CENTRAL BANK OF THE REPUBLIC OF ARMENIA

FINANCIAL STABILITY REPORT

2011

2012

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 analyses is available in the Central Bank's periodicals, such as *Annual Report of the Central Bank, Status Report on Monetary Policy Implementation* and *Armenian Financial System: Development, Regulation, Supervision*.

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TABLE OF CONTENTS

Financial stability can be characterized as concurrence of financial and macroeconomic conditions when the financial system i.e. financial institutions, markets and market infrastructures are capable to withstand the probable shocks and instability, in this way minimizing the probability of interruption of intermediation function.

In defining the financial stability, what is taken into consideration is that financial instability can emerge as a result of 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 presumes the efforts for the identification of main risk sources, poor-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 financial system as well as the capacity of financial system to withstand such risks. Through publishing of 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 financial stability of the Republic of Armenia as well as provide an opportunity to debate on how to minimize such risks.

The Central Bank has a task to maintain the stability and functionality of the financial system of Armenia. The Central Bank's statutory responsibility for the country's financial stability is directly related to its primary goal of price stability. Serious disruptions in the financial sector may create impediments to effective implementation of monetary policy. Contrariwise, the monetary and macroeconomic stability contributes to the minimization of risks threatening financial stability. The financial sector plays an important role in overall economic system, and the financial sector needs to maintain continuity and sustainability of processes thus contributing to the normal development 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 macro-environment and financial sector and their influence on the developments in all sectors of the economy and financial system.

Risks affecting 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:

- a domestic and external macroeconomic environment with sustainable development whereby households and companies would be creditworthy enough,
- a stable and effective financial system with risks that are prudent and manageable,
- efficient financial infrastructures with operational continuity to the benefit of functioning of the financial system.

As presented in this report, risks that can potentially undermine financial stability of Armenia derive from:

- developments in world economy,
- developments in macroeconomic environment in Armenia,
- developments in financial market in Armenia,
- financial institutions of Armenia, and
- financial infrastructures of Armenia.

The report addresses the risks revealed in those areas and attempts to measure their possible impact on the developments in the economy on the whole and all parts of the financial sector. The report mainly focuses on the risks to the banking sector and development trends: the role the sector plays in overall financial system is vital as assets of commercial banks account for more than 90 percent of entire financial system assets. As a principal pillar to the financial system of today, banking sector determines overall financial stability and development trends.

ABSTRACT

During the year, financial stability of Armenia was sufficient enough although the financial sector posted some increase of risk levels, compared to the previous year, and uncertainties over further developments have become more pronounced.

Increased prices of raw materials as well as recovering inflow of transfers and domestic demand contributed to the growth of GDP. Also, the banking sector further saw increased lending.

The global economic growth continued albeit downside risks to the economic growth increased. In advanced economies the sovereign and private debt burden persisted at high levels, which limits the state's ability to intervene and hinder the growth of demand and prevent the economy from reviving further. In a complicated situation like this, implementing exceptionally coordinated policies and taking unified approaches to regulation and supervision reforms in the financial system is equally important to all countries. In the face of continued rise in manufacturing goods and food prices, curbing inflation has been a priority, particularly in the first half of the year, for developed countries, too, bringing forward risks to the slowing of economic growth. The recovery was slower-than-forecast in Armenia's main partner countries – Russia, some Euro-area countries – which may create negative impact on the Armenian economy.

In view of global economic growth slowdown and other developments in the international arena, Armenia saw growth of its private transfers, factor income and external trade turnover. Commercial banks posted net inflow of funds attracted from external sources. These developments contributed to the enhancement of financial stability (see details in *Developments in world economy* section).

According to the Armenian National Statistics Service data, growth of the Armenian economy in 2011 was estimated to be 4.6 percent. Growth was reported in all sectors of the economy, except for construction where volumes of privately funded construction are still small.

In 2011, especially in its first half, amid persisted high inflationary environment the Central Bank gradually tightened the monetary policy conditions by thrice raising the refinancing rate a total of 1.25 pp[1]. Starting the second half of the year, inflation has been within the confidence band at the end of the year as a result of neutralized external inflationary pressures and slowing growth rate of agricultural product prices owing to high growth reported in that sector. Under such conditions, in the period May-August, the Central Bank left the refinancing rate unchanged and only in September it was lowered by 0.5 pp to an 8 percent level. The Central Bank continued implementing a neutral policy during the fourth quarter, too.

Based on December data, the 12-month inflation was 4.7 percent (see details in *Financial stability in macroeconomic environment in Armenia* section).

Throughout the year Armenian commercial banks posted growth indicators while maintaining their capital adequacy and liquidity ratios above normative requirements and keeping market risks manageable. Based on annual estimations, profitability of the banking sector grew, with return on assets reaching 1.8 percent and return on equity, 9.8 percent.

In the course of the entire year risks existing in the financial sector were within a comfortable territory of manageability, not binging about vulnerabilities in terms of financial stability. Overall, the developments in the domestic economy were also favorable in the financial stability point of view (see details in sections *Stability of financial institutions in Armenia* section and *Stability of financial infrastructures of Armenia*).

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[1] *See details in Inflation Report, Q4, 2011.*

1. DEVELOPMENTS IN WORLD ECONOMY

1.1. MACROECONOMIC ENVIRONMENT

The year 2011 can be characterized as a timespan full of economic and financial uncertainties and expanding challenges. During the year the world economy entered a territory of such developments in which downside risks prevailed, and not only existing problems were left unsettled but these further deteriorated and expanded geographically. According to forecasts and analyses by international institutions, world economic growth in 2011 slowed down and is predicted to be slow in the years ahead in the face of existing structural difficulties.

IMF revisions of the 2011 estimation of world economic growth outlook

Indicator (economic growth)	2011 forecast as of 31.12.10	2011 forecast as of 31.03.11	2011 forecast as of 30.06.11	2011 forecast as of 30.09.11	2011 forecast as of 30.01.12	2012 forecast as of 30.01.12
World economy	4.4	4.4	4.3	4	3.8	3.3
Developed countries	2.5	2.4	2.2	1.6	1.6	1.2
USA	3	2.8	2.5	1.5	1.8	1.8
Euro-area	1.7	1.6	2	1.6	1.6	-0.5
Emerging countries	6.5	6.5	6.6	6.4	6.2	5.4
CIS	5.3	5	5.1	4.6	4.5	3.7
Russia	5.1	4.8	4.8	4.3	4.1	3.3
China	9.6	9.6	9.6	9.5	9.2	8.2

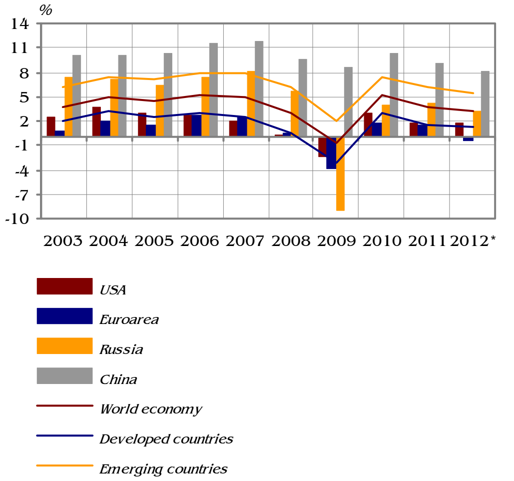
During 2011 the factors that hindered the normal pace of world economic recovery were various and interrelated, and these included, among others:

- natural disasters and political events during the first two quarters
- economic challenges, including high unemployment in developed countries
- an unprecedented debt burden and budget deficits primarily in European countries and the USA
- inflationary pressures in both emerging and developed countries, mostly observed during the first half of the year
- a high level of uncertainty and lack of confidence on the whole.

In consideration of existing structural problems, some international institutions lowered their estimation of the 2011 world economic growth and, accordingly, the forecasts for 2012. In particular, the 2011 world economic growth was estimated by the IMF to be 3.8 percent and that estimation for 2012 was lowered to 3.3 percent from the former forecast of 4.0 percent. At the same time, the World Bank predicted 2.5 percent economic growth. According to WB forecasts, the lowest growth will be seen in developed countries, 1.4 percent, and growth in emerging countries in 2012 will reach 5.4 percent (the IMF's forecast is 1.2 percent and 5.4 percent, respectively).

In 2011 economic growth in the USA was an estimated 1.8 percent and in the Euro-area, 1.6 percent. The US economic growth for 2012 is forecast to remain the same whereas economic decline is predicted for the Euro-area.

Regional growth rates



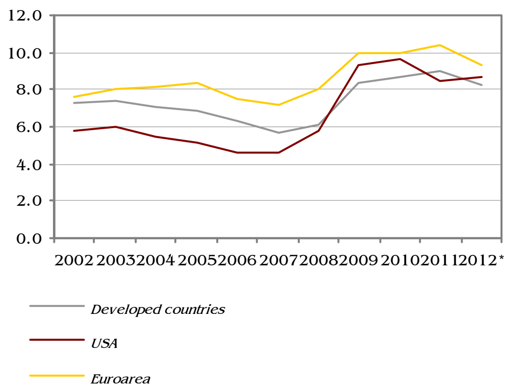
Source: IMF.

The year 2011 started with political jolts which not only added to existing economic problems but also took economic uncertainties even deeper thus slowing the recovery of economic activity. Political events in the Middle East and North Africa resulted in an abrupt rise in prices of basic commodities, and oil in particular. As well as Japan faced substantial hardships as a consequence of natural disasters taken place in this country in March, which put future economic development of some regions at risk and undermining world economic recovery on the whole. Later on, some rating agencies downgraded Japan's sovereign rating.

Continued slowing of economic growth during the year has been the main reason for accumulation of debt problems in a number of developed countries, on the one hand, and budget constraints in another group of countries, on the other. The Euro-area remains the center of turmoil for debt problems. The chain of risks deriving from debt problems took even a larger number of countries in its frame through the channels of influence of the financial system and banking sectors in particular. Yet numerous measures which the Euro-area governments took towards remedy of the situation in Greece, Portugal and some other countries proved unsuccessful, triggering at times anxieties and new waves of negative expectations in financial markets (see details in *International financial markets* section).

Unemployment in the world market persisted at a high level (nearly 9.0 percent), determined by sluggish economic recovery, and served a risk to the potential GDP for the years ahead. The issue of young unemployment and long professional idleness is worrying.

The unemployment in developed countries

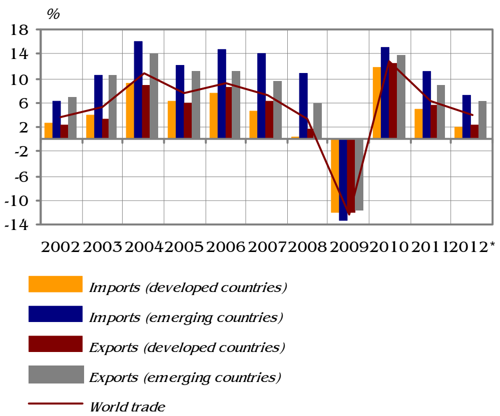


Source: UNO.

In 2011 the unemployment rate in developed countries was 8.6 percent, way above the pre-crisis level of 5.8 percent. In many developed countries, the situation is even more difficult in the labor market – the more-than-one year jobless in the USA reach 29 percent (10 percent in 2007). This trend will likely have a long-term adverse impact on the labor market and, hence, the entire economy.

* *The indicators marked with asterisk in this chart and the next ones are the IMF estimations (January 2012).*

Annual growth rate of world trade



Source: IMF.

Current accounts of USA, Russia, China and Euroarea countries

Source: IMF.

In emerging countries the unemployment rate continued recovering at a faster pace, even exceeding the pre-crisis levels in some of them (China, Brazil).

Sluggish world economic recovery also determined the slowdown of growth rates in world trade which stood notably behind the respective indicator recorded in 2010.

The growth of trade of goods in 2011 was 6.6 percent against 12.6 percent in the previous year. Forecasts available suggest that the growth of trade will further trend down mostly due to timid economic growth in developed countries. Emerging countries were more resilient to the crisis consequences, and they further played an increasingly important role in global trade. In 2011 emerging countries, which represented half of the demand for world imports, contributed to the recovery of external demand. This group of countries nevertheless posted a slowdown of growth rates in imports and exports compared to the previous year.

In 2011 countries as heavyweights in global trade saw their current account imbalances broaden to some extent, although they are considerably below the pre-crisis highlights.

During the year main commodities markets saw various developments and trends. Prices of such commodities further rose, a trend observed from the mid of the previous year. Hitting their peaks in the first half of the year, the development path of prices of commodities changed in the second half. It should be mentioned however that in 2011 average prices of oil, base metals and some food products were close to their pre-crisis maximums.

In 2011 the average price of Brent oil was USD 111 a barrel, increasing by roughly 40.0 percent compared to the previous year. Such an increase of average oil prices was determined mainly by the price surge recorded at the start of the year because of reduced supply due to local political events in Arab countries. Though prices did not further grow noticeably they stayed at high levels, however. High oil prices contributed to the income growth in oil exporting countries, Russia among them.

Average annual growth of base metals prices was 17.0 percent, with such growth more pronounced in the first half of the year. At the end of the year, attributable to the base metals price correlation to the cycles of economic activity, there was a reported drop in prices derived from weak world economic growth. During 2011 the copper price averaged USD 8829.6 per ton and the average molybdenum price fell slightly (by 4 percent) although this downward trend was more obvious only at the yearend.

Price increases of food products were seen especially in the first six months of 2011, and despite some falling recorded during the second half, such increases were quite remarkable on an annual basis. During the year average wheat prices rose by 41.0 percent and reached USD 8.6/bushel. The International Food Organization predicted 4.4 percent growth of wheat trade for the marketing year 2011/2012, which is largely explained by an extensive remake of export facilities of CIS countries which export wheat. Average annual growth of rice price was nearly 23 percent, which has been a consequence of poor harvest in Thailand, the main rice exporter.

Uncertainties and negative sentiment in international financial markets caused the gold price to soar often in 2011. During the year the gold price averaged USD 1573.2 per troy oz, up by 28.0 percent against the previous year. The gold price hit its peak in August-September (in the range of USD 1800-1900) in the wake of pending decision by the US Congress on lifting the upper debt ceiling and, as a result, the likelihood of the US technical default.

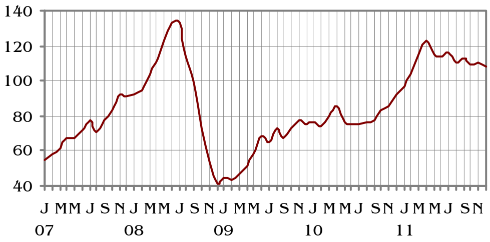
In 2011 inflation persisted at high levels in both emerging and developed countries amidst high prices of main commodities. High inflation was determined by both supply- and demand-side factors. The supply shocks promoted growth of oil and food prices whereas growing income in emerging countries boosted the demand thus pushing prices up. Stimulating monetary policy in developed countries also contributed to the creation of inflationary pressures.

In the USA and Euro-area in 2011, inflation heightened markedly and neared (and in some cases exceeded) the target set by central banks. This has not nevertheless become a primary concern to competent authorities. The central banks of most countries kept on implementing an accommodative monetary policy in expectation of easing of inflationary pressures under high unemployment and weak economic growth. Inflation has been most problematic for emerging countries though. Inflation in 2011 was 2.7 percent in developed countries and 7.2 percent in emerging countries, according to the IMF estimations (the figures were 1.6 percent and 6.1 percent, respectively, in the previous year).

Because of concerns over maintaining a high inflationary environment too long, monetary authorities of a few countries have at last raised the refinancing rate, while taking on some other measures to create stimuli for domestic oil and food and tightening of reserve requirement mechanisms, among others. The slowing of economic growth in China and other emerging countries at the end of 2011 and the beginning of 2012 urged monetary authorities to voice an intention to ease the monetary conditions.

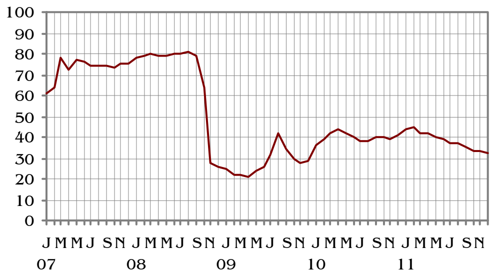
In a short-term perspective, a minor inflationary environment is anticipated in view of downward prices of main commodities and slowly recovering world economy.

Brent oil prices
(USD a barrel)

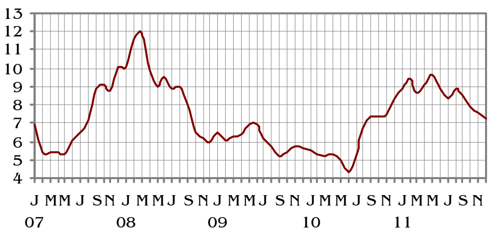


Copper prices
(USD per ton)

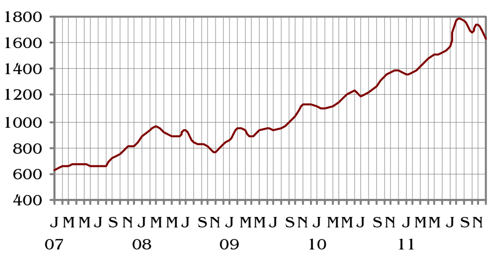
Molybdenum prices
(thousand USD per ton)



Wheat prices
(USD a bushel)

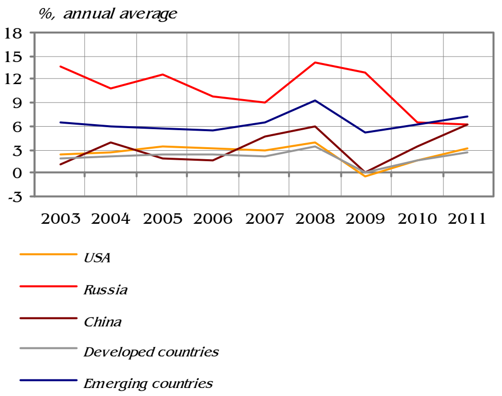


Gold prices
(USD per troy oz)



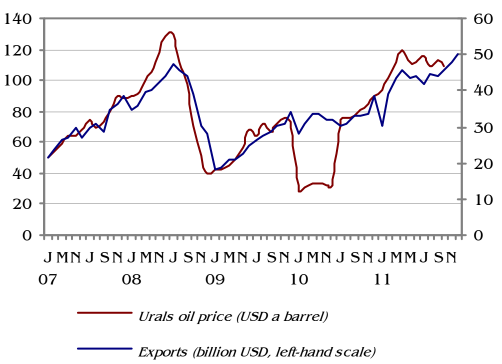
Source: Bloomberg.

Inflation in selected countries



Source: IMF.

Oil price and Russia export trends



Source: Ministry of Economic Development of Russia.

During the year global macroeconomic developments did not virtually create higher risks to the domestic economy and financial stability, which is described in detail in the *Macroeconomic developments* section.

1.2. DEVELOPMENTS IN REGIONAL ECONOMIES

RUSSIA

Economic recovery in Russia continued during 2011. According to preliminary estimations of Ministry of Economic Development, economic growth in 2011 was 4.3 percent. Processing industry, trade and agriculture were the main drivers to economic growth, with agriculture having made the largest contribution (0.6 pp) to the GDP growth, which was explained by rapid recovery in that sector in part because of a reported decline in the previous year due to bad weather.

Real disposable income has grown by 0.8 percent and investment in core capital, by 6.2 percent compared to the previous year.

By expenditures, gross accumulation posted the largest growth in GDP, making 5.0 pp contribution to the economic growth, in which inventory holdings alone accounted for 3.7 pp of such contribution. The household consumption, holding the largest share (48.9 percent) in GDP, contributed to the economic growth by 3.25 pp. The negative contribution to net exports reached 4.0 pp mainly driven by faster growth rates in imports in view of slowing rates in exports.

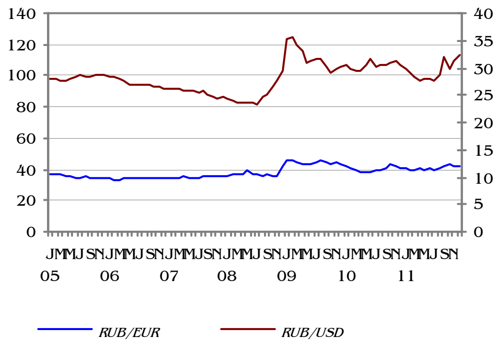
Based on annual results, the trade balance surplus was USD 198.1 billion. Annual export growth reached 30.2 percent and that of import made up 30.0 percent.

