CENTRAL BANK OF THE REPUBLIC OF ARMENIA

FINANCIAL STABILITY REPORT

2008

2009

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", "Inflation Report" and "Armenian Financial System: Development, Regulation, Supervision".

Central Bank of the Republic of Armenia
Vazgen Sargsyan 6, Yerevan 375010
Phone: (374 10) 58 38 41
Fax: (374 10) 52 38 52
Internet website: www.cba.am

TABLE OF CONTENTS

PREFACE

The primary objective of the Central Bank of Armenia (CBA) to ensure price stability in the country is directly related to the issue of financial stability, with an account that serious deteriorations happening in the financial system may affect the implementation and effectiveness of the monetary policy. Meanwhile, macroeconomic and monetary stability helps to reduce the risks undermining the financial stability. The CBA is responsible for ensuring financial stability in Armenia, as provided for by the Republic of Armenia Law on the Central Bank.

Financial stability may be viewed as combination of such conditions under which the financial system, i.e. financial institutions, markets and market infrastructures, is able to be resilient to possible shocks and instabilities in order to reduce likely disruptions of financial intermediation. Ensuring financial stability involves disclosure of exposures to the main financial resources, mismanagement of financial risks and ineffective asset valuations, when savings turn into investments. For assessment of risks and instabilities the financial stability monitoring should be a continuous process that aims at revealing not only origins of risks but also their further advancement.

Financial stability report is published mainly to improve the financial institutions and public awareness on issues and measures taken to ensure financial system stability. The purpose of providing information on risk origins and vulnerability of financial stability is to prevent financial instabilities and crises.

In this report efforts are made to evaluate Armenia's financial system stability in terms of both the effectiveness of intermediation of the financial system and the capacity of the financial system to mitigate and absorb risks. The report represents the risks appeared in macro environment and financial system, their possible impact on the development of all sectors of the economy and financial system. Principal emphasis in the report is placed on the Armenian banking system risks and their trends since assets of domestic commercial banks account for more than 90 percent of assets of all financial institutions. Whereas the other two components of Armenian financial system – financial markets and financial infrastructures – have neither a large share in the financial system, on the one hand, nor are developed enough to have a significant influence on financial stability, on the other.

Massive work was done by the CBA in 2008 to draft anti-crisis measures and ease the adverse impacts of the crisis on the financial system. More frequent and detailed monitoring was carried out to examine financial institutions' risks and the overall financial system development trends, risks and financial stability obstacles in the country. To this end, appropriate stress-scenarios were worked out to identify financial institutions' risks under various critical situations and assess their losses. Results of such stress-scenarios were systematically updated and the possible risk level was monitored on a regular basis.

The CBA developed a package of crisis responding programs where a tool-kit of prudential anti-crisis instruments was suggested along with adequate application instructions, priority of actions and tasks and responsibilities. Appropriate legislative amendments envisage lengthening the terms of financial resource injections initiated by the CBA in support of financial stability of commercial banks.

In the first half of 2008, when the Armenian economy was experiencing external inflationary pressures, the monetary policy was at that time addressed to the price stabilization; whereas, in the second half of the year, when external inflationary pressures abruptly slowed down and the first signs of impact of international economic crisis appeared on the real sector of the economy and financial system, the CBA policy was additionally addressed to cover the stability of the financial system. The currency depreciation expectations outlined by slowdowns in capital and financial inflows caused additional strains in foreign exchange market and the CBA started a relatively active intervention in the exchange market, prioritizing the importance of financial stability of commercial banks. As the external inflationary pressures weakened, the CBA reduced Repo rates by 0.5 percentage point close to the end of the year, though it had been increasing throughout the year. Smooth shift to such a policy direction enabled the CBA to ensure both the price inflation targets as well as moderation of impacts of external risks spilled over to the Armenian financial sector from the global economy.

In March of 2009[1] the CBA discontinued sales of foreign currency in exchange market in order to stop further depreciation of the Armenian Dram. As a result, the Dram depreciated 22percent. This decision was made with an account that in the preceding five months the Armenian banking system could have adequately prepared itself to respond to the possible shocks expected after dram depreciation, had markedly increased own equity capital and had taken measures to adjust currency composition of assets and liabilities. Such actions helped the banking system to face abrupt challenges of exchange rate with relatively minor losses, rather than expected; in this sector the estimated loss to total capital made 2.0 percent.

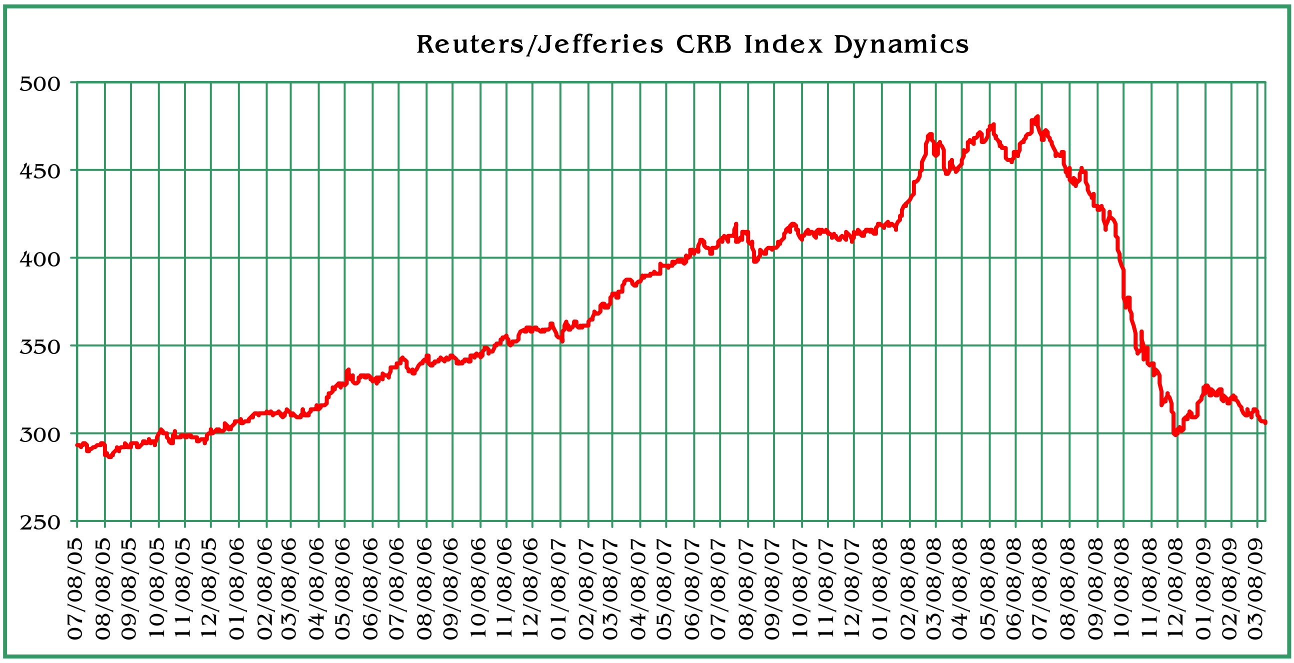
[1] *This report does not discuss currency depreciation implications recorded in 2009 as it covers only events occurred in 2008.*

1. DEVELOPMENTS IN WORLD ECONOMY

Over the period of 2007-2008 the world financial system has been facing severe times of instability. Along with deepening instabilities recorded in financial systems of advanced economies, further developments of global economy remain uncertain. In the initial phase of on-going financial economic crisis the sustained liquidity strain in financial markets has brought ultimately in more serious problems such as considerable decline in financial institutions creditworthiness and capital adequacy. Persisted distress has led to deteriorations of mechanisms supporting real economy, eventual downsizes in financial borrowings so vital for economy, and thus, making the financial crisis to grow gradually into an economic crisis. World's ever-known financial powerhouses, and not only they, have encountered difficulties of short-term liquidity and complete failure to attract financial resources in capital markets. Some of these financial institutions became bankrupt; others were acquired by rivals or at least were nationalized.

1.1. MACROECONOMIC ENVIRONMENT

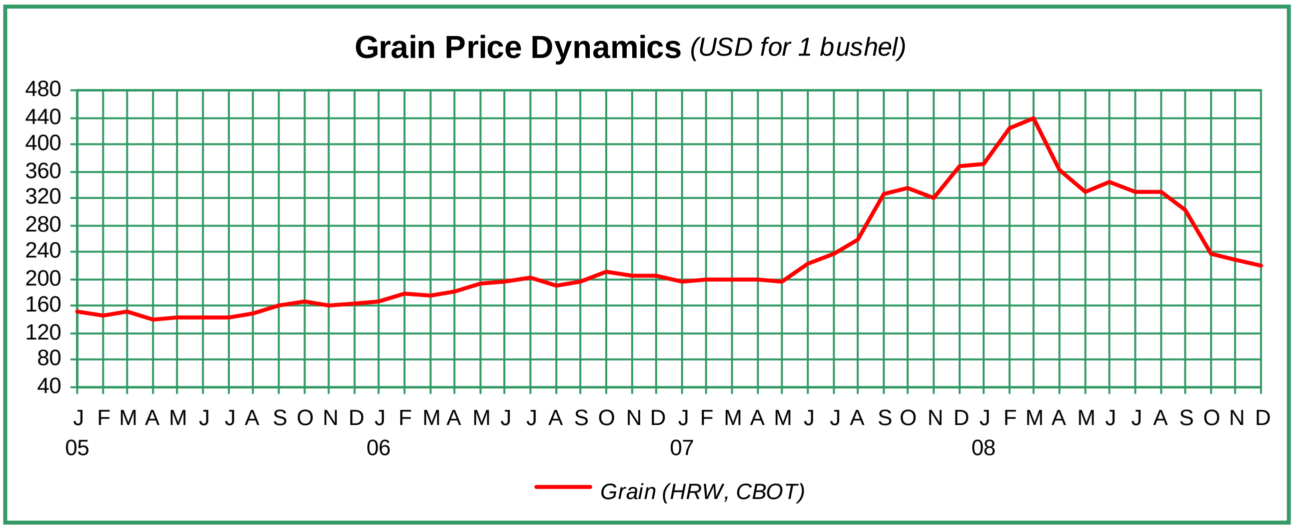
With further deepening of financial crisis, the 2008 prices of different assets categories such as real estate, energy resources, mine raw materials, metals, and food were set downward across price inflation forecasts made at the yearend of 2007. The prevailing price inflation automatically passed onto the first half of 2008; however, starting the second half, it sharply dropped down. In the first half of the year the Reuters/Jefferies CRB Index[3] rose by 30 percent and declined by 25 percent in the second half of the year. Sharp decline occurred in inflated prices substantially reduced incomes of export-oriented countries and especially those that export raw materials.

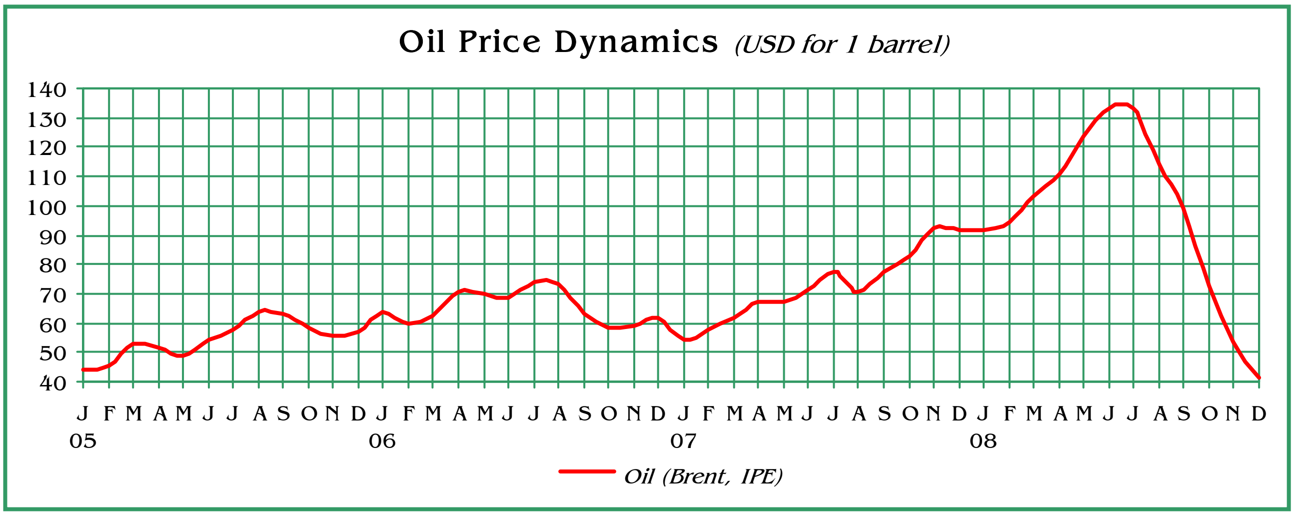


Source: Bloomberg

Grain prices the growth of which was the main cause of inflation in the developing economies in 2007 declined nearly by 40 percent during the year and made up USD 220 a bushel. It is mainly due to world demand fall as well as to generous yield recorded in 2008.

[3] *Historic integrated index reviewing prices of 19 items of raw materials.*





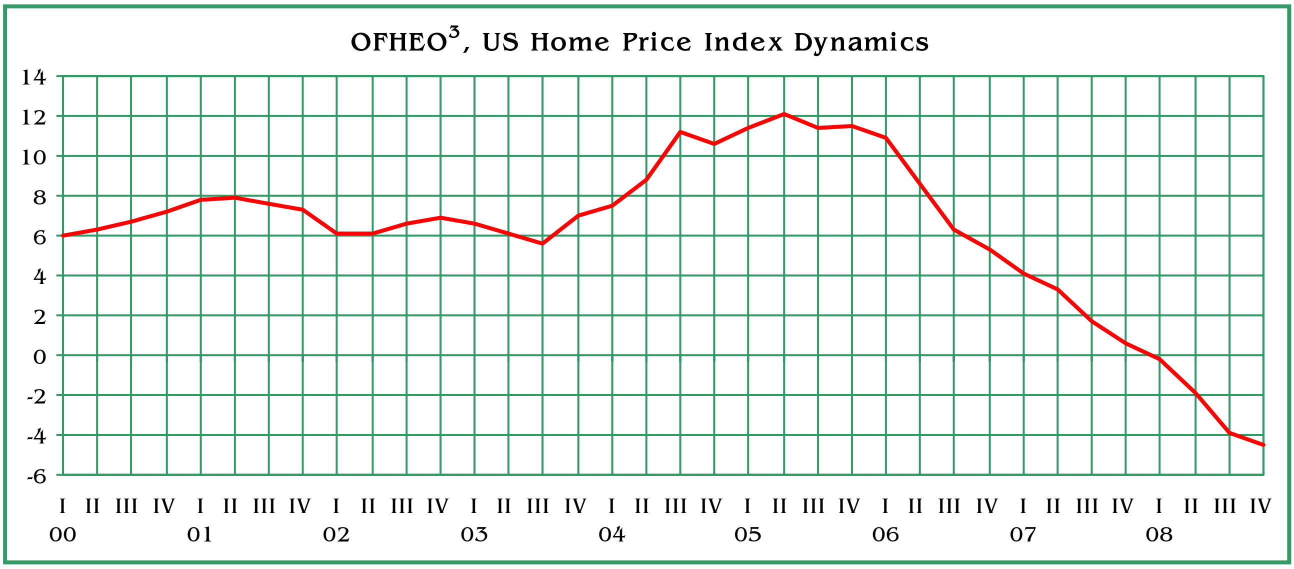
Source: Bloomberg

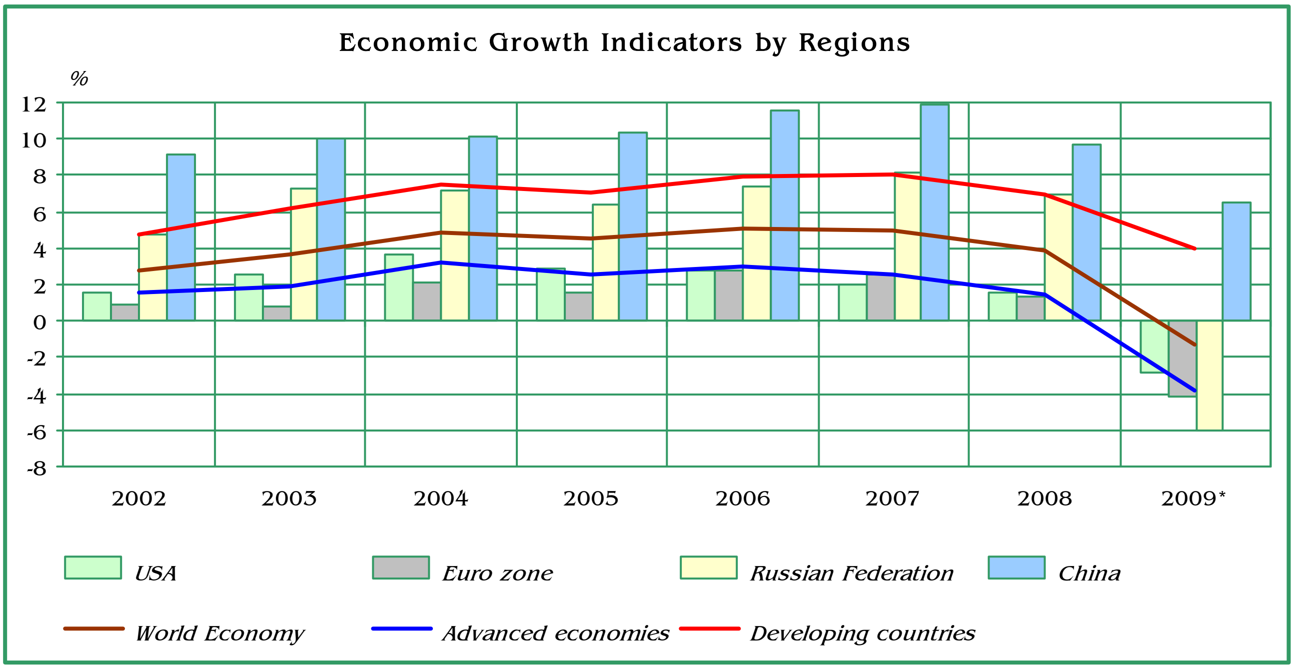
Oil prices remained highly volatile in 2008, and in December, compared with the previous period, the prices fell by 54 percent to 46.1 USD a barrel. This decline was recorded only in the second half of the year and reached 68 percent against July peak. The decline in oil prices compared with those of other commodities is much more attributable to unpredictable outflow of investment capital.

Based on current estimations of oil prices, an abrupt rise in oil prices will not be observed in the short run, in consideration of economic disruptions and a steep decline in industrial demand resulted from the devastating crisis. In mid-term perspective, however, a price-increase is possible if such demand grows up and oil extraction volumes keep downsizing.

Real estate markets in different countries also saw adjustments of prices that were artificially inflated by a speculative demand. Property prices have mostly dropped in developed countries as the terms for origination of mortgage loans were tightened still in an earlier stage of mortgage crisis while household spending slackened and economic growth slowed down. Because of uncertainties in property price expectations the amount of speculative investment reduced. Property price fluctuations in developed countries were expressed in diverse forms; in some countries due to lack of external financing prices went down, whereas the others kept rising up due to funds flowed out from deeply distressed stock markets to real estate market.

Persisting liquidity and confidence distress in world financial markets deteriorated the real economy development perspectives as well. To overcome devastating consequences of the financial crisis and boost financial intermediation governments were called to make impressive injections. These financial resources however failed to get to the real sector in adequate volumes, and were "stuck" in the banking system for different reasons. So it is evident that the pace of global economic development has slowed down dramatically by adverse impacts of aggravating financial crisis in terms of severe disruptions reflected in stock exchange commodity and real estate price falls, tightened lending conditions, declines in local consumption and investment, significant losses and bankruptcies of financial institutions. Some of advanced and developing countries entered an initial phase of economic downturn, with further disruptions expected in 2009.



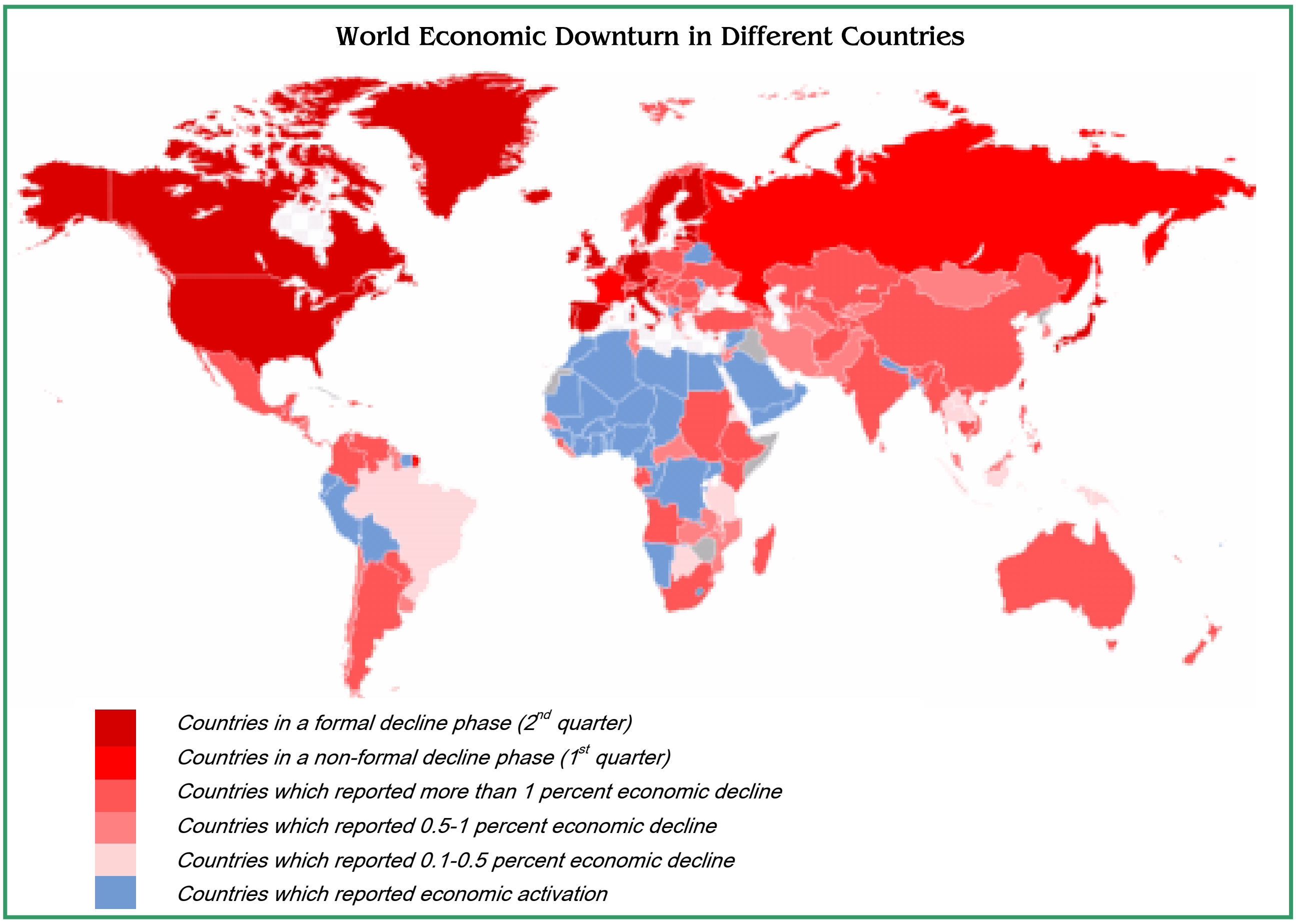


Source: World Economic Outlook, April, 2009

According to the IMF estimations, in 2008 global economic growth reached 3.2 percent, having declined by 2 percentage points against the previous year's indicator. Developed economies reported economic growth to have declined from 2.7 percent in 2007 up to 0.9 percent. Forecasts for economic growth in 2009 are pessimistic, regardless stimulating measures launched by the authorities. Vast government injections made to stimulate the economy widened budget deficit of these countries by exposing further macroeconomic development to possible risks.

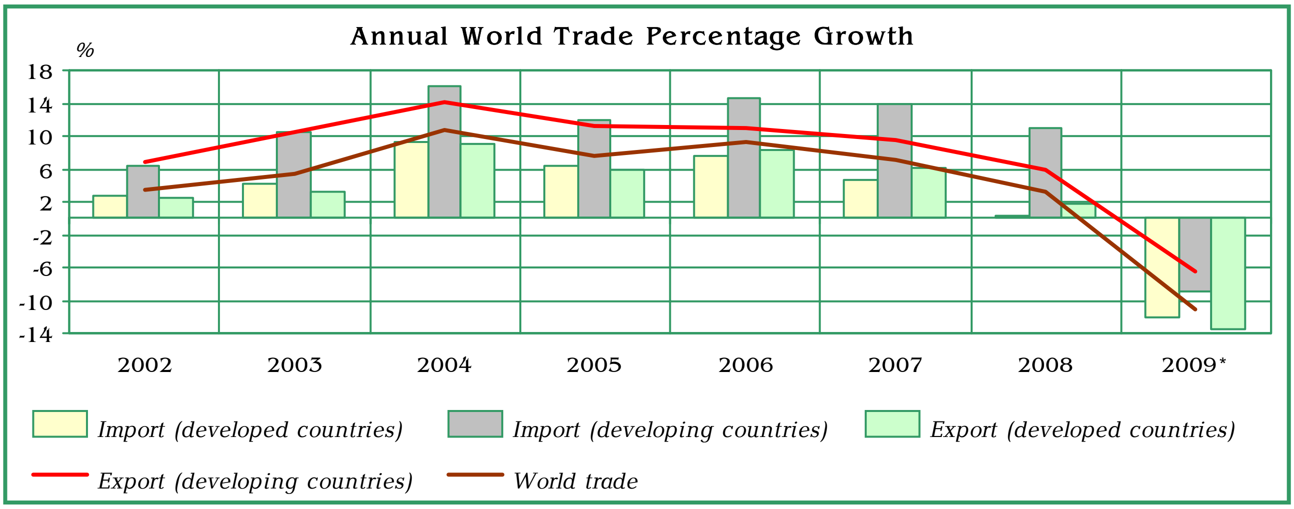
---

[3] *Office of Federal Housing Enterprise Oversight.*
[*] *The 2009 indicator in the charts is an IMF forecast.*



Source: Wikipedia.org

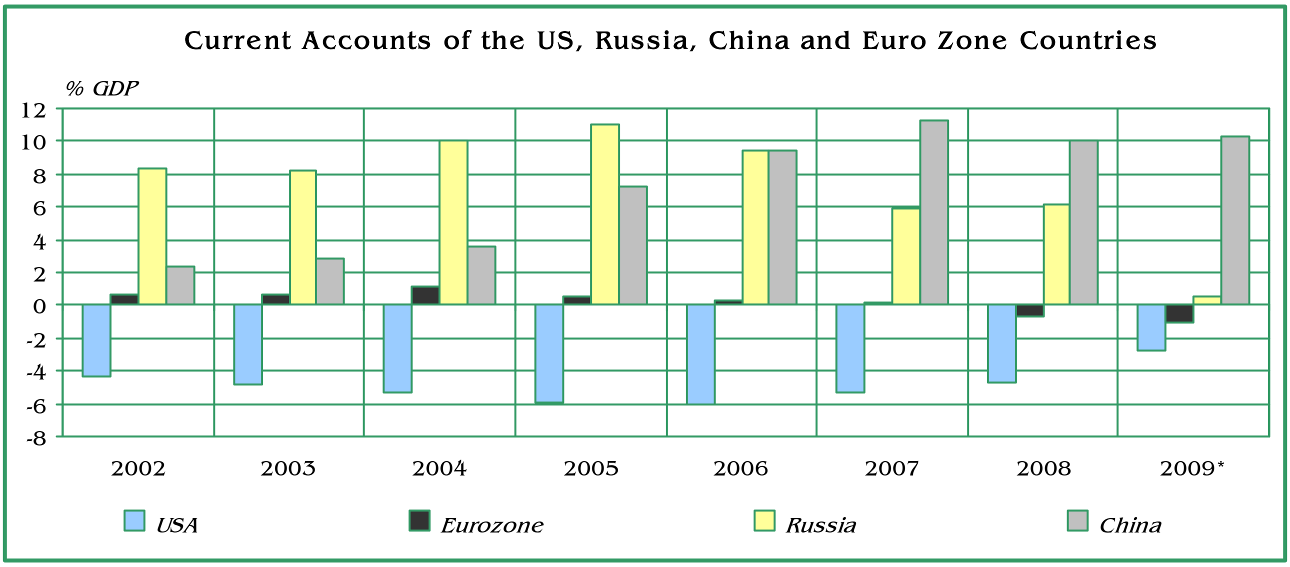
The growth in developing countries has been somewhat higher than its historic average level of 5.8 percent to have reached 6.1 percent. Nevertheless, signs of slowdown of economic growth coupled with further deepening of the crisis are evident. Economic activity, in such cases, is especially suffering due to a lack of access to external financing, tightened criteria set for borrowing, decline in capital inflow, low demand of developed countries for exports and raw materials and, as a consequence, lower prices. The economic slowdown relapses more vigorously in the developing countries that have close commercial ties with the US and European countries and strongly rely on external financing. Nevertheless, emerging economies displayed more resilience to the crisis than the developed countries by maintaining prudent margins of state budget deficit/GDP ratio (as a matter of fact, often owing to the constraints of possible public debt expansion).



Source: World Economic Outlook, April, 2009

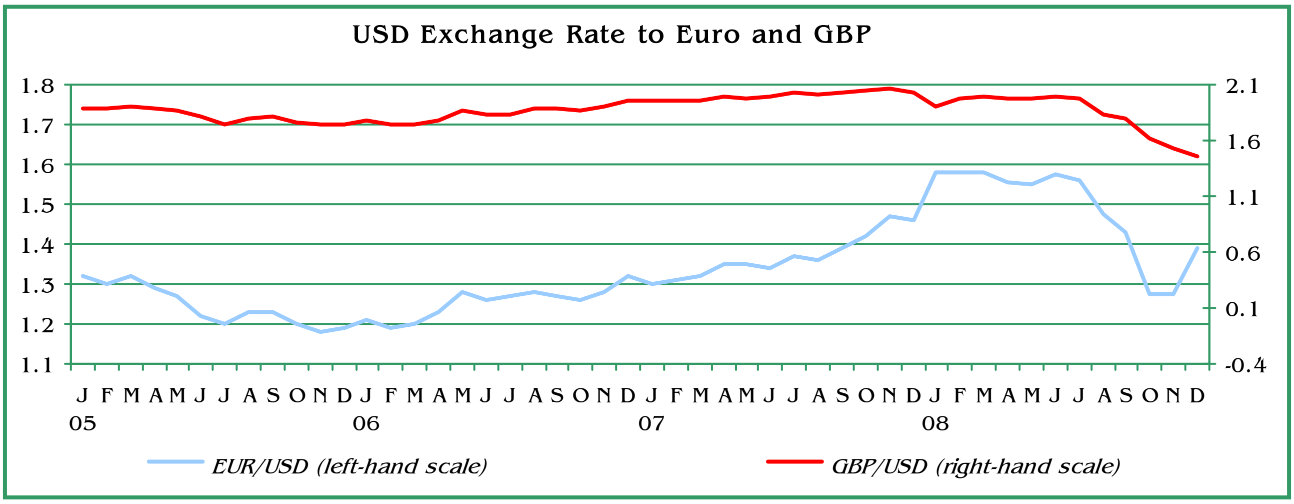
As a result of economic downturn recorded in the developed countries and further exposure of financial markets, the growth rate of the world trade decreased by 2.3 percentage points to 4.9 percent.

Economic recession of the United States in comparison with its partners, slackened domestic demand and continued US dollar depreciation contributed to the reduction of current account deficit during 2008, which kept on augmenting in the recent years. As a result, ratio of current account deficit to GDP has declined by 0.7 percentage point and reached 4.6 percent; moreover, if net oil import is not accounted, the reduction of the deficit is more essential. Along with import slowdown in the US, China's current account surplus decreased by 0.8 percentage point to 9.5 percent. The Yuan appreciation, too, contributed to the reduction of the current account deficit.



