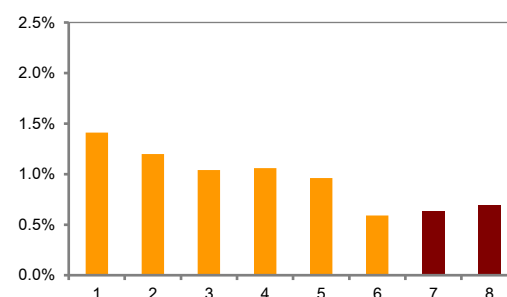
⁴³ The loss ratio has been calculated using the following formula: (net accrued indemnity + net provisions to technical reserves + other transaction costs on insurance) / (earned insurance premiums – sums refunded on the contracts terminated- change of UIPR).

Main ratios of the insurance sector



Source: Central Bank of Armenia.

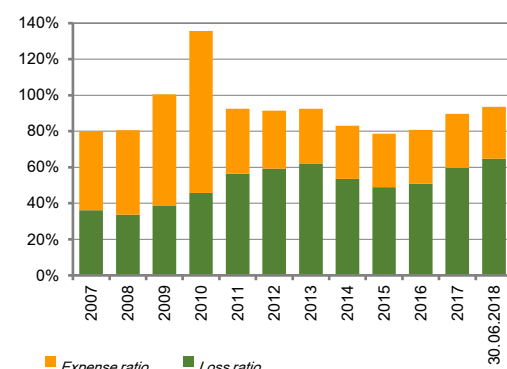
Insurance premiums/ GDP in EEC and CIS (2017)



1. Ukraine, 2. Turkey, 3. Russia, 4. Georgia, 5. Romania, 6. Kazakhstan, 7. Armenia 2017, 8. Armenia 2018

Source: Central bank of Armenia, Swiss Re, Sigma No 3/2018.

Loss and expense ratios of the insurance sector



Source: Central Bank of Armenia.

Credit risk assessment stress scenarios

30.06.2018	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 5.0% of regulatory capital	AMD 1.6 billion or 9.1% of regulatory capital
The total capital adequacy ratio of the insurance sector, if the stress scenario occurs	150.5%	145.1%

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 non considerable.

Foreign exchange risk assessment stress scenarios ⁴⁴

30.06.2018	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 - 7.2 million or 0.04% of regulatory capital (AMD - 7.2 million)	AMD 2.2 million or 0.01% of regulatory capital (AMD -2.2 million)	AMD 1.9 million or 0.01% of regulatory capital

Source: Central Bank of Armenia.

Liquidity risk

The liquidity risk to the insurance sector is low, proven by the results of the stress scenario below.

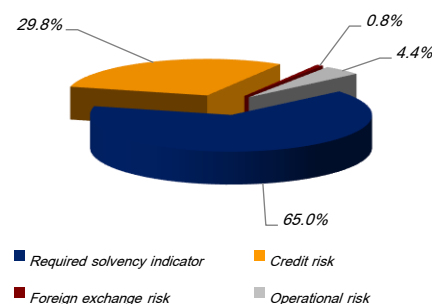
Liquidity risk assessment stress scenario

30.06.2018	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	498.0%

Source: Central Bank of Armenia.

Overall, 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.

The shares of risk weighted assets and required solvency in the capital adequacy ratio of the insurance sector, as of 30.06.2018



⁴⁴ 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.

SUMMARY

In the first half of 2018, the financial system had an opportunity to expand its loan portfolio having benefited from the favorable macroeconomic perspective and the availability of liquid assets, while easing some lending terms. A reduction of interest rates was observed amidst competition growth in the credit market and ongoing easy monetary conditions. The decline in liquidity indicators was driven by the increase in lending only.

The financial system of Armenia maintains sufficient flexibility in terms of financial stability.

5. FINANCIAL MARKET INFRASTRUCTURES STABILITY

Given the importance and the impact of the 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, as well as the telecommunication networks supporting their activity.