During the first three quarters of 2011 Russia's official foreign currency reserves grew and in September they neared their historic highest, USD 545.1 billion. At the end of the year, however, reserves somewhat declined and amounted to USD 498.6 billion, still up by 4.0 percent in comparison with the respective figure recorded at the end of the previous year. During the year the ruble depreciated versus the US dollar by 3.2 percent on average. Note that in the first half of the year the ruble's exchange rate tended to appreciate mostly owing to high oil prices on the one hand and unfavorable developments in the USA and Euro-area on the other. At the end of the year it started to depreciate as oil prices stabilized and outflow of capital accelerated.

In 2011 net outflow of capital continued, which was unprecedented even in relation to the crisis period.

Preliminary estimations suggest that net outflow of capital from the private sector reached USD 84.2 billion, which is more than double the previous year's figure (in the crisis period the figure was USD 52 billion). Uncertainties and instabilities in global economy on the whole and in the Euro-area in particular are named the main reason for the capital outflow. An active capital outflow is predicted to persist over the first half of 2012, too.

Ruble average monthly exchange rate



Source: Ministry of Finance of Russia.

The unemployment rate subsided during the year to 6.6 percent of economically active population, whereas no considerable growth of real disposable income was observed.

There were serious inflationary pressures seen in the first half of the year, yet the inflation figure reached 6.1 percent at the end of the year, which not only stands below the figure in some CIS and emerging countries but is also the lowest for Russia.

In view of easing inflationary pressures and high inflation expectations, the Russian Central Bank raised the refinancing rate during the first half of the year by a total 0.5 pp to 8.25 percent. At the end of the year however, in consideration of neutralization of the said risks and maintained financial system stability, the Central Bank again lowered the refinancing rate to an 8.0 percent level.

The developments in the banking sector were as follows: based on annual results, lending volumes have increased by 29.6 percent; lending to legal persons and individuals grew by 26.6 percent and 35.8 percent, respectively. The share of non-performing loans has reduced to 3.9 percent at the end of the year (4.7 percent in 2010). Gross profit of financial institutions has increased 1.5-fold, according to the 2011 results.

TURKEY

In 2011 the Turkish economy went through a cycle of continued recovery combined with sustainable macroeconomic fundamentals, continuous inflow of capital, low interest rates and strong lending. The economic growth indicator in 2011 was high enough, 8.5 percent, although it had somewhat downward trends during the year. Increased domestic demand had the largest contribution to the economic growth and increased domestic lending promoted to the growth of imports considerably, which exceeded the growth of exports notably, according to the annualized data, and therefore deteriorated the trade balance deficit. The y-o-y growth of exports was 18.5 percent and that of imports, 29.8 percent. The trade balance deficit reached USD 105.9 billion, up by 47.7 percent against the previous year. The current account deficit is estimated to amount to 10 percent of GDP versus the previous year's respective figure of 6.5 percent.

Developments in the labor market have been positive. In December of 2011 the level of unemployment subdued from 11.4 percent in the previous year to 9.1 percent, hitting the pre-crisis level.

Throughout the year depreciation pressures of the Turkish lira were seen in the light of global economic developments and diminishing capital inflows. As a result, the average nominal exchange rate depreciation of lira has been 11.6 percent y-o-y.

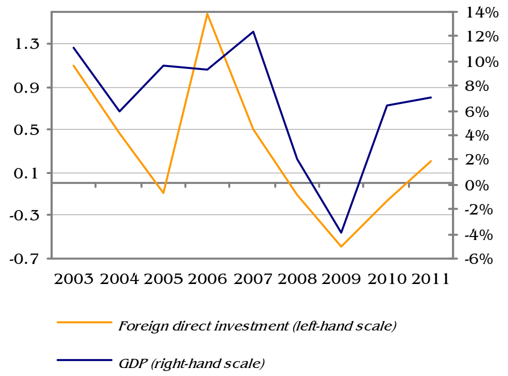
The year 2011 was also characterized by high inflationary environment as the 12-month inflation reached 10.5 percent from the previous year's 6.4 percent. Under high inflationary pressures the Central Bank of Turkey conducted a tight monetary policy during the year, at times raising the reserve requirement standard. At the end of the year the policy rate was 5.75 percent.

Bank lending has increased by 29.5 percent. There has been a reported 1.0 pp drop in the share of non-performing loans, which amounted to 2.7 percent of the total loan portfolio. In 2011 net profit of the banking sector amounted to TRL 19.8 billion, which was TRL 2.3 billion less than the previous year's respective indicator.

GEORGIA

Based on preliminary data, there has been 7.0 percent real growth of the Georgian economy. The strongest growth was reported in processing industry and trade.

Georgia GDP and FDI growth (%)



External trade has been prominent, with exports and imports having grown by 39.1 percent and 34.5 percent, respectively. As a result, the trade balance deficit has narrowed from 41.8 percent of GDP in 2010 to 25.6 percent in 2011.

The inflow of foreign direct investment began to grow as the domestic economy further recovered, and based on annualized data FDI amounted to USD 980.6 million, which represented y-o-y 20.3 percent increase. The annual growth of inbound remittances has grown, as well (USD 1.3 billion). As a result of such foreign currency flows the annual appreciation of the Georgian lari has been 6.1 percent.

In 2011 the average annual inflation in Georgia was 8.5 percent. In December the annual inflation indicator grew by 2 percent.

The volumes of lending to the economy further increased to 23.3 percent from 21 percent recorded in the previous year. Lending in local currency grew faster, 47.5 percent.

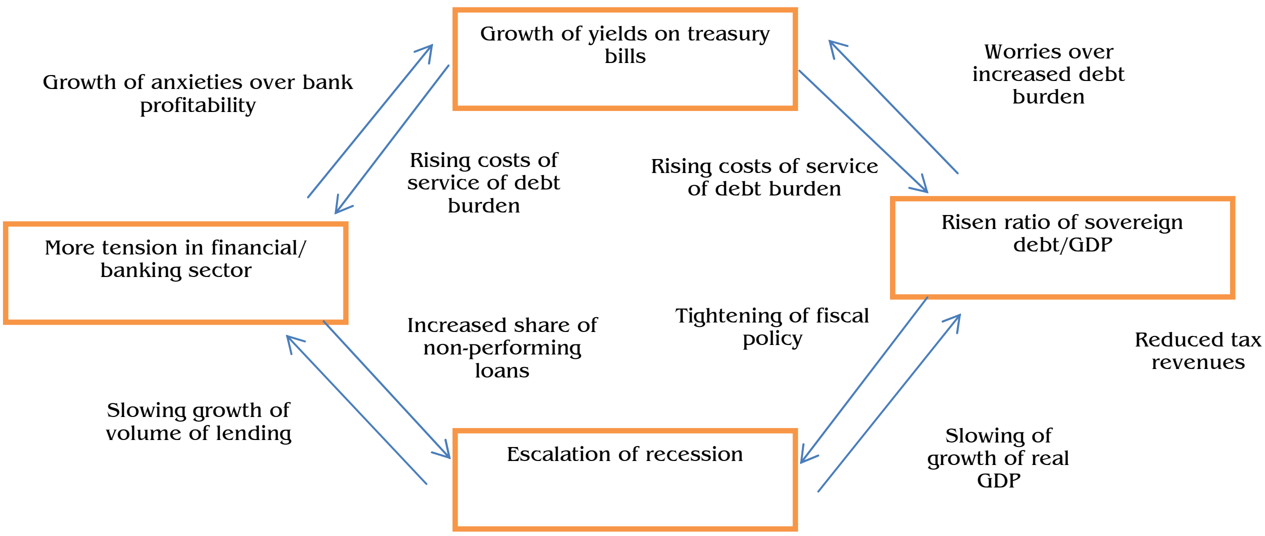
Similarly, the growth of deposits in lari (26.1 percent) notably outpaced the growth of foreign currency deposits. As a result, the dollarization has subdued by 7.8 pp and reached 64.4 percent.

The developments in neighboring countries during the year did not create negative risks to financial stability.

1.3. INTERNATIONAL FINANCIAL MARKETS

International financial markets further saw uncertainties throughout the year. More countries have come up with debt and budget issues while the main problem became increasingly worrisome.

The vicious cycle of debt problems can be illustrated as follows:



During the year financial markets were too sensitive to any development in the global economy, which were reflected in bond and stock market index performances. More uncertainties persisting at a global level resulted in an increased demand for non-risky assets, treasury bills in particular while stock market indices reported an extremely volatile path.

Uncertainties and negative expectations in financial markets were attributable mainly to the conditions intensified in countries suffering sovereign debt and budget deficit constraints and to not-so-effective government measures to regularize the situation. Credit agencies have downgraded the rating of problem countries and those countries which traditionally hold the highest ratings. The downgrade transmitted extra shocks and negative impulses to financial markets.

In 2011 credit agencies downgraded the rating of a number of countries (as downgraded by Moody's)

- The USA rating of AAA downgraded to AA+ (in the wake of pending decision by the US Congress on lifting the upper debt ceiling and, as a result, the likelihood of the US technical default)
- The Spain rating of Aa2 downgraded to A1 (with a negative outlook)
- The Italy rating of Aa2 downgraded to A2 (with a negative outlook)

In February of 2012 the ratings of 9 European countries were downgraded at the same time

- Austria – from Aaa (a stable outlook) to a negative outlook)
- France – from Aaa (a stable outlook) to a negative outlook)
- Malta – from A2 to A3 (with a negative outlook)
- Italy – from A2 to A3 (with a negative outlook)
- Spain – from A1 to A3 (with a negative outlook)
- Portugal – from Ba3 to Ba2 (with a negative outlook)
- Slovakia – from A1 to A2 (with a negative outlook)
- Slovenia – from A1 to A2 (with a negative outlook)
- Great Britain – from a stable outlook to a negative outlook

In 2011 S&P downgraded the sovereign ratings of Spain, Greece, Portugal and Italy.

Main measures by international organizations and governments in 2011

Recent policy reforms addressing concerns over European Sovereign debt

- Banking-sector reform: In late October the European Banking Authority (EBA) announced new regulations requiring banks to revalue their sovereign bond holdings at the market value of September 2011. The EBA estimates that this mark-to-market exercise will reduce European banks' capital by EUR 115 billion. In addition, the banks are required to raise their tier capital holdings to 9 percent of their risk-weighted loan books.
- Facilitated access of banks to dollar markets and medium-term ECB funding: Several central banks took coordinated action on November 30th, lowering the interest rate on existing dollar liquidity swap lines by 50 basis points in a global effort to reduce the cost and increase the availability of dollar financing.
- Reinforcement of European Financial Stability Facility: On November 29, European Union finance ministers agreed to reinforce the EFSF by expanding its lending capacity to up to EUR 1 trillion; creating certificates that could guarantee up to 30 percent of new issues from troubled euro-area governments.
- Passage of fiscal and structural reform packages in Greece, Italy and Spain: The introduction of technocratic governments with the support of political parties in Greece and Italy, both of which hold mandates to introduce both structural and fiscal reforms designed to assure fiscal sustainability.

- Agreement on a pan-European fiscal compact: In early December officials agreed to reinforce fiscal federalism within most of the European Union (the United Kingdom was the sole hold out), including agreement to limit structural deficits to 0.3 percent of GDP, and to allow for extra-national enforcement of engagements (precise modalities are being worked out with a view to early finalization).

The sovereign debt and deteriorating budget deficit urged monetary authorities in emerging economies to tighten the fiscal policies, which had somewhat a contractionary impact on the rapid economic growth of those countries. Some emerging and developed countries also tightened monetary conditions, mainly during the first half of the year.

To tackle the problem of 'overheating' of the economy and high inflationary pressures, some emerging countries (China, Brazil, and Russia, among others) have repeatedly raised the policy rate especially in the course of the first six months of the year. The European Central Bank, in view of pressures of intensifying inflation, has twice lifted the refinancing rate during the first half of the year and set it at the 1.5 percent level. At the end of the year, however, moderate inflationary pressures and weak economic growth provided ground for implementing a temperate monetary policy while bringing the refinancing rate back to a 1 percent level. The US Federal Reserve System and the Bank of England continued implementing a moderate policy. Given the current rates at which the global economy recovers as well as the existing structural problems, an increase of the refinancing rate in the main countries is not anticipated.

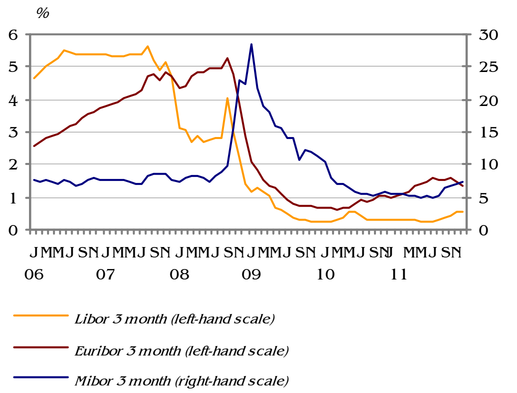
Low base interest rates and weak investment demand at a global level have, in turn, maintained a low level of interbank interest rates.

In times of uncertainty and low investor confidence, a strong demand for the US treasury bills and other reliable assets (gold, oil) persisted.

During the year currencies were volatile as the US and Euro-area economies developed by various patterns of volatility. The US dollar notably depreciated versus Euro mostly in the third quarter. At the end of the year, however, the dollar appreciated considerably in response to good macroeconomic developments in the US economy as well as because European countries were still in search of clear solution to their debt problems. Yet, average annual depreciation of the US dollar has been 4.8 percent. Under the condition of capital inflow and contractionary monetary policies in emerging countries the appreciation pressures of local currencies were prevailing.

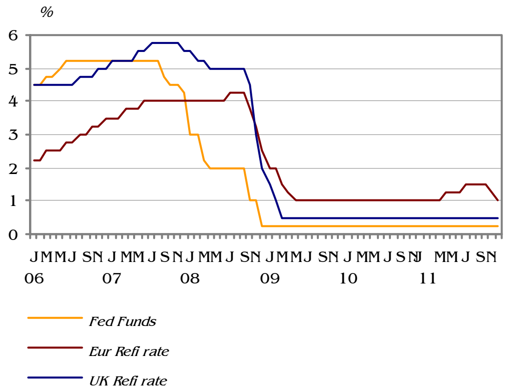
As well as stock market indices in developed and emerging countries performed in a volatile manner, with some reported increase, though.

Interbank interest rates



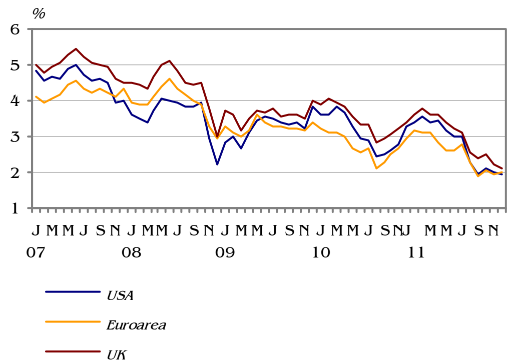
Source: Bloomberg.

Central bank policy rates



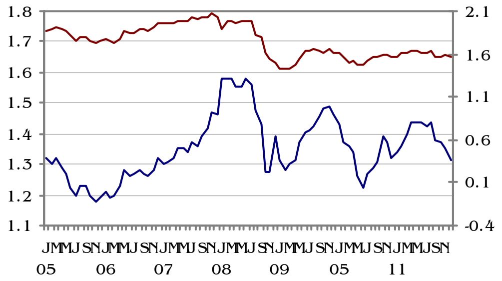
Source: IMF.

10-year government bond yield



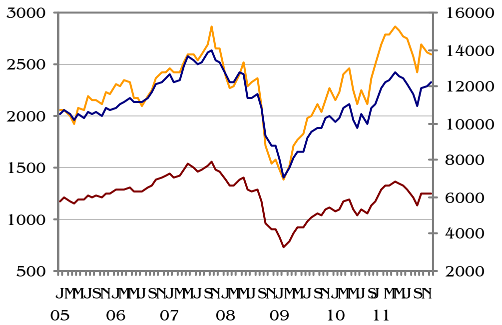
Source: Bloomberg.

USD exchange rate versus EUR and GBP



Source: Bloomberg.

Stock exchange indices



Source: Bloomberg.

During 2011 capital inflow to emerging economies continued at notably a slower pace in comparison with the inflow reported in the previous year. The inflow was especially slower in the second half of the year. In the second six months of 2011 the gross capital inflow to emerging countries amounted to USD 170 billion versus USD 309 billion recorded in 2010 (represents a 45.0 percent decrease), mainly due to the narrowed inflow of capital to Brazil and China.

In 2011 the inflow of private capital reduced by 9.6 percent. Specifically, there has been an estimated 60.0 percent reduction of portfolio investment into emerging countries, whereas the inflow of FDI has increased concomitant with the economic growth of countries and made up 10.6 percent in 2011, according to estimations. The inflow of FDI is estimated to reach the pre-crisis level in 2013 only (USD 620.3 billion). Generally, net private capital inflow to emerging countries in 2013 is expected to reach USD 1.02 trillion yet its share in the GDP of such countries will reduce to 3.7 percent from 5.4 percent recorded in 2010.

SUMMARY

In 2011 the global economic activity further recovered, with downside risks prevailing however, resulting in lower-than-expected economic growth on an annualized basis. Economic growth imbalances, high level of unemployment, debt problems and persistently unstable prices remained predominant and structural-driven. Finding radical solutions to sovereign debts and budget deficits, coordinated and timely anti-crisis measures are important for a sustainable economic recovery.

During the entire year financial markets performed in volatility mostly driven by the situation and circumstances associated with debt problems.

In 2011 emerging countries saw trends of slowing economic growth, as opposed to surpassing growth rates recorded previously, and these trends are likely to be persisting in the face of current developments in global economy. The IMF forecasts some 3.3 percent of economic growth for 2012, pointing to the increasing probability of sustainable economic growth. Yet the current level of global economic growth will not be sufficient for the labor market to recover and will drive world trade growth rates towards deceleration. At the moment the report was published, there were certain positive developments mostly observable in developed countries. To this end, the Organization for Economic Cooperation and Development has revised its economic growth forecasts for G7 states while maintaining that the level of uncertainty is still high.

In general in 2011 developments in the global economy did not create high risks to the Armenian economy and financial stability.

High prices of base metals fostered the increase of industrial product and the developments in partner countries determined the growth of exports and household incomes.

Gradual decrease of international prices of main commodities absorbed external inflationary pressures at the end of the year.

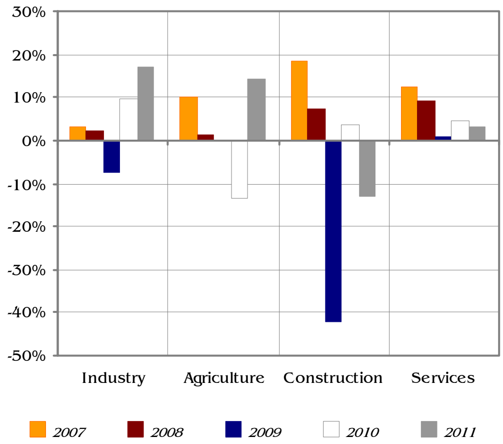
There has been a reported growth of private transfers and factor income inflowing to Armenia from Russia as well as increased volumes of external trade. All this has contributed to the increase of household incomes and company profits, thereby boosting up their credibility. The growth of private demand in Russia and Georgia determined the increase of volumes of industrial product processed in, and exported from, Armenia.

In general, Armenian commercial banks do not hold investments in securities of foreign countries, so the developments in international financial markets did not lead the domestic banking sector to greater price risks. The developments in financial markets did not impede the abilities of domestic banks to borrow from external sources (mainly parent banks).

2. DEVELOPMENTS IN MACROECONOMIC ENVIRONMENT IN ARMENIA

2.1. MACROECONOMIC DEVELOPMENTS

Economic growth rates, by sector



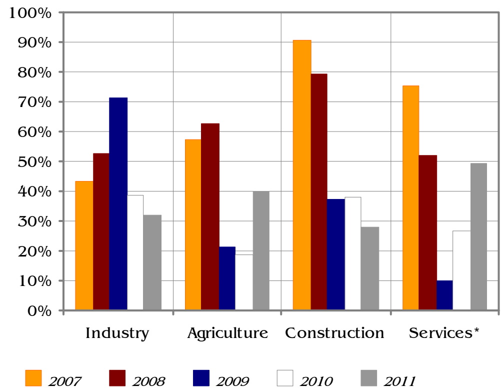
Source: National Statistics Service of Armenia.

In 2011 economic growth in Armenia reached 4.6 percent. Fastest recovery of the economic activity was seen in the second quarter of the year (in the third and fourth quarters the figures were 6.5 percent and 5.0 percent, respectively). The economic growth in the first half of the year was 2.7 percent. The growth has been driven mainly by increased outputs in industry and agriculture.

During the year industry reported 15.9 percent growth of value added driven by considerable increase of metals prices in global markets in the first half of the year and mounting industrial demand amid recovering global economy. The highest growth rates were reported in metal ore mining, food and beverage sub-branches, which seems to point to the recovering demand domestically and globally.