Source: World Economic Outlook, April, 2009

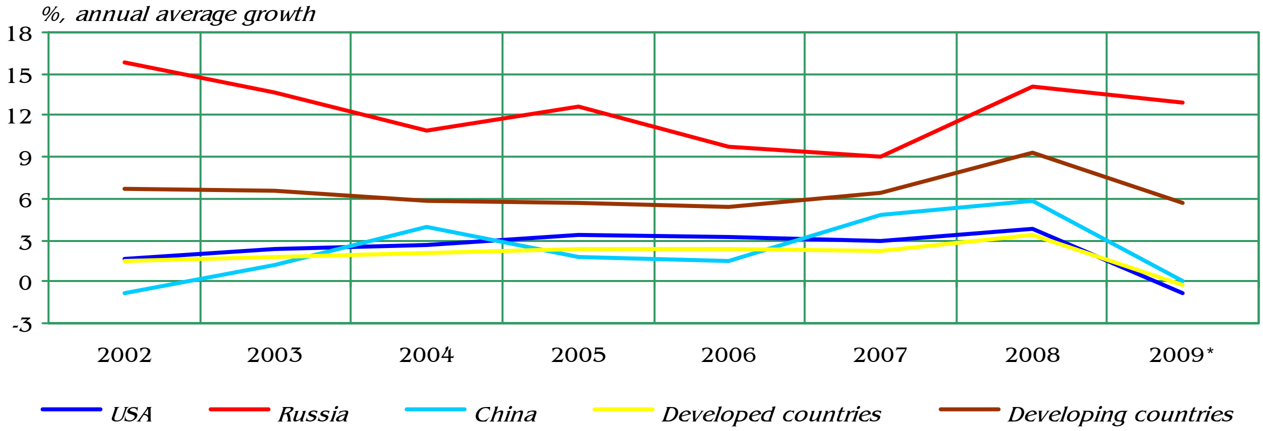
Global economic recession has its unique expression on basic currency exchange rates. During the year, the US dollar moved in the upward and downward directions: while in the first half of the year it reflected the previous year's downward trends, in the second half it started appreciating sharply vis-à-vis basic currencies. The Euro depreciated by about 5 percent against the US dollar in 2008, and the UK Pound Sterling – 28 percent. Such behavior is explained by pessimistic expectations of market participants about Euro zone economic perspectives and the slowdown of British economy.



Source: Bloomberg

There was a serious threat in the first half of 2008 that the economic downturn and high inflation would be likely to give rise to world economy stagnation. However, in the third quarter, due to reduction in global demand the prices on food, raw materials and other commodities began to fall, and inflationary pressures in almost all countries began to regress. Deflationary cases were more evident in the developed economies, mostly because of notable downfall in domestic demand and expectations. Nevertheless, the probability of inflationary pressures in such countries grew mostly in mid-run scenario, since at the present stage vast government injections, monetary policy interest rate cuts in view of stimulating and supporting the economy contain a potential for inflationary pressures in future. In developing countries, economic slowdown brought in lower-than targeted inflation rates. However, reduction in inflation has not been concurrent with global price decreases. Rather, it came in a delayed and limited manner as was the case with developed countries. The depreciation of national currencies in some developing countries was one reason that curbed domestic prices to adequately respond to global price decreases.

Inflation in the Selected Countries



Source: World Economic Outlook, April, 2009

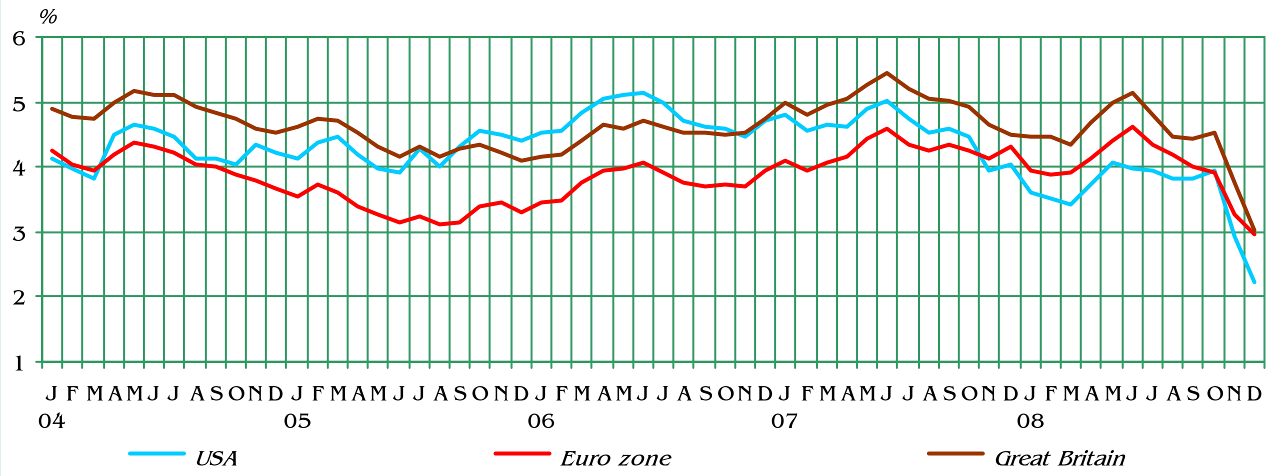
Based on the 2008 results, the world inflation was at a level which had been achieved only in the end of 90-s. The end of period inflation outnumbered the previous year's inflation of 2.2 percent to make up 3.6 percent. Meanwhile, a robust decline in private consumption was recorded during that period and economic crisis expectations by households became more pessimistic in the US, Japan and developed countries in Europe, which however had no restrictive impact on inflation. As compared with the previous period, inflation has progressed in the developed economies by 3 percentage points and reached 9.4 percent; world price decline may later on pass over to the year 2009.

1.2. INTERNATIONAL FINANCIAL MARKETS

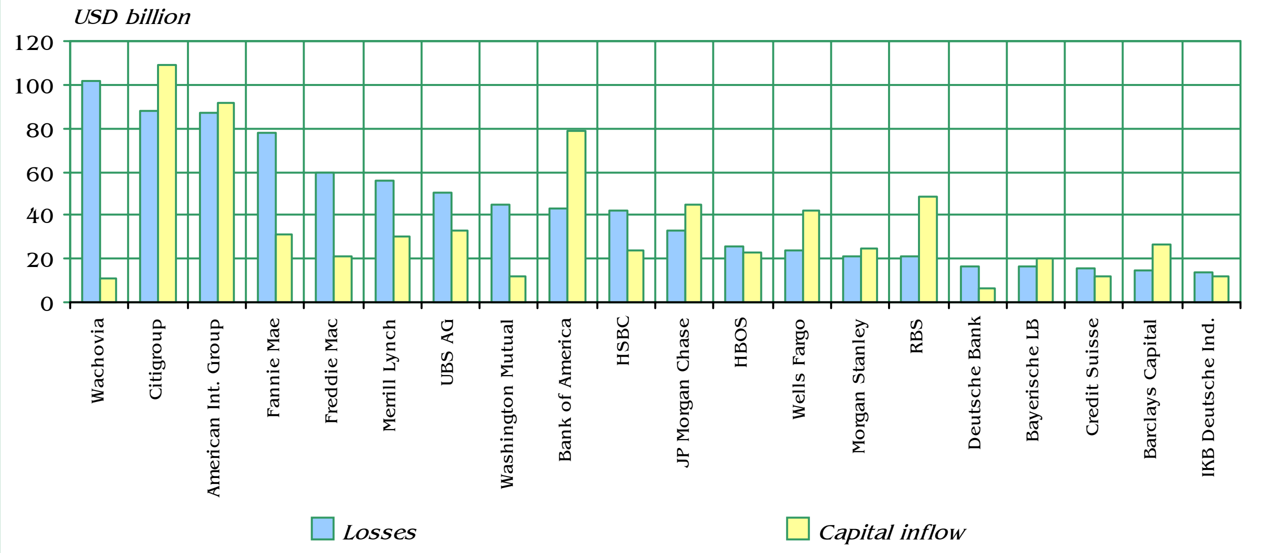
International financial markets remain under marked distress throughout 2008. Central banks and governments of the developed countries have taken steps towards replenishing the increasing short-term liquidity gap through expanding their tool-kit and injection volumes and launching mechanisms to ease monetary conditions. The positive effect of such measures was partially offset due to discouraged expectations for economic recovery that originated from bad loan write-offs, procedural failures in short borrowings market and slowing of economic growth. High inflationary environment shaped in the first half of the year and the above negative expectations have resulted in reduction of the demand for government bonds in the developed countries. Over the second half of the year, even under the positive expectations resulted by state preventive measures government bonds' yield decreased.

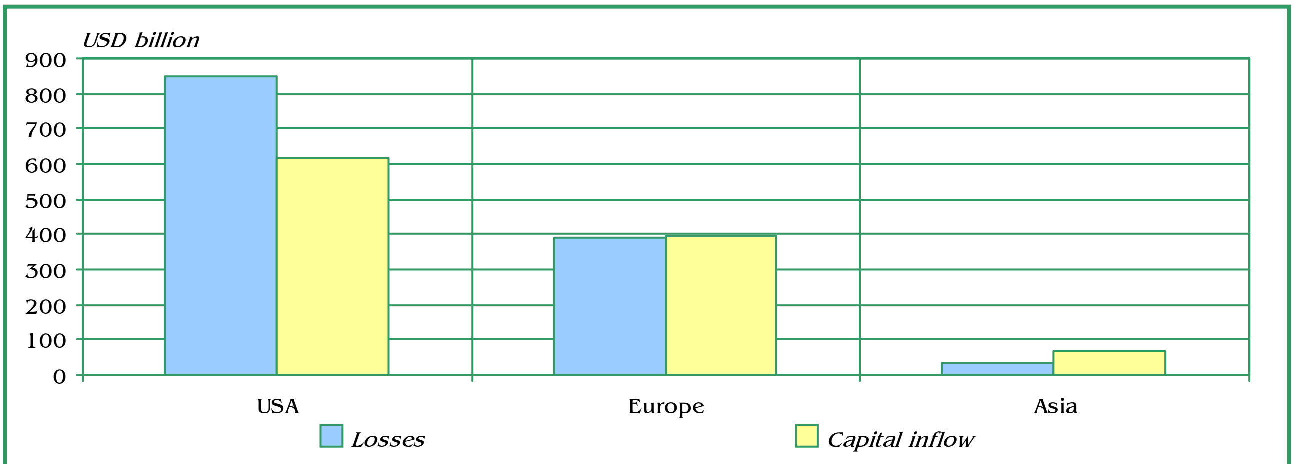
Negative impacts of mortgage crisis became apparent when major global financial institutions announced their losses incurred during the 2007-2008 period. Regardless the wide-scale anti-crisis measures launched by the governments and monetary authorities, financial institutions continued to incur losses from the so-called "toxic" securities; the injected liquidity failed to reach the economy in equal volumes. According to IMF estimations, starting from the second half of 2007 until the fourth quarter of 2008, banks have written off a total of USD 580 billion-worth assets, 95 percent of which by the US and European banks. At the same time, a total of USD 450 billion-worth capital injections have been made mostly by the US and European banks. In 2008, capital injections were made mostly from the state budget funds under the anti-crisis programs, whereas capital injections into financial institutions in 2007 were done by private investors.

10-year Govrnment Bond Yield



Financial Institution Losses



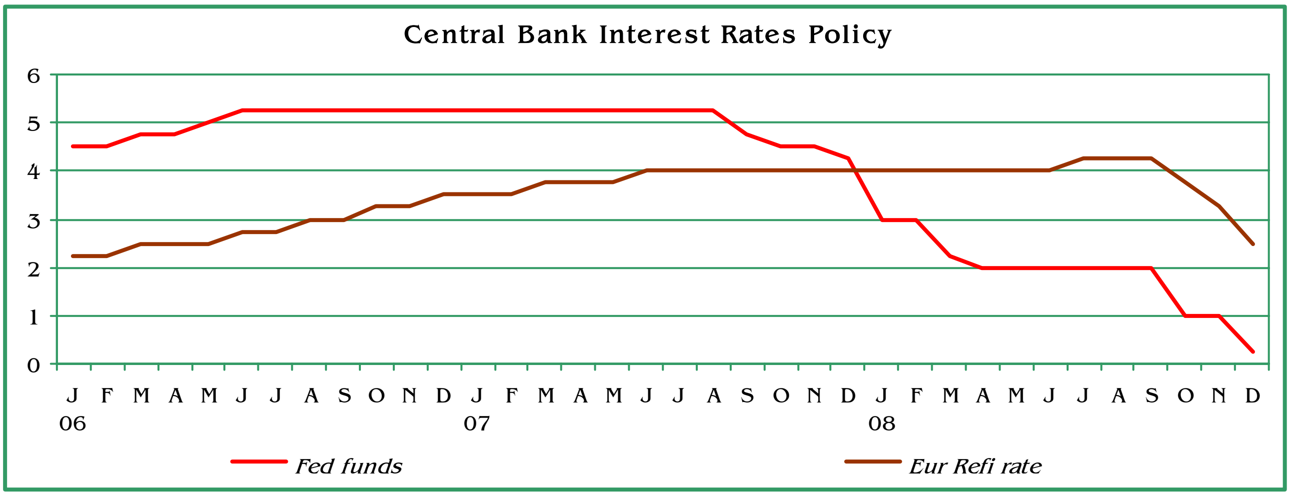


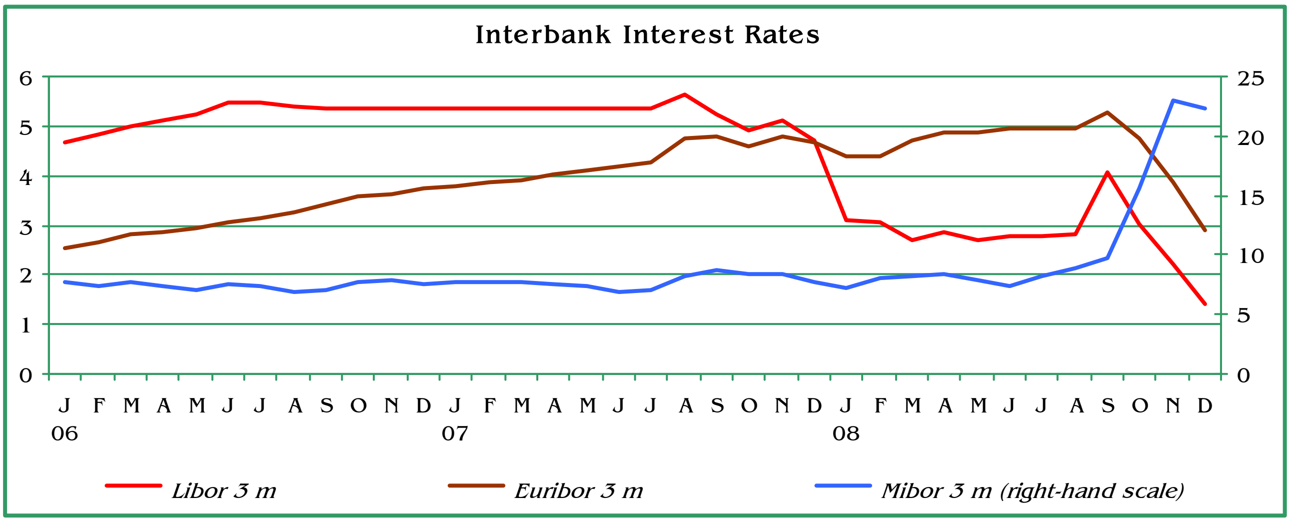
Source: Bloomberg

Existing uncertainties in the economic growth outlooks and the growing credit risk prompted banks to tighten lending criteria for corporate businesses and households. Strict lending policies and strained liquidity have blocked domestic economy lending which, in its turn, led to an economic slowdown.

In 2008, liquidity crunch in financial markets has intensified due to a fall of creditworthiness of the main partners and price uncertainties of assets usable as collateral. Measures taken by different governments (e.g. guarantee for interbank liabilities, large liquidity injections) have had only a temporary effect on the problem. To overcome the liquidity crisis the European Central Bank and the US Federal Reserve Bank have gradually decreased the refinancing and Repo rates up to historical new minimum levels.

FOREX markets have been sensitive enough to crisis developments, too. The US dollar kept on depreciating vis-à-vis the basic currencies throughout the first half of 2008, which was underpinned by the continued declines in the US Federal Reserve Bank refinancing and Repo rates, pessimistic projections for the US economic activity, collapse of major financial institutions. The second half of the year was prominent for the US dollar appreciating amid the launch of the US Government anti-crisis programs and oil price fall-down. This was partially conditioned by the economic downfall in the European economies leading to weakening of the European currency.

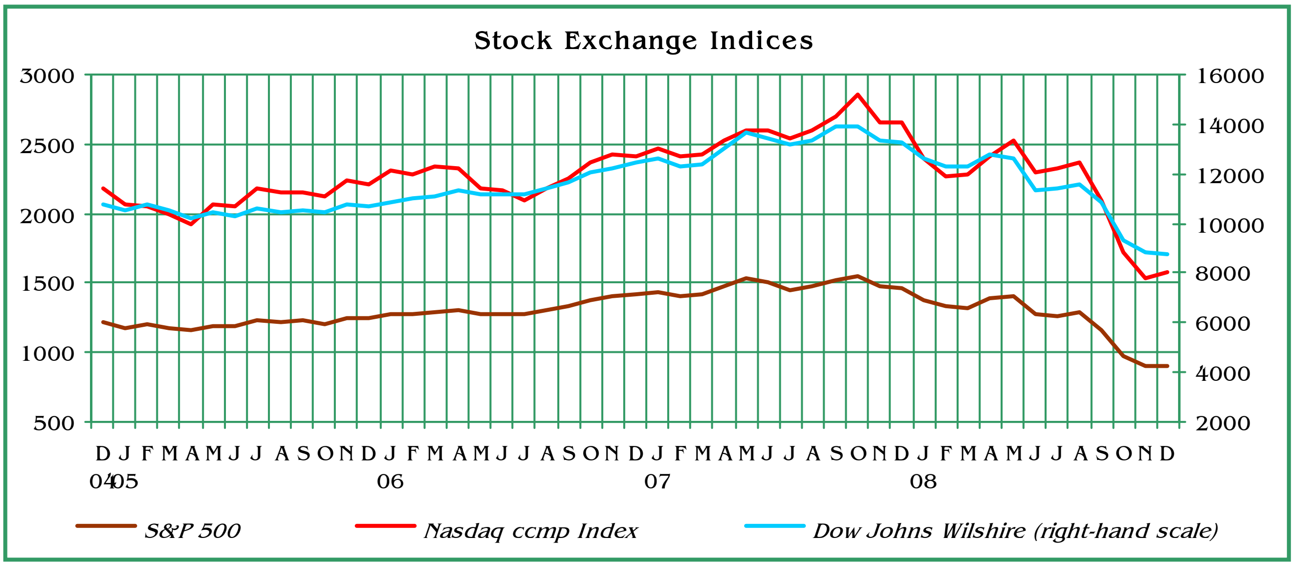




Source: Bloomberg

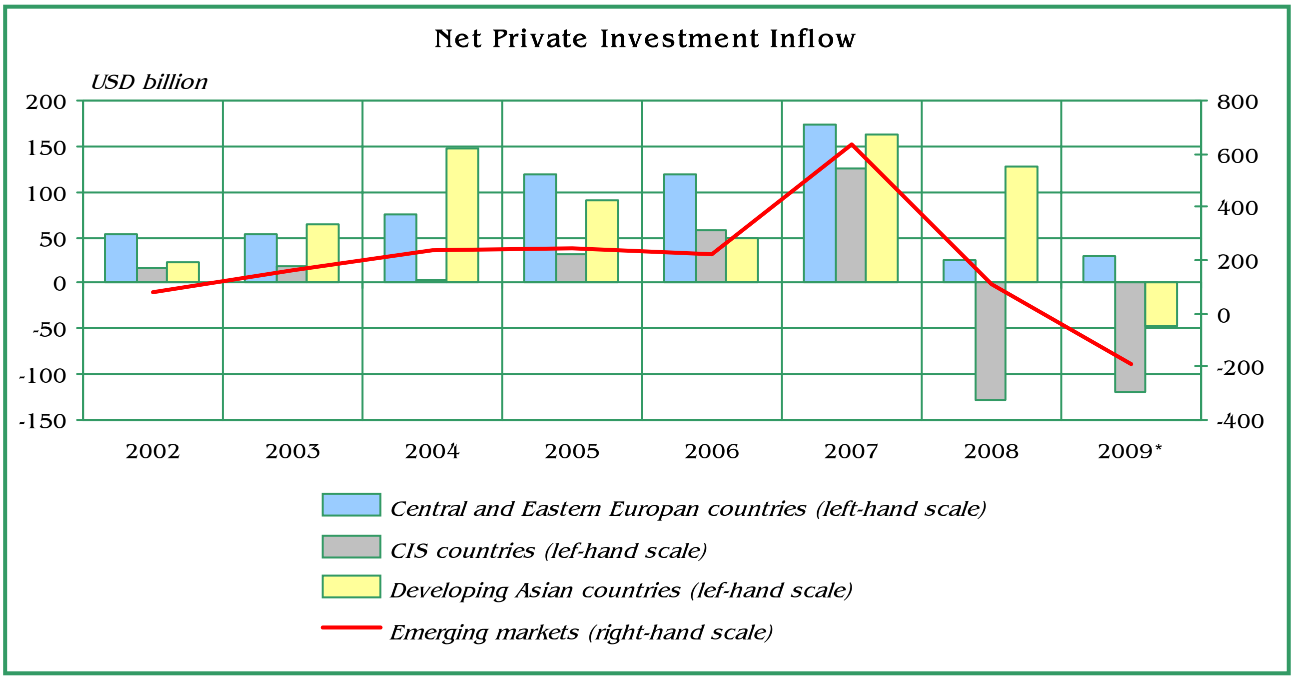
In developing economies too, financial institutions have faced liquidity problems. Banks continued tightening lending criteria; in the meantime there have been lesser opportunities for funds attraction, with gloomier economic growth outlooks. Some countries were forced to reduce reserve requirement standards, expanded the list of collaterals eligible for the central banks financing and released the monetary criteria in order to manage liquidity challenges.

In interbank market, parallel to the crisis acceleration and further spread, the increasing losses in financial and non financial corporations and growing uncertainties about economic progress, volatility of shares and government securities in stock markets has increased. New challenges of crisis outburst in 2008 caused a deep price index decline in stock markets. Collapse of Bear Stearns Bank, nationalization of Northern Rock Bank and outstanding rise of oil prices recorded in the first half of the year were crucial for July global decline in stock markets. Bankruptcy of Lehman Brothers, nationalization of AIG insurance company and Fannie Mae, Freddie Mac Agencies were red flags, triggering a mass departure of investors from almost all the stocks. These events gave rise to new historic records of crumbles in stock markets.



Source: Bloomberg

Because of the risk exposures resulted from the crisis in the developed countries investors have significantly curtailed their positions in assets of these countries. Since the beginning of 2008, capital inflow to the developing economies, particularly to the CIS countries, has notably slowed down. Compared with 2007, net capital inflow to the developing and emerging countries declined in 2008 by 82.7 percent, on part of the CIS, making up to 201.7 percent; in the latter case capital inflow declined, whereas capital outflow increased.



Source: IMF "World Economic Outlook, April, 2009"

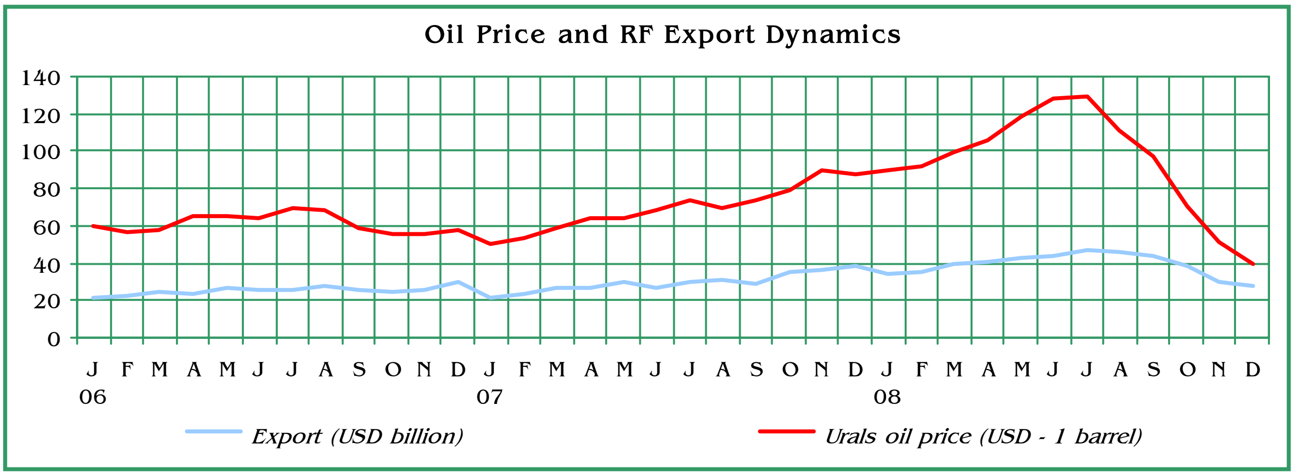
1.3. RUSSIAN FEDERATION

Developments in the Russian Federation are of essential significance for the Armenian economy, as Russia is considered one of major trade partner countries to Armenia, and Russian investments to Armenia's different sectors of the economy are increasing day by day. There is a large number of Armenian nationals who live or seek seasonal jobs in Russia and make notable money remittances to Armenia.

Throughout 2008 the Russian economy has been progressing in an uneven and diverse manner. In the first half of the year the Russian economy has kept developing evenly, mostly fed from large export income and growth of bank lending, whereas the second half was challenging and substantially influenced by an advent of the global crisis. In the fourth quarter of the year macroeconomic indicators began to show the first signs of the impact of the crisis. With a descending pattern noticeable quarter on quarter, the economic growth rate reached 5.6 percent, having declined from 8.5 percent in the first quarter (against the first quarter of the previous year) to 1.1 percent in the fourth quarter (against the fourth quarter of the previous year). Since July a seasonal decline in export-oriented sectors was reported and, starting November, a decline was observed in industry sectors (chemical industry, metallurgy and machinery), spreading on construction and transport sectors. These sectors were most vulnerable and exposed to annual deteriorations (10.3 percent decline in industry). The main cause for economic downturn in Russia lied in tightened lending conditions, export price downfall and external financing constraints. While studying financial stability indicators of Russian enterprises it became evident that Russian companies depend much on external funds. Own funds to assets ratio of such companies decreased by 5-10 percent against the previous quarter. Construction and retail trade most of all depended from the external financing because of the above said factors.

Investment as well as consumption rates kept declining through the year; investment has grown by 13.3 percent (against 121.1 percent in 2007) and consumption fell by 11.5 percent (against 13.6 percent in 2007). Consumption rate decrease was accompanied with slowdowns in real household income and wage. Real wage growth rate reached 9.7 percent in 2008 going down against the same period by 7.5 percentage points. All this processes were fuelled by an increasing unemployment rate of 4.3 percent.

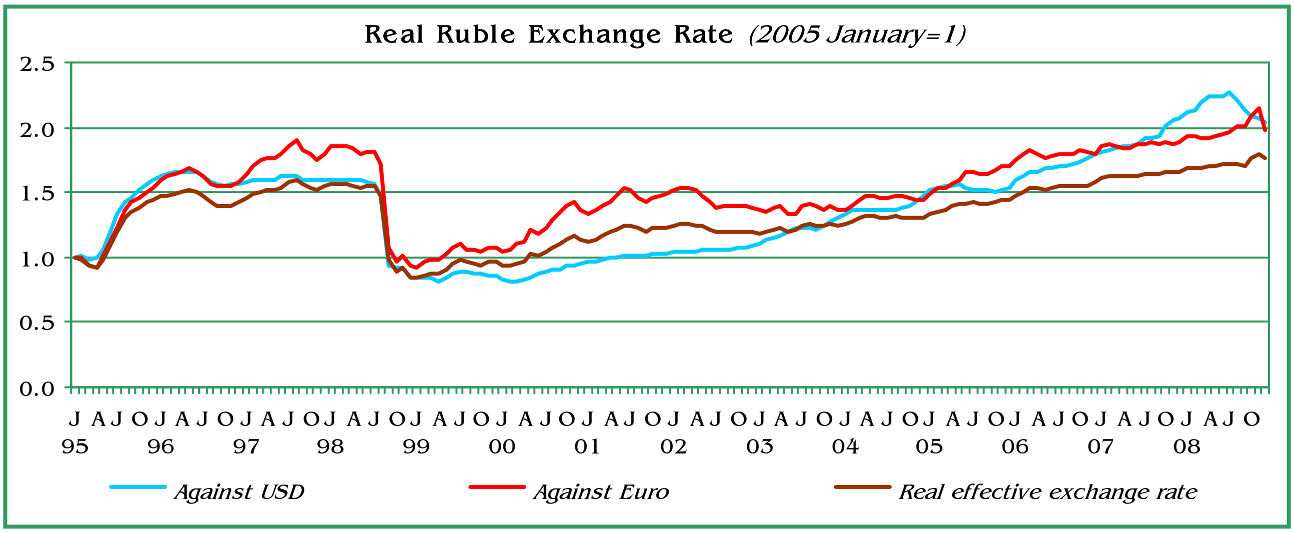
Export of goods increased in 2008 by 32.8 percent (against 16.8 percent in 2007); however, it began to fall down starting from the fourth quarter owing mostly to price factors, namely fuel and raw material. Import of goods also increased, reaching 30.4 percent (against 36 percent reported in 2007).



Source: "RD\F social-economic development in January-December"

In 2008 the balance of payments of Russian Federation has been drastically divergent from the previous years' developments (such deviation has not been observed since 1998), and caused the external reserves decrease substantially. The outflow of the US dollar denominated capital and financial resources exceeded the total capital inflow in 2005-2007. Because of capital outflow in 2008 Russia's external reserves dropped by 10.8 percent and amounted to USD 427.1 billion.

Under the circumstances of the growing capital outflow observed in the third and fourth quarters of 2008, the Russian ruble sharply depreciated due to the ruble exchange rate pressures. In this situation, the Russian Central Bank resorted to a more flexible exchange rate policy by expanding, on a more frequent basis, the borders of a bi-currency basket and opting for a gradual depreciation of the ruble. In the fourth quarter of 2008 the year-on-year depreciation of the ruble nominal exchange rate vis-à-vis the US dollar has been 10.6 percent, and 12.4 percent against the previous quarter.



Source: "RF social-economic developments 2008 January-December

In 2008 inflation was 13.3 percent – the highest level ever since 2002. High inflation was determined by two key factors - external and internal. External factor was associated with the shocking rise of fuel and food commodity prices occurred in international markets since the second half of 2007. Internal shock was triggered by increasing purchasing demand by households over the past two years, as well as the rise in public expenditures, wages and public utility services. Slight inflation decline recorded in recent months in 2008 has been a result of declined purchasing demand and world price downfall. To curb inflation from progressing and prevent the aversion to the ruble, the Central Bank has twice raised the rate over the past quarter and set it at 13 percent in the yearend.

SUMMARY

The Armenian economy incurred the impact of global economic and financial markets adversities since the fourth quarter of 2008. The Armenian banking system, free of dependence over the foreign financial markets on short-term liabilities, has been able to safeguard itself from possible influence of the 2007-2008 global financial turmoil. Unlike the preceding year, the negative events spilled over to the real sector of the economy and the slowing of capital inflow in 2008 have adversely affected the development of the domestic banking sector, mainly in the form of deceleration in lending growth rate.

Downfall of global prices of oil products and basic consumables has brought to a deflationary environment. As a result, dropped raw material and metal prices had an adverse impact on the country's mining and metallurgy industries, hampering their development perspectives.