In Armenia, over 99 percent of the value of the interbank settlements are made via the Central Bank systems ⁴⁵.

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

During the reported period, there were about 1.5 million payments (payment messages), totaling AMD 3899.9 billion, executed via the Electronic Payment System (EPS) of the Central Bank of Armenia.

The interbank payments constitute the biggest share of the value of the EPS payments (44.7%) and increased by 16.0%, as compared to the same period of the previous year. An 8.9% growth was recorded in budget payments, as well, while the operations with the Central bank remained merely unchanged. As a result, the total value of the EPS payments grew by 8.7%, as compared to the same period of the previous year.

During the reported period, the number of payments increased by 0.4%, compared to the previous year.

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

Credit risk

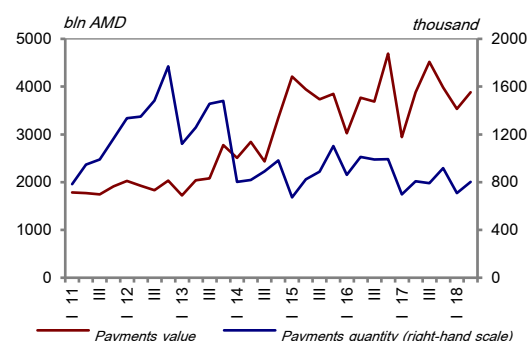
Credit risk to the settlement bank (i.e. the Central Bank of Armenia) in the system is non-existent since the participant can use an intraday repo instrument in case of insufficient funds on their correspondent account, which is secured by government bonds of the Republic of Armenia, securities of the 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 irrevocable ⁴⁶.

⁴⁵ 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, please see the paper "Payments and Securities Settlement Systems in the Republic of Armenia", 2010.

⁴⁶ For details, please see the "Financial Stability Report", 2007, and the paper "Payments and Securities Clearance and Settlement Systems in the Republic of Armenia", 2010.

The results of the 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.

There is no credit risk identified in the EPS.

Liquidity risk

In the period under review, the daily average indicator of own liquidity used for assessment of liquidity risk⁴⁷ was 5.1 (4.4 in 2017), reaching 5.7 in February (in 2017, the maximum was 5.2 in October). This high level of the 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 increase of the indicator during the reported period was caused by an increase in the average daily liquidity at the beginning of the day (15%, as compared to the same period of the previous year). The peak registered in February was also due to a notable decrease in average daily payments (22%, as compared to the previous month).

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) by banks and / or funds from other sources to increase liquidity, which neutralizes the liquidity risk furthermore.

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 0.003% by value and 0.001% by number, on a semi-annual basis.

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

Intraday distribution of payments

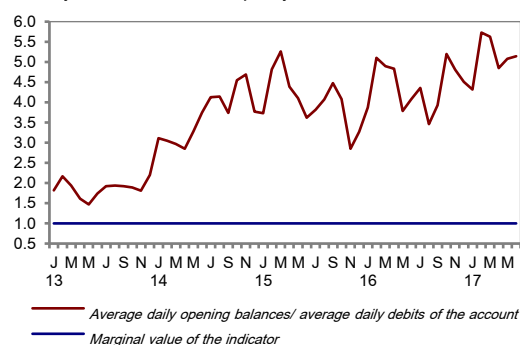
In the reported period, 31.0% of the value and 19.3% of the number of payments were settled during the peak hours (10:00-11:00, both).

The peak hour for value of payments in the system is still registered at the beginning of the day (10:00-11:00), when the biggest share of the value of payments is performed. However, the share of the peak hour of the beginning of the day decreased considerably, by 4.0 percentage points, as compared to the same period of the previous year, and 7.4 percentage points, as compared to the second half of the previous year. This somehow

⁴⁷ 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.