Agriculture reported 13.7 percent y-o-y growth of value added in contrast to non-favorable developments reported in this sector in 2010. The high growth was mainly determined by 26.6 percent growth in plant growing. The growth in animal breeding was 0.1 percent.

Growth of lending to main sectors of economy



** Services include the total sum of indicators of trade and other service subsectors.*

Source: National Statistics Service of Armenia.

Construction further reported a decline, which amounted to 12.3 percent y-o-y. The volumes of construction by all sources of financing, except for state budget and local budgets, have decreased. The largest shrinkage was reported for volumes of construction financed by international loans (41.4 percent), resources of households (32.2 percent) and organizations (23.4 percent). The reduced volumes of construction financed by international loans were attributable to the accomplishment of some major construction projects and pending road construction projects. The persisting decline in residential housing points to the sluggishly recovering household incomes, as the largest part of the income pays consumption expenditures, still not creating an investment demand.

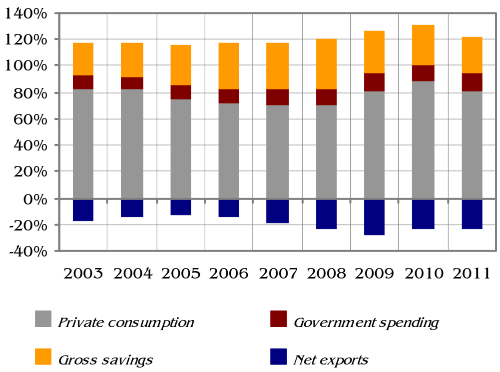
In 2011 the growth in services reached 3.7 percent y-o-y owing to increased volumes of retail trade (2.2 percent) and wholesale trade (5.5 percent), pointing out to some trends of recovering private demand and household incomes.

During 2011 the lending market remained active amidst positive developments and more optimism about economic environment. Strong lending growth fuelled a buoyant consumption by almost all sectors of the economy and households while stimulating aggregate demand and aggregate supply.

Commercial banks and credit organizations, while responding to the surveys[2] conducted by the Central Bank, stated that they had further eased lending terms and procedures. The terms and procedures of lending were most affordable during the first half of the year, and the main contributing factors included increased competition among banks, easier access to financial resources and banks' plans to diversify loan portfolio. Reportedly, such sub-branches as trade, energy and communications were most conducive for lending, whereas construction and agriculture were considered less enticing in terms of loan viability.

With a 36 percent increase in bank lending, the share of non-performing loans stayed almost unchanged relative to the previous year and it reached 3.3 percent at the end of the year. The largest share of non-performing loans was reported in agriculture (4.7 percent) and trade (4.2 percent).

GDP expenditure components
(share in GDP)



Source: National Statistics Service of Armenia.

The results of the survey conducted during four quarters of 2011 showed that the composite indices[3] trended differently. In particular, Economic Activity Indicator has increased throughout the year, except for the fourth quarter when it dropped due to the falling of consumption sub-index as well as reduced propensity to invest (which is explained in part by a seasonal factor, i.e. holiday activeness). The falling path of Business Climate Indicator was determined by deteriorated estimation of risks expectation in almost all sectors of the economy.

In contrast to expectations of businesses about the changes, expectations of consumers were more optimistic. The Consumer Confidence Indicator has increased in the course of the first three quarters but tended to fall in the fourth mainly due to 10.7 percent drop in Future Conditions Index which was driven by negative expectations of households for future income, major purchases and employment.

By GDP expenditures structure, the real growth of consumption reached 3.1 percent, which was determined by some increment in real household incomes and economic activity as a result of rebounded inflow of private remittances and improved consumer confidence. Moreover, the growth of consumption was boosted up primarily by increased private consumption (2.4 percent) and public consumption (5.4 percent). Capital investment has reduced by 11.2 percent mostly due to the developments in construction. Private investment has decreased mainly in the second half of the year, which amounted to 5.5 percent, reflecting the EAI dynamics. Negative developments with public investment are mainly a product of a state budget deficit-cutting policy.

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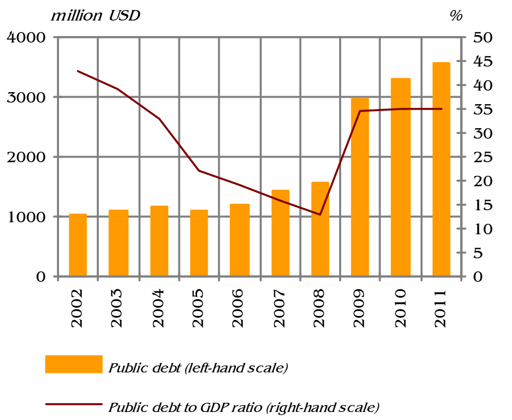
[2] Source: surveyed results on "Loans made by commercial banks and credit organizations of the Republic of Armenia", as conducted by the Central Bank in the course of four quarters of 2011.
[3] For more details on indices calculated on the basis of the Central Bank surveys, please see the CBA website.

Public debt and public debt to GDP ratio



Source: Ministry of Finance of Armenia.

With exports growing faster over imports as well as reported growth of GDP, the contribution of net exports to GDP has been positive.

In 2011, relative to the previous year, the public debt has grown by 12.4 percent and reached USD 3708.9 million. The debt to GDP ratio was 36.2 percent, representing a slight increase in relation to the previous year. The debt sustainability indicators performed positively largely owing to faster growth rates of exports and economic growth over debt.

The structure of external public debt has incurred a change as well. During 2011 the share of concessionary loans in the structure of public debt further reduced to reach 57.6 percent. The share of loans with floating interest rate remained unchanged, 36.6 percent.

Qualitative public debt indicators of the Republic of Armenia

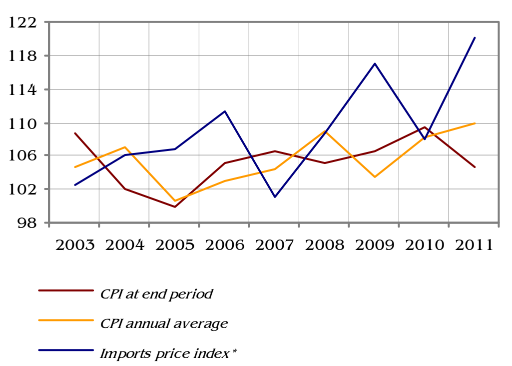
Ratio	2005	2006	2007	2008	2009	2010	2011
Debt/GDP (limit 50%)	22%	19%	16%	14%	34.7%	35.1%	36.2%
Debt/Export	78% (less indebted)	80% (less indebted)	82% (less indebted)	90% (less indebted)	227% (moderately indebted)	182.1% (moderately indebted)	154.0% (moderately indebted)
Debt service/ Export	4.6% (less indebted)	4.2% (less indebted)	2.9% (less indebted)	3.1% (less indebted)	6% (less indebted)	5.0% (less indebted)	4.2% (less indebted)
Interest/ Export	0.9% (less indebted)	0.7% (less indebted)	0.6% (less indebted)	0.7% (less indebted)	2.0% (less indebted)	2.4% (less indebted)	2.1% (less indebted)

Source: Ministry of Finance: (Public Debt Report, 2011).

Encouraging developments in the domestic economy in 2011 contributed positively to the state budget. There has been a reported increase in collection of revenues during the year: budget revenues have grown by more than 12.0 percent y-o-y and budget expenditures, by 3.0 percent. As a result, the budget deficit has reduced by 36.8 percent in relation to the previous year and amounted to AMD 109348.5 million (PIU funds inclusive). The growth of tax revenues was again high, 10.1 percent, and the fastest growth was reported on profit tax, 25.7 percent. In the expenditures structure, almost all expenditures items posted increases.

The budget deficit has reduced slightly as a result of surpassing revenues over expenditures and reached 2.8 percent of GDP from 2.9 percent recorded in the previous year.

Consumer price and imports price indices



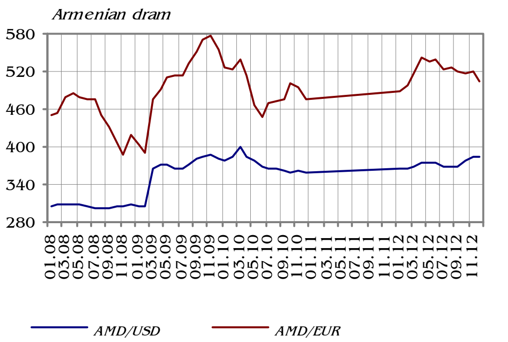
* The National Statistics Service of Armenia started a new methodology for calculation of imports prices in 2007; the 2002-2006 indicators have been estimated by the Central Bank based on the former methodology for calculation of imports prices.

Source: Central Bank of Armenia, National Statistics Service of Armenia.

In the first half of 2011 an inflationary environment persisted in Armenia, fuelled by high prices of food and raw materials in world markets as well as price increases due to steeply shortened supply of agricultural products. Starting from the second half, however, the inflation environment began to ease thanks to less external inflationary pressures, positive developments in agriculture and the lack of inflationary pressures driven by aggregate demand, making it possible to maintain the inflation indicator within the confidence band (4.7 percent).

Based on the 2011 results, the average dram exchange rate versus the US dollar did not change, making up AMD 372.42 although the last quarter of the year saw a slight depreciation trend.

AMD exchange rate versus USD and EUR



Source: Central Bank of Armenia.

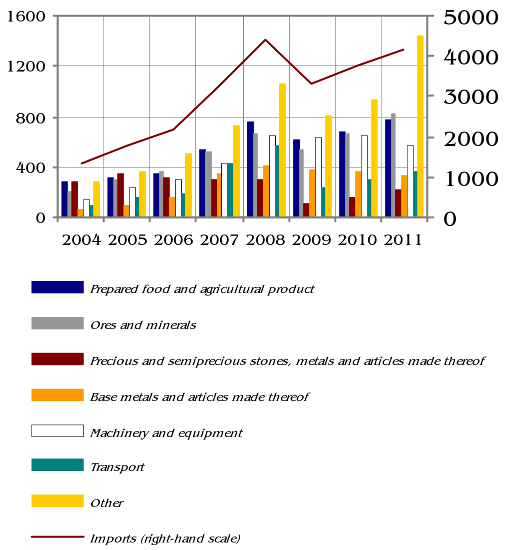
2.2. FOREIGN TRADE[4]

In the light of developments in global and domestic economies, the current account deficit has improved in relation to the previous year and constituted an estimated 11.0 percent of GDP versus the previous year's respective indicator of 14.5 percent. The volumes of foreign commodity turnover have increased by 14.4 percent and reached USD 5.48 billion.

Import of goods and services has increased by 13.7 percent y-o-y, whereas the real growth[5] has been merely 0.7 percent. The growth of import was observed mainly in the second half of the year while the first six months saw reduction of import volumes.

There has been a reported increase in import volumes for items such as "mineral produce", "precious and semi-precious stones, precious metals and articles made thereof" and "transport means", while such items as "machinery and equipment" and "non-precious metals and articles made thereof" reported decreased volumes, possibly explained by weak investor activity.

Armenia's imports by commodity groups *(mln USD)*



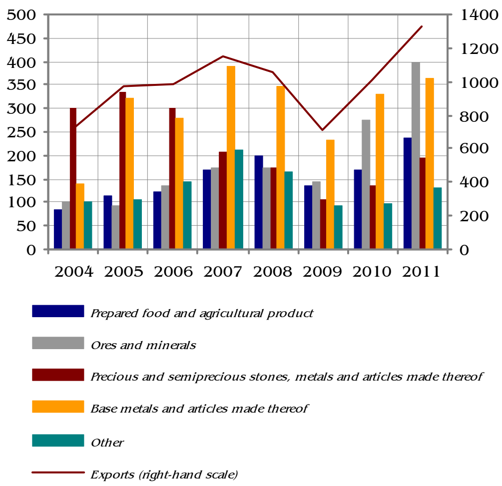
Source: Central Bank of Armenia.

Annual growth of export of goods and services has been 24.1 percent[6]. High growth of export was attributable to the increase of prices of raw materials in international markets in the first half of the year as well as reported high growth in industry branch. The growth of export was largely due to increased prices of export goods, as the growth of export in dollar terms was 25.0 percent. In the structure of export, the main increases were recorded for items such as "mineral produce", "items of prepared food and agricultural product", "non-precious metals and articles made thereof" and "precious and semi-precious stones, precious metals and articles made thereof".

With exports having grown faster than imports, the trade balance deficit did not grow much (4.2 percent only) and amounted to USD 2822.0 million.

In terms of geographic distribution of external trade, major concentrations remain, and the composition of the

Armenia's exports by commodity groups *(mln USD)*



Source: Central Bank of Armenia.

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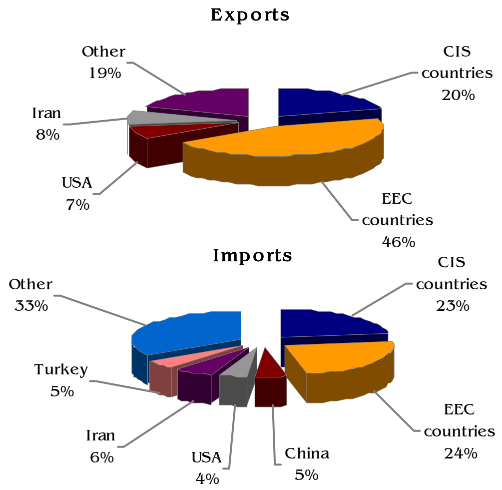
[4] *Data are presented according to the Balance of Payments.*
[5] *According to the Central Bank estimates.*
[6] *Real growth of export has been 18.2 percent, according to the Central Bank estimates.*

Armenia's foreign trade, by country, as of 31.12.2011



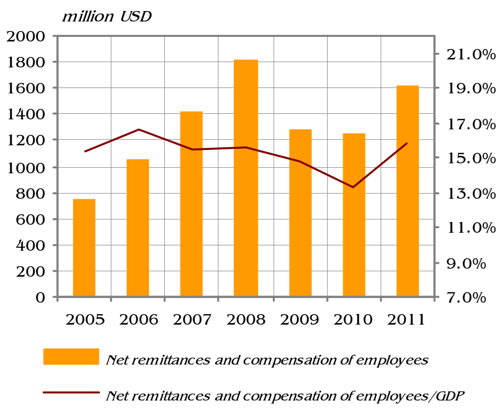
Source: Central Bank of Armenia.

main partner countries has not changed much, either. In the exports structure, the share of CIS has grown by nearly 4 pp and the share of the EU countries reduced that much, while the shares of other partner countries changed a little. Export remains concentrated by geography and by commodity, which means that vulnerability of ore mining and food production sub-branches will increase in the event of possible shocks in any particular country of export or elsewhere in the global economy.

In terms of imports, the EU countries and CIS, which together constitute 46.8 percent share, remain the main partners to Armenia.

2.3. NET FACTOR INCOMES AND REMITTANCES

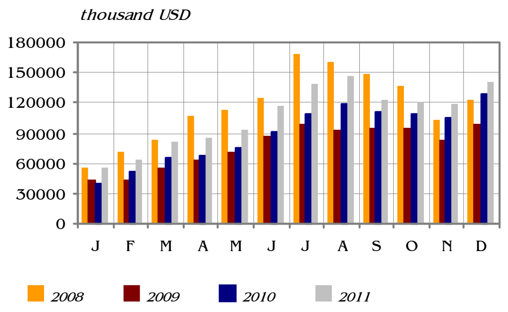
Net remittances and compensation of employees



Source: Central Bank of Armenia, National Statistics Service of Armenia.

The reliance of the Armenian economy on international economic developments has increased as the country further integrates to global markets, leaving it more vulnerable to external economic shocks. Remittances of individuals, the share of which is quite high in Armenia, remain a primary channel of transmitted impact. The prevailing part of non-commercial remittances comes from Russia whose economy posted 4.3 percent of economic growth in 2011, as reported by the Russian Ministry of Economic Development. In the period under review the highest growth was reported in construction (5.1 percent) and retail trade (7.2 percent), which determined the increase of net private transfers and seasonal worker income flown in to the country during the year. The net inflow of private transfers has grown by 18.0 percent and the net inflow of seasonal worker income, by 36.5 percent.

Net non-commercial transfers of banking system



In 2011 the net inflow of non-commercial transfers of individuals executed via the banking system has grown by 19.6 percent compared to the previous year's 15.4 percent and amounted to USD 1.3 billion. The breakdown of non-commercial transfers of individuals executed via the banking system by country is as follows: 90.0 percent from the Russia and 4.1 percent from the USA.

2.4. HOUSEHOLD INCOMES AND DEBT BURDEN[7]

The reported economic growth in 2011 and a low level of debt burden of households to the financial sector promoted to the enhancement of financial stability. Though lending to households has increased its growth rate still stands below the pre-crisis levels. So, Armenia's household debt burden

[7] *In this context the household debt burden represents the total sum of liabilities of households to credit institutions.*

remains way low. The household debt to GDP ratio has increased by 2.5 pp and amounted to 14.5 percent. Considering that banks further are wary in implementing their lending policy, one may conclude that lending to more creditworthy households in future, coupled with economic growth, could not bring about systemic troubles.

In the structure of household debt burden, liabilities to commercial banks remain the largest part in total, amounting to 87.2 percent, as of the end of the year. The growth of lending to households by non-banks has been higher in comparison with bank lending (in 2011 the bank lending to households grew by 31.7 percent and the credit organization and pawnshop lending to households grew by 36.6 percent and 48.8 percent, respectively).

In household lending, most activity was reported in the segment of consumer loans, which grew in 2011 by 36.0 percent. The same indicator was 35.3 percent for banks and 55.3 percent for credit organizations. Increased consumer lending was attributable to all types of loans, except for car loans which reported 23.2 percent reduction during the year.

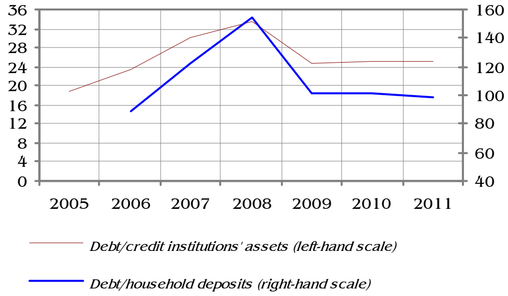
In the period under review mortgage lending has increased by 19.3 percent. The figure was 19.0 percent for banks and 22.2 percent for credit organizations. In the period under review certain legislative improvements were made in the pledging mechanism. Issuance of bonds by the National Mortgage Company, which would increase the Company's ability to attract funds and use them to refinance the mortgage loans on most acceptable terms, could be vital for stimulating the mortgage loan supply. During the year interest rates of loans fell amid intensification of competition among banks. In December of 2011, relative to December of 2010, average weighted interest rates of consumer and mortgage loans have reduced by 0.7 pp and 0.9 pp, respectively.

In 2011 credit risk associated with households diminished. Relative to 2010, the share of non-performing loans has reduced by 0.5 pp to 3.3 percent of the consumer credit portfolio and by 0.4 pp to 4.2 percent of the mortgage loan portfolio. The volumes of consumer loans written off reduced by 0.6 pp to 4.1 percent whereas the volumes of mortgage loans written off grew by 0.8 pp to 4.8 percent.

In 2011 deposits of households posted a faster growth, 37.2 percent, mainly owing to term deposits having grown by 41.5 percent in the period under review. Foreign currency deposits still prevailed in the total term deposit portfolio, however the share of dram term deposits has increased by 2.9 pp against the end of 2010.

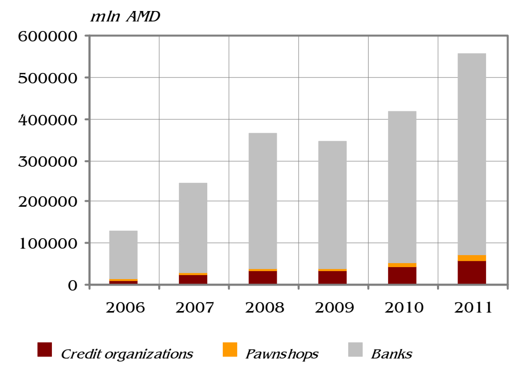
In 2011 economic growth recovery continued along with subsiding unemployment and some increment in nominal wages. Compared to the end of 2010, the rate of unemployment has reduced by 0.8 pp to 6.2 percent,

Household debt burden (%)



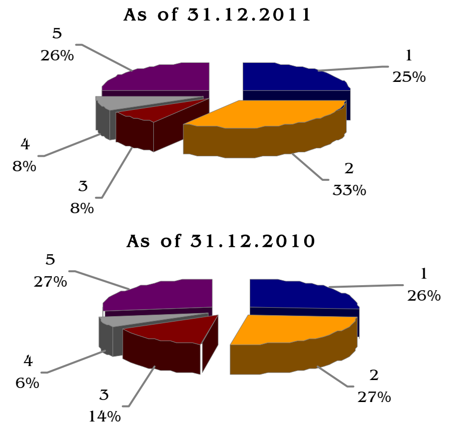
Source: Central Bank of Armenia.