Majority of different forecasts for 2009 made for the Russian economy assumed an economic decline which could cause a subsequent downfall in amounts of remittances and factor income[4], with a possible decline in external trade and economic cooperation with Russian Federation.

---

[4] *Detailed in section "Net factor income and remittances".*

2. FINANCIAL STABILITY IN ARMENIA'S MACROECONOMIC ENVIRONMENT

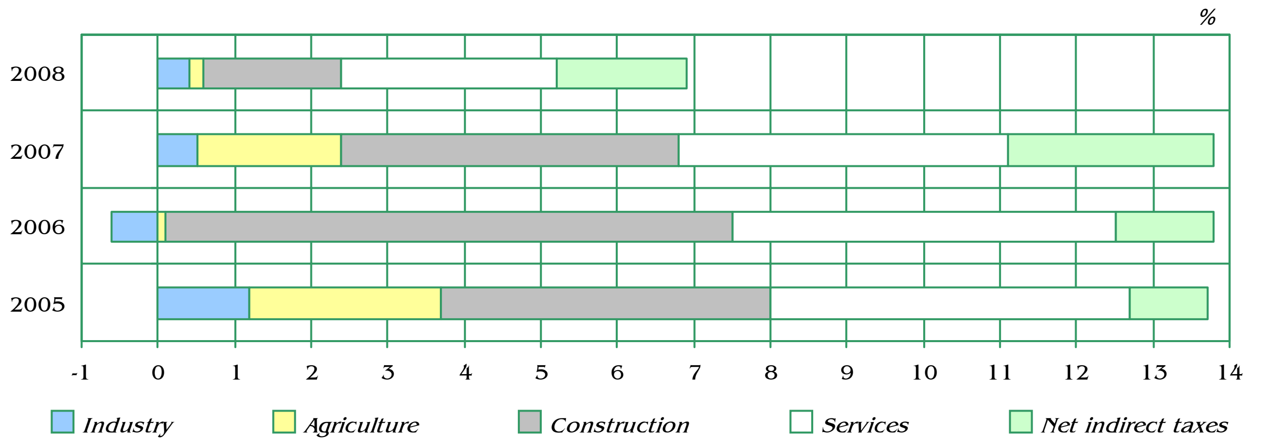
2.1. MACROECONOMIC DEVELOPMENTS

In the context of financial stability comprehensive progress in real and external sectors as well as stable prices of certain assets which are important for ensuring sustainable income growth for households and businesses, i.e. customers of financial institutions. The above factors and those that are related to the Armenian economy will be discussed in further sections of this report.

Global economic crisis, as compared to 2007, had rather a deteriorating impact on Armenian economy in 2008. The 2007 Financial Stability Report highlighted the mining sector, as well as reduction of capital inflow and private remittances as sectors with most probable exposures (as a result of dropped prices and declined demand in foreign markets). Armenia's economy began to feel the predicted impact of the global crisis starting the fourth quarter of 2008.

However, the first quarters of the year were more or less stable still indicating two-digit growth, moderate inflation. In the fourth quarter, macroeconomic indicators changed downward showing negative trends. In 2008, the GDP growth rate was 6.8 percent which was half the level recorded in the previous year (in 2007 it was 13.7 percent). Over the first three quarters the GDP growth rate was has been 11.0 percent year-on-year. In the fourth quarter, nevertheless, it has declined by 1.2 percent year-on-year due to construction, agriculture and industry. High economic growth rate has been fuelled by the rise in construction and service sectors over recent three years. Armenia has the highest rate of GDP among the CIS economies (excluding Azerbaijan) most likely because of the fact that the economic crisis has arrived in Armenia at a later date.

Economy Sector Contribution to GDP



Source: Republic of Armenia National Statistics Service (RA NSS)

Agriculture has grown by 1.3 percent (against 9.6 percent in 2007). The growth rates have reduced considerably in plant vegetation, whereas animal breeding sub-sector sustained its growth at 3.5 percent in annualized terms.

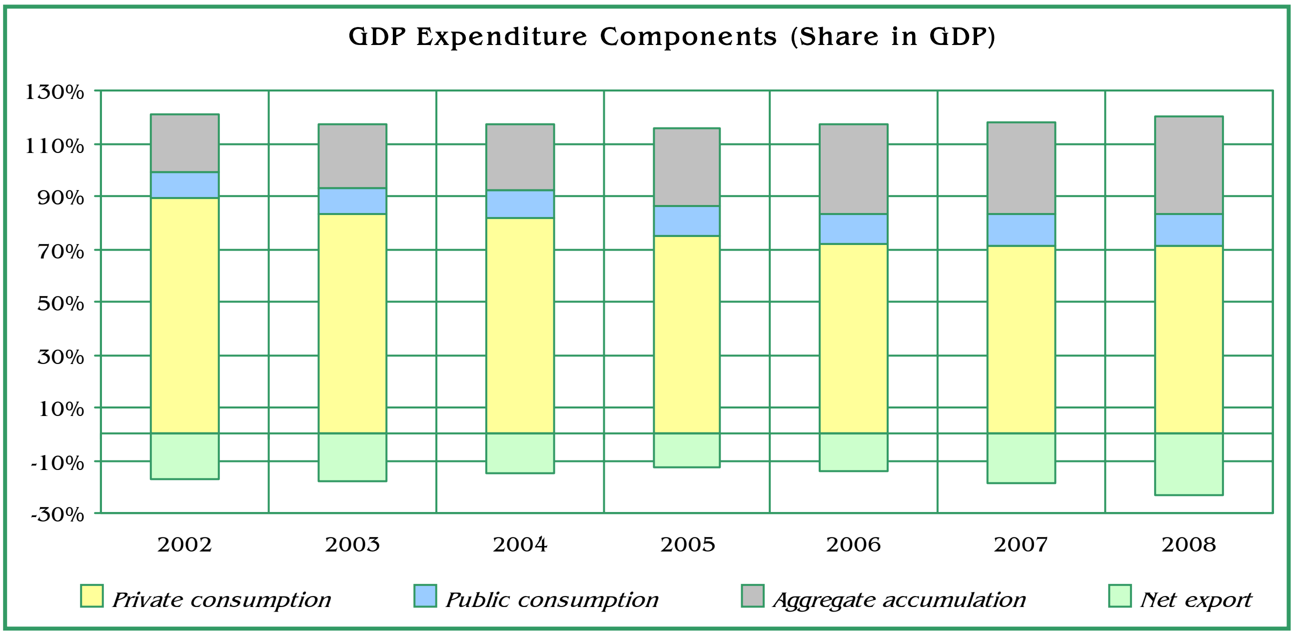
With a 1.6 percent decline recorded in the closing quarter, annual output growth reached a mere 2.4 percent. The real industry growth indicator incurred a restrictive impact of the decline in metallurgy and chemical industry by 9.6 percent and 14.8 percent, respectively. The decline in these sub-sectors was driven by steep drops in international metal prices and slackened demand for synthetic rubber. Previous years' levels were maintained only in regard to food industry and, with slight declines, to building materials and energy sectors.

In the past years, increased amounts of private remittances and wages as well as low unemployment rate all have contributed to the growth in construction and services. However in

2008 (especially in the fourth quarter), growth rates of private remittances slowed and uncertainties with regard to further economic development grew. In 2008, construction funds channeled from public sources were cut by nearly 50 percent, and the main growth of the sub-sector was fuelled by construction financed by organizations, i.e. construction financed by organizations has grown by 63.4 percent.

With households income reductions the value added rate in service sector, especially that of retail trade, has declined. As a result, the growth rate in services in 2008 amounted to 8.5 percent against 13.3 percent recorded in the previous year.

Lending initiatives have been successful due to improvements in construction and services sub-sectors with a slight decline observed in loans portfolio quality. However, such declines were not crucial for the banking system as construction lending has a small share in total banking portfolio and is not much concentrated among banks. Service sector[5] loans, although accounting for nearly one quarter of banks loan portfolio, still has a low concentration by individual banks. Lending risks of these sectors are basically reliant on changes in household incomes. Over the last quarter of 2008, banks were extremely cautious about lending to the small and medium size enterprises as well as major businesses and, if provided, they have to use tightened lending policies[6]. Long-term loans were under a primary focus, relevant lending usually made through reducing the payment periods. Banks reported that they had to pursue a more cautious and prudent policy to handle the possible risks imposed by the global financial crisis.



Source: RA NSS

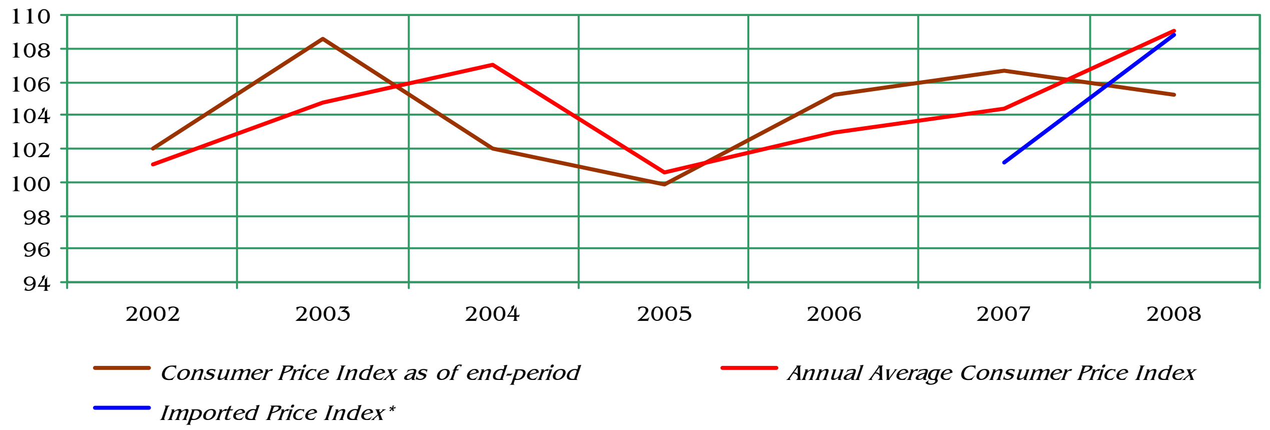
On the GDP expenditure components side, consumption growth rates were halved in comparison with respective figures reported in 2007, due to decline in real household income expressed by the slowing of private remittance and salary growth rates. Growth of private consumption in 2008 was 6.4 percent and that for state consumption - 18.9 percent. Growth of aggregate investments was rather high averaging in the range of 16-19 percent and because of sharp downfall in the fourth quarter the annual growth rate made up 5.9 percent. The decreased volumes of export and sustained increases in import volumes in 2008 pushed negative balance of net exports in the GDP go up by 4 percentage points and reach -23 percent.

As of yearend 2008, the end of period inflation remained within the range of the target of the monetary policy (4 ± 1.5 percent) and reached 5.2 percent. Average annual inflation made up 9.0 percent. Inflation has been different in two halves of the year. In the first half, it totally maintained the inflationary pressures derived from international commodity markets, whereas in the second half, particularly in the fourth quarter, it retrieved due to a fall in prices of basic food and fuel

[5] *Include: wholesale and retail trade, transport and communication, public food and other sectors.*
[6] *Source: the CBA 2008 December survey "On Loans made by the banks and credit organizations".*

commodities in the world. During the year, the CBA conducted an adequate interest rates policy. Under inflationary pressures, it has gradually increased the Repo rates and decreased them in the yearend when external deflationary environment began to affect the domestic commodity markets, promoting additionally to the economic activity. Results recorded for the year show that Armenia has had the lowest inflation among the CIS countries at that time[7].

Consumption and Import Goods Price Indices*

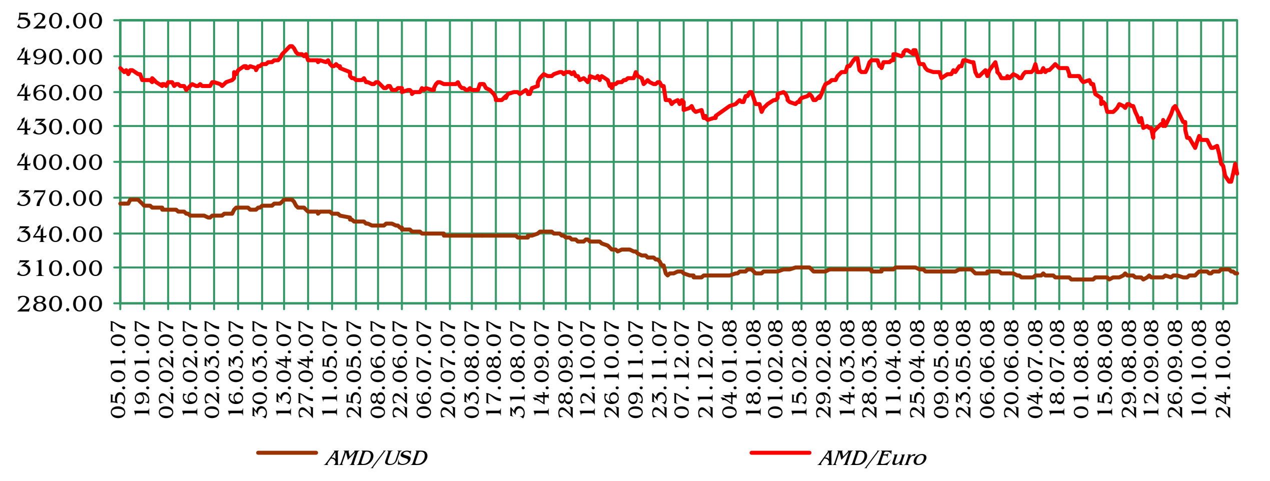


** Since import index calculation by new methodology started 2007, time series are not available.*

Source: RA NSS

The Armenian dram has been relatively stable over 2008 period, with slight fluctuations ranging between 300-315 Drams per one US dollar. Growth rate for private remittances, factor income and foreign investments declined somewhat without causing any tangible negative effects on foreign currency supply. Impacted by global financial crises, economic uncertainties rapidly increased and led to certain expectations for dram depreciation[8].

AMD Exchange Rate against USD and Euro (in AMD)



Source: Central Bank of Armenia (CBA)

SUMMARY

Negative impacts of global economic downturn started reflecting on Armenia's macroeconomic developments since 2008, and economic growth of the country has dropped down starting from the fourth quarter of the year. Household incomes, notwithstanding economic challenges, kept on

---

[7] *See for details: the CBA "The CBA monetary policy program" and "Inflation Report" publications.*
[8] *See for details "Armenia's financial market stability" section of this report.*

increasing with a slower pace than it was in the previous year. Negative impacts of global economic crisis on different sectors of the Armenian economy, especially in real sector, will continue to be seen over 2009, too. Deceleration of the economic growth in Armenia is expected in construction, industries and services. The inflation indicator is more likely to be within the target in the first half of 2009 but, from that time on, it would behave in an uncertain manner due to the developments in connection with the global crisis as well as the extent to which the Armenian Government plans to fulfill its programs. Inflationary expectations would continue and it would become more tangible in view of a downfall in foreign funds inflow (private remittances, factor income and foreign investments).

2.2. FOREIGN TRADE

One peculiarity of the Armenian economy is that there are concentrations on certain commodity groups in the structure of exports and imports – oil, gas, food, copper ore, and diamond. Fluctuation of international prices of these commodities may affect domestic economic stability, leading to deterioration of terms of export and increase of prices of imported raw materials and imported consumer goods. In this situation it is important to examine foreign trade development and likely risks.

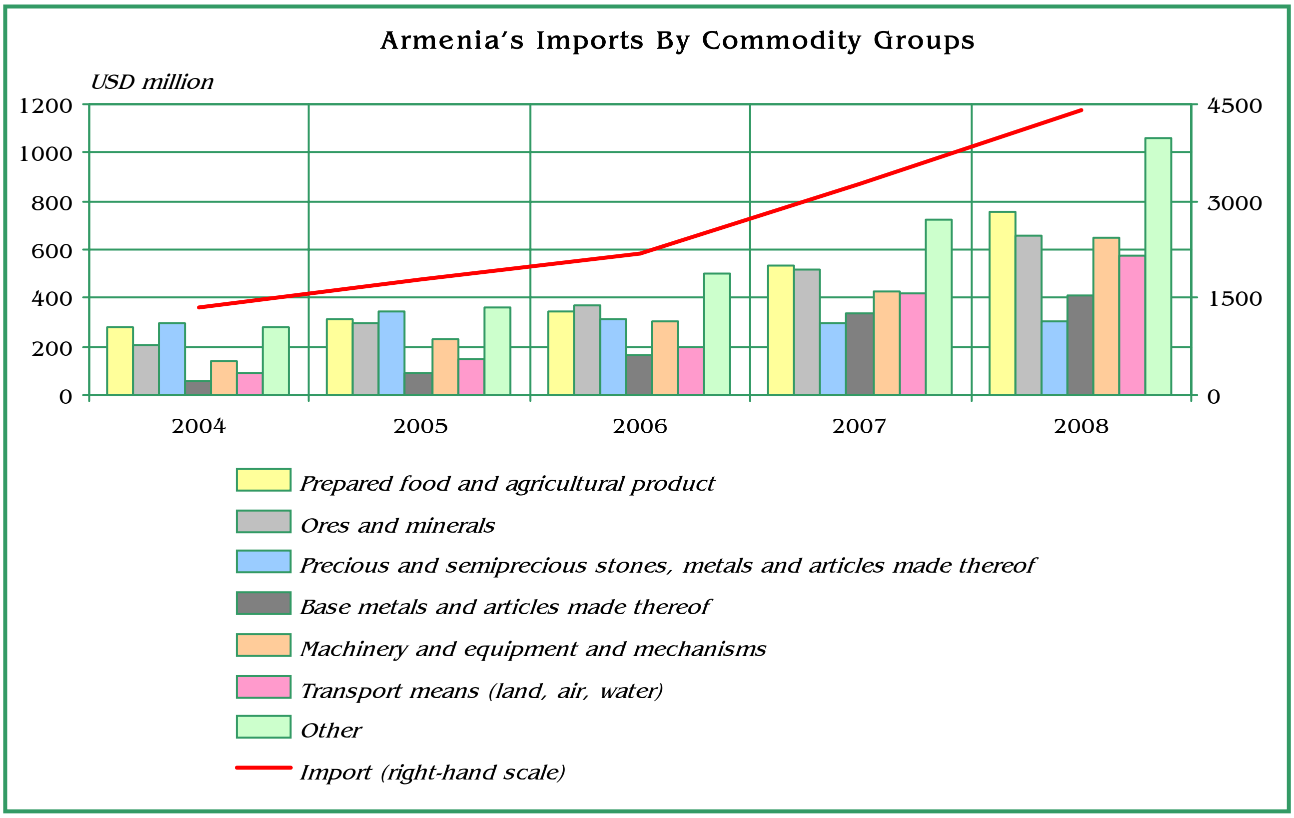
The growth of household incomes, private remittances and factor incomes inflow in the recent years has boosted an increase in volumes of public consumption. As imported goods have a large share in consumption, the above noted increase of consumption, in turn, has fuelled the broadening of import volumes. Global uncertainties in the world have also their impact on Armenia's foreign trade developments[9]. World price-fall and declined demand for some export goods from Armenia have brought to a reduction of export value in dollar terms and import growth.

During the year, import increased by 35 percent and amounted to USD 4.4 billion, with a substantial growth rate decline in the fourth quarter against the three previous quarters mostly relevant to commodity-price downfall in the world economy. Despite a fall in prices in the fourth quarter, the price of imported goods in dollar terms have increased during the year by 22.6 percent, exceeding the previous 11.7 percent growth indicator[10]. The price-fall in world commodity markets recorded in the fourth quarter of the year, all else being equal, is expected in 2009 to reflect on import volumes.

Armenia's Import Volumes by Commodity Group and Annual Growth, *thousand of USD*

Year	Prepared food and agricultural product	Ores and minerals	Precious and semi-precious stones, metals and articles made thereof	Base metals and articles made thereof	Machinery and equipment	Transport means (land, air, water)	Other	Total
2005	315.9	297.4	347.6	94.1	232.5	151.8	362.5	1801.7
annual growth	11.8%	42.0%	19.2%	54.7%	72.0%	64.0%	30.3%	33.4%
2006	343.5	366.0	312.5	163.7	304.4	196.6	504.9	2191.6
annual growth	8.7%	23.1%	-10.1%	74.1%	31.1%	29.6%	39.3%	21.6%
2007	538.4	516.4	296.7	341.3	422.8	422.8.0	724.9	3267.8
annual growth	56.7%	41.1%	-5.0%	108.4%	41.4%	115.0%	43.6%	49.1%
2008	755.8.4	660.1	305.5	413.4	646.0	572.0	1058.8	4411.6
annual growth	40.4%	27.8%	3.0%	21.1%	51.2%	35.3%	46.1%	35.0%

[9] *See for details: the CBA "The CBA monetary policy program" and "Inflation Report" publications.*
[10] *Pursuant to the CBA estimation.*



Source: Central Bank of Armenia (CBA)

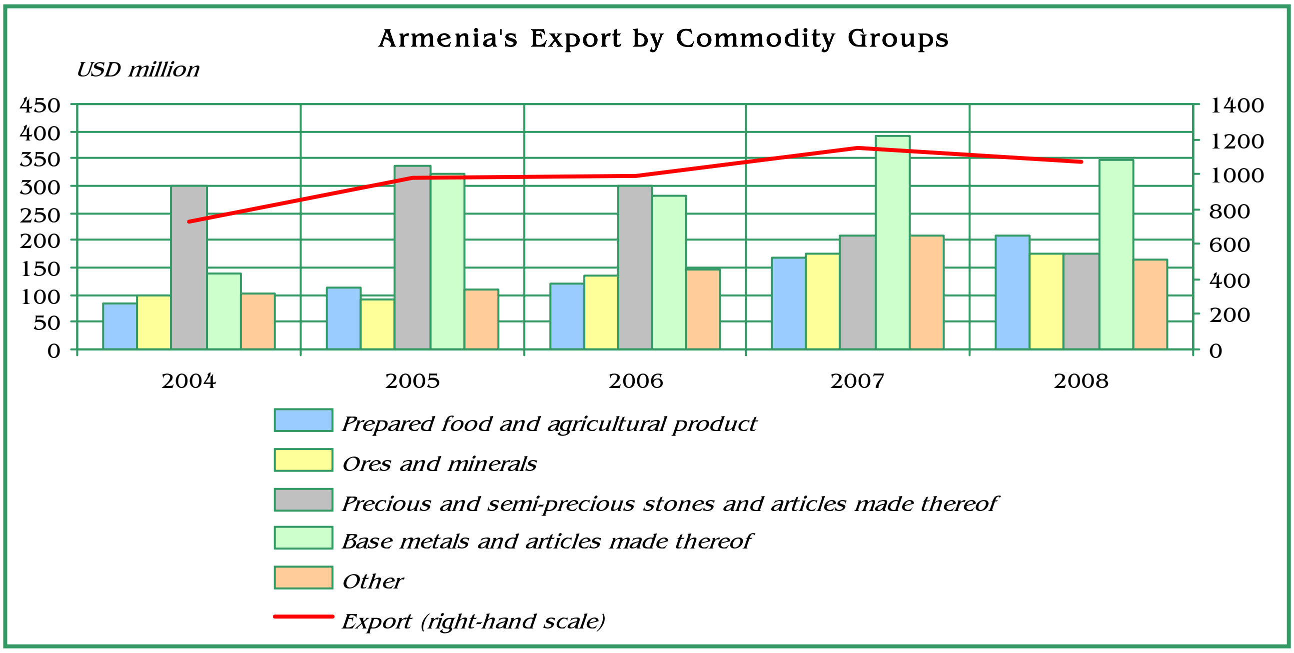
As opposed to the previous period, growth rate has been regressive in almost all commodity groups and most of all "Non-precious metals and articles made thereof" and "Ores and minerals" were held back at their pace with regard to import price decline. Imported basic commodity groups have not lost in real volumes at all.

Volumes of exports in dollar terms decreased by 7.2 percentage points in 2008 and reached USD 1.1 billion. It was conditioned by a decline of two commodity groups "Precious and semi-precious stones, precious metals and articles thereof" and "Non-precious metals and articles thereof". Export of the commodity group "Ores and Minerals" have grown to a small extent against previous year's 27.1 percent growth. Growth of commodity group "Prepared food and agricultural product" made up 22.7 percent mostly owing to alcoholic beverage.

Armenia's Import Volumes by Commodity Group and Annual Growth, ***thousand of USD***

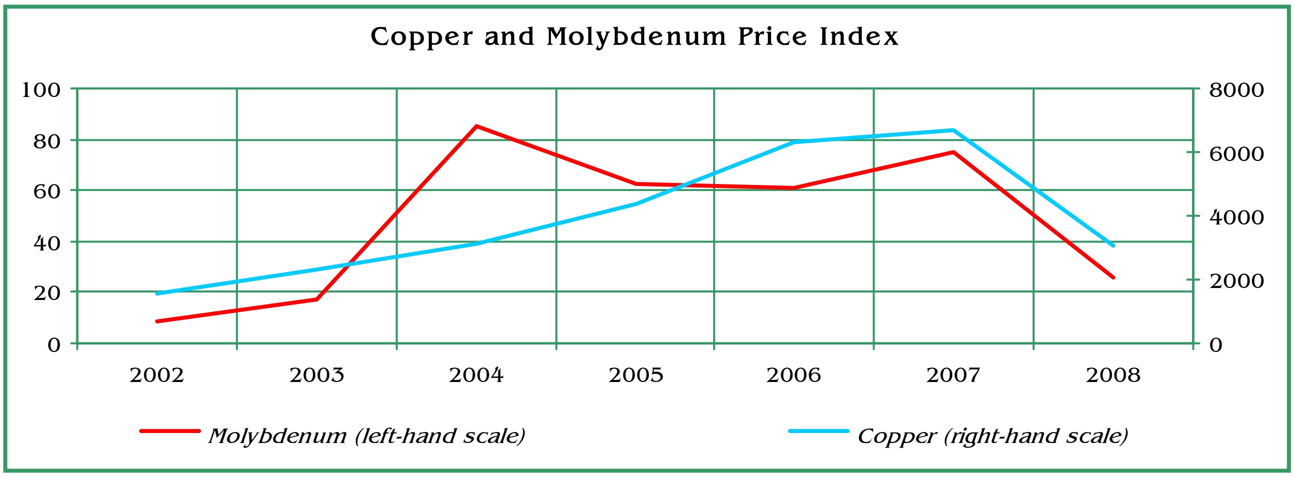
Year	Prepared food and agricultural product	Ores and minerals	Precious and semi-precious stones and articles made thereof	Bas metals and articles made thereof	Other	Total exports
2005	114.1	93.5	336.3	322.0	108.0	973.9
Annual growth	37.7%	-6.2%	12.4%	133.9%	4.4%	34.7%
2006	121.8	136.6	301.0	280.9	144.8	985.1
Annual growth	6.8%	46.1%	-10.5%	-12.8%	34.1%	1.1%
2007	169.6	173.5	208.7	390.2	210.3	1152.3
Annual growth	39.2%	27.1%	-30.6%	38.9%	45.2%	17.0%
2008	208.0	174.2	174.7	346.8	165.5	1069.2
Annual growth	22.7%	0.4%	-16.3%	-11.1%	-21.3%	-7.2%

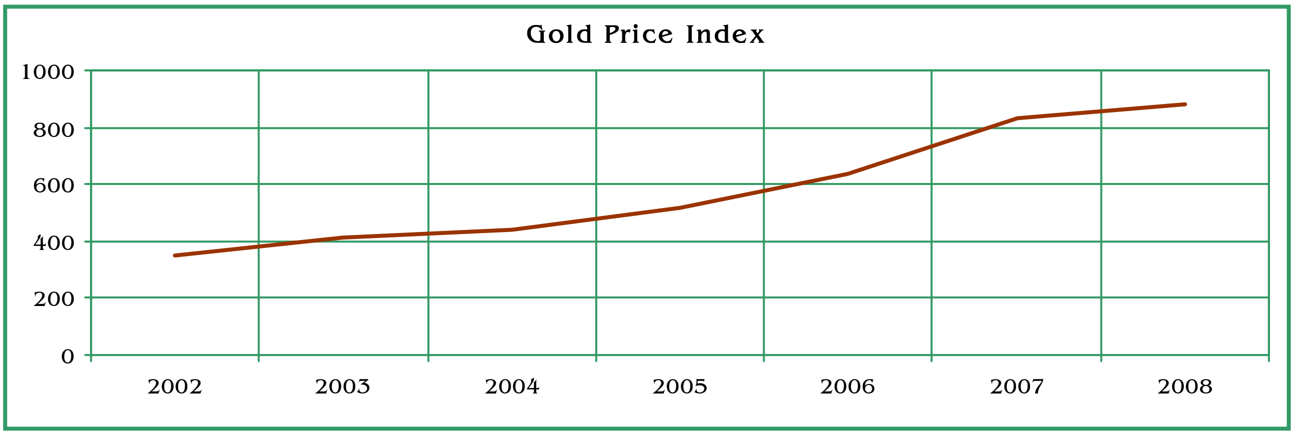
Source: CBA



Source: CBA

Export risks are mostly associated with the dropping of prices of ores and minerals, since Armenia is exporting metals – gold, copper and molybdenum. In 2007, prices of such commodities has kept upward and boosted an increase in amounts of export. Further, in December 2008, prices of these metals declined (except gold prices). The reduced demand for copper and molybdenum has prompted the domestic producers to curtail production volumes.

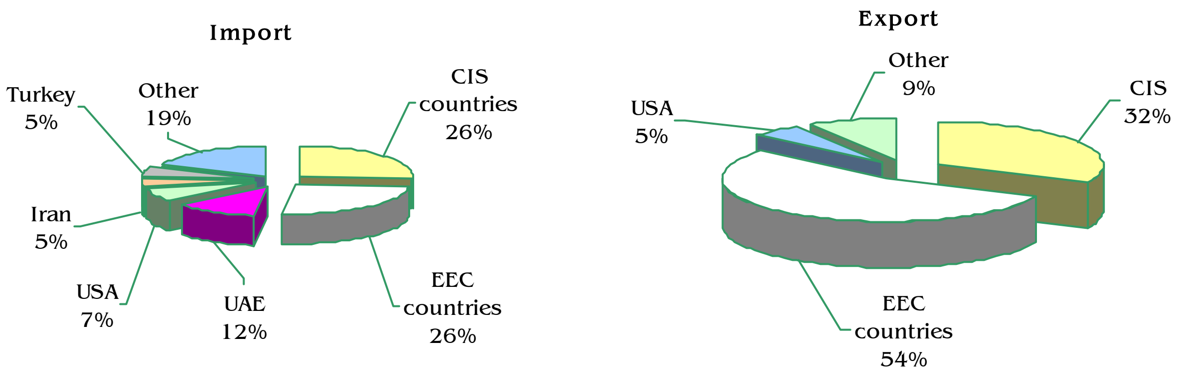




Source: Bloomberg

With import growth and export reduction the trade balance has grown by 65 percent against the previous period and amounted to USD 2.6 billion (FOB prices).

Armenia's Foreign Trade Map, by Countries



Source: RA NSS

According to geographic distribution Armenia holds high concentrations in foreign trade, particularly in an export segment. Major trade partners of Armenia are Russian Federation and the European Union countries. Economic risks faced by these partner countries may have negative impacts on foreign trade activity. According to the CBA projections, export volumes and import growth most probably will keep falling in Armenia in 2009 which will cause unfavorable situation for ensuring sound financial stability of the country.

To this end, the Armenian Government has taken measures to support small and medium-size businesses; export-oriented enterprises are at a primary focus for financial and economic support. The Government support is planned also for major and structurally important enterprises and export-oriented businesses. In 2009, the dram depreciation too, will contribute to exports and carry a restrictive impact on imports.

2.3. CAPITAL FLOWS

Capital flows have altered their directions as impacts of global financial turmoil progressed. Already in the fourth quarter of 2008, a private sector capital outflow was recorded, though capital inflow kept on growing on part of other items of financial and capital account during the year. At the yearend, current account deficit was beyond the net capital and financial inflow, resulting in reduction of net CBA foreign reserves by USD 235.4 million.