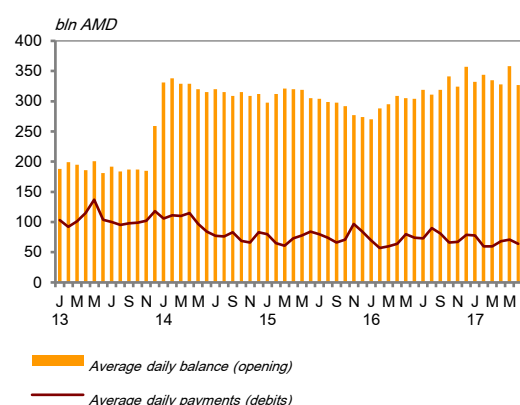
The likelihood of emergence of liquidity risk and systemic problems in the EPS is negligible.

The dynamics of the own liquidity indicator



Source: Central Bank of Armenia.

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

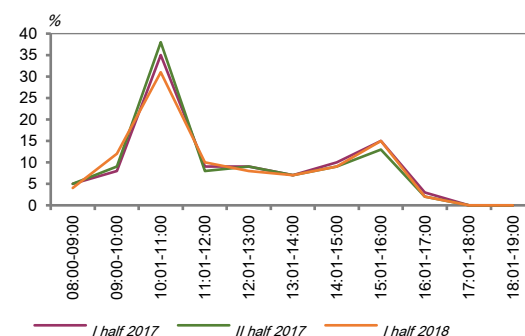


Source: Central Bank of Armenia.

The rejections due to insufficient liquidity are also 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.

flattened the uneven distribution of the value of payments during the day. Despite the abovementioned uneven distribution, the peak hour was during the first half of the day, which smoothens the concentration risks, as in case of problems, the participants will have enough time to take the necessary measures to settle the payments on a given day.

The distribution of the number of payments during the day has a substantially proportionate nature. The share of the peak hour of the end of the day (15:00-16:00) has decreased by 1.6 percentage points, reaching 17.4%. This has shuffled the peak hour to the beginning of the day, which increased by 2.1 percentage points, as compared to the same period of the previous year.

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

System capacity

The dynamics of the hourly maximum number of payments (the maximum number of payments per hour for each month) remained merely unchanged. However, a sharp increase of the maximum number of payments was recorded in June, from 12:00 to 13:00, making up 38.1% of the number and 9.6% of the value of the day's payments. The peak hour of this certain day was conditioned by the uneven distribution of payments during the day by two banks.

The shares of all marginal indicators (showing the significant flow of payments per hour) have also increased somehow.

The increase of the above-mentioned indicators was mainly conditioned by a 26.5% growth of the number of intrabank payments in June, as compared to May. The latter was rather conditioned by the increase of single messages used by banks, and not by an economic factor, as the value of payments has increased by 1.3% only.

The maximum daily indicator (number of payments per day) decreased to 21,737 against 24,637 payments / day in 2017.

Taking into account the levels of the abovementioned indicators, and that the potential capacity indicator estimated in the system is higher than 6000 payments per hour, as well as the fact that the cases of the abovementioned levels have a small share in total payments flow⁴⁸, the probability of emergence of capacity-related risks is estimated to be low.

Operational availability of the system

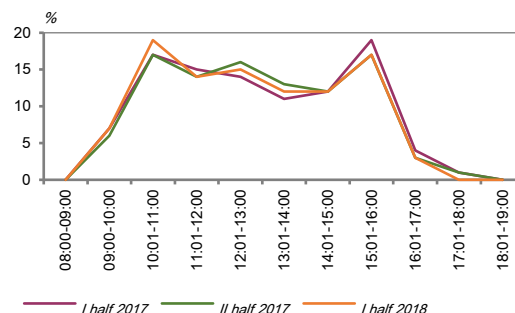
During the reported period, no significant incident (with a 1 hour or more duration) affecting the operational availability of the EPS was reported.

As a result, the operational availability of the EPS was 100.0%⁴⁹.

⁴⁸ For example, the share of more than 3,500 payments per hour was 3.5% per annum.