Households' financial liabilities



Source: Central Bank of Armenia.

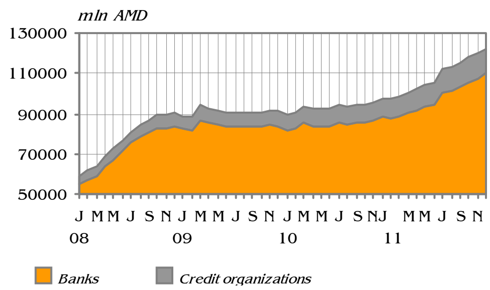
Bank and credit organization consumer loan portfolio



1. Card loans, 2. Gold-backed loans, 3. Car loans, 4. Home appliance loans, 5. Other consumer loans

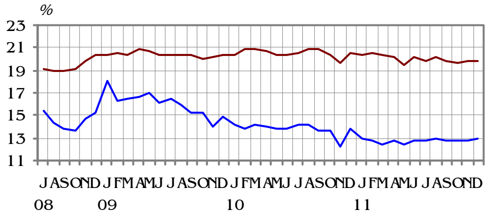
Source: Central Bank of Armenia.

Mortgage loan portfolio of banks and credit organizations



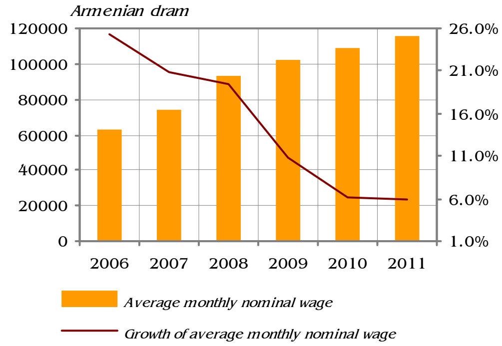
Source: Central Bank of Armenia.

Average weighted interest rate of loans to natural persons



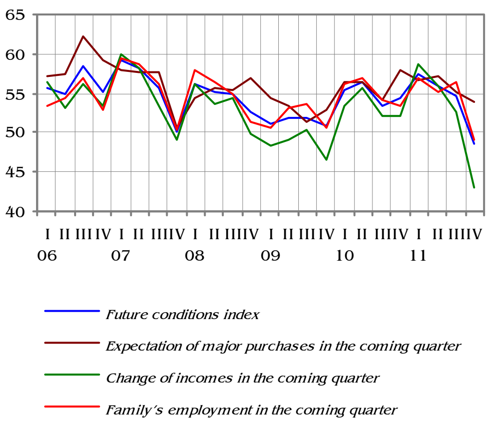
Source: Central Bank of Armenia.

Average nominal wage



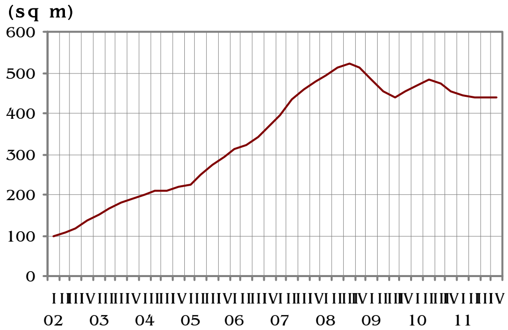
Source: National Statistics Service of Armenia.

Future conditions index and its components



Source: Central Bank of Armenia.

Average apartment price index in Yerevan (sq m)



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

according to the NSSA data. In the period under review average monthly nominal wages have increased by 6.2 percent against the previous year and by 7.3 percent compared to the end of 2010. Growth of wages was reported in both private and public sectors. In the private sector, wages have grown largely due to increased productivity in industry and services, increased demand for labor as well as because of price increases recorded in the previous year. Increased net private transfers and net factor incomes further contributed to the overall increase of household incomes. The quarterly household surveys by the Central Bank suggest that the population has become more wary: in the fourth quarter of 2011, relative to the fourth quarter of 2010, Future Conditions Index has dropped by 10.7 percent, a development driven by the plunge in all sub-indices[8].

2.5. REAL ESTATE PRICES

Monitoring of changes in real estate prices and their possible impact on credit portfolio is important in the financial stability point of view.

In 2011, relative to 2010, the dram prices of multi-apartment homes in Yerevan have reduced by 5.5 percent[9] but reported a slight rise of 0.04 percent in the fourth quarter against the previous quarter. Such an increase, however, is fragile and not prominent.

In the fourth quarter of 2011, relative to the same period of the previous year, average market price of apartments has fallen by 2.6 percent. This will not nevertheless bring about systemic problems for loan security since commercial banks remain excessively watchful in their assessments of borrower credibility by originating mortgages against collateral which does not exceed 60-80 percent of the property in question (see details in *Market risk of commercial banks* section).

In the period under review the supply of real estate has declined. This however has not been enough to hold prices back from falling. During 2011 the volume of homes commissioned to operate has decreased by 0.8 percent against the previous year, due to declined construction financed by the budget and households. On the other hand, the volume of dwelling home operation has increased thanks to construction supported by organizations. As a result, the share of financing by organizations has grown by 41.4 pp and reached 69.0 percent. The volume of homes commissioned to operate can broaden if the lending to construction of residential and non-residential housing grows.

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[8] *Source: the Central Bank quarterly survey of households, Q4, 2011.*

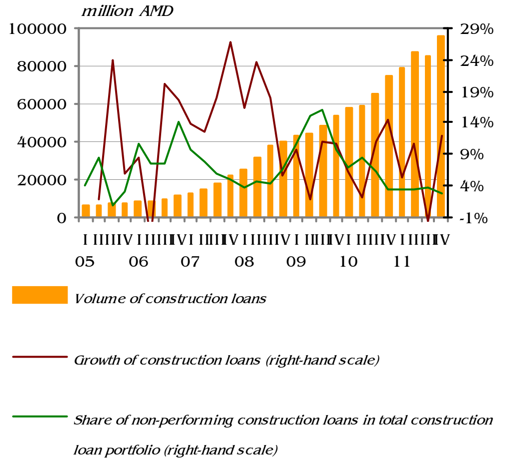
[9] *In Armenia an average composite real estate price index is lacking, therefore the average price index of homes in Yerevan has been accepted as benchmark to which all real estate price developments are measured. Until June of 2005, the real estate pricing has been in US dollar which is why the dram prices of real estate have been calculated using the dram/US dollar exchange rate.*

Dwelling home operation by sources of financing

Source of financing	Operated residential apartments in 2011 (sq m)	Share in total	Percentage change to 2010
Total, o/w:	492651	100%	-0.8%
state budget	28859	5.9	-77.6%
resources from organizations	340016	69.0	148.1%
household funds	123776	25.1	-46%

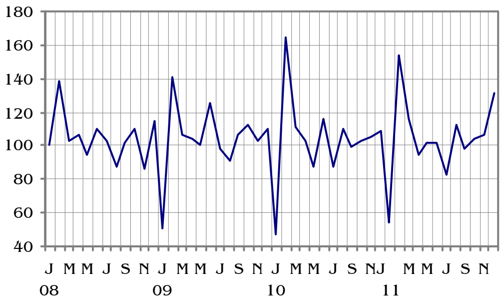
Source: the National Statistics Service of the Republic of Armenia.

Volume and growth of loans to construction and share of non-performing loans in their total



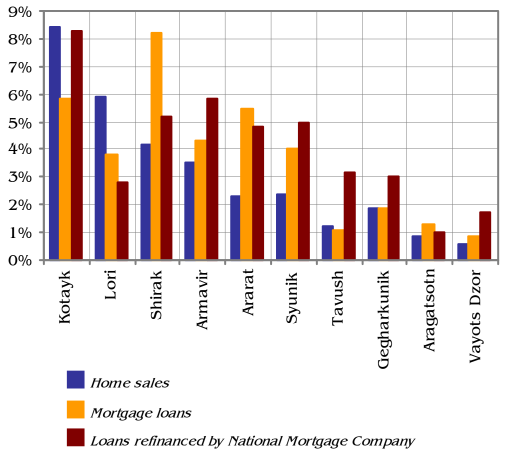
Source: Central Bank of Armenia.

Real estate transactions index



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

Home sales and mortgage loans by region, 2011



Source: Central Bank of Armenia, National Mortgage Company.

In 2011 the number of real estate transactions has increased by 10.2 percent, concurrent with the falling of real estate prices. The volume of trade with real estate has grown by 22.5 percent, with its share having increased by 2.4 pp to reach 23.7 percent in total real estate transactions. In the volume of trade with real estate, multi-apartment homes account for 35.9 percent and land parcels make up 37.9 percent in total. Multi-apartment home sales remain concentrated in Yerevan which accounted for 68.7 percent of the number of home sales, up by 0.4 pp against the respective indicator of the previous year. The home sale figure is also determined by people's mobility, which is not typical to Armenia, however.

The numbers of mortgage loans and home sale transactions had almost similar distribution in regions – Yerevan accounted for 63.2 percent of mortgage loans. This parameter for mortgage loans originated by the National Mortgage Company is much milder.

SUMMARY

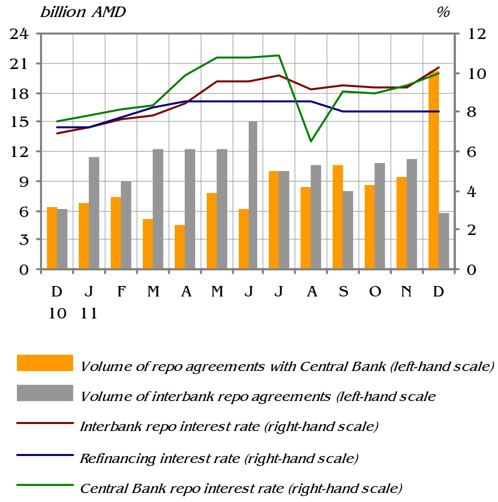
The recovery of the economy, which started from the previous year, continued during 2011, reflecting positive developments in both external and domestic sectors. Prices of raw materials, increased inflow of private remittances, reported growth in agriculture and strong lending all promoted to economic activity.

Increased private remittances, factor incomes and nominal wages have positively affected real incomes of population hence credibility. Reported growth in sectors of the economy and increased exports bolstered credibility of legal persons, enhancing financial stability.

Price developments in domestic and external environment as well as implemented monetary policy made it possible to maintain the inflation indicator within the confidence band at the end of the year, which in turn positively reflected credibility of economic agents.

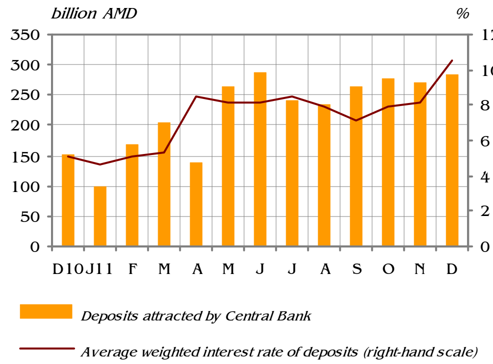
3. FINANCIAL MARKET STABILITY IN ARMENIA

Repo agreements and repo interest rates



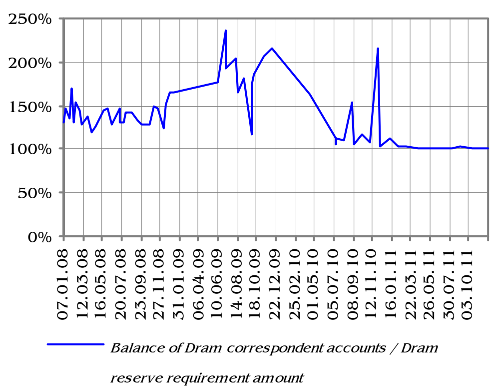
Source: Central Bank of Armenia.

Volume of transactions on credit resource platform and average weighted interest rate



Source: Central Bank of Armenia.

Dram correspondent accounts of commercial banks with Central Bank and Dram reserve requirement



Source: Central Bank of Armenia.

3.1. MONEY AND CAPITAL MARKETS

In the Armenian financial market in 2011 interest rates tended to rise. One exception was the loan market where interest rates dropped by nearly 1 pp. High inflation expectations and second-round effects of inflation were the main reason urging the Central Bank to gradually tighten monetary conditions since the beginning of the year, and therefore the refinancing rate was raised three months in a row starting from February by a total of 1.25 pp. At the end of the third quarter, balanced inflationary risks and an optimistic outlook allowed to ease the monetary conditions by lowering the policy rate by 0.5 pp and keeping it at 8 percent.

In 2011 interbank market – the largest segment of the money market – tended to gain momentum, with average monthly turnovers of interbank repo and Central Bank repo markets having amounted to AMD 29.6 billion and AMD 32.3 billion, respectively. As well as interest rates rose in these markets – at the end of 2011 market repo rate was 11.2 percent against 7.8 percent recorded in 2010.

In 2011 the Central Bank introduced another change to the reserve requirement ratio as part of anti-dollarization measures, which means keeping reserves for all attracted foreign currency funds in Dram[10].

This change to reserve requirement resulted in substantial reduction in commercial banks' excess liquidity in their correspondent accounts in dram at the Central Bank and pushed short-term interest rates up.

As the comparison of yield curves shows, bond yields in the secondary market have risen in the short-term segment, whereas interest rates in medium-term and long-term segments were almost unchanged. In general, no material changes in the yield curve occurred, except for convexity of the curve having sloped slightly down, from 0.32 to 0.27, which points to the narrowed spread in short-term and long-term interest rates.

As of end-2011, average maturity (Duration Indicator) of government bonds outstanding amounted to 1015 days, which represents a 160-day increase compared to December of the previous year.

[10] Effective from the first quarter of 2011, the reserve requirement stipulates to keep 75 percent of reserves for foreign currency funds, attracted by commercial banks, in Armenian Dram, and 25 percent of reserves for foreign currency funds, in a respective foreign currency.

As of end-2011, the ratio of Average Modified Duration (D_M) calculated to evaluate interest rate risk was 2.4 for government bonds outstanding, up by 0.3 points relative to the previous year's December indicator.

Modified Duration of Outstanding Government Securities as of 31.12.2011 for Different Maturity Groups

	up to 6 months	from 6 months to 1 year	1-2 years	2-5 years	5-7 years
D_M	0.25	0.66	1.23	2.74	5.29

Source: Central Bank of Armenia.

Modified Duration of Available-For-Sale and Trading Government Securities of Commercial Banks as of 31.12.2011 and Probable Profit/Loss in case of 1% Change in Yield for Different Maturity Groups

	up to 6 months	from 6 months to 1 year	1-2 years	2-5 years	5-7 years	total
Trading government securities (million AMD)	18504.3	3138.0	15829.5	45109.3	11665.7	94246.8
Share in total portfolio	19.6%	3.3%	16.8%	47.9%	12.4%	100%
D_M	0.25	0.65	1.26	2.66	5.21	2.2
Price change +/- (million AMD)	46.4	19.4	205.3	1188.7	500.7	1960.5

Source: Central Bank of Armenia.

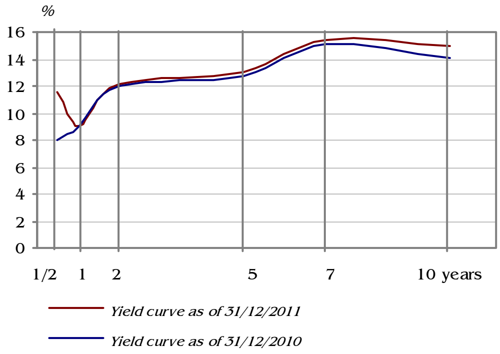
In case of 1 percent increase of the yield, the potential loss in commercial banks' portfolio of government securities could reach AMD 2.0 billion (constituting 0.6 percent of commercial banks' equity). As such, most loss is likely to come from medium-term securities as they have a large share in the securities portfolio.

In 2011 average variance of returns of government bonds has increased by 0.26 points against the previous year and reached 2.50 points. Average variance for market repo interest rates has decreased by 0.75 points and amounted to 1.19 points.

Operations in securities markets (including repo transactions, excluding operations with the Central Bank) carried out by investment service providers[11] have increased by 32 percent compared to the previous year and amounted to AMD 2 trillion 328 billion. Transactions involving securities trades constituted 16 percent of the above said operations,

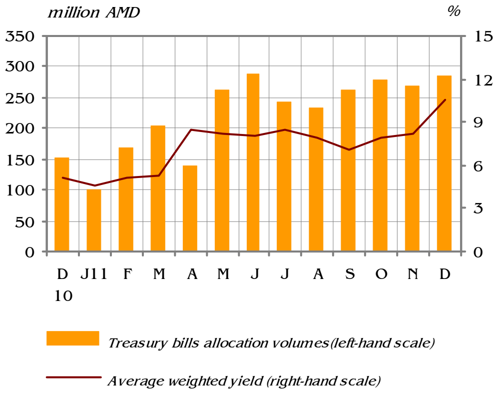
[11] *As of 31.12.2011, investment service providers included 21 commercial banks and 8 investment companies.*

Government bond yield curves



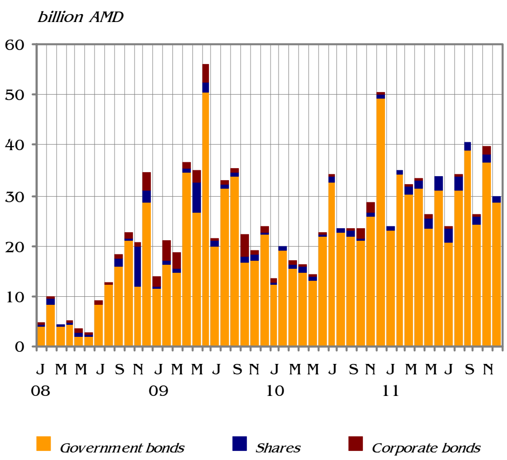
Source: Central Bank of Armenia.

Treasury bills allocation volumes and average weighted yield



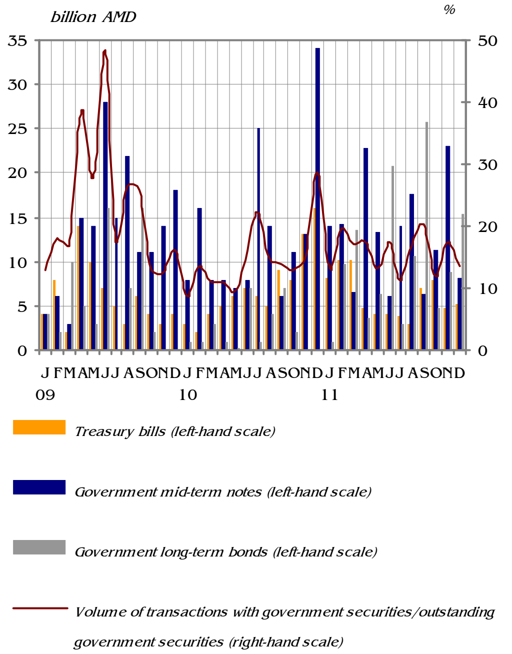
Source: Central Bank of Armenia.

Securities trades by investment service providers



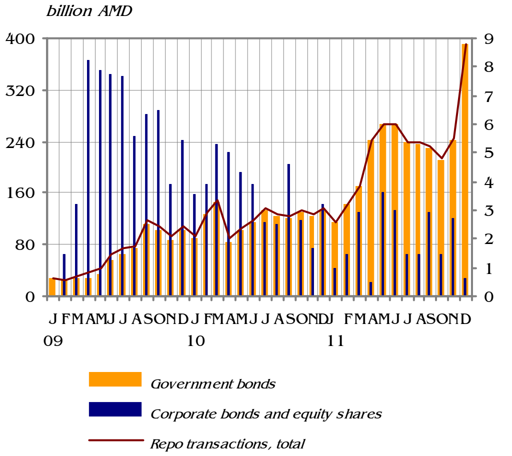
Source: Central Bank of Armenia.

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



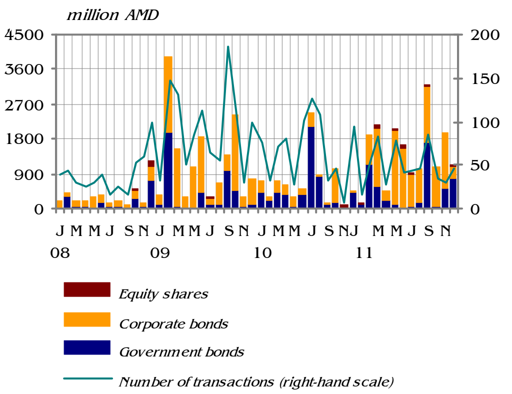
Source: Central Bank of Armenia.