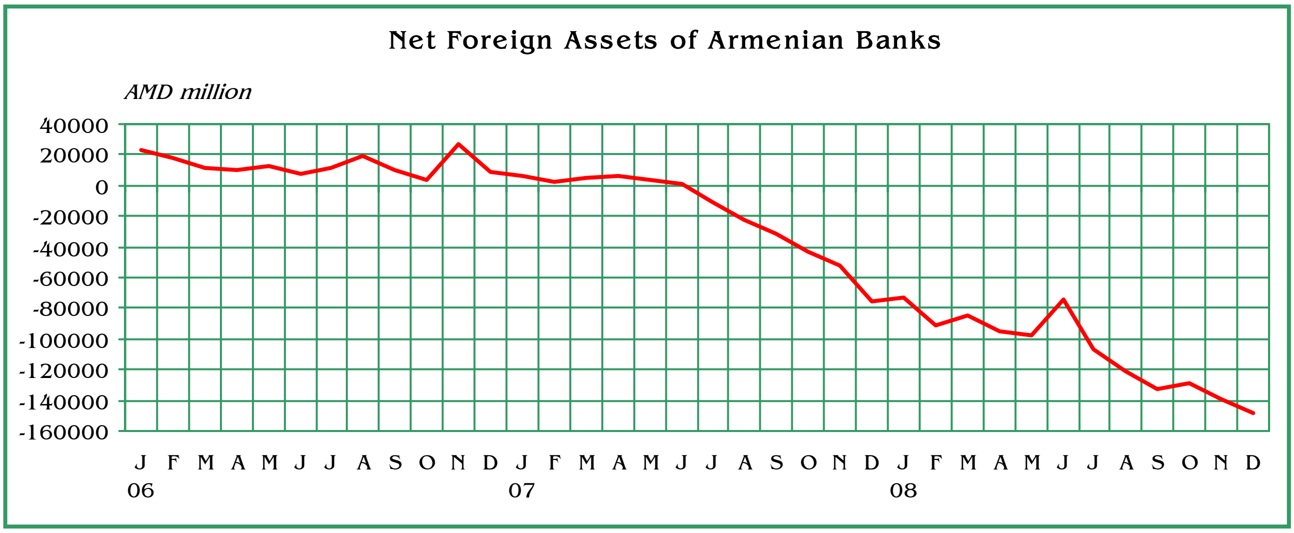
Despite global financial turmoil, the direct foreign investments have grown in 2008 by about 32 percent (USD 224.4 million) compared with the previous year.

On annual basis, inflow on part of item "Other investments" amounted to USD 43.4 million which is less by 85 percent as compared with the previous year's indicator. In particular, capital inflow pace remained unchanged in the first quarters of the year, and in the fourth quarter a total USD 164.9 million worth outflow of capital was recorded.

Commercial banks and credit organizations reported a decline of net foreign assets by about USD 301.6 million, whereas other private sector announced a notable increase in net foreign assets, amounting to USD 388.9 million.

In 2008, the growth of foreign liabilities of the Armenian banking system has exceeded the growth of foreign assets, and as a result, the negative value of net foreign assets continued dropping to have reached AMD 147.7 billion (negative value)[11] at the yearend. Foreign assets grew by 1.4 times and liabilities – 1.7 times.

[11] *According to monetary statistics.*

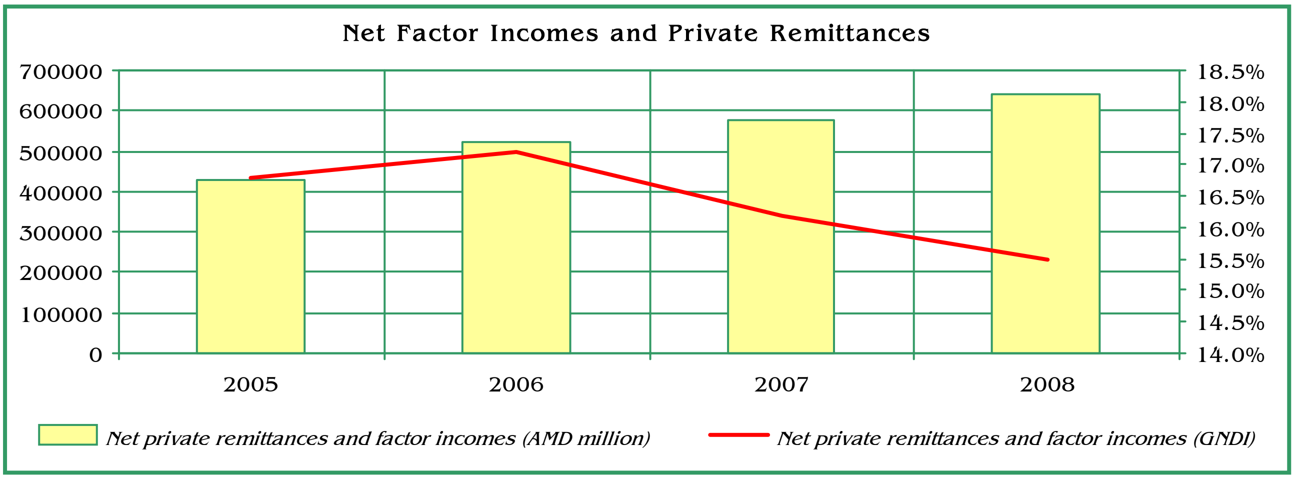


Source: CBA

Foreign liabilities of commercial banks and credit organizations have increased by USD 208.3 million and amounted to USD 555.4 million by the yearend. Funds attracted from international financial organizations have grown by 56.7 percent and accounted for 25.6 percent share in foreign loan liabilities. Main lender countries to banks and credit organizations are Russia, with a 16.3 percent share in the total (against 14.4 percent in the previous year), the Great Britain, with 5.1 percent share (against 7.9 percent in the previous year), Latvia, with 9.0 percent share (against 10.8 percent in the previous year), France, with 9.4 percent share. The largest part of attracted loans making up 87.6 percent constitute long-term resources which enabled banks to remain free from severe liquidity strains in the world market.

2.4. NET FACTOR INCOMES AND REMITTANCES

Influx of net factor incomes and remittances, as and when adversely changed, can be seen as one of key risks from an external environment threatening financial stability of Armenia, because these constitute an essential share in incomes of population in Armenia. In the reported period the share of net factor incomes and private remittances in the Gross National Disposable Income (GNDI) made up 15.5 percent, down by 0.7 percentage points in comparison with the previous year's figure. Net factor incomes and private remittances (denominated in AMD) received during 2008 dropped and their growth rate made less than 16.5 percent that of the Gross National Disposable Income to 11.7 percent. Net private remittances, nonetheless the slowdowns in the Russian Federation, have stuck to the same level through the year.



Source: CBA

In the reported year, inflow of net factor incomes and private remittances has amounted to USD 2.2 billion or AMD 642.6 billion. Regardless the appreciation of the dram vis-à-vis the US dollar (USD average exchange rate was 342 dram in 2007, and 307 dram in 2008), the growth of net factor incomes and private remittances in dollar terms in 2008 made up 24.6 percent.

As high as 89.6 percent of inbound remittances received through the Armenian banks are delivered by Armenian nationals who live and work in the Russian Federation. Remittances and factor incomes are by and large used to finance consumer expenditures, utility bill payments as well as private construction financing. Level of such inflows should be attained to ensure domestic consumption growth trends upward.

Many of Armenian nationals who live or work in Russia are engaged in non-tradable sector of that country, commerce and construction, in particular[12]. The volume of inbound transfers and factor incomes from Russia depends on how these branches of Russian economy develop, which is, in turn, strongly reliant on developments in oil industry, prices of energy resources and volumes of Russian exports. In the fourth quarter of 2008, non-seasonal downfall has been recorded in the non-tradable sectors of Russia. The 2009 forecasts are not that optimistic as economic downturn anticipated in Russia is likely to downsize the private transfers to the CIS countries.

2.5. HOUSEHOLD INCOME AND DEBT BURDEN

Unemployment rate, regardless economic slowdowns, declined by 0.7 percentage point in 2008 and made up to 6.3 percent. Average monthly nominal wages climbed up by 17.7 percentage points (against 21.2 percent). Reduced unemployment rate and increased wages have promoted a 25.7 percent growth of household income. Wage growth rate was almost twice as much as the average inflation rate, boosting the real growth of household income. The increased volumes of factor incomes and remittances (in dram terms) that have a significant weight in household income in Armenia have put an impact on the income growth as well.

Debt and Income Indicators (percent)

	2004	2005	2006	2007	2008
Growth rate of loans provided to households by banks	36.0	50.1	44.2	87.9	51.2
Growth rate of Gross National Disposable Income	21.5	15.9	19.1	17.6	16.3
Loans / Gross National Disposable Income to households by banks	0.9	3.1	3.8	6.1	7.9
Funds to households by banks, credit organizations and pawnshops / Gross National Disposable Income	0.9	3.3	4.2	6.8	8.8

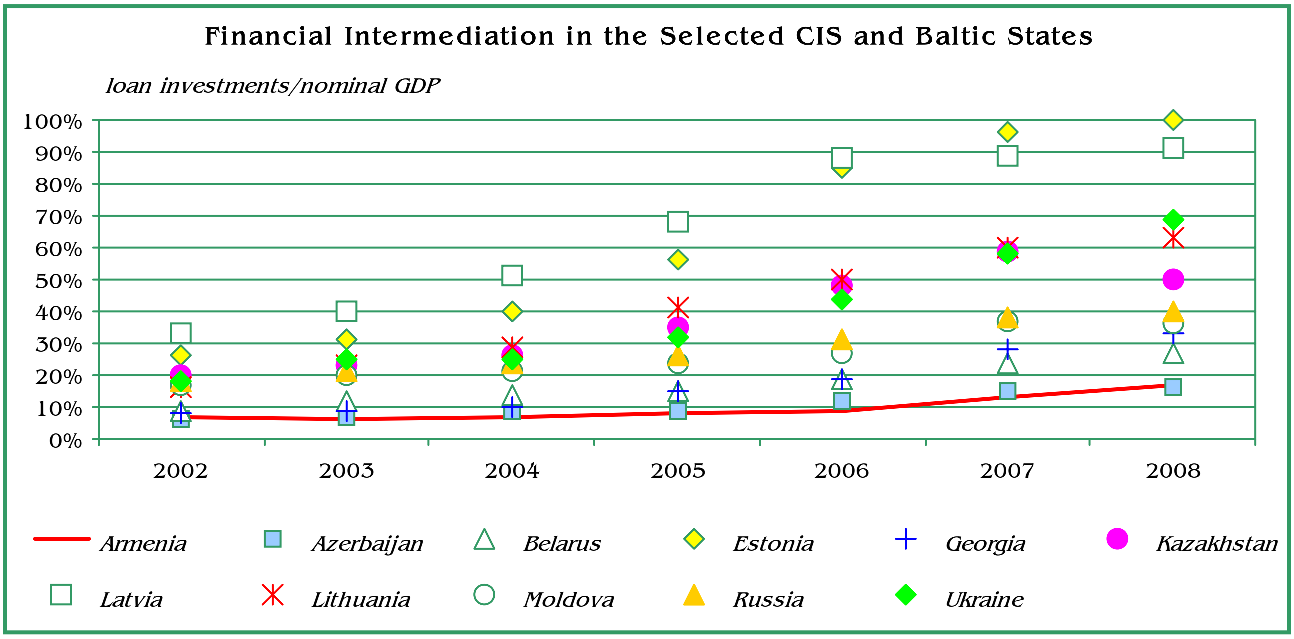
Bank lending has grown and totaled 50.9 percent while loans to households have grown a little bit more, by 51.2 percent. The lending growth rate has slowed notably as opposed to the previous year due to uncertainties about further consequences of crisis in Armenia. The Households debt / Income ratio has increased by 1.8 percentage points to 7.9 percent. When household liabilities to credit organizations and pawnshops are accounted, debt burden would make up 8.8 percent which is 2 percentage points higher the indicator recorded in 2007.

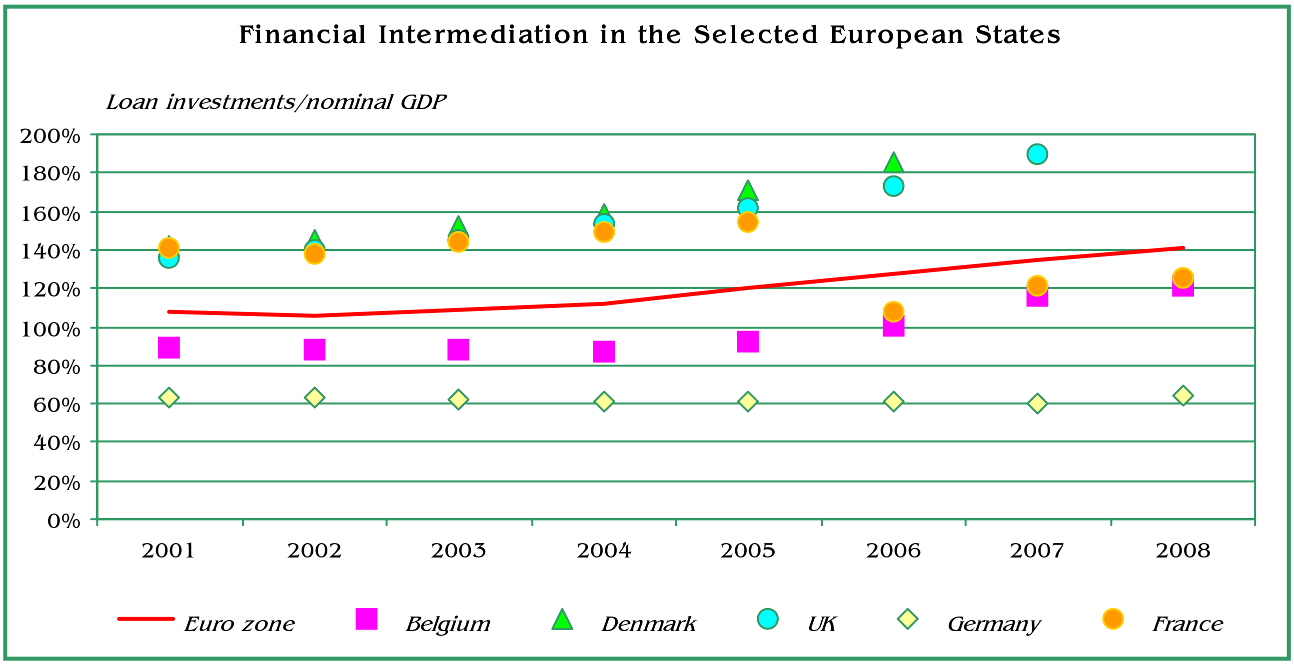
The growth of debt burden of population is negligible and therefore it will not pose threats to financial stability owing to low financial intermediation in Armenia and because losses caused by credit risks through the banks are manageable.

It is worth mentioning that in the recent 5 years lending is growing at a high speed in almost all post-Soviet and East-European countries, which is typical to emerging economies. However, as experience shows, an unprecedented growth of loan investments is often followed by increased losses (however hard any negative consequences of the global crisis hit an economy). It is expected, nonetheless, that losses incurred by the Armenian banks may somewhat increase due on part to strong lending trends sustained over the recent 2 years, and on other part – adverse impacts of the economic crisis. However, a low level of financial intermediation in Armenia

[12] Source: Surveyed results of the Central Bank query conducted to identify the structure of non-commercial remittances that arrive from abroad on behalf of Armenian resident individuals.

constraints the possible serious credit risks of financial institutions that could have those countries with high financial intermediation. Such countries with high financial intermediation level faced huge credit risks.





Source: IMF

In the fourth quarter of 2008 most Armenian banks have tightened lending criteria through increasing interest rates and reducing loan terms[13]. Banks which maintained such a policy for mortgage loans report that because of financial crisis challenges they have to be more cautious when providing such loans. They consider the mortgage lending to be of high risk as they expect further downwards in house market prices as well as household income in terms of decreased private remittances. Key factors challenging consumer loans are: economic growth volatilities, non-reliance or low customer creditworthiness and collateral risks (in case of car loans).

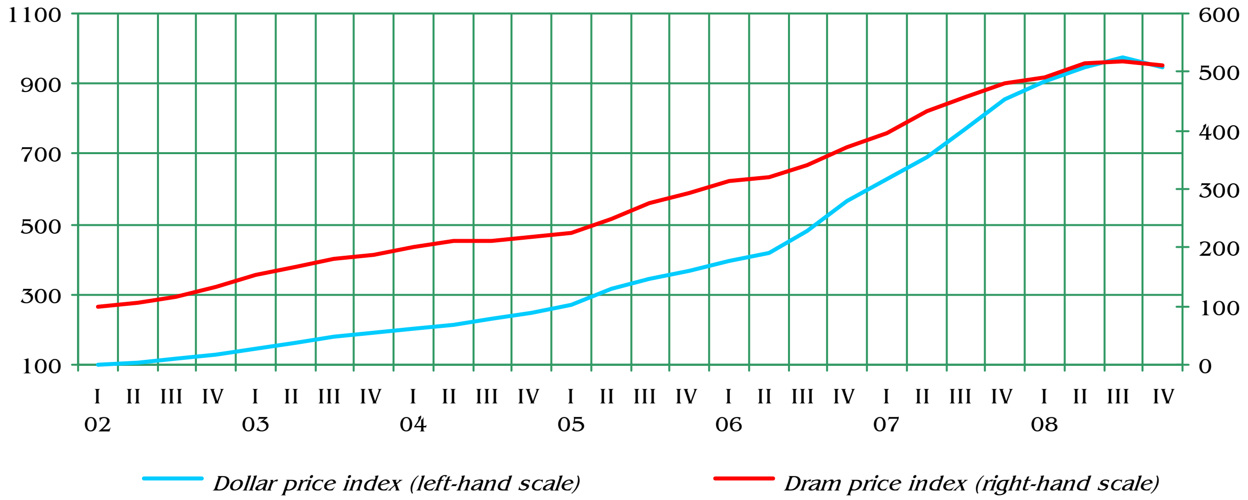
---

[13] *Source: Data on the CBA "Loans provided by Armenian banks and credit organizations" surveyed in December, 2008.*

2.6. CHANGE IN REAL ESTATE PRICES

In view of ensuring financial institutions stability, a sustainable growth of real estate prices is essential, particularly for the reasons of ensuring reliability of mortgage loans and retaining highly growing housing construction considered as a key component in the GDP of Armenia. Real estate prices in the last couple of years have been steadily growing in Armenia. The dropping of property prices in the USA and Europe recorded in 2007-2008 due to the US mortgage market crisis has not affected the prices on real estate in Armenia. Armenia saw falling trends in real estate prices only in the fourth quarter of that year mostly owing to economic growth volatilities, declined external demand for real estate and slowed household income trends. In 2008, the growth rate of real estate prices (for multiple apartment houses) in Yerevan nearly halved in relation to 2007 to reach 15.2 percent. Whereas in regions of Armenia, it was maintained at the same level as in the previous period and made up 31.6 percent mainly because of weak market constrains.[14]

Average Apartment Price Index in Yerevan[14] (square m)



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

In 2008, the growth rate of apartment houses handed to commissioning, has declined, as opposed to the previous year, and reached 109.8 percent. A sizeable growth has been recorded in apartment house construction financed by organizations. However, household resources remain the main source of financing, constituting 72.2 percent.

Dwelling House Operation by Sources of Financing

Sources of financing	Operated dwelling houses (Square meter)	Share in total	Percentage change to 2007
Total of which:	**515 152**	**100%**	**109.8%**
State budget	22800	4.4%	52.2%
Resources from organizations	120517	23.4%	163.4%
Household resources	371835	72.2%	106.6%

Source: National Statistics Service of Armenia

[14] *Source: the Republic of Armenia State Committee of Cadastre's website www.cadastre.am (because the website lacks a composite average real estate price index for Armenia, the average home price index for the city of Yerevan had been chosen as the best criteria/benchmark to reflect price developments in the Armenian real estate market). Before June of 2005, the real estate prices have been quoted in US dollars and, thereafter, in Armenian drams, so which is why, average price growth rates have been calculated in dollar and dram terms, respectively, in order to produce the composite average price index.*

SUMMARY

In general, the 2008 developments in macroeconomic environment in Armenia were favorable, except for the fourth quarter, when adverse impacts of the global financial crisis began to reflect on the macroeconomic indicators: economic growth, household income, balance of payments. The downfall of commodity prices, which make an impressive share in exports, as well as slowdowns in foreign capital inflows and economic volatilities have further exerted downwards pressures on the Armenian economy and constrained the possibility for high economic growth. This will spill over to the next year in terms of foreign trade volatilities, slowing household income and employment growth rate. Nonetheless, these macroeconomic adversities had neither significant impact on credit risks of the banks nor generated high risks for financial institutions stability. Overall, an economic progress was recorded; household incomes grew in real terms, and no marked slowdowns were observed in private remittances, while inflation rate remained within the target.

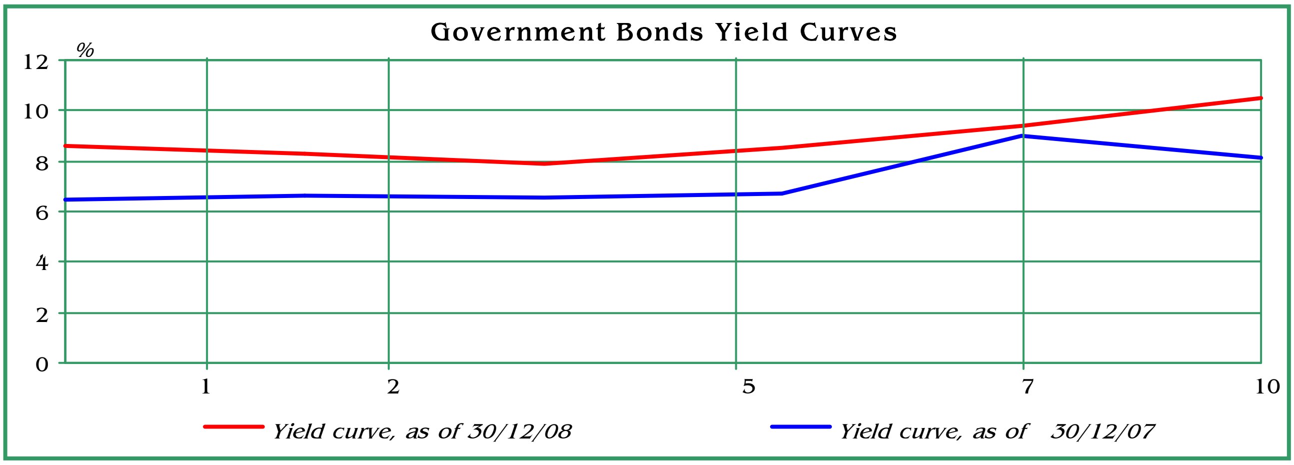
Real estate prices continued climbing up through 2008, but the last quarter's upward trends were changed into those of downward.

3. ARMENIA'S FINANCIAL MARKET STABILITY

3.1. MONEY AND CAPITAL MARKETS

Given low integration to the international financial markets, during 2008, as in the previous year, the Armenian financial markets remained safe and managed avoiding the first wave of the world financial crisis. Almost all segments of Armenia's financial market, including Armenian dram, securities and foreign exchange markets, have not reported abrupt price fluctuations, liquidity of financial institutions remained as high as it was in the previous periods. Parallel to the rise of Central Bank refinance rate the rates of other financial market went up. However, the Central Bank of Armenia Repo rate has climbed by 1.5 percentage points against the beginning of the year, to reach 7.25 percent in the end of the year, and Repo rate in the interbank market has grown by 1.9 percentage points to 8.25 percent at the yearend. Mean square deviation of difference between money market Repo operations rate and the Central Bank Repo rate has dropped by 0.14 percentage point.

Upward trends were observed in interest rates of Government bonds, climbing by full length of yield curve. A notable change was observed in the short-term and long-term securities, while medium-term securities showed rather modest growth. Resulted by interest rates increase, average variance of Government bonds transaction yields in the secondary market grew in 2008 by about 0.4 percentage point and reached 1.51.



Source: CBA

The ratio of Average Modified Duration Indicator (D_M)[15] calculated to evaluate interest rate risk increased in comparison with the previous year's indicator, and reached from a previous 1.49 to 2.41 for outstanding government bonds (including the Central Bank bonds) as of yearned 2008. This is mostly driven by the reduction of the CBA short-term securities (up to 1-year of maturity) with typically low volatility. They had a relatively large share in the total amount of bonds in 2007 which led to rather a low Modified Duration Indicator of outstanding bonds. Modified duration indicators of treasury bills and total government bonds were almost equivalent due to the decline of the CBA bonds weight.

Duration of treasury bills has slightly decreased from 2.48 of the previous score to 2.45 in 2008. Duration indicator for mid-term bonds dropped by 11 and made up 977 days.

---

[15] *Average Modified Duration Indicator denotes the level of change of price in relation to the change in yield.*

Modified Duration of Outstanding Government Bonds as of 31.12.2008 for Different Maturities (including the Central Bank bonds)						
D_M	up to 6 months	from 6 months to 1 year	1-2 years	2-5 years	5-7 years	7-10 years
	0.21	0.66	1.62	3.23	5.4	7.4

Source: CBA

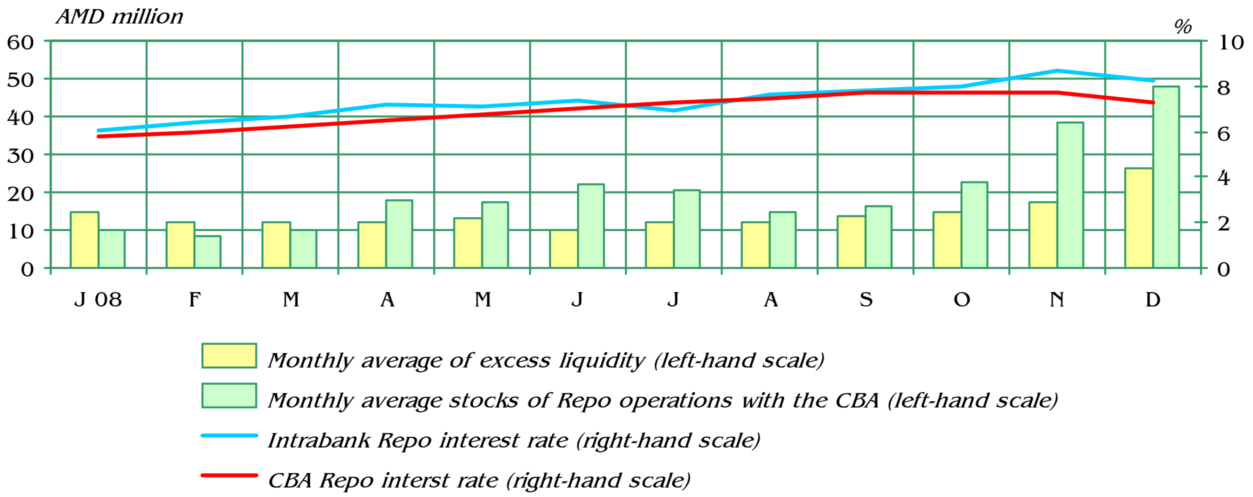
Modified Duration of Government Bonds in Trading Books of Commercial Banks as of 31.12.2008 and Probable Profit/Loss in case of 1% Change in Yield for Different Maturities

	up to 6 months	from 6 months to 1 year	1-2 years	2-5 years	5-7 years	7-10 years	Total
Government bonds in trading book (million of AMD)	10545.5	5196.2	16595.1	15680.0	11064.7	9067.5	68149.0
Share in total portfolio	15.5%	7.6%	24.4%	23%	16.2%	13.3%	100%
D_M	0.2	0.7	1.6	3.2	5.4	7.4	3.1
Price change +/- (million of AMD)	22.7	34.8	269.2	492.9	638.0	715.0	2172.6

Source: CBA

According to stress-tests, in case of increase of yield by 1 percent, the likely loss in commercial banks' portfolio of government securities may reach a maximum of AMD 2.2 billion or 0.9 percent of total capital expecting bigger portion of loss from especially long maturity bonds, since they are more sensitive to interest rate fluctuations and have higher modified duration value.

Levels of Excess Liquidity, Repo Operations with the CBA and Repo Interest Rates

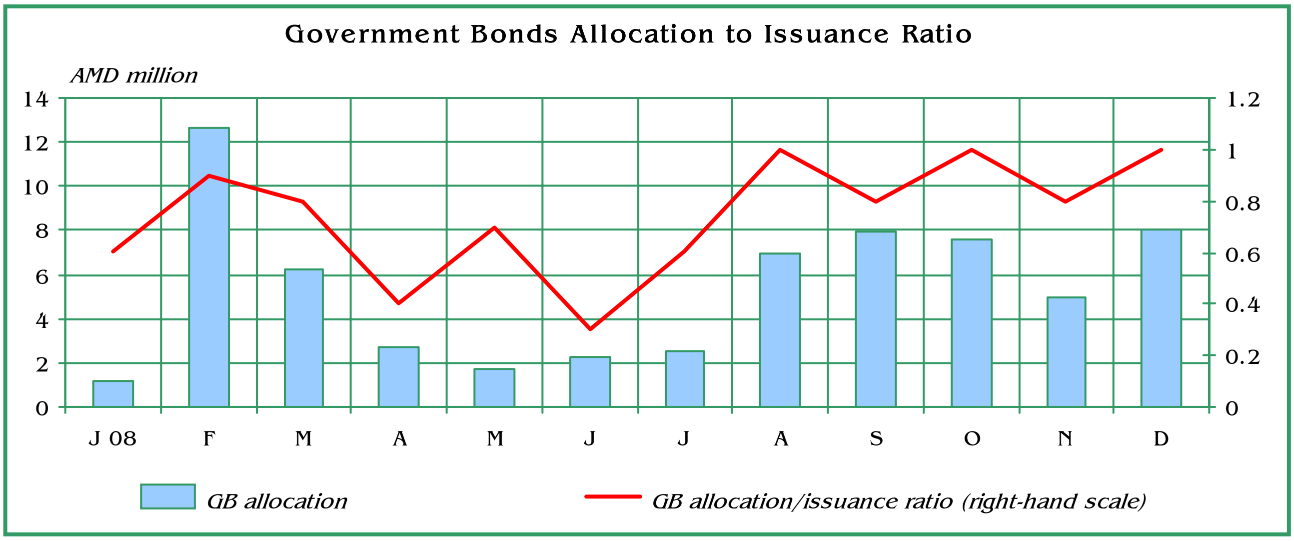


Source: CBA

In 2008 and, particularly, in the last months, the excess liquidity level[16] has grown in comparison with the beginning of the year, but has not pushed the money market rates downward. In December, average liquidity of commercial banks made up AMD 26.2 billion, which is by 2.3 times higher than in the same month in 2007. In addition, monthly average stock of Repo operations with the CBA has increased by 4.1 times compared to 2007 and made up AMD 47.8 billion towards the yearend. An increased demand for dram excess liquidity by banks has been a result of depreciation expectations and a decrease of attracted deposits by the banking system due to economic uncertainties. Deposits (mostly dram denominated deposits) declined by 6.4 percent, as reported in the fourth quarter, which was less than expected by the banks and caused growth of excess liquidity in the banks.