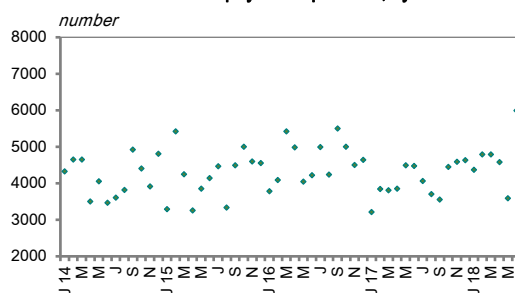
⁴⁹ According to the EPS participation agreement the operational availability of the system should be at least 98.0% yearly.

Intraday distribution of number of payments on an average semiannual basis



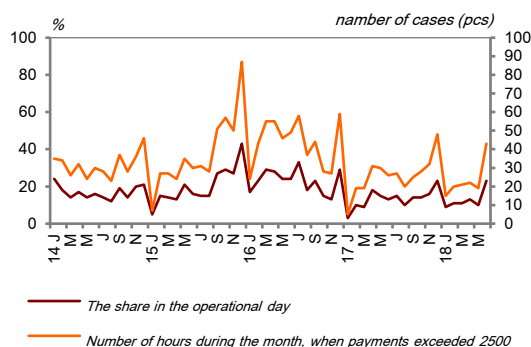
Source: Central Bank of Armenia.

The maximum number of payments per hour, by month



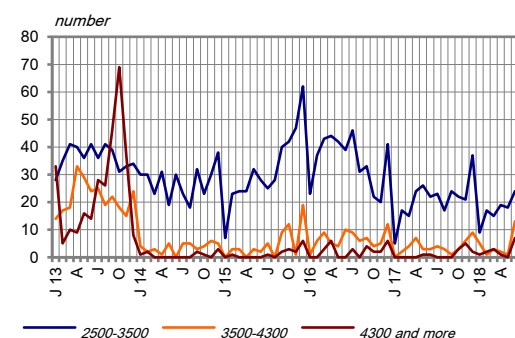
Source: Central Bank of Armenia.

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.

5.2. CREDIT REGISTRY

Since January 1, 2003, the Credit Registry was established in the Central Bank's Statistical Department, the main function of which is to collect reliable data for effective oversight and analysis. The Credit Registry collects information on all credit transactions that cause liability to the creditor.

As of the end of the first half of 2018, the number of loans recorded in the Credit Registry was 1,096,812 loans to individuals and 10,384 loans to legal entities, totaling 1,107,196 loans.

Number of loans registered in the Credit Registry, as of end of H1 2018

Number of loans	Outstanding	Repaid	Total
Loans to individuals	885833	210979	1096812
Loans to legal entities	6148	4236	10384
Total	891981	215215	1107196

As compared to the first half of the previous year, the total number of loans registered in the Credit Registry increased by 920,612 loans.

The Credit Registry possessed information on 920,612 loans outstanding, in the first half of the previous year, and 1,107,196 loans outstanding, in the first half of this year ⁵⁰.

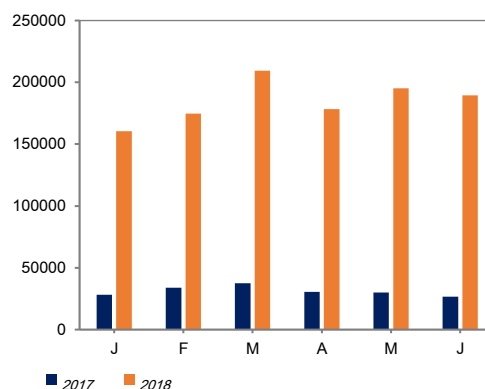
A number of methodological and software amendments were made to the Credit Registry.

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

A new software system was launched on September the 2nd, 2017. The new software system includes innovative and more accurate methods for identification of natural and legal entities, as well as new data fields on loans were added. Moreover, the restriction on the information provided to the Credit Registry on loans exceeding AMD 1.5 million was revised, so that the banks and the credit organizations 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.

Number of loans granted in 2017-2018



Source: Central Bank of Armenia.