Repo transactions by investment service providers, by types of security (excluding transactions with Central Bank)



Source: Central Bank of Armenia.

Securities trades at regulated market of securities



Source: Central Bank of Armenia.

staying almost unchanged to the previous year's level. The share of operations with government securities in total transactions of securities trades remained the largest, 93.3 percent; the share of transactions with corporate bonds and equity shares amounted to 1.1 percent and 5.6 percent, respectively.

During the year the volatility of the government securities market liquidity[12] further diminished. The standard deviation of the government securities market liquidity reached 3.0 versus 5.6 recorded in the previous year.

The share of medium-term government securities amounted to 44.6 percent of total transactions of government securities trades. The share of short-term and long-term securities reached 20.7 percent and 34.8 percent, respectively.

Repo transactions (excluding operations with the Central Bank) carried out by investment service providers have increased by 32 percent and amounted to AMD 1 trillion 949 billion. Again, operations with government securities accounted for the largest share, 98.6 percent, of repo transactions. Repo transactions with corporate bonds and with equity shares constituted 1.2 percent and 0.2 percent of total transactions, respectively.

In the regulated market in 2011 the total market turnover of securities trades and repo agreements reached AMD 17.9 billion, with repo operations accounting for 64.5 percent in total.

In the structure of transactions with securities trades carried out by investment service providers during the first half of 2011, the share of transactions in the regulated market remained small, a mere 1.7 percent.

In the structure of transactions with securities trades in the regulated market, the share of transactions with corporate bonds was the largest, making up 67.6 percent in total stock exchange turnover; the transactions with government bonds and with equity shares constituted, respectively, 30.4 percent and 2.0 percent.

In 2011 the gross securities market turnover/GDP[13] was 9.9 percent against 8.2 percent recorded in the previous year.

At the end of the year the securities market capitalization/GDP[14] was 1.4 percent, dropped by 0.1 pp

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[12] The liquidity of government securities market is calculated as the ratio between the amount of monthly trade transactions executed by investment service providers in the secondary market of government bonds and the amount of government bonds outstanding.
[13] This comes as a ratio of gross volume of securities traded by investment service providers to GDP.
[14] This comes as a ratio of market price of listed securities to GDP.

against the year 2010, which is determined by faster growth of GDP over capitalization. By capitalization, concentration of leaders out of 14 reporting issuers admitted to securities trading in the regulated market trended upward at the end of 2011.

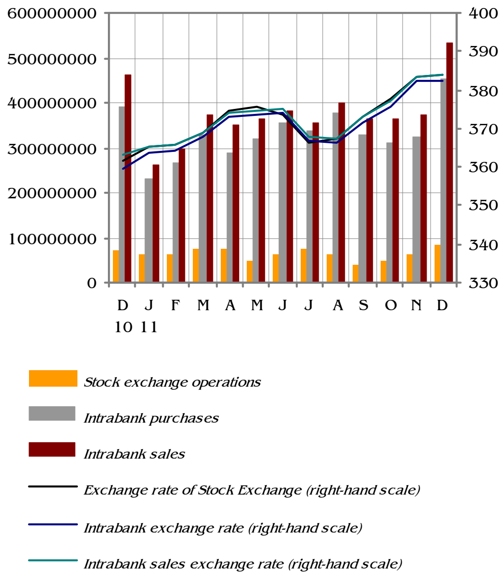
The 3 and 5 largest share issuer concentration by capitalization, 2008 - 2011

Period	Capitalization at the 3 largest companies (%)	Capitalization at the 3 largest companies (%)
31.12.2008	89.2	99.2
31.12.2009	83.7	98.2
31.12.2010	80.1	94.7
31.12.2011	83.8	96.6

3.2. FOREIGN EXCHANGE MARKET

In the course of 2011 the Armenian foreign exchange market has been relatively stable. At the end of the year, relative to the end of the previous year, the Dram depreciated versus the US dollar by 5.79 percent, reaching AMD 385.77 from AMD 363.44. In 2011 the variation coefficient was 39.72 points against 160.9 points recorded in 2010.

Volumes of operations in Armenian foreign exchange market and exchange rates



Source: Central Bank of Armenia.

SUMMARY

The main developments in the Armenian financial market in 2011 included the tightening of monetary conditions earlier the year, then keeping the policy rate low and implementing a neutral monetary policy in the wake of balanced risks coming from the external environment and easing inflationary pressures. Almost all segments of the financial market, except the loan market, saw interest rates rising. The interbank market, which makes up the largest part of the financial market, has been buoyant driven by recovering economic growth and increased demand for loans and therefore facilitated the development of effective liquidity distribution mechanisms.

Transactions with government bonds prevailed in securities trades and repo operations executed by investment service providers, whereas transactions with corporate bonds constituted the largest share in operations executed in the regulated market. Yet the equity market remains small, with its level of capitalization and turnover volumes standing behind those of other countries.

Because the Armenian financial market is still modestly integrated to international markets, potential risks from global financial markets will not therefore directly affect the stability of the domestic market.

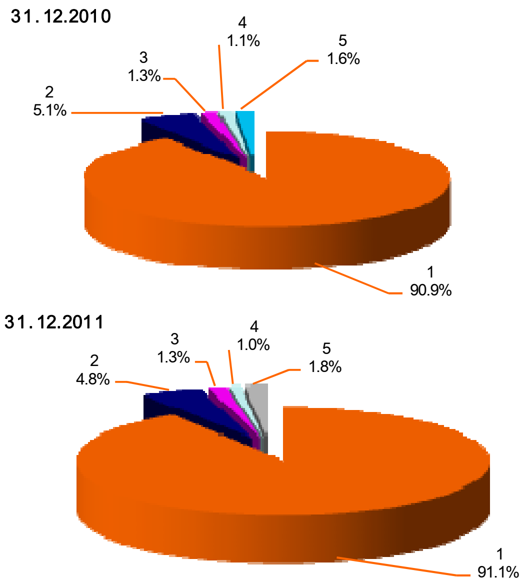
The situation in the domestic foreign exchange market was assessed to be stable. It should be noted however that Dram depreciation versus the US dollar had been observed, compared to the trends in the previous year.

Summing up the year 2011 one may conclude that various segments of the market reported low volatility while negative effects from the external environment have not been observed.

4. FINANCIAL INSTITUTION STABILITY IN ARMENIA

The Armenian banking system[15] holds 91.1 percent of the financial system assets. Therefore, from the financial stability point of view, assessing and disclosing risks pertaining to the banking activities is rather important. Insurance companies, securities market participants and other financial organizations are small enough in comparison with the banking system, so their potential impact on financial stability in Armenian financial system is estimated to be minor.

Financial system assets, by financial institutions



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

Source: Central Bank of Armenia.

During 2011 banks were highly active in the lending market owing to trends in recovering real sector of the economy and increased remittances in the post-crisis period. Banks seeking to stimulate lending to legal persons, a stably performing AMD/USD exchange rate, and the launch of the *Subsidized Agricultural Lending Program* of the Government all further contributed to the active lending. The trend of faster growth in lending to legal persons over natural persons persisted during 2011.

In the period under review commercial banks further branched out while broadening the spectrum of quality services and products, thus increasing accessibility to the banking services and progressing with the banking culture.

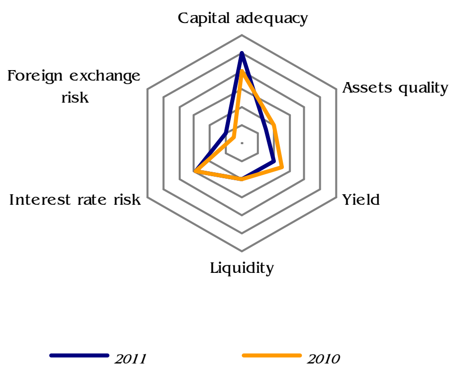
4.1. COMMERCIAL BANKS

Banking System Stability Map

A banking system stability map[16] has been designed to illustrate the behavior of the banking system stability. It denotes how values in the set of indicators of banking risks have improved relative to previous periods.

In 2011, relative to 2010, all relevant stability map indicators were much the same, with some positive shifts in respect of asset quality and interest rate risk. Profitability and foreign exchange risk indicators remained almost unchanged but liquidity and capital adequacy s reported decreases in the face of growth in bank lending.

Banking system stability map (2011 average to 2010 average)



Source: Central Bank of Armenia.

[15] This refers to the 21 commercial banks functioning in the territory of the Republic of Armenia.
[16] The banking system stability map contains indicators denoting capital adequacy, assets quality, liquidity, profitability, interest rate risk and foreign exchange risk. Before usage, these indicators were measured on a 1 to 10 scale basis and calculated in accordance with the IMF methodology. On the map, note that away from the center signifies higher risks, and nearer to the center signifies lower risks. The banking system stability map shall not be interpreted as an eventual reflection of the level of financial stability, rather it provides a picture whether the level of risks involved has increased or decreased.

4.1.1. Financial intermediation; concentration

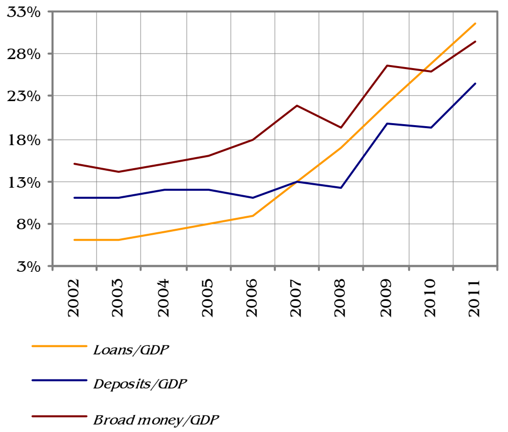
During 2011 assets of banking system posted a rapid growth in line with the nominal GDP growth, pushing the ratio of banking system assets to GDP up by 9.6 pp to 54.1 percent at the end of the year (this indicator still lags behind the respective indicator of a number of CIS countries). Similarly, the ratio of banking system loans to GDP has risen by 6.3 pp to 31.6 percent, as a result of faster growing loans in relation to the GDP growth.

The ratio of bank-attracted deposits to GDP has increased by 5.3 pp and reached 24.5 percent at the end of the year. Also, the ratio of broad money to GDP has increased by 3.5 percent and amounted to 29.5 percent at the end of the year.

In the period under review statutory capital of the banking sector has increased by AMD 34.7 billion. As a result, the share of non-resident participation in the statutory capital has reduced by 3.8 pp to 75.1 percent at the end of the year.

Total capital of the banking sector has grown by 11.6 percent (AMD 37.0 billion) and total assets, by 32.4 percent (AMD 506.3 billion). The ratio of capital to assets, a.k.a. the leverage ratio, has dropped by 3.2 pp and amounted to 17.2 percent.

Financial intermediation



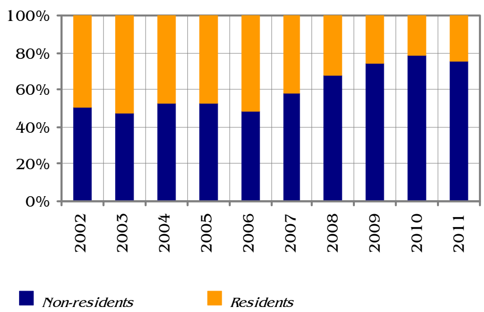
Source: Central Bank of Armenia.

The Herfindahl-Hirschman Concentration Index

	31.12.08	31.12.09	31.12.10	31.12.11
Total assets	0.07	0.07	0.07	0.07
Total liabilities	0.07	0.07	0.07	0.07
Total capital	0.06	0.06	0.06	0.06

Source: Central Bank of Armenia.

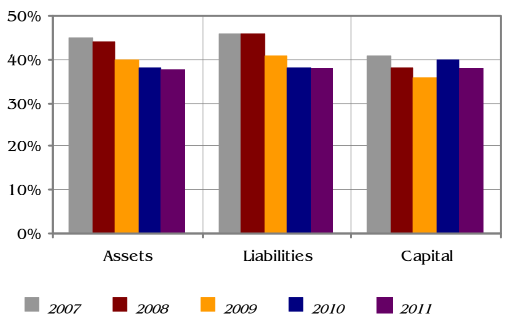
Foreign participation in Armenia's banking capital



The Herfindahl-Hirschman Index of Concentration[17] for some balance sheet items (assets, liabilities, capital, loans, and deposits) of the banking system further denotes a low level of system concentration, which limits the likelihood of the impact of risk concentration on the financial stability.

The shares of capital, assets and liabilities of 4 largest commercial banks have contracted by 0.2 pp, 0.3 pp and 1.5 pp and amounted to 37.7 percent, 38.0 percent and 38.3 percent, respectively.

Share of 4 largest bank assets, liabilities and capital in total banking system



4.1.2. Credit risk

During 2011 lending to the economy has grown by 36.2 percent (26.3 percent recorded in 2010). Despite a marked

[17] *The Herfindahl-Hirschman Concentration Index varies between 0 and 1, characterizing the level of concentration (values near to 0 denote lower concentration).*

increase of the bank loans to GDP ratio in the period under review, it is still low and the number of potential borrowers is still great. This means that lending could expand while financial intermediation grow stronger on the back of economic growth, continued increase in household incomes and further easing of terms of lending.

In 2011 the growth rate of lending exceeded the growth rate of total assets by 3.8 pp. As a result, the share of loans in total assets has increased by 1.6 pp and reached 58.6 percent at the end of the year.

Relative to the beginning of the year, the share of non-performing loans (classified as "watched", "substandard", and "doubtful") has grown by 0.3 pp and made up 3.4 percent in total loan portfolio. In the total loan portfolio structure, the share of non-performing loans was relatively high in loans provided to *public catering (5.2 percent), agriculture (4.7 percent)* and *trade (4.2 percent).*

As calculated by the IMF methodology, the share of non-performing loans (classified as "substandard", "doubtful" and "loss") in total has dropped slightly and amounted to 5.3 percent at the end of the year, which is quite low in comparison with the relevant figure reported in banking systems of some CIS and East European countries.

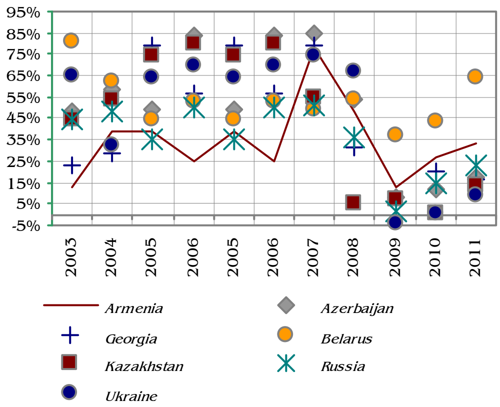
In the period under review the share of loans to legal persons has grown by 1.4 pp in relation to the start of the year and reached 60.0 percent at the end of the year (back in 2009, another year of financial and economic crisis, banks had their lending policies redefined by prioritizing provision of loans to legal persons so as to ensure economic growth).

Relative to the start of the year, loan investments[18] have grown by 33.0 percent and reached AMD 1 trillion 362 billion at the end of the year. Moreover, all sectors of the economy posted growth in lending. The highest increases were reported in *public catering and services, transport and communications* and *agriculture*, by 65.7 percent, 60.0 percent and 49.2 percent, respectively. In the loan portfolio, loans to *trade* hold the largest share, 21.3 percent, followed by loans to *processing industry*, 11.7 percent, and *mortgage loans*, 8.5 percent.

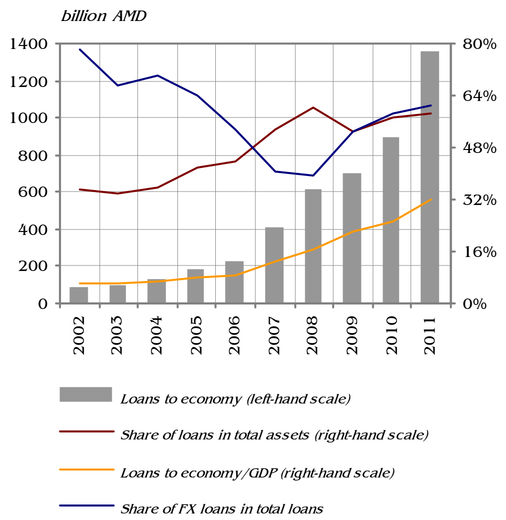
The Herfindahl-Hirschman Concentration Index of loan investment by economic sectors remained unchanged, 0.11, pointing out to the moderate concentration of loans by sectors of the economy. However, the same indicator based on a bank average was 0.17 which denotes a relatively higher sectoral concentration of loans provided by some banks.

[18] *The volume of loan investments varies from the volume of loans provided to the economy as it also includes loans to credit organizations, and deposits, lease, factoring and repo operations.*

Annual growth of loan portfolio

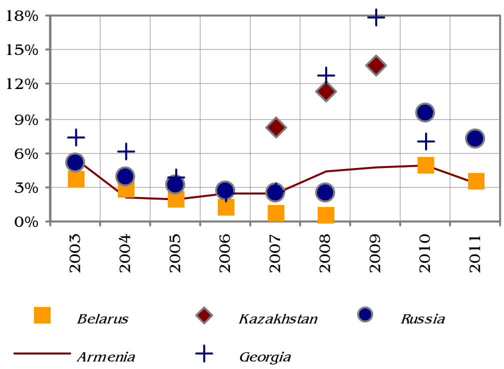


Volume of loans to the economy



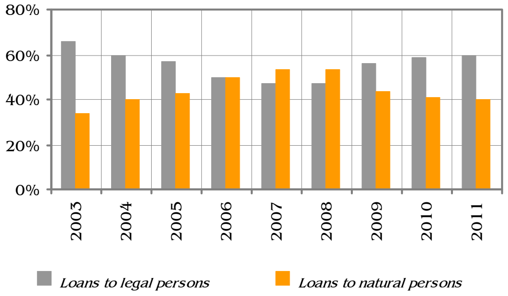
Source: Central Bank of Armenia.

Share of non-performing loans in total loan portfolio

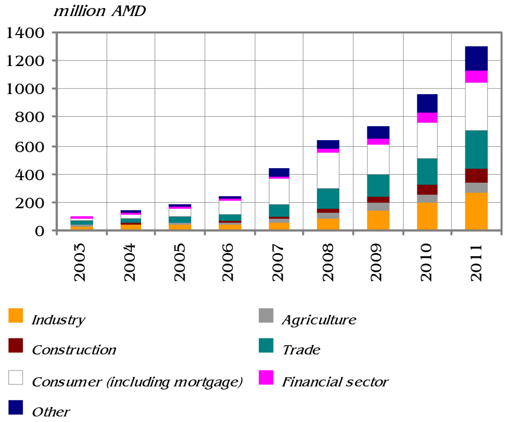


Source: Central Bank of Armenia.

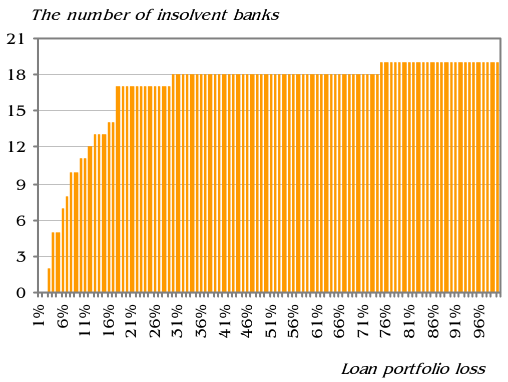
Share of loans to natural persons and legal persons in total loan portfolio



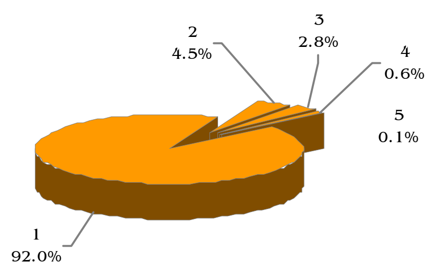
Balance of bank loans to residents, by sector



Change in the number of insolvent banks under loan losses



Risk weighted assets in bank capital adequacy ratio, as of 31.12.2011



1. Credit risk,
2. Interest rate risk,
3. Operational risk,
4. Foreign exchange risk,
5. Capital instrument price risk.

Source: Central Bank of Armenia.

In the period under review the ratio of net provisioning against assets loss to total assets has increased by 0.3 pp and amounted to 0.9 percent at the end of the year.

The results of credit risk assessment test scenarios[19] showed that the amount of potential banking system loss has grown a little in relation to the start of the year, due to faster growing rate of loan portfolio over that of total regulatory capital.

Credit risk stress-scenarios[20]

31.12.2011	Stress scenarios		
	25 percent of loans in watching, substandard and doubtful categories classified into loss loans	75 percent of loans in doubtful category classified into loss loans	30 percent of loans in standard category classified into watching loans
Loss of the banking system	AMD 8.2 billion or 2.4 percent of regulatory capital of the banking system	AMD 3.0 billion or 0.9 percent of regulatory capital of the banking system	AMD 37.6 billion or 12.5 percent of regulatory capital of the banking system
Total capital adequacy of the banking system in case of stress scenario	17.9%	18.1%	16.6%

Source: Central Bank of Armenia.