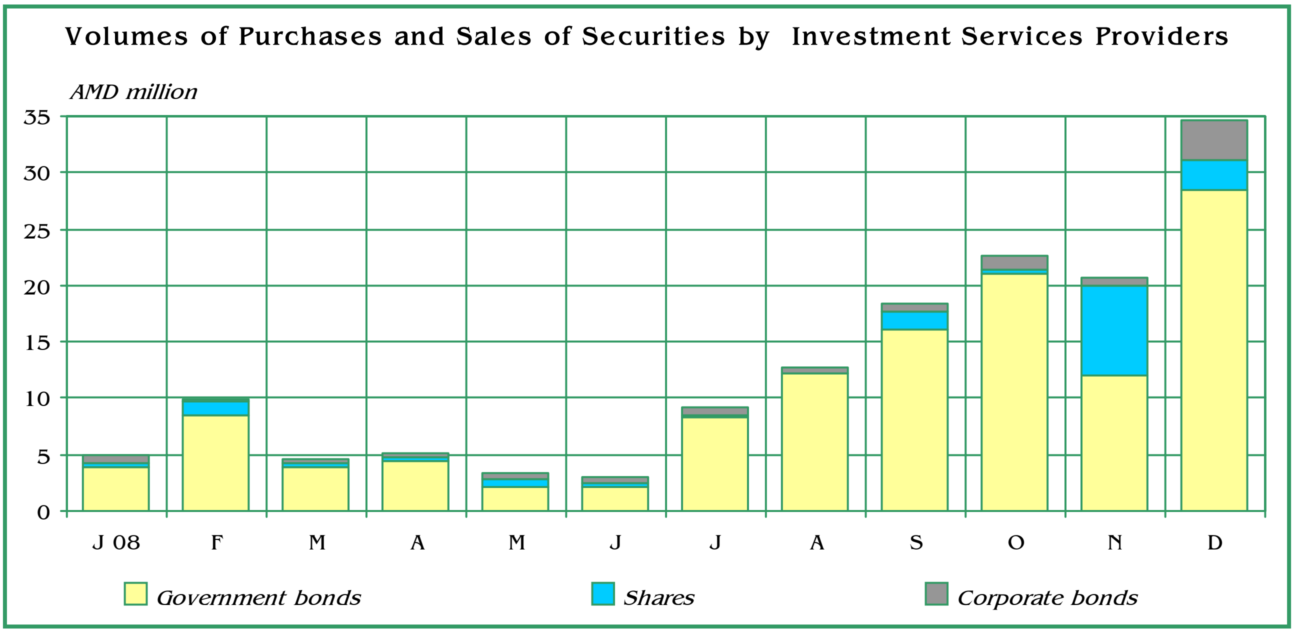
A low ratio of government bonds allocation to issued volumes also points to high demand for Armenian dram.

[16] *The difference between commercial banks' correspondent accounts wit the CBA and funds subject to reserve requirement.*



Source: CBA

Amounts of operations (including Repo) in securities market by investment services providers[17] have increased by 147 percent and reached AMD 821.0 billion.



Source: CBA

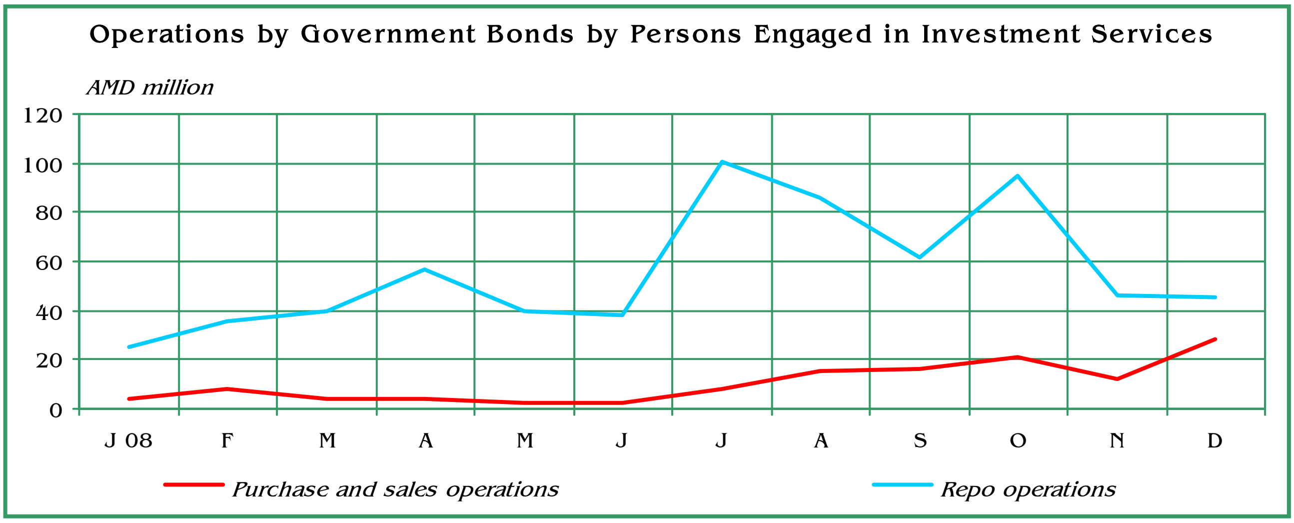
In 2008, the share of government securities operations in total securities market turnover declined by 1.4 percentage points, it still remains the largest part of operations counting for 96.8% share of total operations. Large portion of government securities operations account for Repo operations performed investment services providers which make up 84.2% of total turnover of government securities.

Corporate bonds turnover grew by at least three times in 2008, but the weight of their transactions in total securities market turnover still remains low – 1.2 percent. Corporate debt securities issuances, on the contrary, became more active: four commercial banks had their participation in issuance of such securities. In total, a total of AMD 11.4 billion has been invested in 13 issuances of corporate bonds which are 3.6 times more than the issuance in the previous year.

Over-the-counter transactions by investment service providers have accounted for 99.0 percent of total transactions carried out in the securities market.

[17] *Starting February 29 2008, Armenia's commercial banks are included in the list of investment service providers.*

Total securities transactions carried out in regulated market amounted to AMD 4.1 billion, growing by 84.9 percent; as a result, over-the-counter transactions share has reduced by merely 0.3 percentage point. Corporate bonds operations constitute 53.6 percent in the total regulated market turnover.

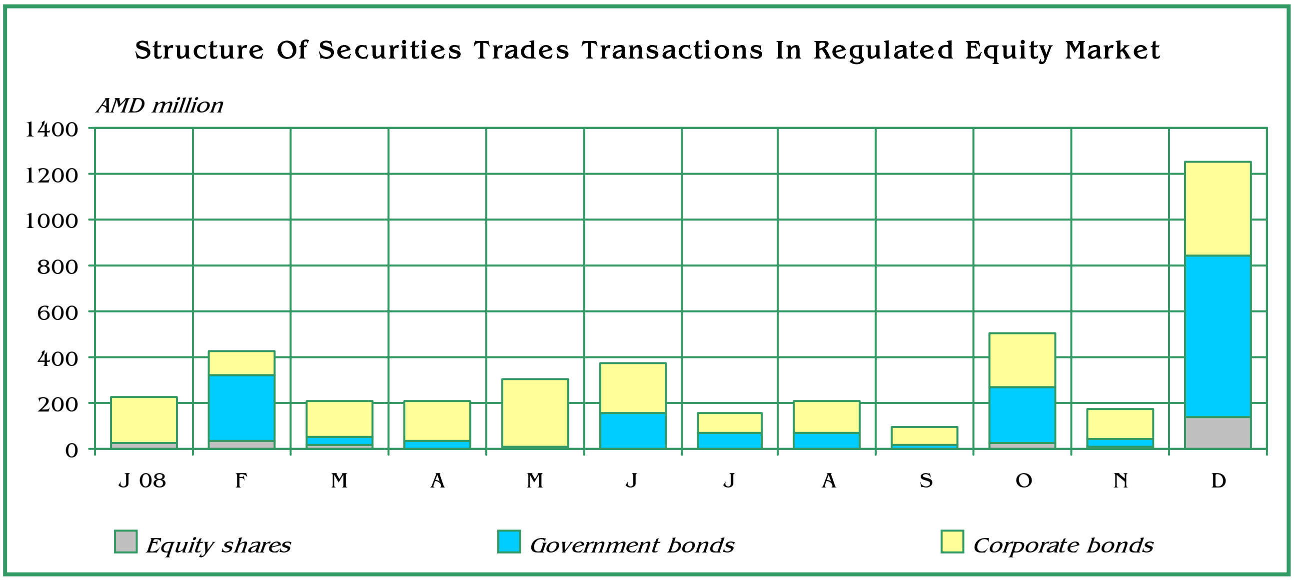


Source: CBA

The ratio of Armenian securities market capitalization / GDP[18] as of 31.12.2008 has been 1.5 percent, growing by 0.5 percentage points against 2007. The capital market turnover ratio[19] that describes capital market liquidity made up 0.11 percent in 2008, increasing by 0.04 percentage points against 2007.

Despite the above low rates observed in Armenian regulated market, it, however, is promising. Particularly, the Swedish OMX Group[20], a well known organization, has entered the Armenian stock market starting January 2008 (presently under NASDQ-OMX) and acquired a sole ownership of the regulated market.

The Central Bank of Armenia has committed an active cooperation with NASDQ-OMX in view of drafting a long-term development program for Armenian stock market. Capital market improvements however will continue perhaps at a slower pace as the world financial crisis carries on.

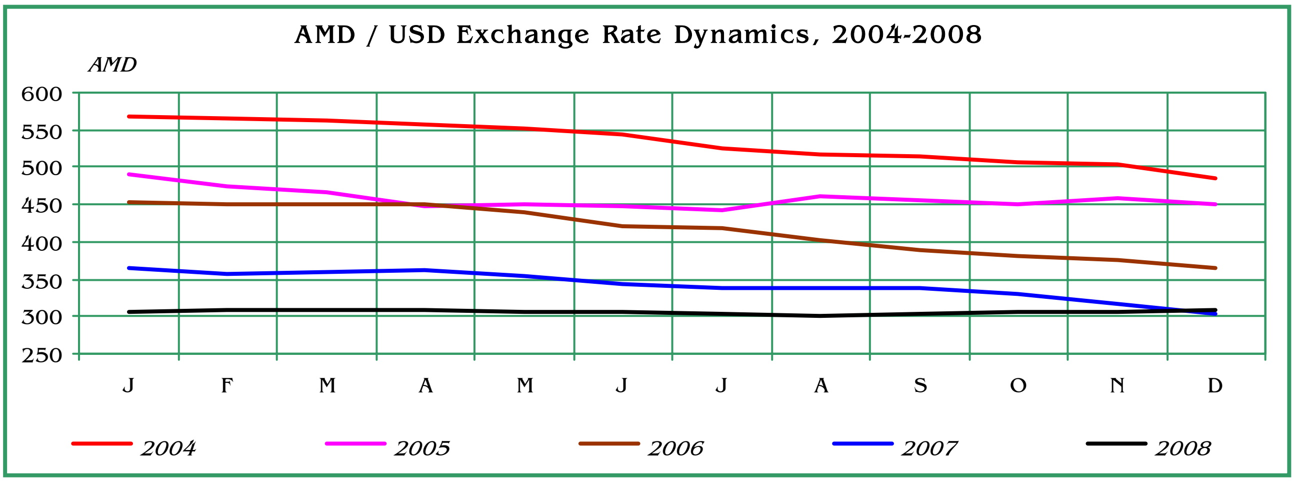


Source: CBA

[18] Market price of listed shares divided by GDP.
[19] Operations by listed shares divided by GDP.

3.2. FOREIGN EXCHANGE MARKET

In 2008, domestic foreign exchange market has been less volatile. The Armenian dram depreciated merely by 0.81 percent. The dram's exchange volatility ratio to US dollar has notably reduced against the previous year to 7.6, against 332 in 2007 and 1003.1 in 2006.



Source: CBA

Distressed by the global financial crisis, Armenia's real economy has faced further economic uncertainties, and expectations for depreciation of the dram arouse. Considering the importance of financial stability safeguards the CBA activated its exchange market intervention by increasing exchange trades volumes. In 2008, to meet the dram supply and mitigate dram exchange rate fluctuations, the CBA purchased a total of USD 74.6 million from Armenian banks and sold a total of USD 442.6 million (of which 70 percent in the fourth quarter).

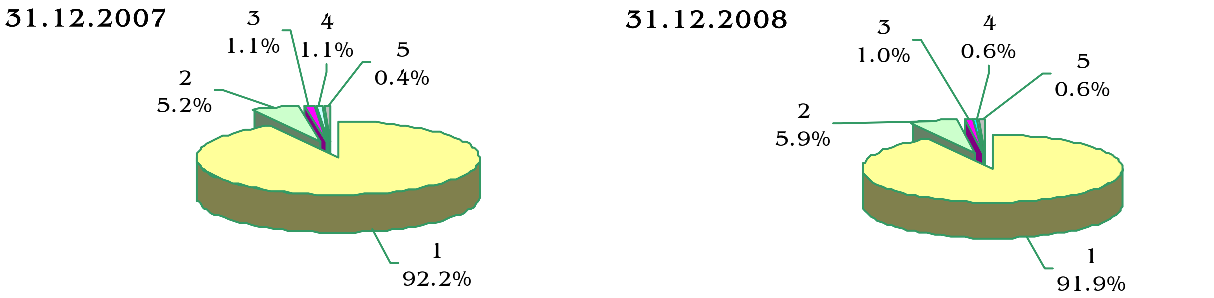
SUMMARY

During 2008, as opposed to globally distressed markets, Armenian financial markets were by far stable. Turmoil in global financial markets has not affected the developments in financial market. Financial markets in Armenia were characterized, primarily, by interest rate rise and exchange rate stability. In the meantime, an increase of money supply was recorded in the fourth quarter, which was determined by the market participants' precautions for possible crisis adversities and high foreign currency demand, in case of dram depreciations.

4. FINANCIAL INSTITUTION STABILITY IN ARMENIA

Nearly 92 percent of assets of the Armenian financial system are bank assets. Therefore, disclosure and evaluation of risks emerging first of all in the banking sector is important in the financial stability point of view[20]. The other components in financial system are much smaller than those of banking system and subsequently could play relatively small role in overall financial stability assessment.

Structure of Financial System Assets by Financial Institutions



1.Banks, 2. Credit organizations, 3. Insurance companies, 4. Professionals in securities market, 5. Other financial organizations

Source: CBA

4.1. COMMERCIAL BANKS

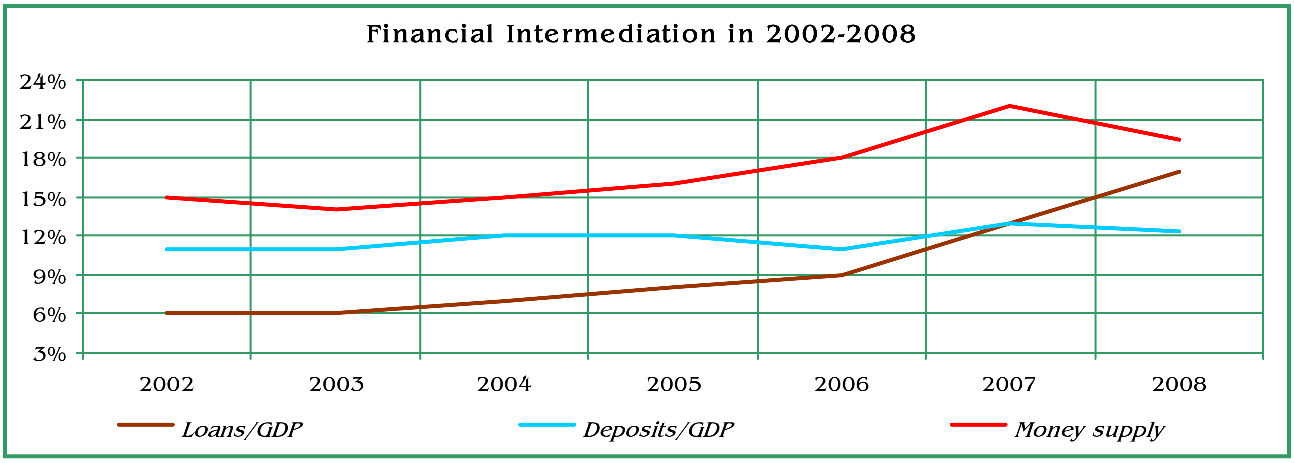
4.1.1. Financial Intermediation, Concentration

Over 2008, the level of financial intermediation has increased substantially, though it notably lags behind the respective level observed in the CIS countries. The growth rate of assets of banks outpaced the growth rate of nominal GDP. As a result, the ratio of banking system assets to GDP has increased by 3.7 percentage points to 28.1 percent, while the bank lending to GDP ratio has grown by 3.9 percentage points to 16.9 percent. The level of financial intermediation still remains low in Armenia, and further economic deteriorations may hamper its progress. Decline in growth rates of broad money and deposits attracted by banks were first signs pointing to the deceleration of advancing financial intermediation in 2008. Growth rate of deposits attracted made up 20.5 percent at the end of the third quarter but it slowed down to 12.8 percent in the fourth quarter (against 31.12.2007). Unlike deposits, the growth rate of Loan investment tended to go up to 50.9 percent in the yearend from 45.1 percent in the third quarter.

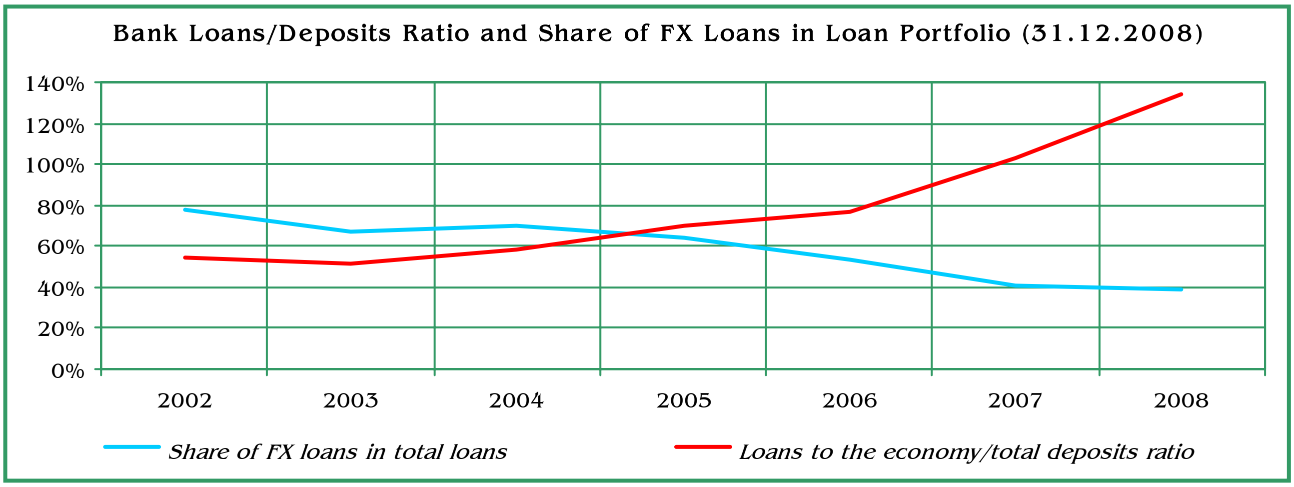
Another indicator describing financial intermediation is the ratio of loans granted to the economy to total deposits attracted, which due to deposit drops grew by 34.6 percentage points during 2008 to 137.2 percent in the yearend. This indicator set to denote the effectiveness of moving from savings to investments comes to prove that lending was less financed by deposits, as compared to the previous year, and instead, it was largely financed on account of funds attracted from international organizations and banks' own capital resources.

---

[20] This presents the 2008 developments with the Armenian financial market participants and evaluates the risks that may emerge in the course of their activities. The main highlights are efforts to disclose risks emerging in the banking sector and evaluate as to what extent the banking system-specific risks would affect Armenia's financial stability if shock scenarios come out.

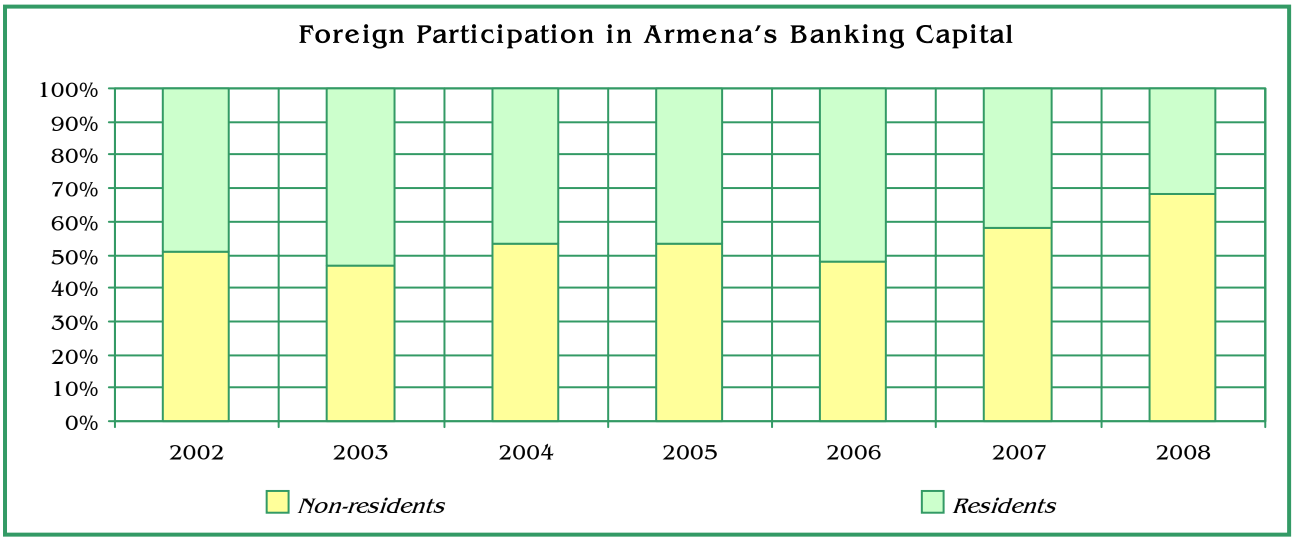


Source: CBA



Source: CBA

Notwithstanding deterioration in global economic crisis, foreign investor interest in Armenia's banking system has not diminished. In 2008, the share of non-resident participation in statutory capital of banks has improved by 9.7 percentage points to reach 67.7 percent.



Source: CBA

In 2008, as in the previous year, the banking system's aggregate foreign liabilities have grown. These resources were used mostly to for the lending to the domestic economy. For the first time in 2007 the volume of foreign liabilities of the banking system has exceeded the volume of foreign assets. This development persisted in 2008 as the negative level of net foreign assets (NFA) further dropped by 94.8 percent to AMD 147.7 billion in the yearend. The growth of foreign liabilities boosted the lending growth, contributing to further financial intermediation. This, however, has increased the reliance of the Armenian banking system upon foreign financial resources and the developments in foreign financial markets which are now very unpredictable.

In 2008 the Herfindahl-Hirschman Index of Concentration[21] for the banking system has declined somewhat (on average some 0.1 points) on part of some items (assets, liabilities, capital, loans, deposits). In the recent period, concentration of banking system is notably low and bears no risks.

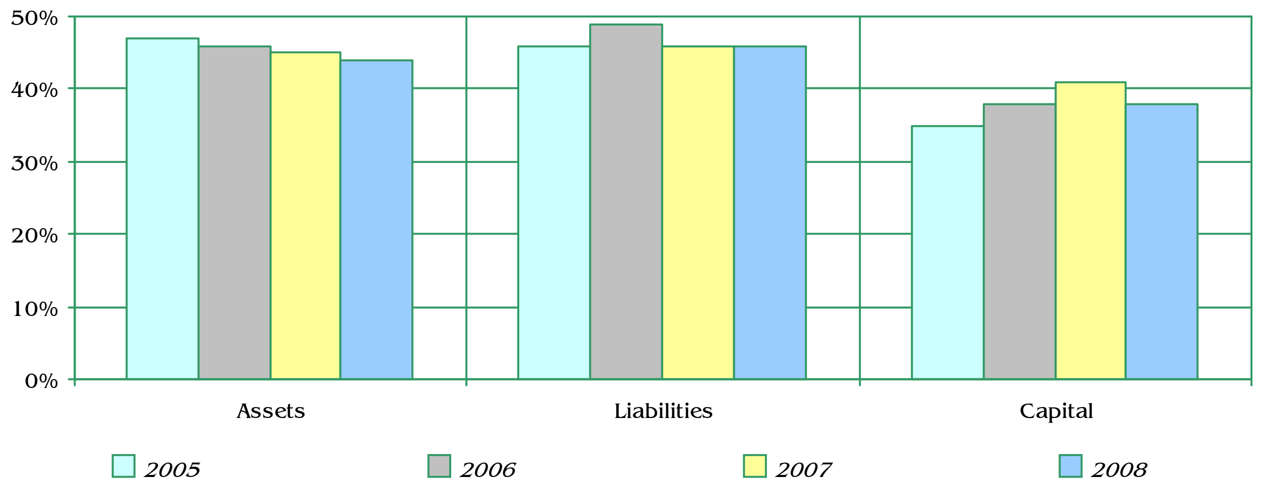
The Herfindahl-Hirschman Index of Concentration

Indicator	31.12.05	31.12.06	31.12.07	31.12.08
Total assets	0.08	0.08	0.08	0.07
Total liabilities	0.09	0.09	0.08	0.08
Total capital	0.06	0.07	0.07	0.06

Source: CBA

In Armenia, the share of assets of 4 banks and 10 largest banks out of 22 banks has declined by 1 percentage point to reach 44 percent and 76 percent, respectively, in total banking system assets in the yearend.

Share of 4 Largest Bank Assets, Liabilities And Capital In Total Banking System



The competition rate in Armenia's banking system has been estimated via the Panzar and Ross[14] model to be 0.3 in 2008, which proves that there are some elements of oligopolic competition in the banking sector. The said model was used to examine impacts of cost factors (such as salary, fixed assets and interest)on interest income of the Armenian banking system based on the 2003-2008 data of the Armenian banking system. The competition level is characterized by H-statistics[15] value that is the sum of change coefficients of cost factors and interest income. When H-statistics value was reviewed for the period 2003-2007 and 2004-2008, it showed that its value had declined from 0.29 to 0.24. This points to the deteriorated competition in the banking system. Although these scores witness about existence of elements of oligopolic competition, a series of monitoring conducted by the CBA did not discover any agreed price abuses. Interestingly, unlike the results

---

[21] The Herfindahl-Hirschman Index of Concentration varies between 0 and 1, characterizing the level of concentration (values close to 0 denote a low level of concentration).
[22] According to Panzar and Ross model, in a monopolistic market, rise in entry factor prices may cause marginal costs increase which brings output and total incomes to decline (as participants tend to reduce the entry factor acquisitions by high prices). In a competitive market, rise in entry factor prices causes marginal costs and incomes to increase in equal size. In oligopoly competition environment entry price rise leads to a non-proportional minor increase of incomes.
[23] Panzar and Ross model estimates an H-statistic, which describes the level of market competition. If the value of such H-statistic is close to 1, then it means existence of perfect competitive market, in case of 0<H<1 market can be described as oligopolistic, and in case of H is close to 0 value – market competition is monopolistic.

produced via this model, the Herfindahl-Hirschman Indexes of concentration tend to decline in the recent three years.

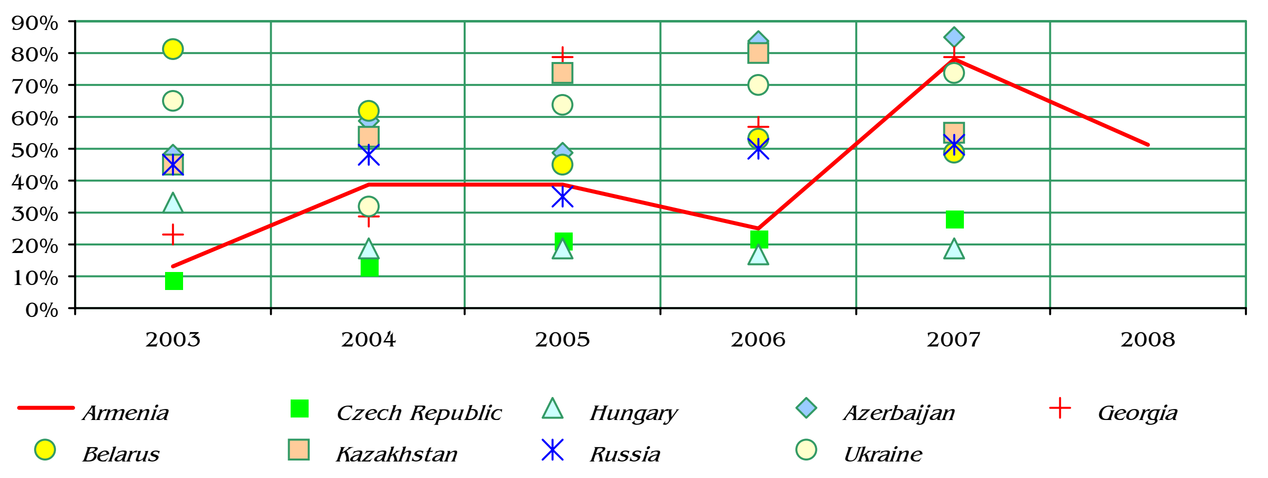
During the year, the growth rate of total capital exceeded the growth of total liabilities (capital has grown by 37.2 percent and liabilities have grown by 33.0 percent). As a result, the total capital/total liabilities ratio has risen by 1.0 percentage point to reach 29.9 percent in the yearend. This ratio is rather high in relation to the respective figure observed in banking sectors of other countries, which enables the Armenian banking system to absorb risks at its own resources.

Four major banks in Armenia have been awarded appropriate ratings[16] of international rating organizations. Three of these banks have retained their rating at the same level and one has even improved it.

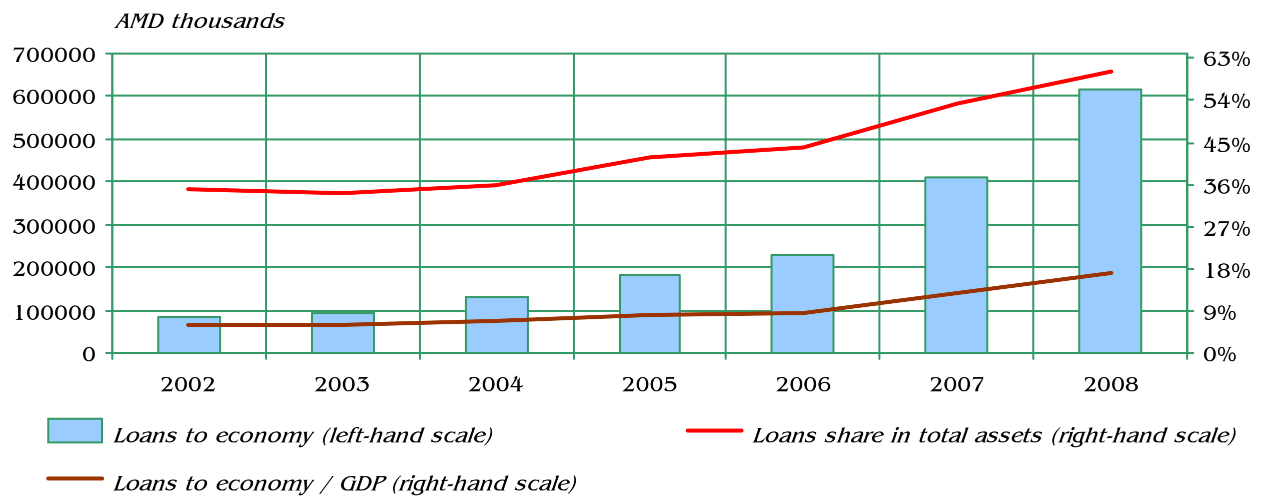
4.1.2. Credit Risk

Section "Macroeconomic development" of this report provides an overview of possible risks associated with the development of sectors of the Armenian economy taking into account aspects of borrower credibility. Credit risk in the banking system is currently manageable, since the share of non-performing loans in the recent years is not that high, nor notable loan concentrations in economy sectors are observed.