⁵⁰ This huge difference of the numbers in the data collected is caused by a new software implementation. According to the latter, the credit registry collects data on all kinds of loans, regardless of the previous limits.

SUMMAR

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 both the EPS and the GSASS are 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.

CHARTS

<i>Economic growth by regions</i>	<i>8</i>
<i>Inflation in a number of countries</i>	<i>8</i>
<i>Annual growth rate of world trade</i>	<i>9</i>
<i>Brent oil prices</i>	<i>10</i>
<i>Copper prices</i>	<i>10</i>
<i>Molybdenum prices</i>	<i>10</i>
<i>Wheat prices</i>	<i>11</i>
<i>Gold prices</i>	<i>11</i>
<i>10-year government bond yield</i>	<i>12</i>
<i>Interest rate policies of Central banks</i>	<i>12</i>
<i>Interbank interest rates</i>	<i>12</i>
<i>Dynamics of USD exchange rate versus RUB and EUR</i>	<i>13</i>
<i>Real GDP growth and main sectors of economy</i>	<i>14</i>
<i>GDP expenditure components</i>	<i>14</i>
<i>Growth of lending to main sectors of economy</i>	<i>15</i>
<i>Main indicators of government budget</i>	<i>15</i>
<i>Main indicators of balance of payments</i>	<i>15</i>
<i>Armenia's exports by commodity groups</i>	<i>16</i>
<i>Armenia's imports by commodity groups</i>	<i>16</i>
<i>Armenia's foreign trade, by country</i>	<i>16</i>
<i>Nominal average wage and unemployment</i>	<i>17</i>
<i>Net private transfers and wages of seasonal employees</i>	<i>17</i>
<i>The structure of household liabilities to financial institutions</i>	<i>17</i>
<i>Household debt burden indicators</i>	<i>18</i>
<i>Consumer loan portfolio structure of banks and credit organizations</i>	<i>18</i>
<i>Consumer and mortgage loan portfolio of banks and credit organizations</i>	<i>18</i>
<i>Lending interest rates to households</i>	<i>19</i>
<i>Average apartment price index in Yerevan</i>	<i>19</i>
<i>Number of real estate sale and purchase transactions</i>	<i>19</i>
<i>Volume of real estate got as collateral with the commercial banks</i>	<i>19</i>
<i>Real estate lending</i>	<i>20</i>
<i>Monthly volume of repo transactions and repo interest rates (interbank and with the CBA)</i>	<i>21</i>
<i>Yield curves of Armenian government bonds</i>	<i>21</i>
<i>Spread between 6 month and 10 year government securities</i>	<i>22</i>
<i>Repo transactions carried out by investment service providers (excluding transactions with the CBA)</i>	<i>22</i>
<i>Security trades by investment service providers</i>	<i>22</i>
<i>Security trade transactions carried out by investment service providers (including repo and reverse repo transactions, but excluding transactions with the CBA)</i>	<i>23</i>
<i>Volume of transactions with government securities and volume of transactions with government securities/outstanding government securities ratio</i>	<i>23</i>
<i>Security trade and repo transactions carried out in the regulated market of securities</i>	<i>23</i>
<i>Exchange rates in exchange market of Armenia</i>	<i>24</i>
<i>The volume of transactions in the foreign exchange market of Armenia and the interest rates</i>	<i>24</i>
<i>Structure of financial system assets, by financial institutions</i>	<i>26</i>
<i>Growth rates of the sectors of the financial system assets</i>	<i>26</i>
<i>Banking sector stability map</i>	<i>26</i>