In case of the worst scenarios, when the banking system capital adequacy is 16.6 percent, some banks will see an infringed capital adequacy requirement. However, these s will be close to the minimum threshold, so potential loss will not be expected have a significant impact on the Armenian financial stability.

Stress-scenario of credit risk derived from off-balance sheet contingent liabilities[21]

31.12.2011	When 50 percent of off-balance sheet contingent liabilities performed
Banking system total capital adequacy	18.1%

The results of the test show that no bank infringes the total capital adequacy requirement which means that credit risk derived from off-balance sheet contingent liabilities is manageable.

[19] Stress-scenarios are built on an assumption that the amount of bank loans is unchanged and the collateral is ignored (which means that where loans are classified, a possible sale of the collateral is not considered).
[20] This stress-scenario and the other ones following are not intended to forecast emergence of any risks, but rather aim to reveal the weaknesses of the financial system, as well as assess its ability to absorb such risks.
[21] Off-balance sheet contingent liabilities include an unutilized part of credit lines, credit cards and overdrafts, letters of credit, and guaranties and sureties issued.

4.1.3. Liquidity risk

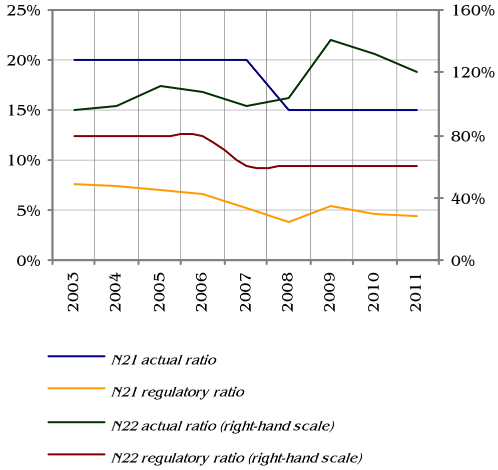
In 2011 the banking system liquidity trended down despite fast growing rate of loans provided by the banking sector. During the year, however, the level of liquidity has been roughly twice as high as the minimum requirement. Relative to the start of the year, the standard of total liquidity has fallen by 1.6 pp and current liquidity, by 10.7 pp, having reached, respectively, 27.9 percent and 120.8 percent at the end of the year[22].

The maturity gap analysis shows that there has been a noticeable variance observed for certain maturities of assets and liabilities. Specifically, the assets to liabilities ratio is 95 percent for up to 180-day maturity group (including demand resources), that ratio is 73 percent for 180-365-day maturity group, it reaches 180 percent for 1-3-year maturity group and the ratio amounts to 150 percent for over 3-year maturity group. Because a negative maturity gap has been reported for the 180-365-day maturity group, the banking system has plenty of time to adjust the gap as appropriate.

Foreign borrowings of commercial banks have grown by 62.7 percent and reached AMD 295.7 billion. The amount of funds attracted from international financial institutions has doubled, reaching 37.4 percent of total foreign borrowings.

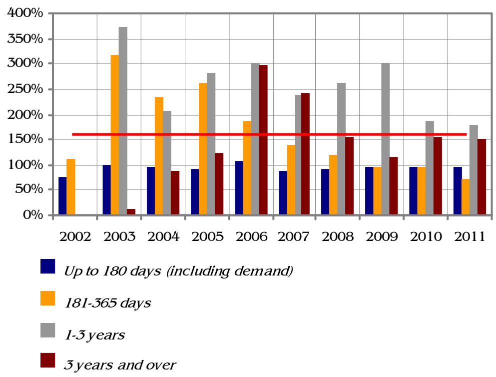
The main lender countries to the banks included Russia (15.7 percent), Luxemburg (11.9 percent), Germany (7.2 percent), Netherlands (5.8 percent) and France (4.9 percent). The share of long-term loans amounted to 86.8 percent, which turns the likelihood of refinancing of those liabilities to almost zero. There has been a reported reduction in exposure to the concentration of banking system liabilities: during the year the share of major debt[23] in total liabilities dropped by 0.4 pp to 27.7 percent.

Actual and regulatory banking system liquidity ratio dynamics



Source: Central Bank of Armenia.

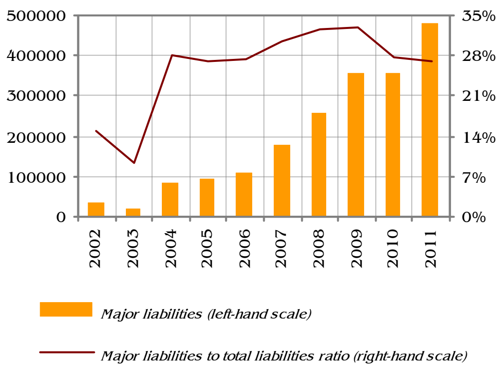
Assets to liabilities ratio by maturity baskets



Source: Central Bank of Armenia.

Major liabilities to total liabilities ratio in the banking system

million AMD



Source: Central Bank of Armenia.

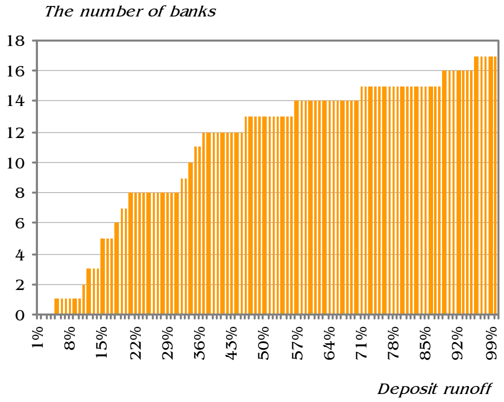
Liquidity risk stress-scenarios

31.12.2011	Stress scenarios		
	Repayment of 25 percent of time deposits of natural persons	Repayment of 25 percent of demand liabilities	Repayment of 25 percent of demand liabilities and repayment of 25 percent of time deposits of natural persons
Ratio of high liquid assets to total assets of the banking system	23.6%	23.5%	18.6%
Ratio of high liquid assets to demand liabilities of the banking system	96.0%	127.3%	94.7%

Source: Central Bank of Armenia.

[22] *The standard of total liquidity is calculated as a ratio of high liquid assets to total assets while the standard of current liquidity, as a ratio of high liquid assets to demand liabilities; the minimum requirement of these standards are, respectively, 15 percent and 60 percent.*
[23] *This represents the sum of all liabilities to one person, which individually exceed the 5 percent margin of total liabilities of a bank, without taking affiliation into account.*

The number of banks in breach of total liquidity requirement in case of household deposit runoff



Based on the stress-tests results no liquidity risks are observed, yet there is likelihood of breaching, by some banks, of the total liquidity and the current liquidity s. Nevertheless, in case of worst possible stress-scenarios, no liquidity problems will appear in the banking system, and the likelihood of emergence of risks undermining the financial stability remains low.

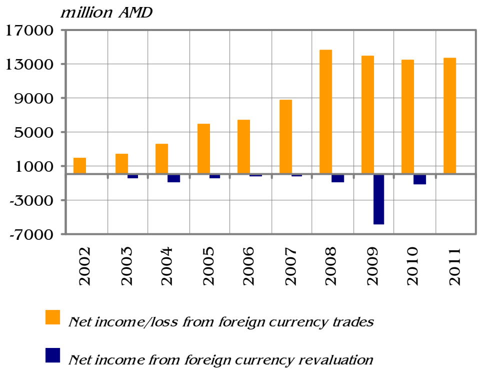
Stress-scenario of liquidity risk derived from off-balance sheet contingent liabilities

31.12.2011	When 50 percent of off-balance sheet contingent liabilities performed
Banking system high liquid assets to total assets ratio	23.1%
Banking system high liquid assets to total demand liabilities ratio	103.9%

The results of the test show that the banking system total and current liquidity s remain above their minimum thresholds.

4.1.4. Market risks

Net income of the banking system from foreign currency trades and revaluation



Source: Central Bank of Armenia.

Foreign exchange risk

During 2011 the Dram fluctuations against other currencies drove the banking sector to post revaluation gains which amounted to AMD 52 million. As a result of revaluation, 13 banks incurred losses and 8 banks reported profit. The banking system generated revenue of AMD 13.7 billion from foreign exchange transactions.

Relative to the beginning of year, the share of foreign currency loans in total loans has increased by 4.2 pp while the share of foreign currency deposits in total deposits has reduced by 0.9 pp, having reached 62.7 percent and 68.7 percent, respectively, at the end of the year. As of end-2011, commercial banks' Group 1 net position (inclusive of derivative instruments) has been a negative value, AMD 4.3 billion, which constitutes 1.3 percent of regulatory capital.

Foreign exchange risk stress-scenarios[24]

31.12.2011	Stress scenarios		
	AMD/USD appreciation (depreciation) by 1%	AMD/EUR appreciation (depreciation) by 1%	Possible maximum annual loss estimated through VaR Model
Banking system's profit/loss from foreign currency revaluation	AMD 41.6 million or 0.01% of regulatory capital (AMD -41.6 million)	AMD 0.9 million or 0.0003% of regulatory capital (AMD -0.9 million)	AMD -163.9 million or 0.05% of regulatory capital

Source: Central Bank of Armenia.

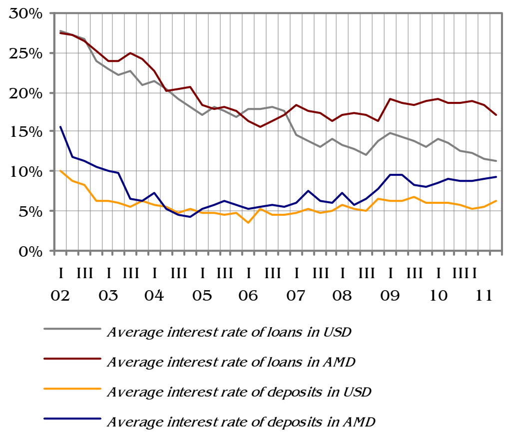
[24] *The calculation of losses estimated through stress-scenarios and the VaR Model (the VaR Model is not considered as a stress-scenario since the calculation of the model takes historical exchange rate series of currencies) is based on foreign currency positions of banks reported as of 31.12.2011.*

In case of worst possible stress scenarios reviewed in this stress-test, bank losses incurred as a result of foreign exchange risk are estimated to be insignificant, so the impact of such losses on the financial stability is weak.

Interest rate risk

In the period under review interest rates of both dram and foreign currency loans have dropped. Especially pronounced was the fall in interest rates of foreign currency loans, reflecting commercial banks' intention to spur up the demand for such loans, since foreign currency resources prevail in the structure of liabilities. Such interest rate falls were also fuelled by an increased competition among bigger banks, leading to the narrowing of the interest rate spread.

Average interest rates of bank deposits and loans



Source: Central Bank of Armenia.

Interest rate risk stress-scenarios

31.12.2011	Impact of 2 pp increase (decrease) of market interest rates on total portfolio, estimated through the "Duration Method"	Where market interest rates decrease (increase) by 2 pp, there will be deviation of net interest income from expected income of the three months ahead, estimated through the "Gap Method" (a method of interest rate-sensitive assets and liabilities gap)
Banking system's profit/loss	AMD 2.6 billion or 0.8 percent of banking system capital (AMD -2.6 billion or 0.8 percent of banking system capital)	AMD -94.5 million or 0.03 percent of banking system capital (AMD 94.5 million or 0.03 percent of banking system capital)

Source: Central Bank of Armenia.

The gap of average weighted maturity of the present value of assets and liabilities is almost flat and resting around a half-a-year range. This signifies that possible fluctuations in market rates will not entail major losses in the banking system during 2012.

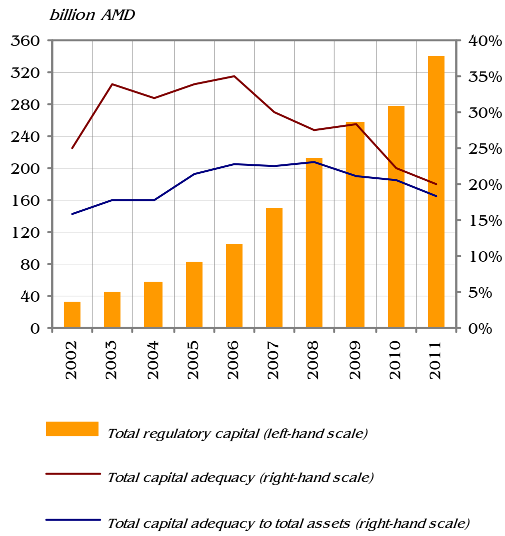
In case of worst possible stress scenarios, the share of commercial banks' losses in capital will neither be significant nor leave the system vulnerable to financial stability.

Price risk

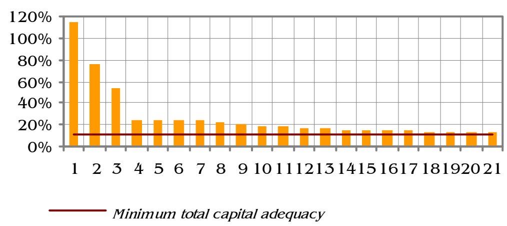
In the period under review the price risk of the banking system was estimated to have been rather low. Relative to the beginning of the year, the share of available-for-sale and trading securities in total assets has reduced by 1.7 pp to 6.2 percent at the end of the year. Reported decrease of capital as a result of revaluation of available-for-sale and trading securities amounted to AMD 856 million (0.3 percent of capital).

Risks associated with real estate price volatility remained well manageable. Armenian commercial banks further originated mortgages at no more than 60-80 percent of the *loan to value* ratio while taking quite a strict approach in

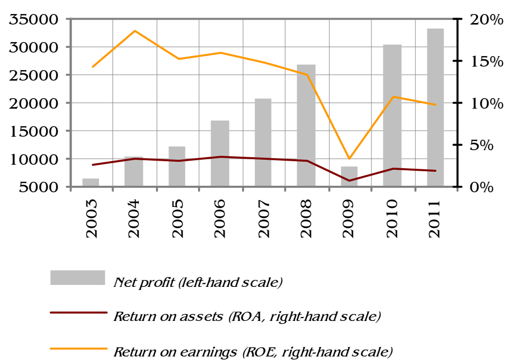
Banking system capital adequacy



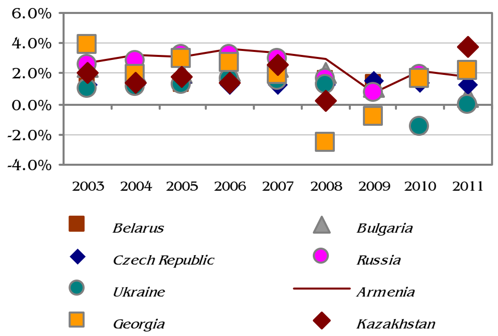
Total capital adequacy by banks, as of 31.12.2011



Profitability ratios in the banking system



Banking system RoA in selected East European and CIS countries



Source: IMF.

evaluating borrower credibility. Such restrictions are very effective as they hold back potential risks from real estate price volatilities.

In case possible stress scenarios for a 30 percent devaluation of real estate price emerge, potential maximum commercial bank losses will trend upward. However, real estate price volatility is not high.

Real estate price change stress-scenarios

30 percent depreciation of real estate	31.12.2011
The banking system's loss due to revaluation of own property (price risk)	AMD 8.4 billion (or 2.5 percent of banking system capital)
The banking system's loss due to a 30 percent loss of vulnerable credit portfolio[25] (taking into consideration that the collateral involved has been sold at a depreciated cost), if a stress-scenario occurs (credit risk)	AMD 4.9 billion (or 1.4 percent of banking system capital)
The banking system's loss due to a 100 percent 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 16.4 billion (or 4.8 percent of banking system capital)

Source: Central Bank of Armenia.

4.1.5. Capital adequacy and profitability

The capital adequacy and profitability indicators of the Armenian banking system are strong enough in comparison with some East European countries. High level of profitability and capital adequacy of banks provide cushion for absorbing risks with its own resources. During 2011, as a result of brisker lending policy, the growth of risk weighted assets again outpaced the growth of regulatory bank capital thus driving the capital adequacy ratio of banking system down by 1.7 pp against the start of the year to 18.3 percent at the end of the same year (an established minimum requirement threshold is 12 percent).

During the year, 4 banks added a total of AMD 34.7 billion to the statutory capital. By individual banks, the capital adequacy ratio was above 12 percent. Commercial banks remained strongly capitalized; no violation of the capital adequacy requirement has been committed by commercial banks.

Profit and profitability indicators of commercial banks remained strong thanks to heightened activity in the lending market and to the absence of sharp fluctuations of the exchange rate of foreign currency.

In 2011, relative to the previous year, the banking system's profit, calculated in accordance with Central Bank

[25] A vulnerable credit portfolio involves the sum of loan residuals for which the residual value exceeds the 30 percent depreciated collateral value.

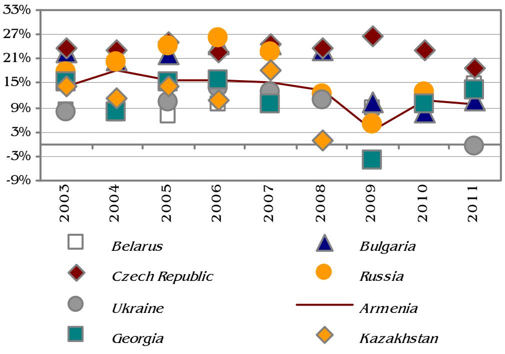
requirements[26], has grown by 9.9 percent to have amounted to AMD 33.2 billion. In the same reporting period, 19 banks posted profit and 2 banks posted loss. The profitability figures were as follows: return on assets, 1.8 percent; return on equity, 9.8 percent.

In the period under review, relative to the previous reporting period, gross revenues of the banking system have grown by 22.0 percent to have reached AMD 292.3 billion, and gross expenditures have grown by 24.3 percent to AMD 249.4 billion at the end of the year.

Overall, in the period under review, relative to the previous reporting period, the share of interest income and interest expense has increased and the share of non-interest income, non-interest expense and provisions to and recoveries from assets loss reserve funds have decreased.

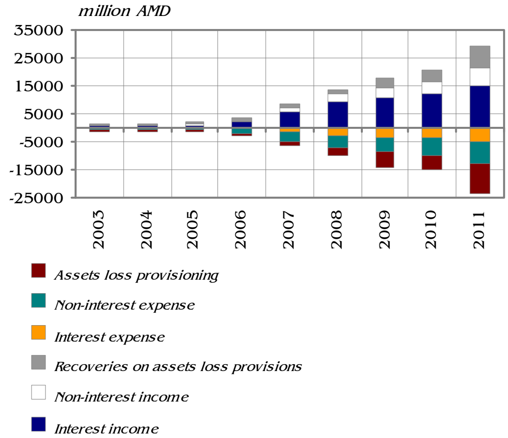
Profit of the banking system calculated in accordance with IFRS amounted to AMD 43.1 billion in 2011, and in this episode return on assets was 2.3 percent and return on equity was 12.7 percent.

Banking system RoE in selected East European and CIS countries



Source: IMF.

Banking system income and expense account



Source: IMF.

4.2. CREDIT ORGANIZATIONS

The second largest sector of Armenia's financial system is credit organizations, with their assets constituting about 4.8 percent of overall financial system. In the period under review, credit organizations generated growth of assets, liabilities and capital.

Assets, liabilities, capital and profit of credit organizations

(thousand AMD)

	31.12.2010	31.12.2011	Growth (%)
Assets	87204906	123850974	42.0
Liabilities	51232047	77006457	50.3
Capital	35972742	46844518	30.2
Net profit	4308688	4930540	14.4

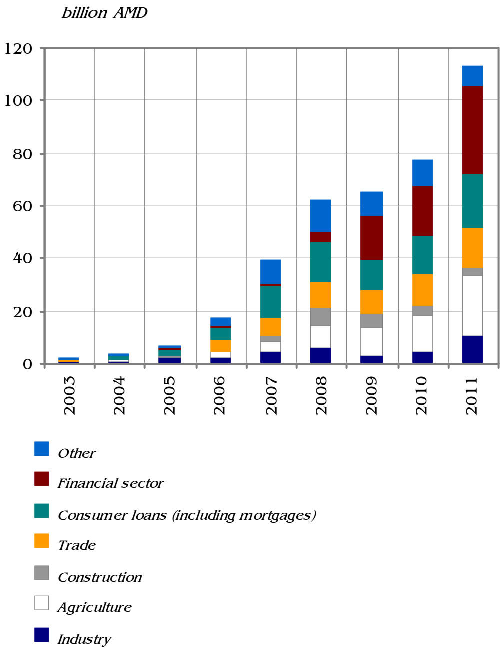
Source: Central Bank of Armenia.