Annual Loan Investment Growth



Bank Loan Investments in Economy (31.12.2008)



Source: CBA

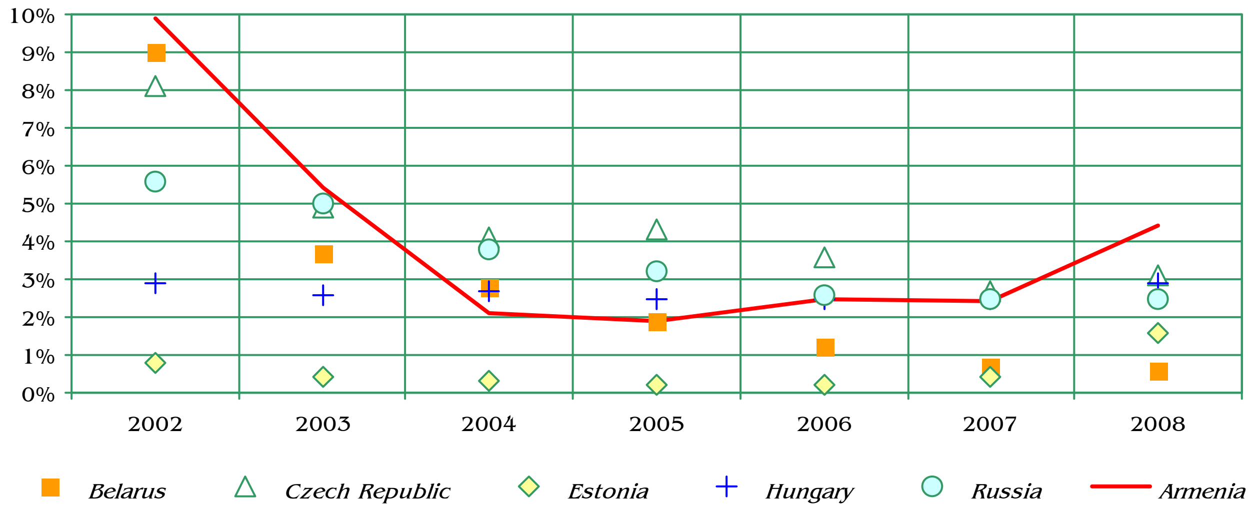
---

[24] *Fitch, Moody's.*

In the CIS and East European countries, an intensive growth of loan investment has begun in rather an earlier stage, whereas such growth has been recorded in Armenia in 2007 and 2008. The growth of lending in 2008 lagged behind the previous year's record growth indicator and made up 51 percent. External long-term, cheap financial resources also contributed to ten growth of loan investments. It was expected that the lending growth that began from 2007 as well as the emergence of global financial and economic crisis could bring in the deterioration of loan quality. However, no considerable impairment of loan quality was observed in 2008.

The growth of lending by banks has exceeded the growth of total assets, and the share of loans in total assets has increased by 6.8 percentage points to make up 60.3 percent in the yearend.

Share of Non-Performing Loans in Loan Portfolio



Source: CBA

The share of non-performing loans (the loans classified as watched, non standard, doubtful) in total loan portfolio has increased by 2.0 percentage points to 4.4 percent[25], as of yearend 2008. The increase of non-performing loans has been driven mainly by 2.7-fold increase of watched loans[26], which could be viewed as a signal for emerging high risks in the next year. However, this ratio of non-performing loans to total loans falls behind the same ratio observed in a number of CIS and East-European countries.

The share of non-performing loans by sectors is relatively high, representing 8.7 percent in construction, 6.8 percent in public catering and other related services, and 6.4 percent in industrial sectors.

Loan concentration by sectors of the economy is not high, with the highest concentration for consumer loans (24.1 percent) and trade loans (20.5 percent). Loans provided to these sectors, no matter how large their share is in loan portfolio, have always reported low credit default rate. This allows predicting that some losses are inevitable over 2009 which, however, would be controllable.

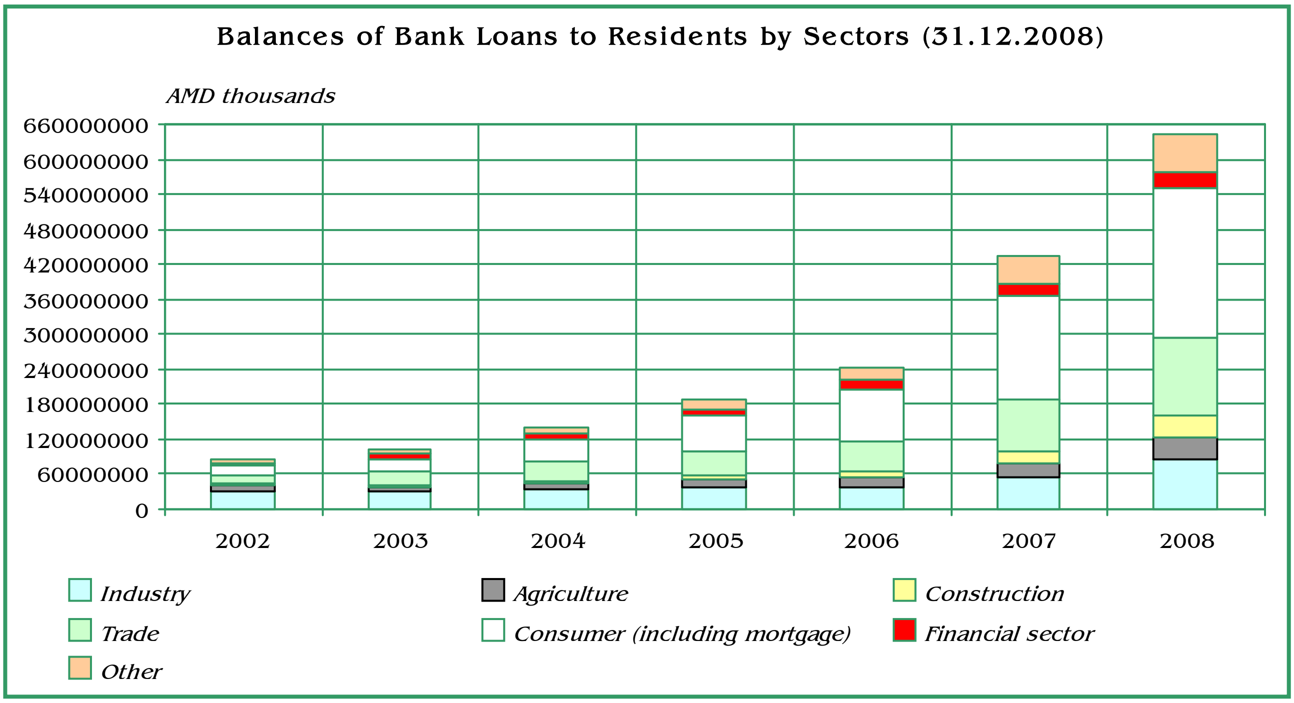
Mortgage lending this year has again grown at a fast rate, though somewhat slower than in the previous year, recording a total growth of 56.7 percent. Typically, Armenian banks provide such loans at no more than 60-70 percent loan to value ratio, and apply rather a strict approach to evaluate borrower credibility. Such restrictions effectively help to absorb possible risks and handle real estate price volatilities.

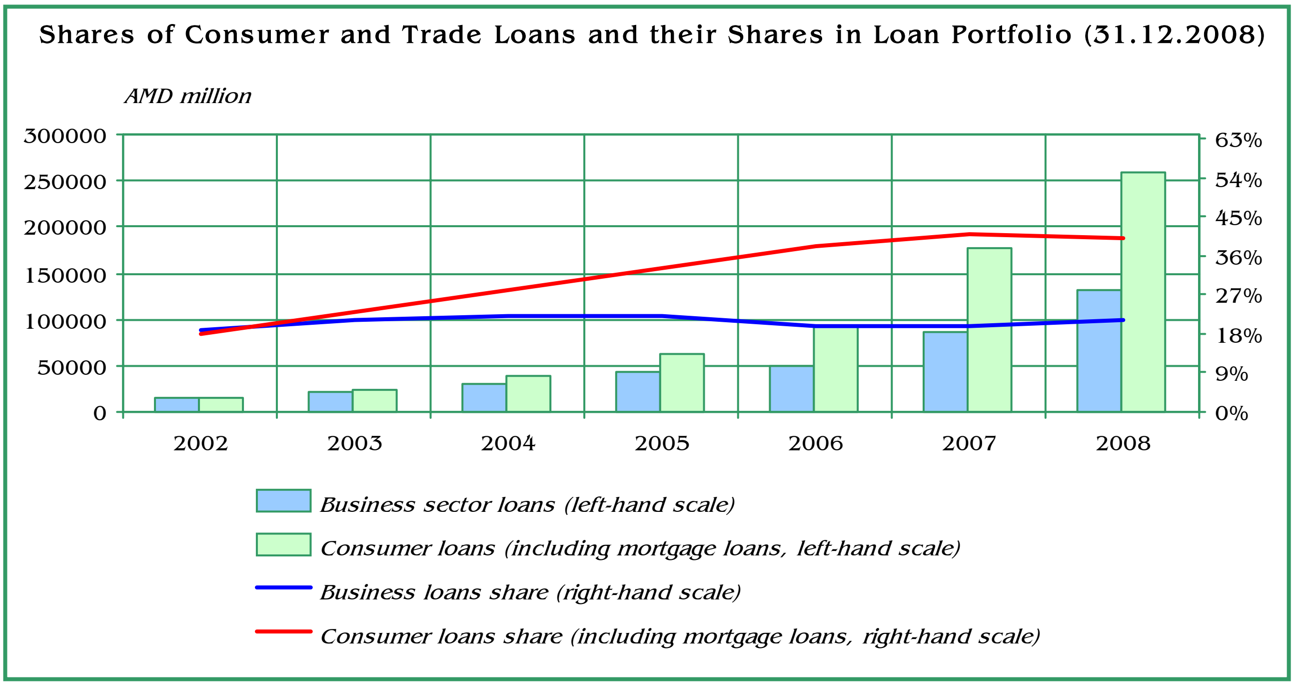
Over the recent years, consumer, mortgage and trade loans have increased considerably, which is determined by factors, such as sustainable economic growth, increased demand for loans due to continuous rise in household incomes (including private remittances); expansion of different foreign loan programs. Consumer loans and trade loans have reported the highest growth in volumes, by AMD 50.9 billion and 45.2 billion, respectively. Generally, default rate of these loans

---

[25] Pursuant to the IMF methodology, non-performing loans are loans overdue for more than 90 days. In this case, the non-performing loans to total loans ratio will make up 2.5 percent.
[26] Loans outstanding for 1-90 days.

highly depends on sustainable income growth of households, low level of inflation and sound economic development. No considerable impairment of trade and consumer loan portfolios was observed, owing to the growth of household income.

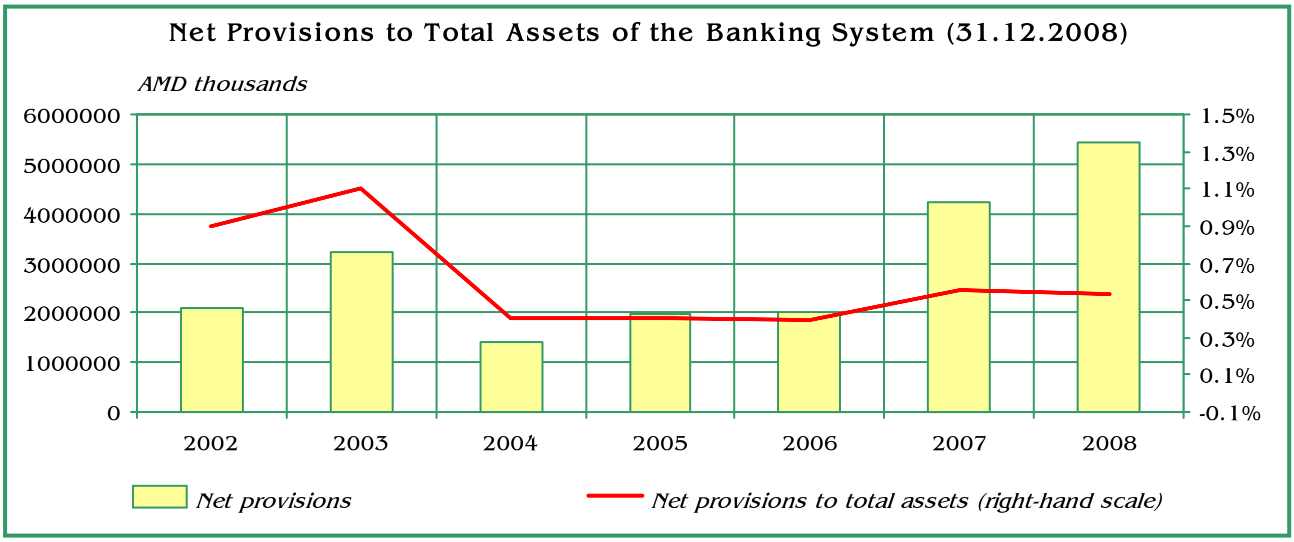




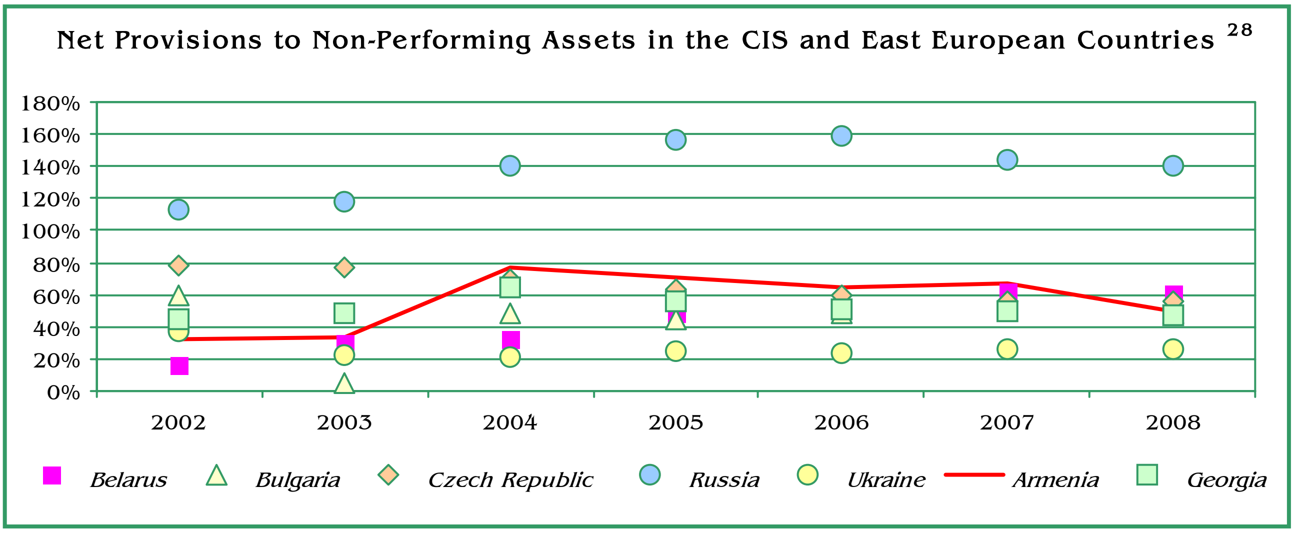
Present forecasts on developments in the Armenian economy bode well for a change in the structure of loan portfolio from consumer loans to small and medium-size enterprise lending, which would help stimulate the economic growth, domestic demand and export-oriented sectors.

The ratio of loan loss provisions to total assets fell in 2008 by 0.02 percentage point to 0.5 percent in the end of the year, though non-performing loans increased. This is much for the increased share of watched loans which impose low provisioning norms[27].

[27] *Possible loan loss provisioning make for standard loans -1percent, watched loans - 10percent , non-standard loans – 20 percent, doubtful loans – 50 percent*



Source: CBA



Source: CBA

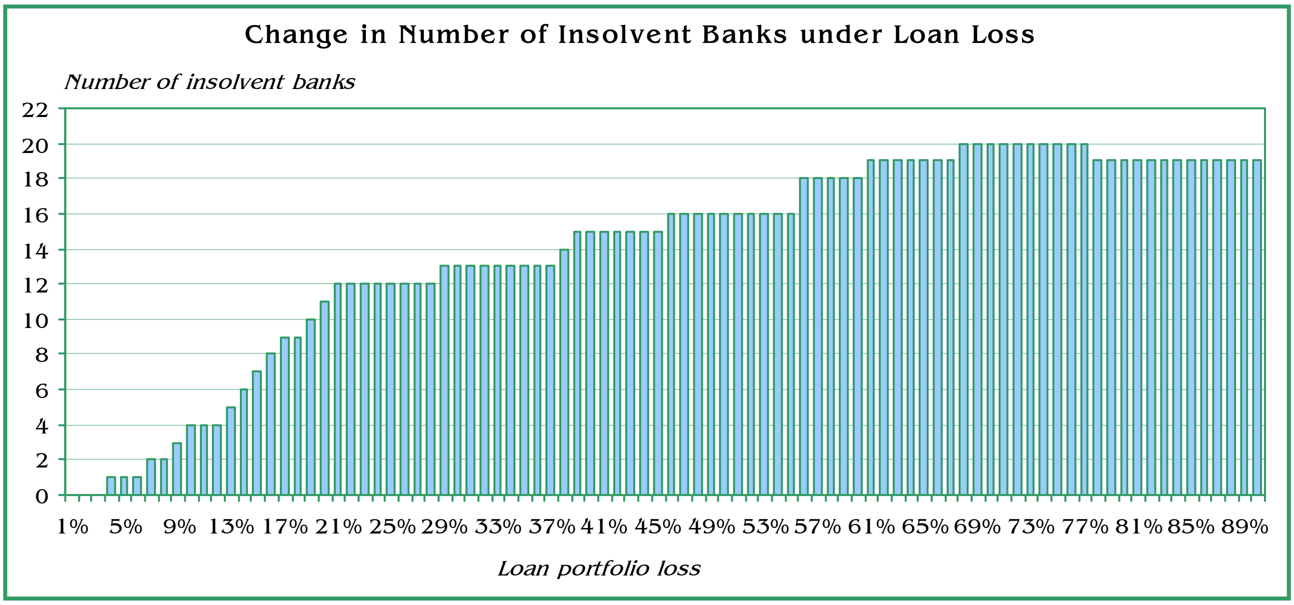
The role of Credit Registry and Credit bureaus in credit risk management is outlined in Section "The CBA Credit Registry and ACRA Credit Bureau" of this report.

The table below estimates that if the worst possible stress-scenarios[29] occur, banking system losses will not make a significant change in solvency of banks and, consequently, will have no negative impact on Armenia's financial stability.

Credit risk stress-scenarios [30]			
31.12.2008 թ.	25 percent of loans in watched, substandard and doubtful categories classified into bad loans	75 percent of loans in doubtful category classified into bad loans	30 percent of loans in standard category classified into watched loans
Loss of the banking system	AMD 5.9 billion or 2.8 percent of regulatory capital of the banking system	AMD 1.0 billion or 0.5 percent of regulatory capital of the banking system	AMD 16.2 billion or 7.6 percent of regulatory capital of the banking system
Total capital adequacy of the banking system	26.9 percent	27.4 percent	29.5 percent

---

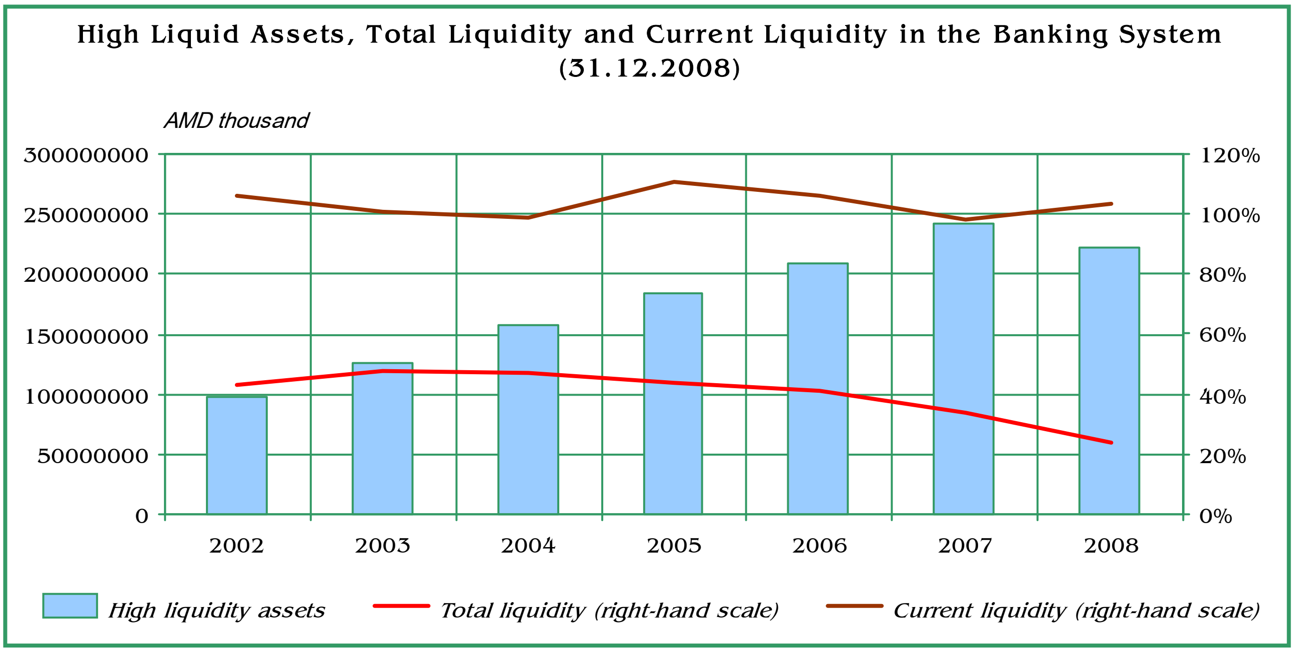
[28] *Net provisioning involves the provisions made to general and special reserves.*
[29] *This and further stress-scenarios presented in this report don not forecast any risks, but aim to reveal weaknesses of the financial system, as well as assess its ability to absorb such risks.*
[30] *Stress-scenarios are built on an assumption that the amounts of bank loans are unchanged and the secured property is ignored (which means that where loans are classified as bad, a possible sale of the pledged property is not considered).*



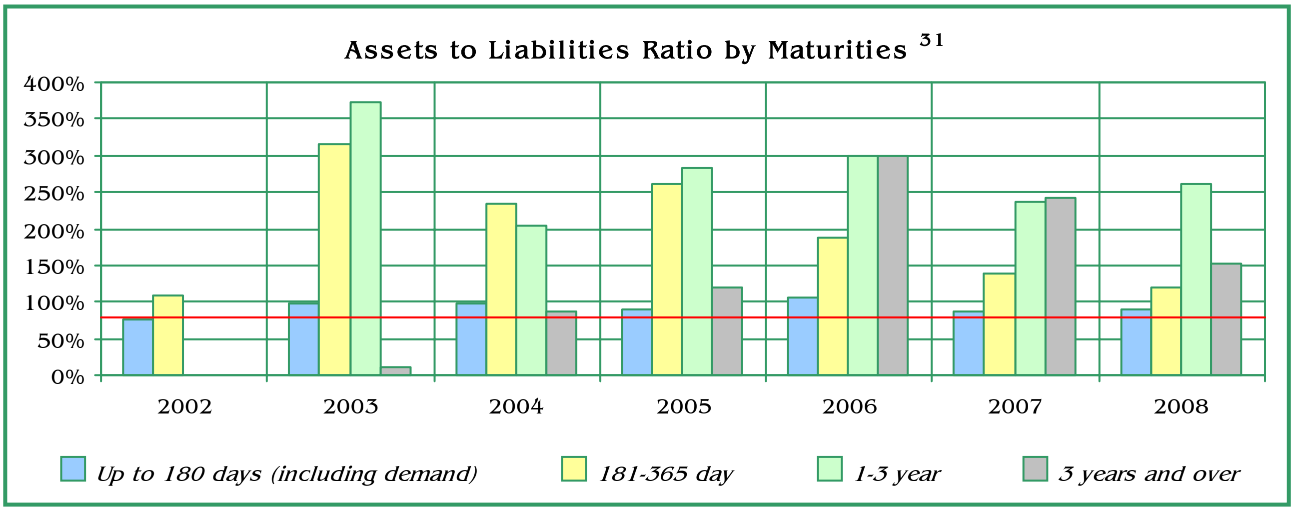
Source: CBA

4.1.3. Liquidity risk

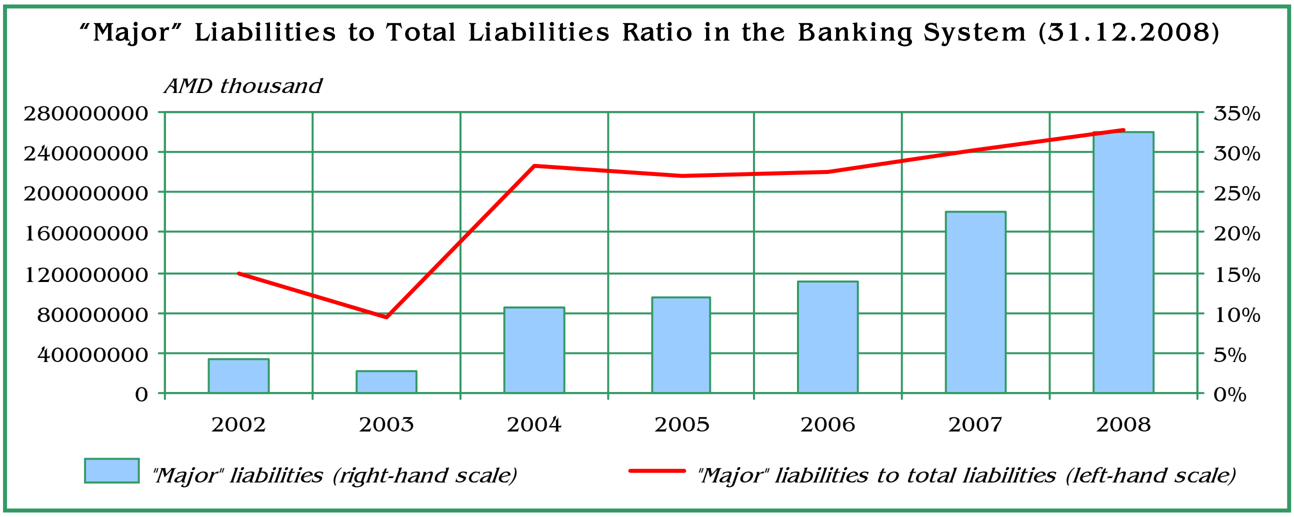
In general, over the recent years the liquidity in the Armenian banking system has remained considerably high despite the continued downfall, and banks have only faced negligible liquidity problems. The total and current liquidity ratios in the banking system were higher than required (the minimum requirements today are 15 percent and 60 percent, respectively). In the reported year, high liquid assets, along with rise in total assets, declined by 8.2 percent to AMD 222.8 billion, and total liquidity (high liquid assets/total assets) declined by 9.8 percent to 23.8 percent. As demand liabilities declined, current liquidity of the banking system (high liquid assets/demand liabilities) increased by 4.9 percentage points to 103.1 percent.



Analyses on assets and liabilities by maturity baskets showed that assets in all baskets are well above the liabilities, except for the 180-day maturities. Banks, therefore, still have a need for long-term liabilities.



Concentrations of liabilities by depositors are low, although the share of 'major' liabilities in total liabilities[32] in 2008 has increased by 2.3 percentage points to make up 32.7 percent, which is not hazardous in the financial stability point of view.



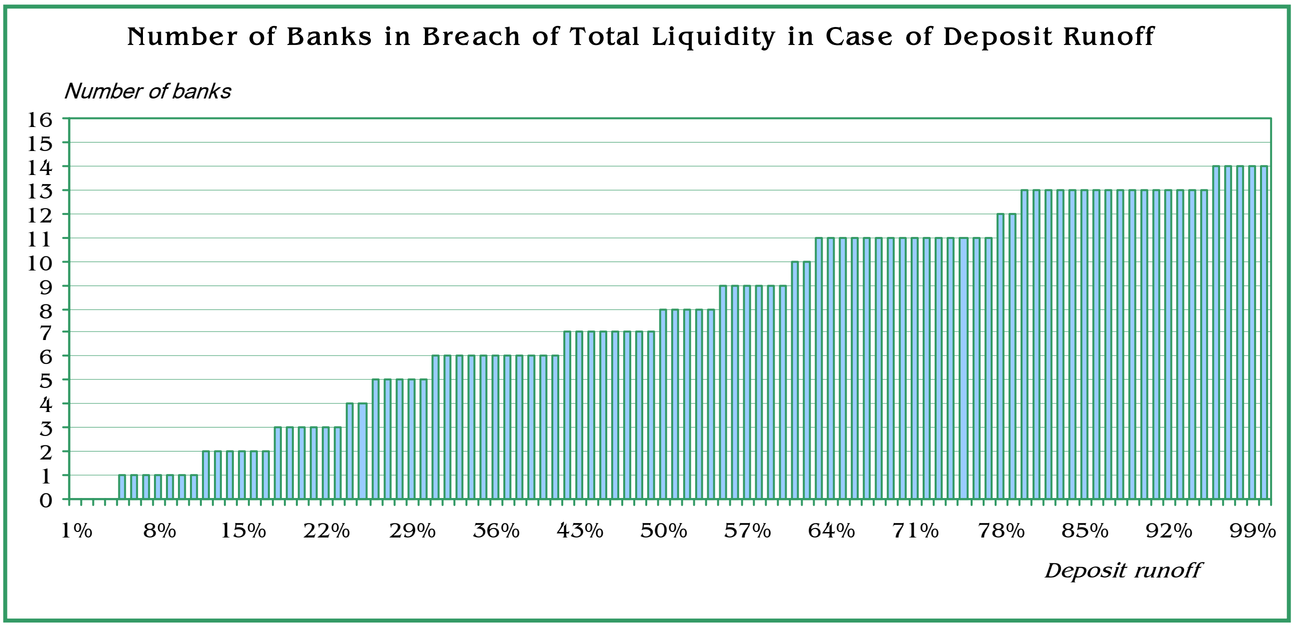
Source: CBA

The liquidity stress-tests point to a reasonable level of liquidity risk management in the banking system. The tests results show that in the event of worst possible stress-scenarios, some banks may somewhat breach the N2[1] total liquidity prudential and the N2[2] current liquidity prudential. Nevertheless, the banking system will not face liquidity problems nor risks undermining financial stability will emerge.

Stress-Scenarios on Liquidity Risks

31.12.2008	Repayment of 25 percent of time deposits of natural persons [33]	Repayment of 25 percent of demand resources	Repayment of 25 percent of demand resources and repayment of 25 percent of time deposits of natural persons
Ratio of highly liquid assets to total assets of the banking system	20.1 percent (3 banks will breach)	19.1 percent (one bank will breach)	149 percent (10 banks will breach)
Ratio of highly liquid assets to demand liabilities of the banking system	82.6 percent (3 banks will breach)	103.5 percent (one bank will breach)	76.8 percent (6 banks will breach)

[31] As of 31.12.2002, the 1-year and longer maturity assets and liabilities are included in the 181-365-day maturity basket.
[32] Represents the sum of all resources each of which separately exceeds the 5 percent margin of total liabilities of a bank, without considering affiliation.
[33] As provided for in the Republic of Armenia Civil Code, Article 905(2), "Under any bank deposit contract, a bank must refund the amount of deposit or a part thereof at the first request of the depositor, except for deposits of legal entities for which a contract specifies other terms for refund".