<i>Banking intermediation</i>	26
<i>The shares of assets, liabilities and capital of 4 largest banks in the banking sector</i>	27
<i>Foreign investors' participation in statutory capital of Armenian banking sector</i>	27
<i>Structure of risk weighted assets calculated in banking sector capital adequacy index</i>	27
<i>Change of NPLs share in lending to economy sectors</i>	27
<i>Lending to economy</i>	28
<i>Structure of bank loans to residents, by economy sectors</i>	28
<i>Loans to major borrowers to total loans</i>	28
<i>Number of banks violating total capital adequacy in case of dynamic growth of loan losses</i>	28
<i>The dynamics of actual and regulatory liquidity ratios of the banking sector</i>	29
<i>The ratio of the banking sector assets to liabilities by terms to maturity</i>	29
<i>The ratio of the banking sector major liabilities to total liabilities</i>	29
<i>The structure of loans and deposit funds of the banking sector</i>	30
<i>Number of banks violating liquidity regulatory ratios in case of individuals' call and time deposits runoff</i>	30
<i>The net income of the banking sector from foreign currency trades and revaluation</i>	31
<i>Interest rates of loans to legal and natural persons</i>	31
<i>Interest rates of deposits from legal and natural persons</i>	31
<i>Share of financial assets at fair value through profit or loss and available for sale in total assets</i>	32
<i>The structure of total regulatory capital</i>	32
<i>Total capital adequacy with banks- Waterfall</i>	33
<i>Income and expenses of the banking sector</i>	33
<i>Balance of loans to residents by credit organizations, by sectors</i>	34
<i>The structure of assets in the capital adequacy ratio of the investment companies, as of 30.06.2018</i>	35
<i>Pension fund investments</i>	36
<i>The structure of insurance companies' assets as of 30.06.2018</i>	36
<i>Main ratios of the insurance sector</i>	37
<i>Insurance premiums/ GDP in EEC and CIS (2017)</i>	37
<i>Loss and expense ratios of the insurance sector</i>	37
<i>The shares of risk weighted assets and required solvency in the capital adequacy ratio of the insurance sector, as of 30.06.2018</i>	38
<i>Payments by electronic payment system (without stock exchange market transactions)</i>	40
<i>The dynamics of the own liquidity indicator</i>	41
<i>Average daily payments and average daily opening balances</i>	41
<i>Intraday distribution of value of payments on an average semiannual basis</i>	41
<i>Intraday distribution of number of payments on an average semiannual basis</i>	42
<i>The maximum number of payments per hour, by month</i>	42
<i>The dynamics of 2500 and more payments per hour and their share in the operating hour in the given month</i>	42
<i>Dynamics of payments exceeding the threshold of 2500, 3500 and 4300 payments per hour</i>	42
<i>Number of loans granted in 2017-2018</i>	43

TABLES

<i>IMF Overview of the World Economic growth Projections, 2016-2018</i>	<i>9</i>
<i>Residential buildings completion by sources of financing</i>	<i>20</i>
<i>Indices of government securities in the first half of 2018</i>	<i>22</i>
<i>The share of 3 and 5 largest issuers, by capitalization, in 2012 – 2018</i>	<i>24</i>
<i>The Herfindahl-Hirschman Concentration Index</i>	<i>27</i>
<i>Credit risk stress scenarios</i>	<i>28</i>
<i>Stress scenario of credit risk derived from off-balance sheet contingent liabilities</i>	<i>28</i>
<i>Liquidity risk stress scenarios</i>	<i>30</i>
<i>Stress scenario of liquidity risk derived from off-balance sheet contingent liabilities</i>	<i>30</i>
<i>Foreign exchange risk stress scenarios</i>	<i>31</i>
<i>Interest rate risk stress scenarios</i>	<i>31</i>
<i>Real estate price change stress scenarios</i>	<i>32</i>
<i>Assets, liabilities, capital and profit of credit organizations</i>	<i>33</i>
<i>Credit risk assessment stress scenarios</i>	<i>34</i>
<i>Net Asset Value - NAV of pension funds as of 30.06.2018</i>	<i>35</i>
<i>Solvency assessment stress scenarios</i>	<i>37</i>
<i>Credit risk assessment stress scenarios</i>	<i>38</i>
<i>Foreign exchange risk assessment stress scenarios</i>	<i>38</i>
<i>Liquidity risk assessment stress scenario</i>	<i>38</i>
<i>Number of loans registered in the Credit Registry, as of end of H1 2018</i>	<i>43</i>

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