Capitalization and profitability of credit organizations is stronger when compared to commercial banks, and according to various stress scenarios, they are fully capable to absorb possible risks. During the year, the ratio of total capital to total assets of credit organizations has fallen by 3.4 pp making up 37.8 percent at the end of the year.

During the year 30 credit organizations posted profit and 2 posted loss. Such ratios as return on assets and return on equity of credit organizations, calculated in accordance with

[26] The main difference between the Central Bank and IFRS reporting modules is pertinent to the provisioning of standard assets.

Balance of credit organization loans to residents, by sectors



Central Bank requirements, reached 6.8 pp and 17.5 pp, respectively.

In 2011 the profit of credit organizations calculated in accordance with IFRS amounted to AMD 7.1 billion; with return on assets reached 6.8 percent and return on equity, 17.5 percent.

In the period under review the share of non-performing loans (classified as "watched", "substandard", and "doubtful") of credit organizations has reduced by 0.4 pp to 2.6 percent at the end of the year. By sector, the share of non-performing loans is the highest in transport and communications (13.1 percent), public catering and other services (11.0 percent) and mortgage loans (6.4 percent).

Relative to the beginning of the year, the share of non-performing loans (classified as "substandard", "doubtful" and "loss"), calculated by the IMF methodology, has dropped by 1.4 pp and amounted to 3.9 percent at the end of the year, pointing out to the general improvement of the loan portfolio.

In the period under review, relative to the previous period, the ratio of net provisioning against assets loss to total assets has increased by 0.5 pp to have amounted to 1.7 percent.

Credit risk assessment scenarios [27]

31.12.2011	Stress scenarios		
	25 percent of loans in watched, substandard and doubtful categories classified into loss loans	75 percent of loans in doubtful category classified into loss loans	30 percent of loans in standard category classified into watched loans
Total loss of credit organizations	AMD 282.2 million or 0.7% of regulatory capital	AMD 78.5 million or 0.2% of regulatory capital	AMD 3.0 billion or 5.3% of regulatory capital

In all maturity baskets of assets and liabilities (up to 180 days (including demand resources), from 180 days to one year, more than one year), the volumes of assets outstripped the volumes of liabilities, pointing out, all else being equal, to the low level of liquidity risk among credit organizations.

4.3. INSURANCE COMPANIES

At the end of 2011 there were 9 insurance companies[28] licensed to perform insurance business in the territory of the Republic of Armenia.

[27] 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 that where loans are classified as loss, a possible sale of the collateral is not considered).
[28] The data cover 8 insurance companies as one company did not file reports due for Q4, 2011.

During the year assets of insurance companies have grown by 22.8 percent to AMD 31.4 billion; liabilities have grown by 33.4 percent to AMD 17.5 billion; and total capital has increased by 11.6 percent to AMD 14.0 billion, at the end of the year. In the period under review the share of insurance companies in the financial system of Armenia has reduced by 0.1 pp, representing 1.4 percent of the financial system assets as of 31.12.2011. In the period under review, relative to the previous period, the main indicator that describes activity of the insurance market – the premiums accrued – has increased by 2.7-fold and reached AMD 22.4 billion (in the previous year the growth of that indicator was 1.8 percent), largely owing to the compulsory third party motor liability insurance scheme.

As of December of 2011 the ratio of premiums to GDP was 0.59 percent, which more than doubled in relation to the previous period[29]. The premiums per capita indicator amounted to AMD 6834[30] against AMD 2532 recorded in the previous year.

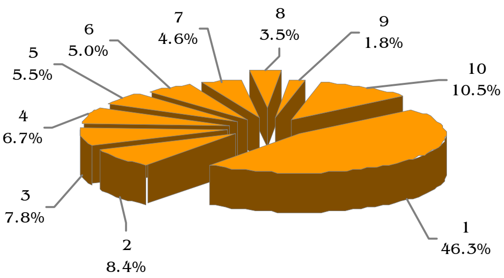
Though the introduction of the MTPL boosted up the activity of the insurance market, the likelihood of insurance companies impacting the financial stability remains low. Insurance company risks are controllable as standards are comfortably high. Estimations suggest that the likelihood of impact of insurance companies on financial stability is very low.

Circumstances described below further point to the low level of risks to the activity of insurance companies, as follows:

- During 2011 the loss ratio[31] of insurance companies grew to 56.4 percent, pointing to the increased technical effectiveness of the insurance sector. In the meantime, the costs ratio[32] of insurance companies has reduced to 36.1 percent, pointing out to the increased operational effectiveness of the insurance sector.
- As of 31.12.2011, the capital adequacy ratio of the insurance sector has been 191.1 percent, which is about twice as much as the minimum threshold. The weight of required solvency amounted to 54.1 percent and risk weighted assets accounted for 45.9 percent of capital adequacy standard of the insurance sector.

In case of worst possible stress-scenarios shown below, the level of solvency of insurance companies is estimated to not incur notable changes, so the likelihood of emergence of risks to the financial stability of insurance sector is very low.

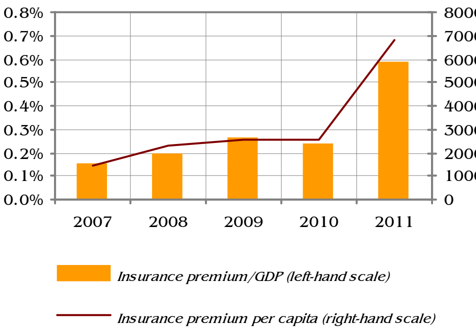
Insurance sector assets, as of 31.12.2011



1. Deposits with banks, 2. Securities sold under repo agreements, 3. Government and non-government securities, 4. Sums receivable from policyholders on direct insurance, 5. Claims to reinsurers on compensation, 6. Fixed assets, 7. Bank accounts, 8. Loans, 9. Reinsurers' share in insurance reserves, 10. Other assets

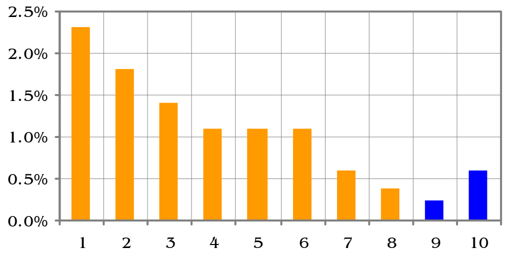
Source: Central Bank of Armenia.

Main ratios of Armenian insurance sector



Source: Central Bank of Armenia.

Insurance premium/GDP in EEC and CIS (2010)



1. Russia, 2. Ukraine, 3. Romania, 4. Lithuania, 5. Turkey, 6. Iran, 7. Kazakhstan, 8. Azerbaijan, 9. Armenia, 10. Armenia (2011)

Source: Central Bank of Armenia, Swiss Re, Sigma No 2/2011 and Xprimm.com.

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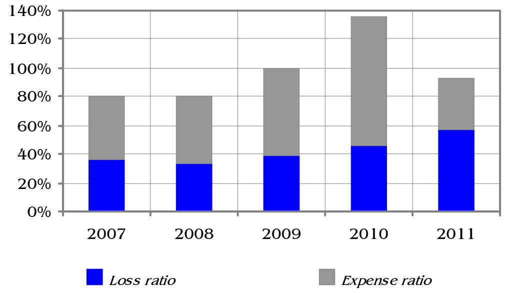
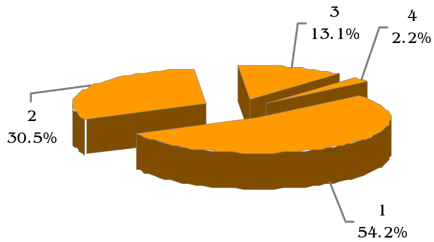
[29] In 2010, the premiums to GDP ratio averaged 3.57 percent in advanced countries and 1.32 percent in emerging countries, according to Swiss Re, Sigma No 2/2011, May 2011.
[30] In 2010, the premiums per capita indicator is USD 1458 or AMD 529896 in advanced countries and USD 49 or AMD 17627 in emerging countries, according to Swiss Re, Sigma No 2/2011, May 2011.
[31] The loss ratio was calculated using the following formula: (net accrued indemnity + net provisions to technical reserves (except for unearned insurance premium reserves, UIPR) + other transaction costs on insurance) / (earned insurance premiums - sums refunded on the contracts terminated).
[32] The costs ratio was calculated using the following formula: non-interest expense / (earned insurance premiums - sums refunded on the contracts terminated).

Loss and expense ratios of insurance companies



Source: Central Bank of Armenia.

Risk weighted assets and required solvency in insurance sector capital adequacy ratio, as of 31.12.2011



1. Required solvency indicator,
2. Credit risk,
3. Foreign exchange risk,
4. Operational risk.

Source: Central Bank of Armenia.

Solvency assessment stress-scenarios

31.12.2011	Stress scenarios
	Growth of indemnity rates, 20 %, and price increases, 5 %
Required growth of UIPR of the insurance sector, if the stress-scenario occurs	AMD 653.2 billion or 4.6 % of regulatory capital of the sector
Total capital adequacy ratio of the insurance sector, if the stress-scenario occurs	182.4%

Source: Central Bank of Armenia.

Where possible stress-scenarios (20 percent growth of indemnity rates and 5 percent growth of indemnification price) unfold, the change of the level of solvency of insurance companies was estimated, meaning that in case of worst stress-scenario, the total capital adequacy ratio of the sector would not be breached by any insurance companies.

Investing the insurance sector funds into less risky instruments allows keeping investment risk low. Assets equivalent to technical reserves are placed mainly in term and demand bank deposits and Armenian government and non-government securities.

Credit risk assessment stress-scenarios

31.12.2011	Stress scenarios		
	Classifying 30 percent of "standard" assets into "watched" category	Classifying 10 percent of "standard" assets into "loss" category	Sharp increase of outstanding claims reserves, 50%
Loss of the insurance sector	AMD 566.8 million or 4.0% of regulatory capital	AMD 2.1 billion or 14.5% of regulatory capital	AMD 1.1 billion or 7.6% of regulatory capital
The total capital adequacy ratio of the insurance sector, if the stress-scenario occurs	189.2%	173.1%	176.6%

Source: Central Bank of Armenia.

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

Foreign exchange risk assessment stress-scenarios[33]

31.12.2011	Stress scenarios		
	AMD appreciation/depreciation versus USD by 1% for gain/loss	AMD appreciation/depreciation versus USD by 1% for gain/loss	Maximum potential 10-day loss valued through a VaR method
Insurance sector's gain/loss in case of foreign exchange revaluation	AMD 62.6 million or 0.4% of regulatory capital (AMD -62.6 million)	AMD 5.5 million or 0.04% of regulatory capital (AMD -5.5 million)	AMD 94.6 billion or 0.7% of regulatory capital

Source: Central Bank of Armenia.

[33] 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 takes historical exchange rate series of currencies) is based on the foreign currency positions of insurance companies as of 31.12.2011.

In the foreign exchange risk assessment stress test, in case of worst stress-scenario, the loss of insurance companies incurred from foreign exchange risk is estimated to be insignificant.

Liquidity risk assessment stress-scenarios

31.12.2011	Stress-scenarios Sharp increase of outstanding claims reserves, 50%
Required growth of outstanding claims reserves when the stress-scenario occurs	AMD 1.1 billion or 7.6% of regulatory capital
Liquidity of insurance companies when the stress-scenario occurs	176.6%

Source: Central Bank of Armenia.

The level of liquidity risk in the insurance sector is low, and this is supported by the fact that over the first six months of 2011 no violation of the liquidity has been reported.

4.4. SECURITIES MARKET PARTICIPANTS

As of December 31, 2011, there were 21 banks providing investment services and 8 investment companies in the Armenian securities market.

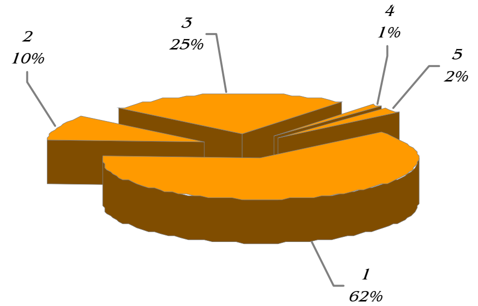
In 2011, relative to the previous year, total assets of investment companies have grown by 11.6 percent and amounted to AMD 21.8 billion; total capital, by 1.1 percent, to AMD 3.2 billion. Profit of investment companies reached AMD 580 million; 6 investment companies reported profit and 2 reported loss.

At the end of the year credit risk of investment companies amounted to 62 percent of risk weighted assets; market risk amounted to 36 percent; and operational risk, to 2 percent. Remarkably, interest risk had the largest share (70 percent of market risk) while foreign exchange and share price risks of investment companies constituted, respectively, 28 percent and 2 percent of regulatory capital.

As of the end-2011, a total of 17 classes of securities of 14 reporting issuers were admitted to trading in the regulated market. Of these issuers, 4 were financial institutions accounting for 24 percent of issued equity shares. The total amount of shares admitted to trading in the regulated market was AMD 52.9 billion and the total amount of bonds, AMD 3.5 billion. One issuer is accountable on both shares and bonds.

As of the end-2011, there were 1514 issuers of securities listed and 92478 individuals as owners of securities issued by companies running registries at the Central Depository of Armenia. Further, in addition to Central Depository of Armenia, two investment service providers in the securities market run registries of 354 companies with a total of 29564 persons involved as owners of registries.

Investment company risk profile (share in regulatory capital), as of 31.12.2011



1. Credit risk,
2. Foreign exchange risk,
3. Interest rate risk,
4. Equity share price risk,
5. Operational risk.

Source: Central Bank of Armenia.

4.5. OTHER FINANCIAL SYSTEM PARTICIPANTS

The participants of the Armenian financial system, other than those mentioned above, include 123 pawnshops (excluding branches), 231 foreign exchange offices (excluding branches), 4 insurance brokers, 10 payment and settlement organizations, and 1 currency dealer. All these organizations' potential impact on the financial stability of Armenia is estimated to be very low as their share in the financial system assets is far too small.

SUMMARY

Banks remain a prevailing part in overall financial system in Armenia, and the impact from other sectors on financial stability remains negligible. In the period under review, along with positive developments in macroeconomic environment, banks were further active in their lending business, a trend seen back since the second half of the previous year.

Despite accelerated growth rate in loan investments by commercial banks, which affected the capital adequacy and liquidity s downward, the actual levels of the banking sector liquidity ratios were almost twice as much as the minimum established thresholds.

Overall, risks in the financial system have been manageable amidst favorable developments in the macroeconomic environment.

5. FINANCIAL MARKET INFRASTRUCTURES STABILITY

Given the importance and impact of the Armenia's payment and settlement system on its monetary policy and financial stability[34], the Central Bank further pays due attention to the country's systemically important payment and securities settlement systems and the telecommunication network supporting their activities.

In Armenia, most interbank settlements are made via the Central Bank systems[35]. The largest value (more than 99 percent) of interbank payments is made via the Central Bank systems, a slight increase from the previous year's level.

5.1. INTERBANK PAYMENTS

The Central Bank Electronic Payment System

During the year 39 percent of gross payments via the Central Bank systems were made through the Electronic Payments System of the Central Bank. The share of the payments via EPS has reduced by 17 percent in relation to the previous year. This was determined by a 5 percent decrease in value of EPS payments as well as the increased value of Central Bank monetary policy instruments transactions (mainly deposit and repo transactions) via Paper-Based Gross Settlement System.

The indicators derived from monitoring of the EPS performance suggest that the system is safe and trouble-free from the system stability point of view. Risks to the system are viewed for the following aspects:

Credit risk

Credit risk of the Settlement Bank (the Central Bank) in the system lacks since there is no mechanism in place to lend to system participants in case of insufficient funds. 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[36].

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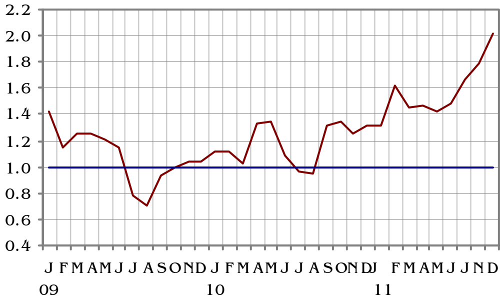
[34] For details, see the "Financial Stability Report", 2007, and the paper "Payments and Securities Clearance and Settlement Systems in the Republic of Armenia", 2010.

[35] Payments via the Central Bank systems involve the payments through: i) Electronic Payments System, EPS, excluding stock exchange trades, ii) Paper-based Gross Settlement System, PGSS, and iii) Government Securities Accounting and Settlement Systems, GSASS. For details, see the paper "Payments and Securities Clearance and Settlement Systems in the Republic of Armenia", 2010.

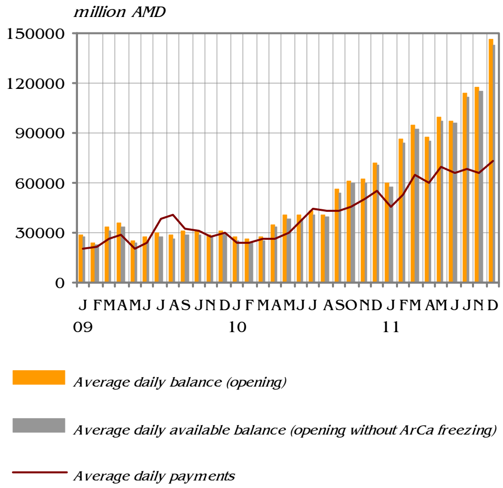
[36] For details, see the "Financial Stability Report", 2007, and the paper "Payments and Securities Clearance and Settlement Systems in the Republic of Armenia", 2010.

Average daily opening balance to average daily payments (debit)



Source: Central Bank of Armenia.

Average daily payments, average daily opening balances, average daily available liquidity comparative analyses (all banks)



Source: Central Bank of Armenia.

Liquidity risk

The indicator of average daily payments to the expense of own resources used for assessment of liquidity risk tended to improve during 2011[37] (1.61 in 2011 and 1.18 in 2010).

The monthly dynamics of the daily indicator points out to the fact that in the course of the year banks had more opening liquidity on average than they needed for making payments within a day. Moreover, the growth rate of opening liquidity was higher than the growth rate of average daily payments.

An analysis conducted during the second half of 2011 included a monitoring of the above indicators for each bank individually. The results of assessment show that banks had more opening liquidity than that was required for executing their payments within the day.

In assessing the liquidity risk, it should be noted that incoming payments (crediting with the account) and/or other sources of liquidity are not included in the calculation of the indicator.

Rejections reported in the system and their share in total payments made through the system is another important indicator for assessing liquidity.

Though the value of rejections because of insufficient liquidity in EPS transfers has almost quadrupled in relation to the previous year, some 70 percent reduction in the number as well as a negligible share of such rejections in their number (0.02 percent in 2010 and 0.01 percent in 2011) and value (0.1 percent in 2010 and 0.4 percent in 2011) support an argument that the said increase can be attributable to just one bank or a few ones with their inadequate management of liquidity within a day or several days, so it could not affect the system liquidity. In the outcome, one may confirm that the liquidity with the system has been sufficient for payments and that it could not have entailed problems of systemic nature.

Based on the results of analysis, the likelihood of emergence of liquidity risk and any systemic problems is estimated to be very low.

Intraday distribution of payments

In 2011 the intraday distribution of payments by value and number on an average quarterly basis remained uneven.

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[37] The indicator of average daily payments to the expense of own resources was 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 by systemic breakdown, so indicators may vary across commercial banks.

Though this kind of irregularity has been smoothed out to some extent for a time spanning 10:00 am to 3:00 pm of the day, yet concentration of the payments at the closing of the day remains high in average intraday distribution of payments. In the reporting period, the time span of 3:00 pm - 5:00 pm was the peak hour for execution of payments, and it made up an average 30 percent each for the number and value of the intraday payments.

The results of monitoring showed that in total payments in the last three years any significant increase has been attributable to the closing hours of the day.

The concentration of payments at the closing of the day can be a source for potential risks: in the event of insufficient liquidity or operational failures occurred at the closing of the day such concentration of payments may lead to rejections or delays of most payments during the day.

However, considering the positive dynamics of the liquidity and availability of the system, a sufficient capacity of the system as well as absence of material incidence and a negligible amount of rejections within a day (see details in previous sub-sections), an uneven intraday distribution and concentration of payments at the closing of the day have not brought in problems during 2011 while the likelihood of the risk to the system was estimated to be still low on the whole.

System capacity

Preliminary expert assessment by the system Operator suggested that since 2008 EPS had been generating more than 4300 payments per hour through EPS (an average 30000 payments per day).