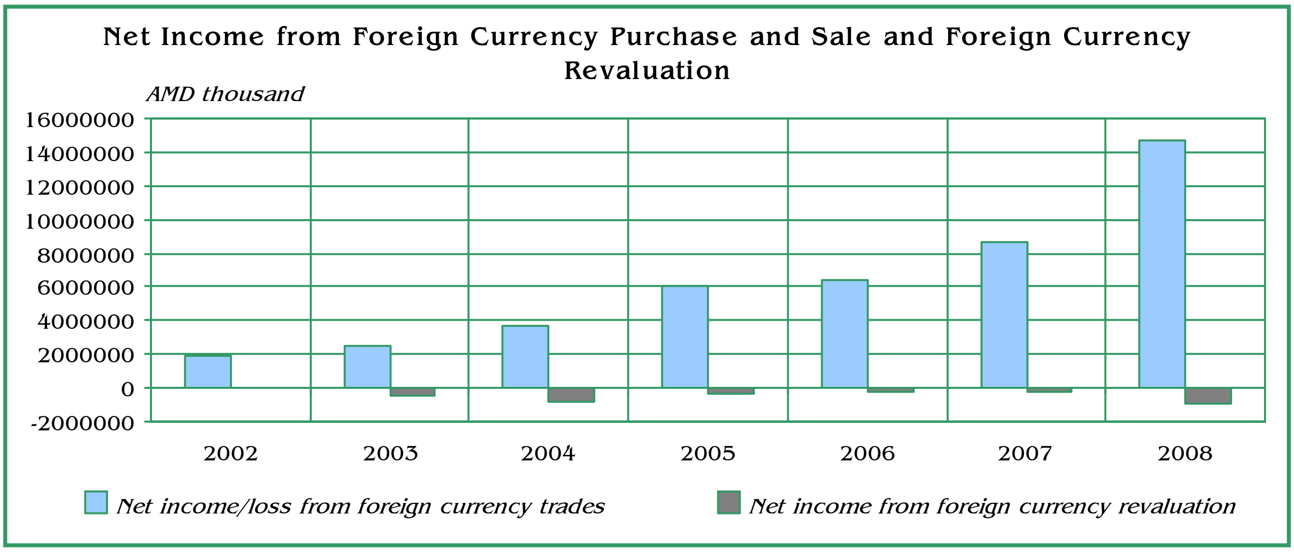


Source: CBA

4.1.4. Marker risks

The exchange rate risk in the Armenian banking system has been controllable enough throughout 2008, without any considerable losses reported due to foreign currency risks.

In 2008, the dram's exchange rate remained steady vis-à-vis the US dollar, unlike its volatile behavior observed in the last couple of years. The dram's fluctuations vis-à-vis other currencies led to a situation where the banking system has incurred about AMD 891 million revaluation losses, which constituted 0.4 percent of regulatory capital against 0.1 percent recorded in 2007. Because of revaluation, 14 banks have incurred loss and 8 banks posted profit. The banking system has generated a revenue of AMD 14.6 billion on FX purchase and sale operations, up by 70 percent compared to the revenue reported in the previous year.



Source: CBA

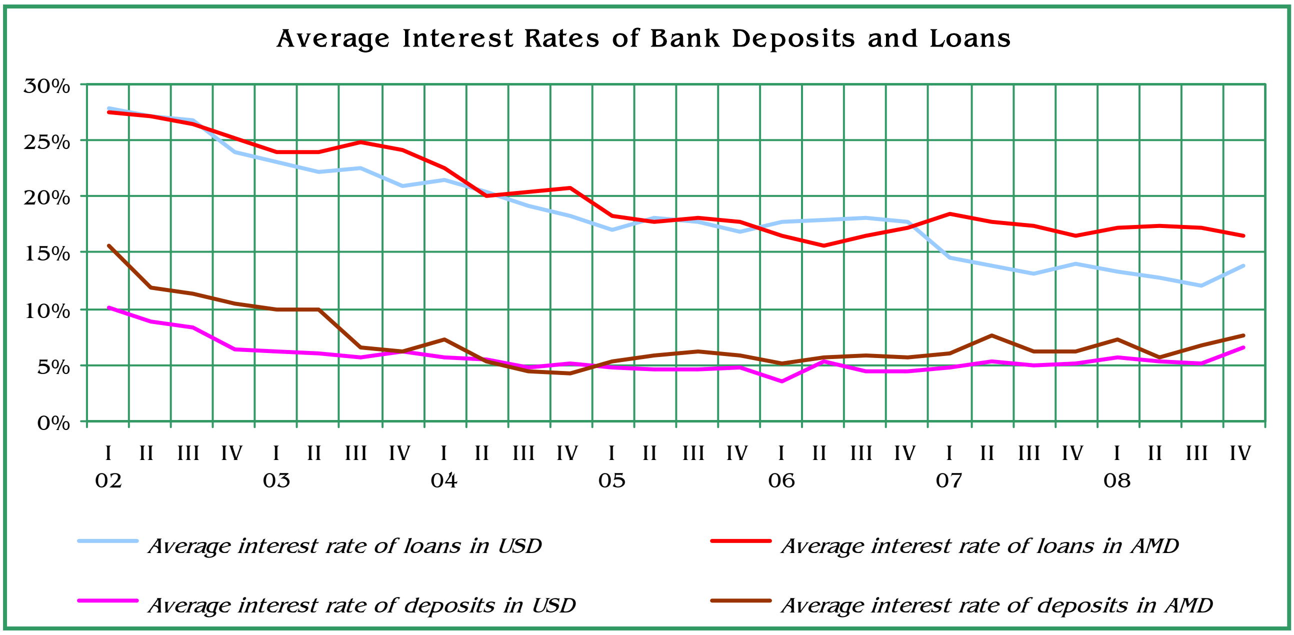
The global economic crisis has made expectations of depreciation of the dram more feasible. Already in the fourth quarter the economy began seeing patterns of re-dollarization of banking system liabilities that may result in increased foreign currency exposures in the banking sector. As opposed to the third quarter, the share of dram denominated deposits declined by 8.8 percentage points to 48.6 percent, in the following quarter. At the same time, the CBA foreign exchange market intervention put off the expected dram depreciation, enabling households, businesses and financial institutions to rebuild their currency positions at least cost. While banks are committed to refund amounts of individuals deposits at any moment of time, allowing the depositors to quickly convert a deposit in one currency into the deposit in another currency, banks will not be able to readjust assets side of their balance sheets accordingly at the same speed. Besides, individual loans, as provided for by currency regulation law, are mostly provided in dram. This increases the probability of relatively high foreign currency risks for commercial banks.

In the table below are estimates of risks that in case of worst possible stress-scenarios. Banks' losses incurred due to foreign currency risk are not considerable and cannot affect their financial stability.

Stress-Scenarios on Foreign Exchange Risk[34]

31.12.2008	Armenian dram's 20 percent appreciation (depreciation) vis-à-vis the US dollar	Armenian dram's 20 percent appreciation (depreciation) vis-à-vis Euro	Possible maximum reported loss estimated through VaR Model
Banking system's revenue/loss from foreign currency revaluation	AMD 2.6 billion or 1.2 percent of regulatory capital (AMD -2.6 billion)	AMD 111 million or 0.1 percent of regulatory capital (AMD -111 million)	AMD -2.8 billion

In the recent years interest rates of loans and deposits in the market trended downward. However, starting the second half of 2008, upward trends for loan and deposit interest rates are being observed. The interest rate increase is driven by expectations of economic uncertainties, slowing growth rate of income and growing risk expectations.



Source: CBA

The average weighted maturity gap of assets and liabilities remained almost unchanged, making up about 180 days. If this gap is retained in 2009, banks will be able to respond rapidly to changes of market interest rates and adjust them accordingly. Long-term mortgage loans provided by banks have increased, and were financed partly by long-term international programs. However, according to maturity group analysis, they were also financed by short-term resources attracted.

The table below shows that in case of worst possible stress-scenarios, banks' losses on the banking system capital are not significant and will not affect Armenia's financial stability.

---

[34] *The calculation of losses estimated through stress-scenarios and the VaR Model (the VaR Model is not considered as a stress-scenario as the calculation of the model takes historical exchange rate series of currencies) is based on an assumption that the foreign currency position of the banking system would not change during the year.*

Stress-Scenarios on Interest Rate Risk		
31.12.2008	Impact of 2 pp increase (decrease) of market interest rates on total portfolio, estimated trough the method of 'duration'	Where market interest rates decrease (increase) by 2 pp, there will be deviation from income expected on net interest income of the three months ahead, estimated through the 'Gap Method' (a method of interest rate-sensitive assets and liabilities gap)[35]
Banking system's revenue/loss	AMD -2.3 billion or 1.1 percent of banking system capital (AMD 2.3 billion)	AMD -340 million or 0.15 percent of banking system capital (AMD 340 million)

Price risk in the Armenian banking system is estimated to be rather low, as the share of available for sale financial assets in total assets is too small. The banking system has not incurred losses on price risk over 2008, but reported net revenues of AMD 457 million from revaluation of available for sale financial assets and net revenues of AMD 0.5 million from revaluation of fixed assets.

The table below presents bank losses (due to price risk and credit risk) in the event 30 percent depreciation of real estate occurs. Even if such losses are substantial, these are estimated not to have any hazardous impact on financial stability of the banking sector.

Stress-Scenarios on Real Estate Price Change	
31.12.2008	*30 percent depreciation of real estate*
The banking system's loss due to revaluation of property owned by the bank *(Price risk)*	AMD 15.8 billion (or 7.4 percent of banking system capital)
The banking system's loss due to a 30 percent loss of vulnerable credit portfolio[36] (taking into consideration that the property pledged against those loans has been sold) (credit risk), in the event a stress-scenario occurs	AMD 1.8 billion (or 0.8 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 property pledged against those loans has been sold) (credit risk), in the event a stress-scenario occurs	AMD 6.0 billion (or 2.8 percent of banking system capital)

4.1.5. Capital Adequacy and Profitability

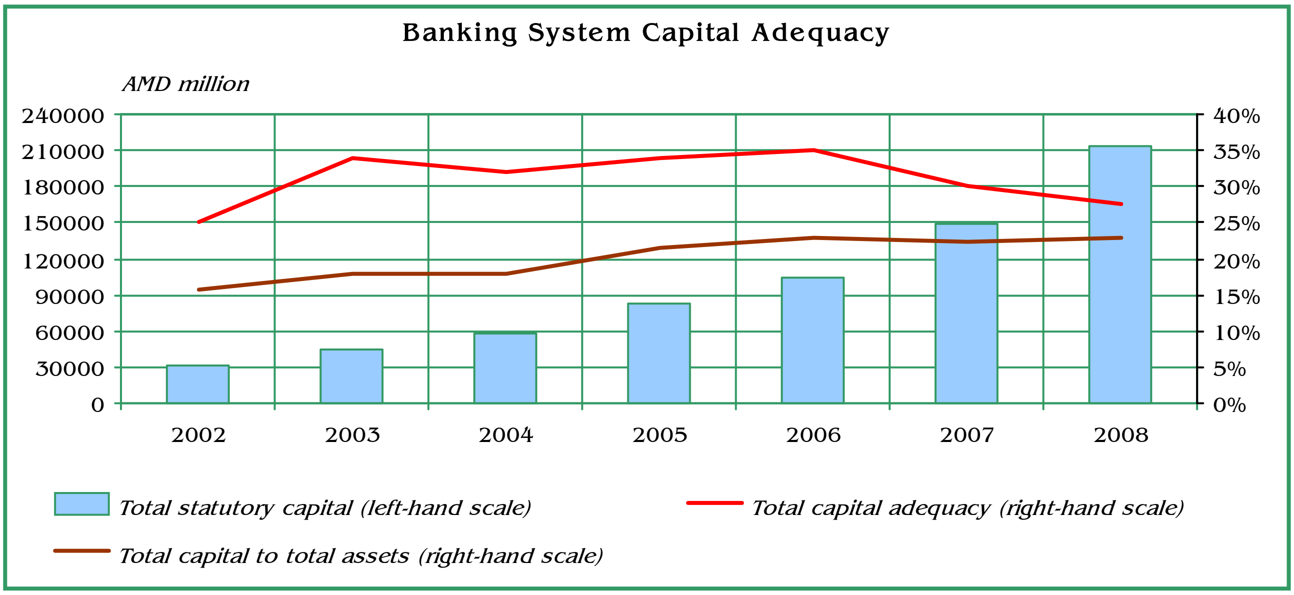
Capital adequacy and profitability of the Armenian banking system is high enough to absorb risks at its own resources. It is estimated a bit higher than those of the East-European and CIS countries. High growth of banking capital over banking assets has resulted in an increase in the capital/assets ratio. Based on the 2007 and 2008 results, capital adequacy has declined as capital growth was lower than that of lending. However, capital adequacy was greater than the required prudential standards. In 2008 it declined by 2.6 percentage points to 27.5 percent which is twice as much the 12 percent requirement. The capital adequacy decline was driven by the use of a new modified version of total banking capital adequacy calculation that was changed under the Basle 2 Accord standards. New capital adequacy calculation, in addition to credit risk, includes market risk and operational risk exposures.

The capital adequacy indicator varies in the range of 15-100 percent for individual banks. In general, banks are well-capitalized and no bank has recorded any breaches of the requirements in the course of the year.

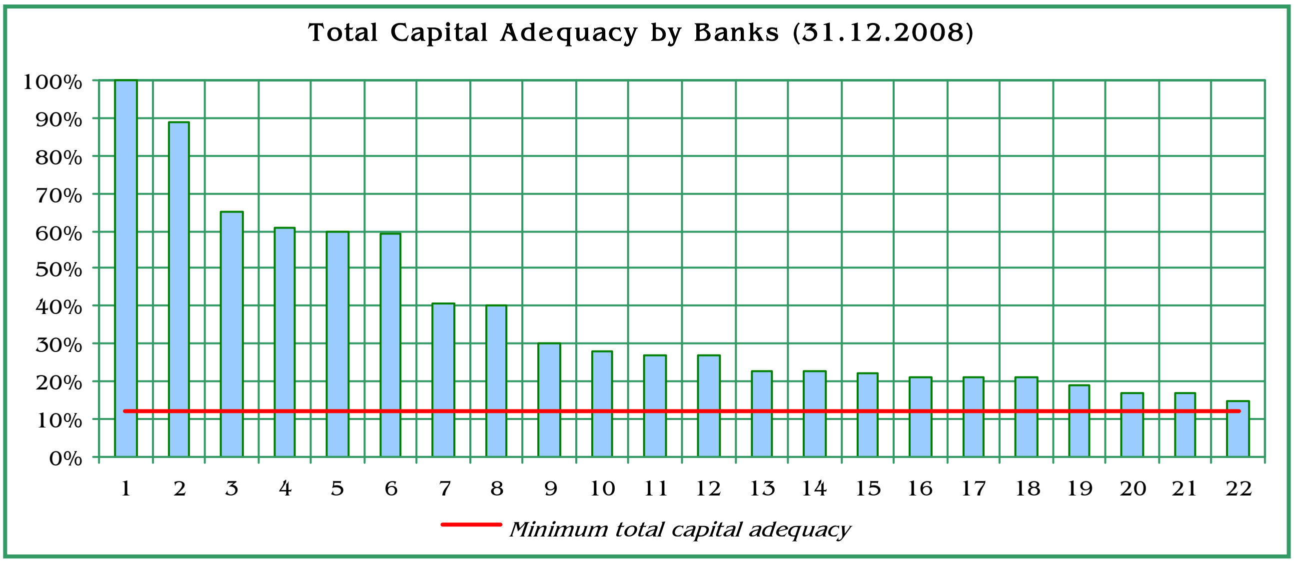
---

[35] The calculation of this methodology is based on an assumption that the structure and volumes of assets and liabilities in a reviewed (3 months) period remain unchanged, that is, the assets and liabilities repaid are re-allocated and re-attracted but a new interest rate is applied thereon.

[36] A vulnerable credit portfolio involves the amount of loan residuals for which the residual value exceeds the 50 percent of the depreciated collateral value.

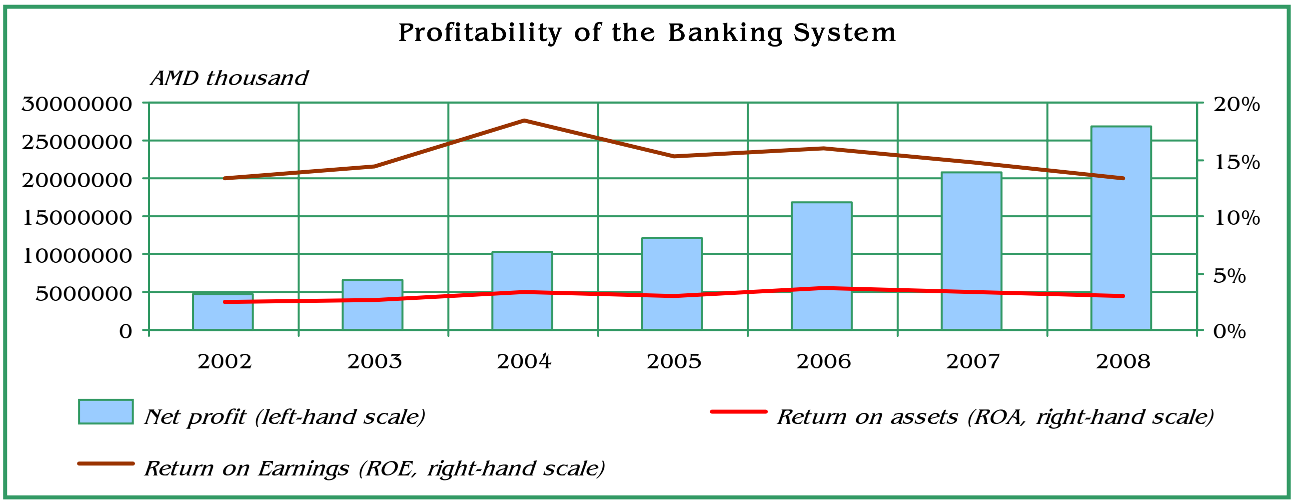


Source: CBA



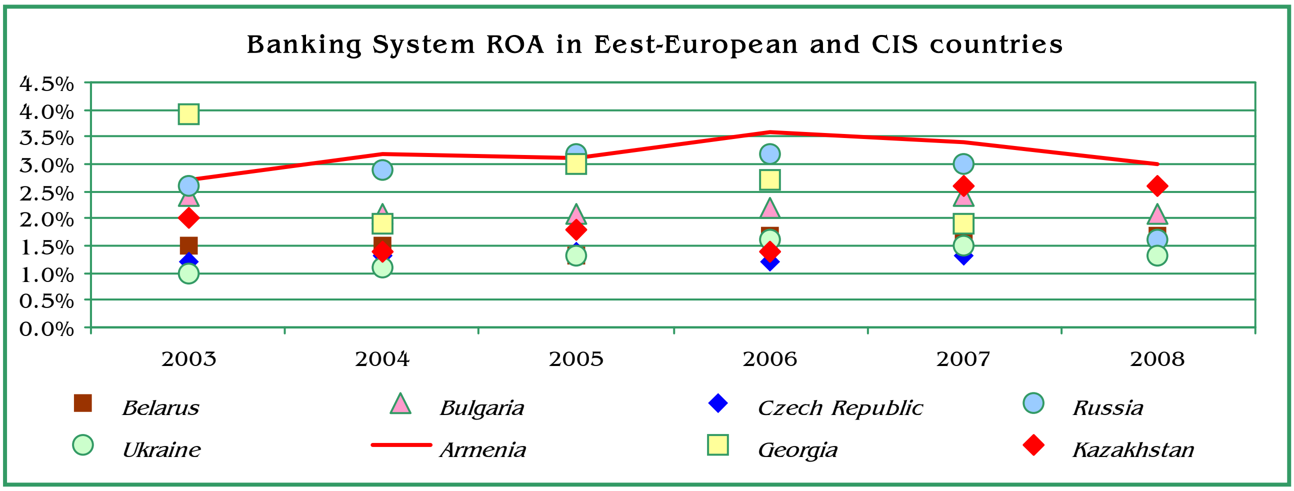
Source: CBA

Based on the 2008 results, the banking system has posted profit of AMD 26.9 billion, up by 29 percent against the previous year. Twenty banks ended the year with profit and two banks reported loss.

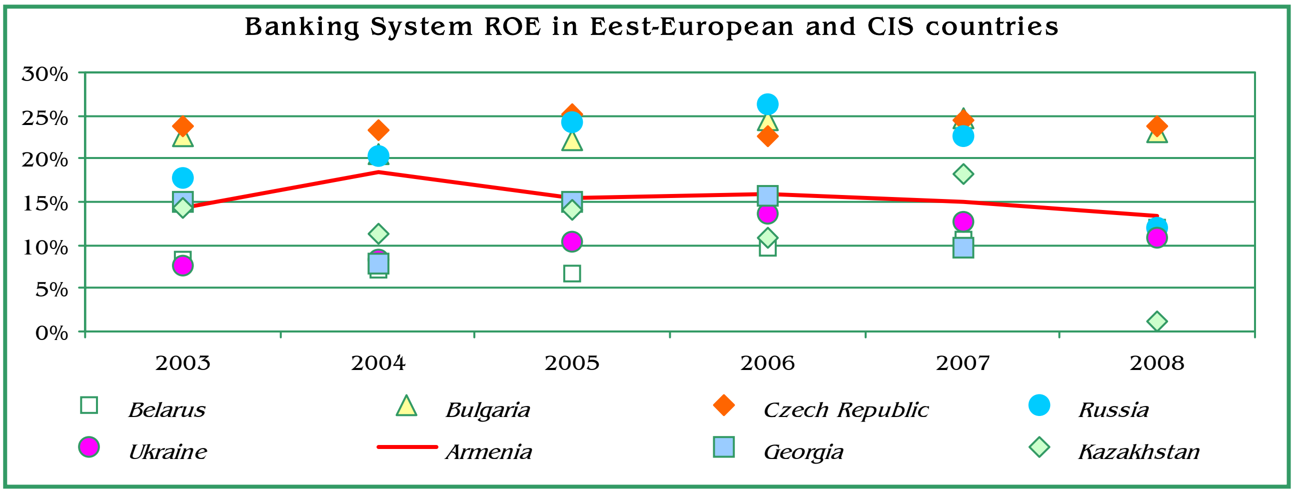


Source: CBA

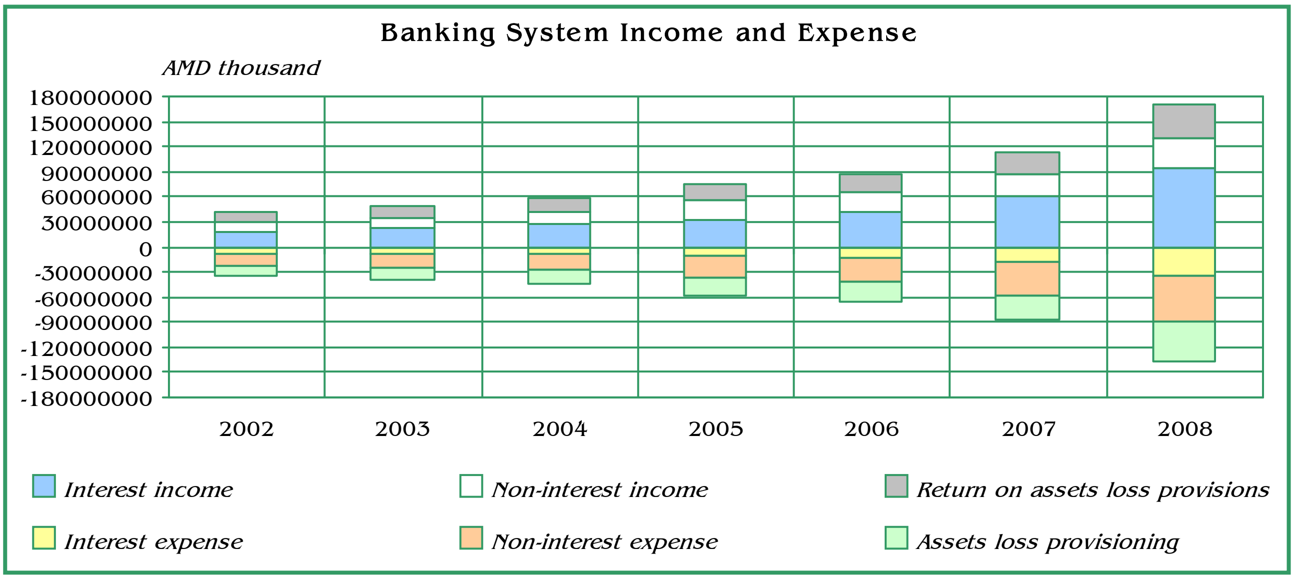
Return on assets and return on equity ratios decreased to some extent as assets and liabilities have grown faster than profit. Profit was smaller as opposed to the prior period owing to high growth of interest bearing liabilities and decline of non-interest income growth. In 2008, return on assets dropped by 1.4 percentage points to 3.0 percent and return on equity dropped by 0.4 percentage point to 13.4 percent.



Source: CBA



Source: CBA



Source: CBA

In 2008, gross revenues in the banking system totaled AMD 171.1 billion, the larger share of which (55 percent) was interest income, whereas gross expenditure amounted to AMD 136.3 billion with a share of 40 percent for non-interest expenditures. In general, income and expenditure items remained unchanged, as compared with the previous year.

In view of vulnerability of financial stability, relatively high levels of profitability and capital adequacy of commercial banks in Armenia points to an assumption that the Armenian banks in 2009 will be able to absorb at their own potential consequences of the global financial and economic crisis.

4.2. CREDIT ORGANIZATIONS

The second major sector of the financial system is credit organizations with a 6 percent share in total financial system assets. Capitalization and profitability of credit organizations are higher than those of banks, and by some stress-scenarios, they are capable enough to eliminate possible risks.

By end-year of 2008, total capital to total assets ratio of credit organizations was 27.3 percent, return on assets (ROA) – 5.5 percent, and return on equity (ROE) – 19.8 percent.

In 2008, credit organizations reported high growth of assets, liabilities, capital and profit.

Credit organizations' Assets, Liabilities, Capital and Profit *(thousand of AMD)*

	31.12.2007	31.12.2008	Growth (%)
Assets	43370409	65238976	50.4
Liabilities	30923516	47407396	53.3
Capital	12446893	17831580	43.3
Net profit	1777556	2977297	67.5

Source: CBA

Loan investment (including leasing) has grown by 51 percent. In addition, the share of standard loans in total dropped by 2 percentage points to 96.1 percent.

The ratio of assets loss provisions to total assets remained almost unchanged in 2008, having reached 0.7 percent at the yearend. In terms of loan distribution by economy sectors, the share of non-performing loans is the largest – 8 percent in consumer loans and 11 percent in transport and communication sector loans.

4.3. INSURANCE COMPANIES

Insurance industry's share in the financial system of Armenia is quite small; it represents 1 percent of total assets. As of 31.12.2008, penetration of insurance industry (the ratio of accrued insurance premiums to GDP) has been 0.21 percent (0.16 percent in 2007). This ratio is many times lower in relation to the figure in some developed countries and developing countries. Density of insurance industry (the ratio of insurance premiums to population) is low, too: a per capita insurance premium indicator[37] reaches AMD 2,600. Because of their small volumes, low level of financial intermediation, insurance companies are less likely to cause financial instability in their current stage of development. Risks of insurance companies are manageable owing to both risk management mechanisms used by insurance companies and supervision policy of the CBA as well as continuous efforts to improve the regulatory framework.

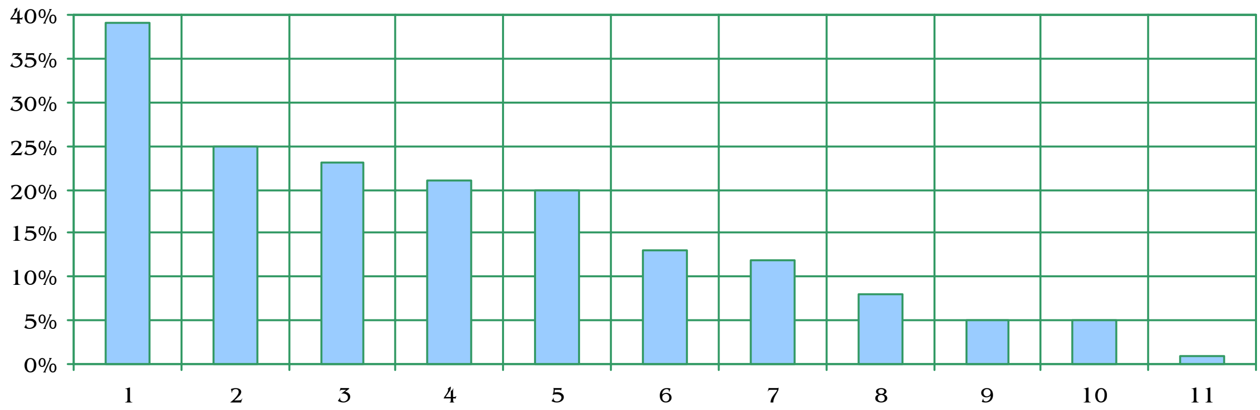
[37] *Based on the 2006 results, a per capita insurance premium indicator averages AMD 485704 or USD 1336.2 in industrially developed countries and AMD 10245 or USD 28.2 in developing countries (source: Swiss Re, Economic Research & Consulting, sigma No. 4/2007).*

The below-mentioned factors point to a low risk profile of operations of insurance companies:

- A major part of risks insured by insurance companies is reinsured: a reinsurer's share in sums insured is 88 percent. Insurance companies are increasingly using reinsurance to transfer and diversify a bulky part of their risks, which alleviates their indemnity burden in case of insurance accidents. Domestic insurance companies primarily use the services of reinsurers with high rating, thus minimizing the risk of non-performance of liabilities by reinsurers;
- The loss ratio (the sum of accrued insurance claims and change in reported but not regulated claims reserve to insurance premiums earned) of insurance companies in 2008 was 30 percent, which is quite a firm guarantee for a financially stable insurance market;
- In 2008, Return on Assets (ROA) was 11.2 percent and ROE was 70.2 percent;
- As of 31.12.2008, the required solvency margin for insurance sector has been 14.7 percent of regulatory total capital. This means that even accrued insurance premiums were nearly seven times more, insurance companies, other things being equal, would still not break the required solvency margin.

In 2008, none of the insurance companies violated the prudential solvency margin requirement.

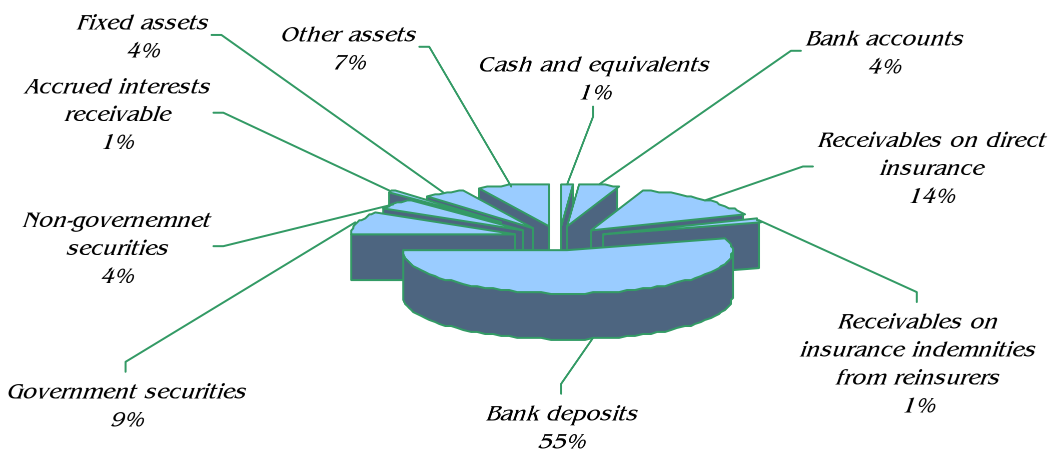
Ratio of Solvency Margin to Regulatory Total Capital, by Insurance Companies, 31.12.2008



Source: CBA

As of 31.12.2008, insurance companies' cash and bank accounts have amounted to 5.5 percent of total insurance assets, bank deposits – 54.0 percent, and government securities – 9.0 percent. This means that assets are mostly highly liquid and are less exposed to credit and market risks.

Insurance Assets Structure (31.12.2008)



Source: CBA

Given a small share of insurance sector in the financial system and, therefore, low risk activities, it is expected that insurance industry developments cannot anyway affect overall financial stability of Armenia.

4.4. SECURITIES MARKET PARTICIPANTS

As of December 31, 2008, there have been 32 investment services providers operating in the securities market: 10 investment companies and 22 commercial banks. All of these participants may on their or customers behalf and on their or customers account perform securities transactions, of which 9 may accept and message instructions about securities transactions, 6 – provide consultancy services on securities investing, 6 – carry out securities allocations, 5 – carry out securities portfolio management and 4 operate as securities custodies.

As of 31.12.2008, total assets of investment companies have amounted to AMD 7.7 billion and their equity AMD 2.7 billion. During the year, investment companies reported a total yield of AMD 16 million; only 7 of them ended the year with profit.