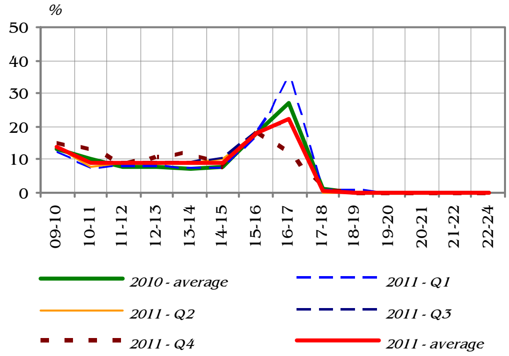
In 2011 the maximum number of payments per hour reached 5420 (in 2010 the respective figure was 4931), which denotes that the minimum capacity threshold is higher, and the system is able to process at least approximately 5500 payments per hour.

It should be noted that during 2011 the monthly peak hour levels reported excesses, and in the rest of cases, were very close to the potential minimum capacity (4300 payments per hour). As such, reported peak levels were very close to the closing hours of EPS, i.e. after 3:00 pm.

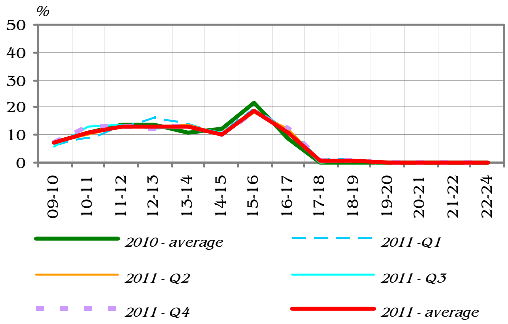
In 2011, relative to the previous period, there were considerably more reports of payments exceeding the 2500 per hour threshold, making up roughly 22 percent of operational hours (43 percent in December). A notable increase was reported for other indicators as well (3500, 4300 and more payments per hour).

Though a considerable growth was reported with regard to all capacity indicators during 2011, the likelihood of emergence of capacity risks were estimated still to be low: (i)

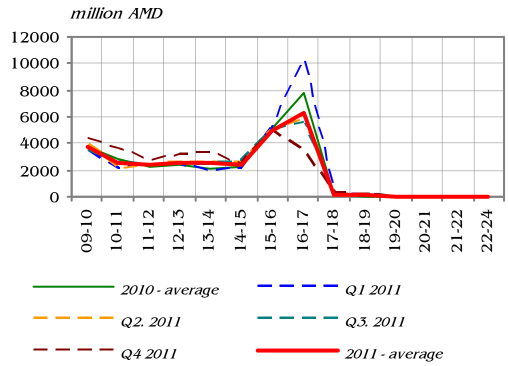
Intraday distribution of the value of payments on an average quarterly basis, 2010-2011



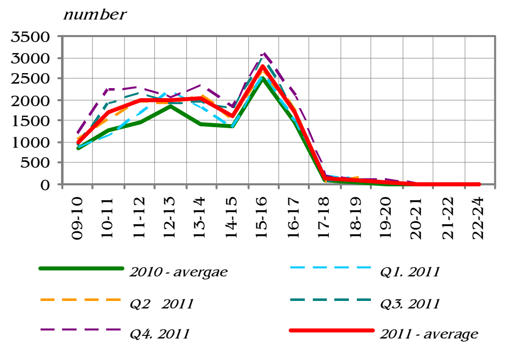
Intraday distribution of the number of payments on an average quarterly basis, 2010-2011



Hourly dynamics of the value of average annual payments via EPS (excluding stock exchange trades), four quarters 2011 and year 2010

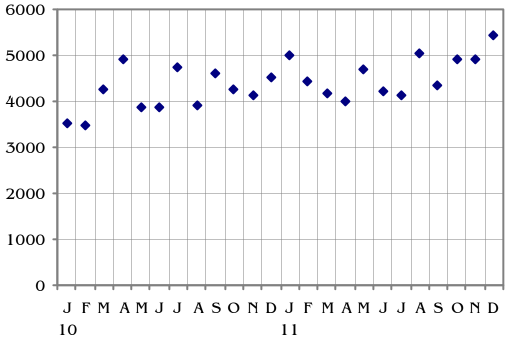


Hourly dynamics of the number of average annual payments via EPS (excluding stock exchange trades), four quarters 2011 and year 2010

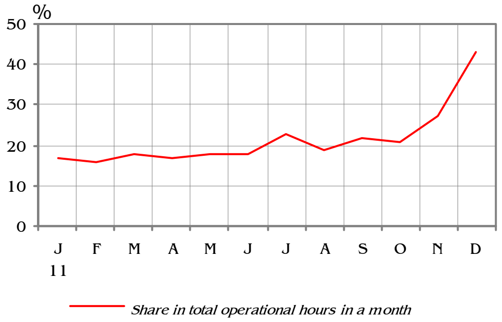


Source: Central Bank of Armenia.

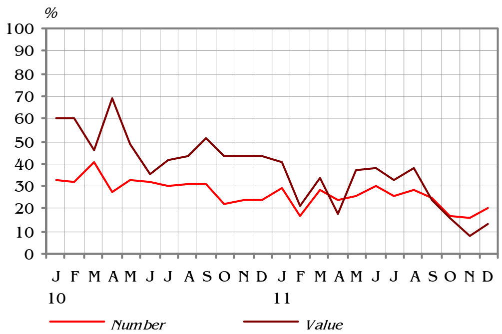
Maximum number of payments per hour, by month



Over 2500 payments per hour dynamics and share in total operational hours in a month

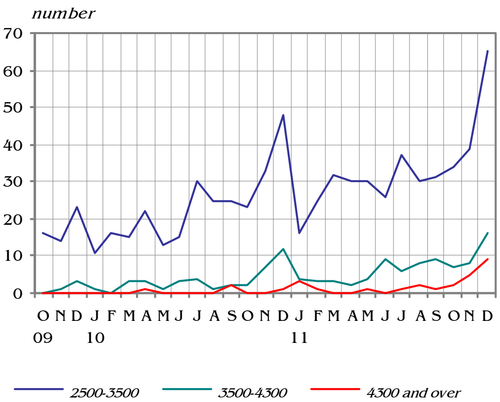


Share of payments in peak hours in the intraday payments



Source: Central Bank of Armenia.

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



Source: Central Bank of Armenia.

the share of payments exceeding these thresholds (2500 and more per hour) is not high; (ii) the share of payments executed within peak hours in total payments by number and especially by value trended downward; and there were no incidents actually recorded in that period of time.

It should also be noted that in assessing capacity-related risks the experts of the Operator considered the minimum, rather the maximum, level of the capacity of the system. At the same time, the operational availability of the system remains in compliance with international standards (see *Operational availability of the system* subsection).

<u>Operational availability of the system</u>

During 2011 there were only 5 incidents (spanning 30 minutes and somewhat longer) occurred in the software system *Operational Day* that affected sound operation of EPS. The longest incident was connected with the CBANet server failure which took some 3 hours. This however occurred in non-peak hours and high system capacity made it possible to close the day without extending the operational day.

The analysis showed that both the number and duration of incidents in the system were small to disrupt the system availability.

In the reporting period an estimated operational availability to EPS has been 99.4 percent, which is again a good indicator according to international criteria[38].

So, the EPS risk assessment allows assuming that the structure and reserve facilities of the system are more than sufficient to prevent possible systemic risks.

<u>CBANet availability</u>

During 2011 disruptions of the CBANet nodes reduced significantly (there were as few as 4 incidences). As a result, the operational availability of all nodes of the network was 99.99 percent and the calendar availability, 100 percent. Availability of nodes installed in Yerevan was 100 percent.

In the reporting period the number of lasting failures has reduced sharply. In the regions of Armenia the longest failures of the network were registered in Gegharqunik and Lori. The longest failure of nearly 7 operational hours was in Lori. However, the operational availability in that region has been high, 99.87 percent.

Nonetheless, considering that in aforementioned regions the EPS payments constituted up to 1 percent of the total EPS payments, one may conclude that the delays in

[38] The 2008 Financial Stability Report of the National Bank of Denmark states that operational availability for systemically important RTGS system, which is compliant to ESCB system requirements, should be very high, e.g. operational availability of TARGET was 99.65 percent, which is considered a good indicator.

interbank payments due to the disorders of CBANet regional nodes had just a minor effect on the total interbank payments, with no reported negative impact in terms of financial stability.

No disorders were recorded for Yerevan nodes.

In 2011 there were no reported incidents of disruption at head office subscribers, so both operational and calendar availability has been 100 percent, owing to existing online back-up facility.

In general, the hardware and software environment and reserve capacities of CBANet are estimated to provide for a sustainable EPS operation.

5.2. SECURITIES SETTLEMENT SYSTEMS

The settlement of securities in Armenia is carried out through 2 systems – the Central Depositary of Armenia (CDA) for corporate securities and the Government Securities Accounting and Settlement System (GSASS) for government (treasury) bills and securities issued by the Central Bank of Armenia.

During 2011 the GSASS reported execution of secondary market operations with a total amount more than AMD 2876631 million, which represented 61 percent increase in relation to the previous year. The GSASS-executed transactions constituted about 97 percent of operations in the secondary market. The GSASS remains to play a vital role in maintaining financial stability and considered as a systemically important system.

Transfers of securities through the GSASS of the Central Bank pertaining to the transactions with securities in the secondary market[39]

Operations	2009	2010	2011
OTC operations (trades and repo) in nominal value, AMD million	984374.736	1781748.727	2870957.967
Stock Exchange operations (trades) in nominal value, AMD million	2403.029	5802.422	5673.775
Total	986777.765	1787551.149	2876631.742

Source: Central Bank of Armenia.

The GSASS uses the DVP (delivery versus payment) principle for settlements with over-the-counter transactions. The stock exchange trades are executed by preliminary deposition of securities and monetary assets which allows

[39] *This statistical information reflects the GSASS-executed settlements and does not include transfers between sub-custodians executed for their clients.*

reducing the counterparty risk. The gross settlements and irrevocability principles applied in the GSASS rule out emergence of credit risk in the system.

During 2011 there were 11 incidents reported in the GSASS (8 reported in 2010).

There were 3 reported incidents that affected the timing for execution of transactions on markets and in the rest eight cases the final settlements were made in a timely manner.

One of these incidents affected the primary auction of government securities; the second one affected the accomplishment of a re-purchase auction; and the third one, the timeframes for final settlement of operations on the secondary market of government securities.

So, one may conclude that operational availability of the GSASS is strong and the system can be estimated as reliable and safe.

In 2011 further work was done to improve securities market settlement and clearing infrastructures. The Central Bank and NASDAQ OMX Armenia JSC further cooperated in providing for issuance and allocation as well as clearing and final settlement of corporate securities by the National Mortgage Company CJSC in charge of refinancing mortgage loans. In particular, procedures were developed to organize over-the-counter transactions for mortgage securities on a 'delivery versus payment' principle, and appropriate changes were made to the CDA securities settlement system. Furthermore, the securities trades on a 'delivery versus payment' principle will also be operational for all securities transactions the settlement of which is done by the CDA. This enables to reduce the counterparty risk.

In 2011 further work was done to introduce an automated system for repo operations of the Central Bank. The design and testing of the system has been accomplished and the pilot launch of the system is intended in the first half of 2012.

SUMMARY

Generally, the EPS operation is estimated to be adequate. However, the dynamics of the indicators points to need of carrying out regular monitoring so that problems in connection with the system capacity are dealt with and risks to the concentration of payments at the closing of the day are prevented. The GSASS operates on a sound basis and generates no systemic risks. So, in the financial stability point of view, the payment and settlement developments are within a comfortable territory of manageability and are not vulnerable to significant risks.

5.3. GUARANTY OF DEPOSITS

The Deposit Guaranty Fund has been established to facilitate the maintenance of financial stability of Armenia and enhancement of public confidence in the banking system by guaranteeing compensation of deposits of individuals and sole proprietors.

During 2011 deposits of individuals kept on growing.

At the end of the second half of 2011, relative to the end of the first half, the amount of deposits of natural persons has increased by about 18 percent and the amount of guaranteed deposits, by 17.4 percent. During the second half of 2011 the number of individuals holding guaranteed deposit has grown by 9.7 percent to 1178259 persons (excluding former ArmSavings Bank depositors who are registered in VTB Armenia Bank CJSC). In the reporting period, the share of depositors who hold only deposits in dram remained prevailing, making up 82.6 percent in total, as of the end of the second half of 2011. As estimated by the Deposit Guarantee Fund, the number of depositors who hold deposits not exceeding the amount to which the deposit is guaranteed accounted for roughly 98 percent of the total number of depositors.

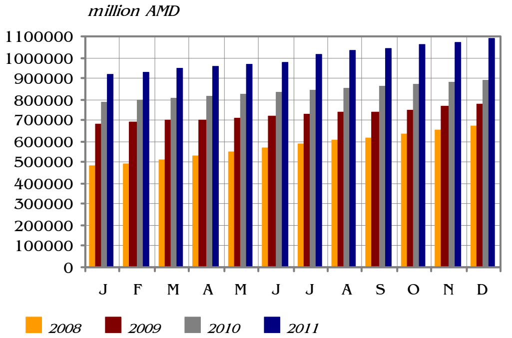
5.4. CREDIT REGISTRY AND ACRA CREDIT BUREAU

The Central Bank Credit Registry

The Credit Registry has been functioning since January 1, 2003. The Credit Registry is designed to collect data on credit history of borrowers, to process such information and provide it to commercial banks, credit organizations, and borrowers. The Credit Registry keeps records of loans in excess of AMD 1.5 million and loans in the amount less than AMD 1.5 million that were overdue and were classified. At the end of 2011 the number of loans recorded in the Credit Registry reached 1087912 from which 999729 were loans to natural persons and 88183 were loans to legal persons. The total number of loans registered with Credit Registry has increased by 194464 in relation to the first half of the previous year.

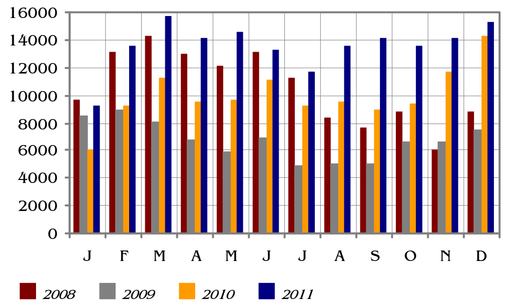
According to end-2011 data, the Credit Registry possessed information on 181305 loans in use and 906607 loans repaid. Relative to the previous year, the number of loans registered with the Credit Registry has grown by 1.2-fold, which points to livelier lending practices. Note, however, that the same indicator reported a decline compared with the period 2007-2008 (growth of 1.4 fold), due to the crisis situation in the loan market. In 2011 the average entry rate of information was 9000 registrations per day, representing a 12.5 percent increase compared to the previous year. This

The number of loans entered Credit Registry



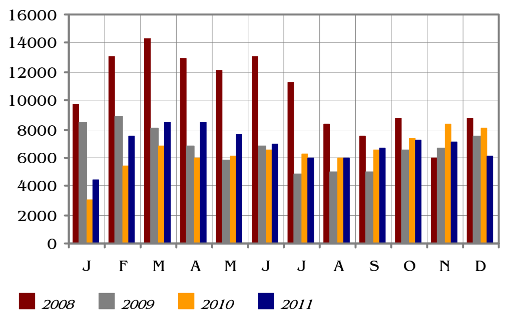
Source: Central Bank of Armenia.

The number of new loans and loans entered Credit Registry



Source: Central Bank of Armenia.

The number of requests received by Credit Registry



Source: Central Bank of Armenia.

allowed making assessment of credit risk of borrowers more effective, while reasonably preventing from non-diligent borrowers.

Most commercial banks and credit organizations further made their reporting to the Credit Registry on an automated basis, allowing for an increased efficiency of the system. Improved *Credit Registry* software of the Central Bank made it possible to provide banks and credit organizations with information on credit history within one day utmost after receipt of such a request. The share of errors in data presented to the Credit Registry has reduced to a minimum.

In the first half of 2011 the number of requests has increased in relation to the previous year. In the second six months the number has reduced, however. Nevertheless, during the year the number of requests has increased by 6530 in relation to the previous year, owing to the number of loans provided. Commercial banks and credit organizations are increasingly stressing the importance of credit history, especially when it comes to making loans to new clients. In 2011 the number of loans provided and the number of requests received reported an increase.

The Credit Registry's activity pushed business discipline of borrowers upward and scaled down the delays in installments, which reflects the clients' understanding of the importance of their credit history.

The amount of registered information and utilization rate in the Credit Registry would most probably increase during 2012 as well. Work done by commercial banks and credit organizations suggest that provision of information to the Credit Registry will be fully automated at the end of 2012.

More methodological change will come in to reduce weaknesses and raise efficiency of the Credit Registry.

The ACRA Credit Bureau

During 2011 the number of the borrowers registered with the ACRA Credit Bureau has increased by 21 percent against 2010 and amounted to 1195000 borrowers, as of December 31, 2011. Of this number, 97.5 percent are natural persons.

Relative to 2010, the number of loans available with the database has grown by 32 percent and reached 5592000 at the end of the year.

Any natural person or legal person is entitled to receive information from the Bureau concerning his personal credit history. For the legal persons to obtain credit history of its client or counterparty, it should enter into a service contract with the Bureau and receive consent in writing from the borrower.

The Bureau started providing credit reports since April of 2007. The number of credit reports provided since 2011 has grown by 65 percent.

The Bureau receives information from public utility companies, such as 'YerevanJur', 'HayJrmugh' and 'HayRusGazard'. The database also contains information on non-payments in an established timeframe. Negotiations with providers of telecommunication services such as 'ArmenTel', 'VivaCell' and 'Orange' regarding circulation of information are underway.

The Bureau also receives information from the Republic of Armenia Police and the Republic of Armenia Ministry of Labor and Social Issues. The Bureau now negotiates with the State Revenue Committee about the possibility of receiving information on tax dues.

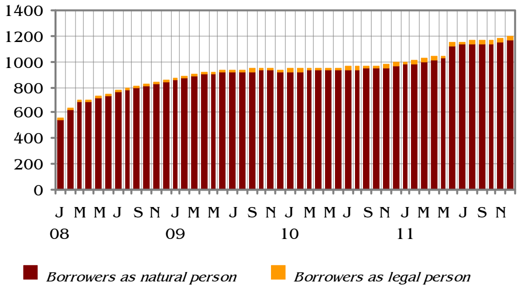
In 2011 an ACRA Score system was introduced with the Bureau. This credit scoring module, which is a statistical and operational version of credit risk, was designed to provide numerical assessment of credit risk of borrower. The credit scoring predominantly relies on statistical methods and reasonably prevents the application of expert assessment in order to produce numerical assessment on creditworthiness.

In 2011 a *Borrower Monitoring* module was introduced which allows the bank or credit organization to know if selected borrower has fulfilled its loan or financial obligation with any institution as well as any change of borrower identification (e.g. address, head of organization, etc.) included in the borrower's credit history.

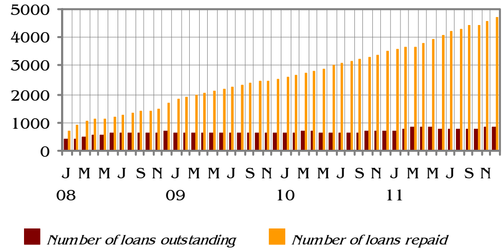
An Online Self Query service module was introduced with the Bureau which makes it possible to receive online reports from elsewhere via Internet. To do this, one will need to log on in the ACRA portal. This is a paid service and 'ArCa' virtual cards or MasterCard are accepted for an online payment.

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

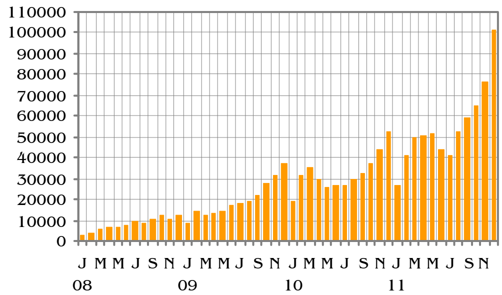
The number of borrowers registered in ACRA database (in thousands)



The number of loans registered in ACRA database (in thousands)



The number of reports provided by ACRA



Source: ACRA.

CHARTS

TABLES

ABBREVIATIONS

CBA	Central Bank of the Republic of Armenia
GDP	Gross Domestic Product
GNDI	Gross National Disposable Income
NSS	National Statistics Service
IMF	International Monetary Fund
UNO	United Nations Organization
CIS	Commonwealth of Independent States
ECB	European Central Bank
USA	United States of America
FDI	Foreign Direct Investment
RF	Russian Federation
IFRS	International Financial Reporting Standards
MLIC	Motor Liability Insurance Contracts
CDA	Central Depository of Armenia
GB	Government Bonds
TB	Treasury Bills
EPS	Electronic Payments System
GSASS	Government Securities Accounting and Settlement System