In the Armenian regulated securities market, i.e. "NASDAQ OMX Armenia" OJSC, securities of 16 reporting issuers were listed, of which reporters four were banks and one was an investment company. In addition, 9 of reporting issuers issued corporate securities and 8 of them – debt securities.

In the "Central Depository of Armenia", OJSC, as of 31.12.2008, issuers running registers of owners of nominal securities numbered 1202 and owners of securities issued by companies running registers numbered 128329 individuals.

Current cooperation started from early 2008 between the Central Bank of Armenia and NASDAQ OMX is an important event which provides an opportunity for further institutional and structural improvements of the Armenian securities market. Activities under this cooperation are developed in three main directions:

1. Developing investment opportunities: grant temporary tax concessions in the event of Initial Public Offerings and listing of corporate shares; establish a sound legal and regulatory framework for upcoming issuances; improve the quality of securities allocation services and etc.
2. Improving market infrastructures: enhance trade and settlement systems (initiate introduction of T+3 settlement system without initial deposition).
3. Improving marketing skills and awareness of various market participants.

The above activities would promote a sustainable growth for securities market in Armenia while ensuring that the market and its infrastructures are regulated in a proper manner.

4.5. OTHER FINANCIAL SYSTEM PARTICIPANTS

The participants of the Armenian financial system, other than the aforementioned, include 62 pawnshops, 246 foreign exchange offices, and 2 currency dealers. All these organizations' potential impact on Armenia's financial stability is estimated to be very low as their share in the financial system assets is far too small.

Other participants representing Armenia's financial market are 11 money transfer companies and 7 organizations involved in processing and clearing of payment and settlement documents.

5. FINANCIAL STABILITY IN ARMENIA'S FINANCIAL INFRASTRUCTURES

Given the importance and impact the payment and settlement system has on Armenia's monetary policy and financial stability, the Central Bank of Armenia places high emphasis on the country's systemically important payment and securities settlement systems and the telecommunication network supporting their activities.

5.1. INTERBANK PAYMENTS

Interbank settlements within Armenia are executed primarily through the Central Bank's systems (the Electronic Payments System and the Paper-Based Gross Payments System). The Central Bank's systems are used for the execution of 99.5[38] percent of total interbank payments performed within Armenia. Some 0.4 percent reduction was recorded in such payments. Gross payments executed through the Central Bank's systems have thrice as much exceeded Gross Domestic Product (the ratio of gross payments through the Central Bank systems to GDP was 3.5[39]), which is more than in the previous year.

Importance of the CBA's systems is further enhanced by the fact that these serve a ground for final settlement of card transactions by ArCa unified card payment system, and foreign exchange trades at the Armenian Stock Exchange as well as final settlement of commercial securities trade transactions.

The Central Bank Electronic Payments System

The Electronic Payments System (EPS) of the Central Bank is used for the execution of 67 percent of gross settlements through the Central Bank's payment systems. As of 2008, the share of these payments grew by 8 percent[40].

Credit risk

This system is free of credit risk owing to the principles it is built on (Real Time Gross Settlements mechanism /RTGS/, V-type payment system, irrevocable payment orders, as well as the absence of lending mechanism by the Central Bank)[41].

Liquidity risk

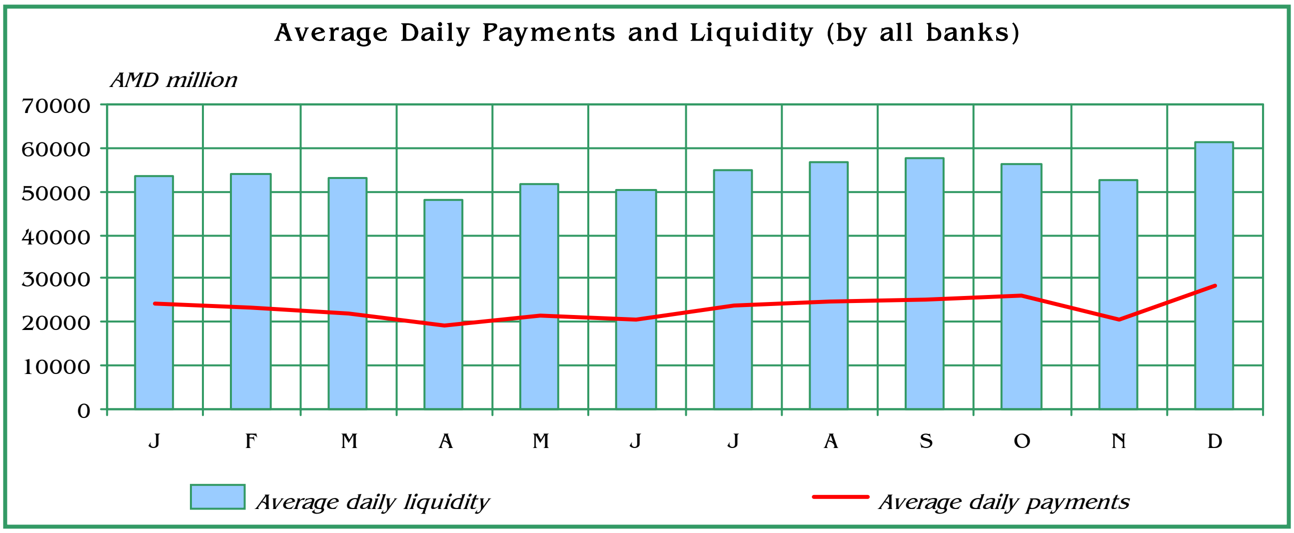
The only source of liquidity for the Armenian commercial banks for making payments through the Central Bank's payment systems derives from the funds available on their correspondent accounts.

In measuring the liquidity risk to EPS, the consideration was that though payment messages are designed in EPS, the real final settlement is executed using participants' correspondent/settlement accounts with the Central Bank that are used not only for EPS payments but also for all operations carried out between the Central Bank and participants. Thus, in measuring the liquidity risk to EPS, all operations by correspondent accounts with the Central Bank are considered.

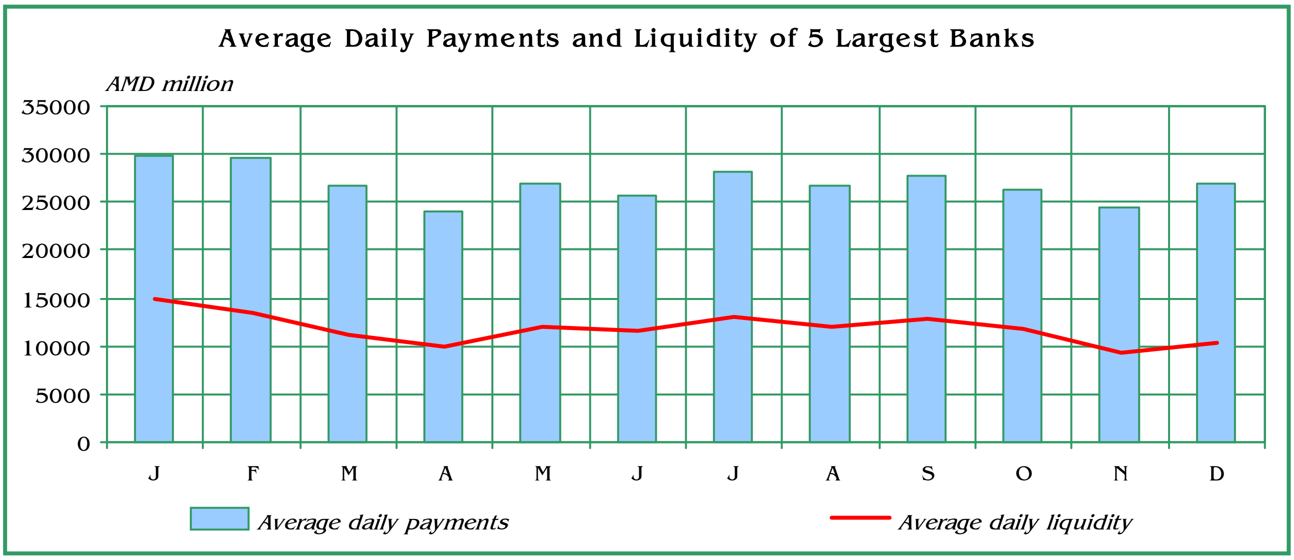
Surveys showed that the commercial banks' average daily liquidity in dram-denominated correspondent accounts with the Central Bank exceeds 2.3-fold the average daily value of payments executed through the Central Bank systems, thus retaining the same level as in 2007, which is a result of proportional increase in payment volumes and liquidity (by 23 percent). This means that while executing payments through the Central Bank systems, the liquidity risk is less

[38] *In 2007, this indicator was not included in the dram calculations of securities operations carried out via "Government securities accounting and settlement system" (GSASS), due to which it made up 88 percent instead of 99.9 percent.*
[39] *Owing to the fact that dram calculations of GSASS operations were excluded from the CBA systems payment calculations in 2007, this indicator made up 2.08 percent against 2.36 percent.*
[40] *Dram calculations of GSASS operations were not included in the CBA Systems payment calculations, due to which it made up 66 percent instead of 59 percent.*
[41] *See for details: 2007 "Financial Stability Report" and "Payment and Settlement and Securities Systems in Armenia".*

likely to emerge[42]. This indicator of five largest banks (in terms of value of payments) making up 51 percent (against 58 percent in 2007) of payments executed through the Central Bank systems has also reached 2.3, and comparing to the previous year's indicator, it can be assumed that a sustained progress has been recorded by these 5 banks in respect to this indicator (payments and liquidity proportional growth), and that the liquidity with these banks is more than enough for safeguarding the payments executed.



Source: CBA



Source: CBA

In 2008, according to surveys, opening balances on dram correspondent accounts of commercial banks have exceeded the same-day-payments by 30 percent on average, as was in 2007, with no account of cross receipts. This indicates that the average payments executed during the day are fully sustained by the opening balances available on correspondent accounts, so existing liquidity is more than sufficient for payments even in the absence of cross receipts.

A monitoring tool is used in the system as another mechanism of management of liquidity risk. This tool enables participants to watch over balances on their accounts and replenish these in the event of liquidity shortage.

In the yearend 2007, the Central Bank introduced a repo operations netting mechanism, whereby repo operations being matured and concluded on the same day are settled using the

---

[42] According to the National Bank of Hungary's Financial Stability Reports for 2005 and 2006, average daily payments in Hungary exceed 2.5-fold the average daily liquidity which, by international standards, is an extremely high liquidity indicator.

principle of netting. This enables a participant-bank to save up money necessary for redemption, thereby contributing to more effective management of liquidity risk in the system.

Rejections

According to surveys, rejections of payment orders executed through EPS during 2008 have made up 0.03 percent of total number and 0.29 percent of total value, reflecting an effective usage of the monitoring tool by banks and sufficiency of liquidity on balances of correspondent accounts for making final settlement through the Central Bank systems. This also proves that the share of rejections through EPS have significantly declined in both number and value, as compared to the previous year, for respectively 2 and 1.5 times.

System capacity

Since 2004, hardware and software improvements in EPS have raised the EPS capacity, making it possible to handle up to 30 thousand messages a day in 2008 (average 4286 payments/hour). In 2007, this indicator reached 20 thousand messages a day (an average of 2.857 payments an hour), denoting that the capacity rate grew by 50 percent against the 2007 indicator.

In 2008, average daily flow of payment messages via EPS made up 8407, growing by 57 percent against the previous year. In consideration of possible growth of capacity of the system, one may assume that even with a 70 percent annual increase in the volume of payments in the 3 years ahead, the system's capacity would be far sufficient and is less likely to lead to systemic risks.

For payments, the most dynamic period of the year is the fourth quarter. In Q4, 2008, the number of the daily EPS-executed payments topped 17480, way below the daily potential carrying capacity of 30 thousand payments. The maximum volume of daily payments per hour topped 2,536, (average rate is 4,286 payments/hour). In Q4, 2008, volume of payments per hour topped 3,740, not exceeding the possible capacity limit while providing 31 percent of the volume and 8 percent of the total value of payments executed during that day. This points to the fact that during this period mainly small value payments were executed, and if banks use active/effective payment messages in package/groups it will allow to reduce pressure of payment flow on the system.

However, the share of payments exceeding the 2,500/per hour rate has been as low as 5.9 percent in total payments executed in Q4, 2008, and the share of payments exceeding the 3,500/per hour rate was merely 0.6 percent. This means that the likelihood of reaching the potential of 4,286/per hour rate is also very low.

Comparative Table of Indicators of 2007 and 2008

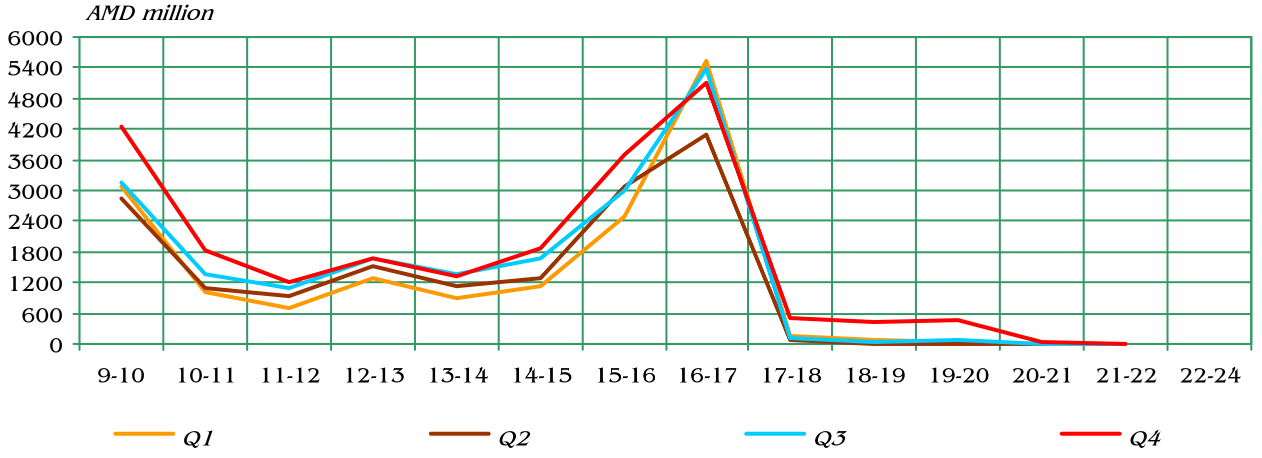
N	Indicators	2007	2008	Change (percent)
1	Payments (per day capacity)	20000	30000	50
2	Payments (per hour capacity)	2857	4286	50
3	Average daily payments (per year)	5356	8337	56
4	Maximum value of actual payments per day in the 4th quarter	10863	17480	61
5	Maximum volume of payments executed per hour during the day of greatest volume of payments in the 4-th quarter	1491	2536	70
6	Maximum volume of actual payments per hour in the 4th quarter	2270	3740	65
7	Share (%) of maximum volume of payments per hour in the total payments executed at the same day in the 4th quarter	26	31	19
8	Share (%) of payments value in total value of payments executed at the same day, in case of maximum volume of actual payments per hour in the 4th quarter	44	8	-82

Notwithstanding the increases recorded in 2008 in all capacity indicators, the capacity rate of the system was assessed to be more than sufficient for processing the received messages in respect to hardware and software improvements made in 2008.

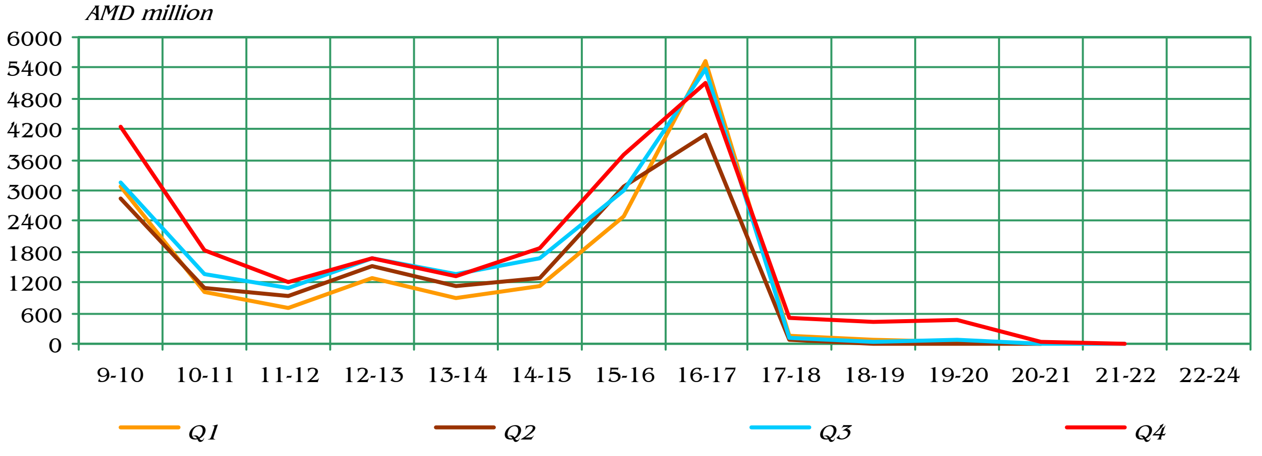
Intraday distribution of payments

An hourly analysis of the value and volume of average quarterly payments in 2008 showed that the intraday distribution of payments by hours is not fairly proportional. The main portion of payments, as in 2007, is processed between 3-5 pm of the day, constituting 38 percent of the total volume and 44 percent of the total value of all payments executed in that day. Excluding stock exchange payments, the volume and value of payments executed in this time of the day remained unchanged compared to 2007. This is not a problem now as banks have enough liquidity and the system's carrying capacity is adequate for payments.

Intraday Distribution of EPS-Executed Average Daily Payments Volume by Hourly Schedule, 2008, by quarters (excluding stock exchange payments)



Intraday Distribution of EPS-Executed Average Daily Payments Value by Hourly Schedule 2008, by quarters (exclusing stock exchange payments)



Source: CBA

Operational availability of the system

A survey detecting incidents and their causes showed that the number of recorded incidents in the system during 2008 has been few (13 incidents), not having affected operational availability of the system. The operational availability has been estimated 99.6 percent, which is considered a high indicator by international standards.

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

5.2. SECURITIES SETTLEMENT SYSTEMS

In Armenia, settlement of securities is executed based on two systems: 1/ the Central Depository of Armenia (CDA) for corporate securities, and 2/ the Government Securities

Accounting and Settlement System of the Central Bank (GSASS) for government (treasury) securities and the Central Bank-issued securities.

Government (treasury) bonds and Central Bank bonds constitute more than 98 percent of total of transactions by securities carried out in Armenia. In terms of financial stability, the GSASS of the Central Bank is of paramount importance and, therefore, is considered as a systemically important system.

The mode of gross settlements and irrevocability principles applied in the GSASS rule out emergence of credit risk in the system. The system also employs the DVP "delivery versus payment" principle that allows reducing the counterparty risk.

Incidents recorded in the system during 2008 totaled to 24, of which 14 incidents were result of software and design defaults which were promptly eliminated by updating the software programs. Such operational failures in the system had no adverse effects on the extension of operational hours of the system, while their impact on the primary placement auctions was a mere 5.2 percent. Reserve server was used only for one incident, thereby, keeping the GSASS in operation.

Because procedures of the initial deposition of corporate securities trades and final settlements in the Armenian Stock Exchange are based on a manual data entry principle, there is probability that it may originate operational risks. Therefore, a special interface was developed to establish an automated link between the CBA's EPS and the systems of Central Depositary of Armenia (CDA) in 2008 as part of an active cooperation between the CBA and the CDA. This innovation will help enhance the effectiveness of the Armenian Stock Exchange deals with respect to initial deposition of corporate securities and final settlement, as well as minimize possible errors and shorten transaction timeframes.

To sum up, the Government Securities Accounting and Settlement System of the Central Bank can be rated as a reliable and secure system. In the meantime, in view of encouraging effective and flexible use of the Central Bank indirect monetary tools it is pivotal to improve the settlement systems of both the Central Bank and the Armenian Central Depositary through developing and introducing such mechanisms of execution of transactions and settlements that could ensure high speed and flexibility of transactions and afford the liquidity saving opportunity. In addition, the CBA's policy adopted for 2009 will aim at further improvement of the securities infrastructures and settlement systems.

5.3. DEPOSIT INSURANCE

The Republic of Armenia Law on Guarantee of Remuneration of Bank Deposits of Individuals has been adopted in 2004 and made effective since July 1, 2005. The aim of the law is to promote a reliable banking system of the Republic of Armenia, enhance the public confidence in the banking system and defend interest of depositors.

As required by the law, banks (other than branch offices of foreign banks and insolvent banks) operating in Armenia undertake making regular, lump-sum and additional contribution charges to the Deposit Guarantee Fund. These charges constitute the resources of the Fund. The amount of regular contribution charges equals 0.05 percent of the average daily figure of bank deposits of the bank in a reporting quarter, but not less than AMD 1 million per annum. Newly established banks undertake paying lump-sum contribution charges of AMD 15 million within ten days upon being licensed for banking. Banks shall pay extra contribution charges only when it turns out that the resources of the Fund are not sufficient to remunerate guaranteed deposits.

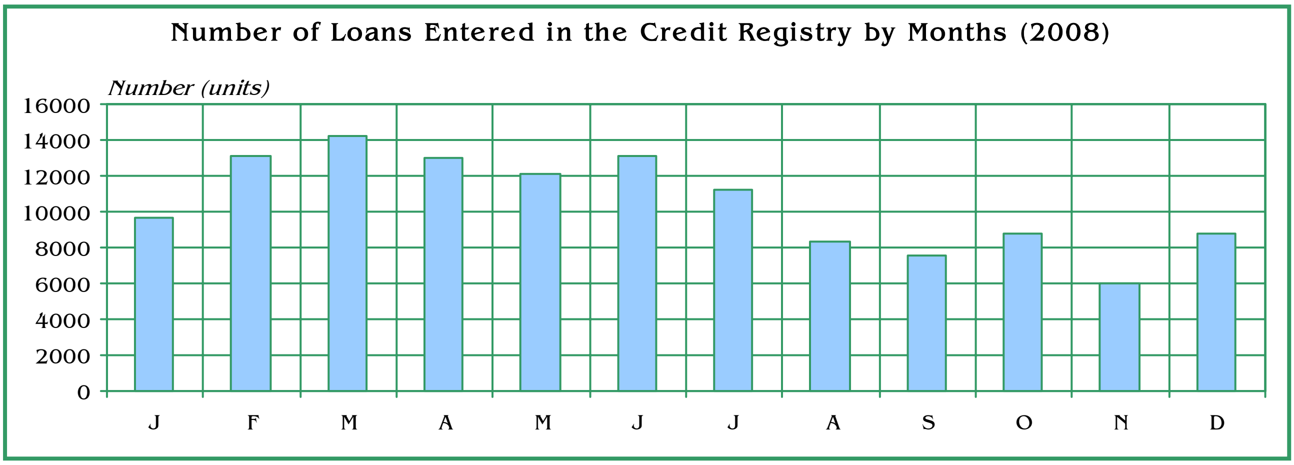
The fund remunerates dram-denominated deposits to the extent of AMD 2 million and foreign currency-denominated deposits to the extent of AMD 1 million. All dram-denominated deposits of the depositor with the same bank are treated as one deposit, as well as all foreign currency-denominated deposits of the depositor with the same bank are treated as one deposit. According to the law, the remuneration of deposits may commence one month after the bank has become insolvent.

5.4. CREDIT REGISTRY OF THE CENTRAL BANK AND ACRA CREDIT BUREAU

The Central Bank Credit Registry

Since January 1, 2003, a credit registry has been functioning within the Central Bank. 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 must enter into its records 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. In the year end 2008, the number of loans recorded in the Credit Registry has increased by 176000 to make up 619000 from which 573000 are loans to natural persons and 46100 are loans to legal entities.

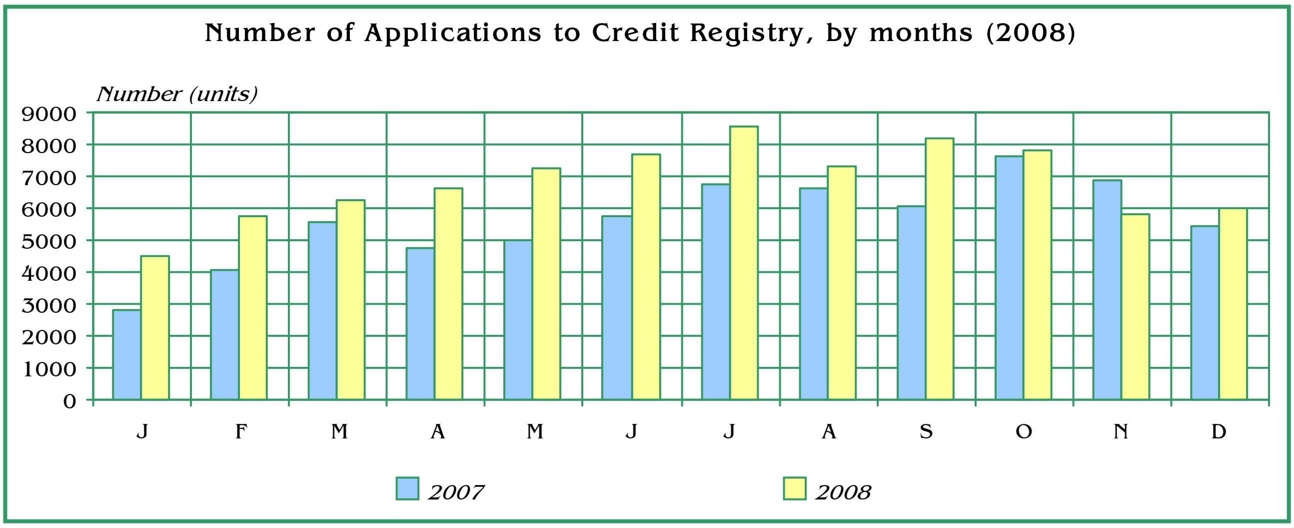
As of the yearend, the Credit Registry has reported 146100 loans in performance and 473000 repaid. As opposed to the previous year figure, the total number of loans has increased by 1.4 times. By using the Credit Registry it became more integrated to determine the creditworthiness of the borrowers and acquire information to facilitate supervision over them. It enables to assess in an effective way the credit risks of the lenders and avoid providing loans to non-diligent borrowers.



Source: CBA

Each quarter, the Credit Registry publishes the names of non-diligent borrowers in the press and Internet website of the Central Bank.

Many of commercial banks and credit organizations have automated the procedure of data delivery to the Credit Registry and, with this, upgraded the efficiency of system and reduce error probability. As the CBA Credit Registry Information System was improved the credit histories became available to the banks and credit organizations within one day upon their request.



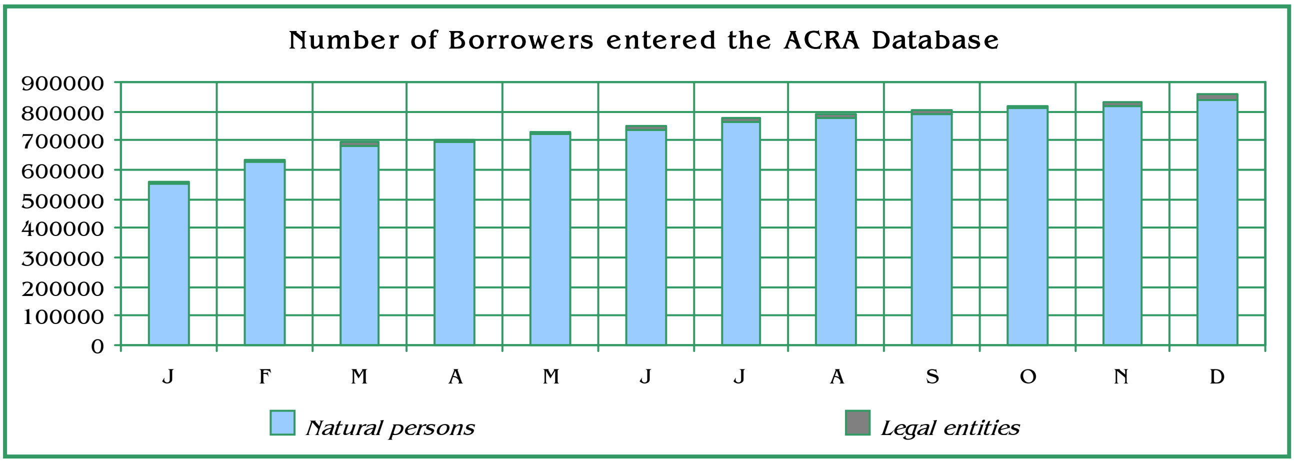
Source: CBA

The number of requests filed by banks and credit organizations on a customer's credit history has increased during the year by nearly 1.2 times against the same period of the last year. The assessment of credibility of a customer by using credit history reduces time spent on customer assessment and enables curtailing credit risk and thus avoiding dealing with non-diligent borrowers. Credit history becomes vital for a financial institution when especially new customer is attracted. During 2008, banks have rejected loan applications from 1100 borrowers with negative credit history available in the Credit Registry.

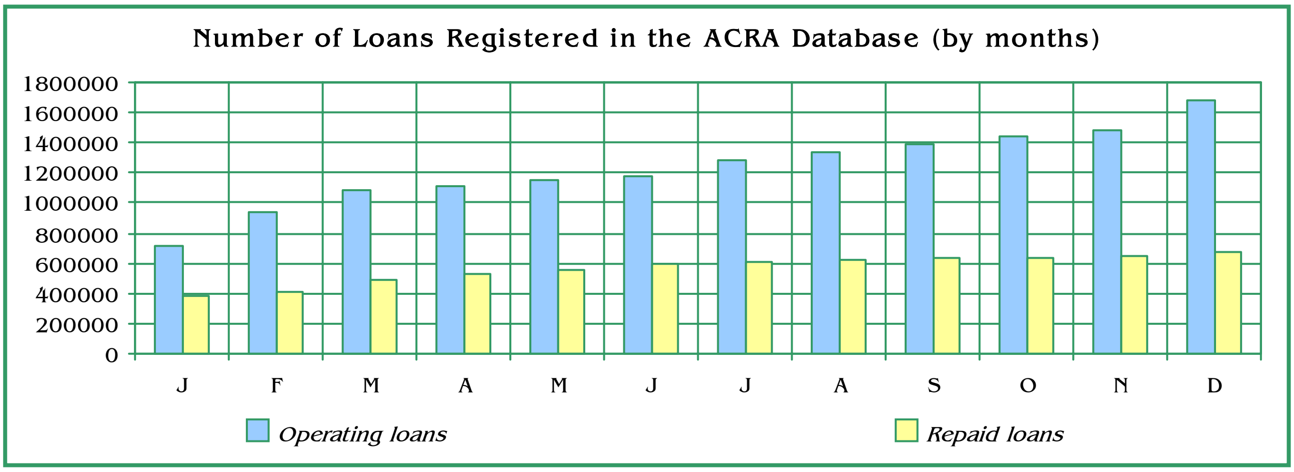
In the last quarter of 2006, 18 borrowers were qualified as non-diligent whose indebtedness was beyond 5 percent of minimum capital limit set by the Central Bank and overdue 180 day, in 2007 – their number was 16 and in 2008 – 17. Each quarter in 2008, the Credit Registry had the names of non-diligent borrowers published in the press and placed them in Internet website of the Central Bank, as it did in 2007.

ACRA Credit Bureau

The ACRA Credit Reporting Company is the first private credit bureau in Armenia that started its operations from January of 2004. The ACRA is a databank where information from financial and non-financial institutions pertaining to individuals and legal entity exposures is collected. All financial or non-financial institutions that provide loans or carry out transactions with overdue payments can enter into cooperation with the ACRA. In order to cooperate, the ACRA and the given institution shall enter into a contract on provision of services whereby the institution undertakes to supply information about its customers in exchange of receiving information, shortly after an appropriate need arises, concerning credit history of its potential borrower. The ACRA has already concluded many service contracts with commercial banks and credit organizations operating in Armenia. During 2008, the number of customers recorded into the database of the ACRA has increased by 59 percent to reach in the end of the year 855700 customers, of which 98 percent are individuals.



Source: ACRA Credit Bureau

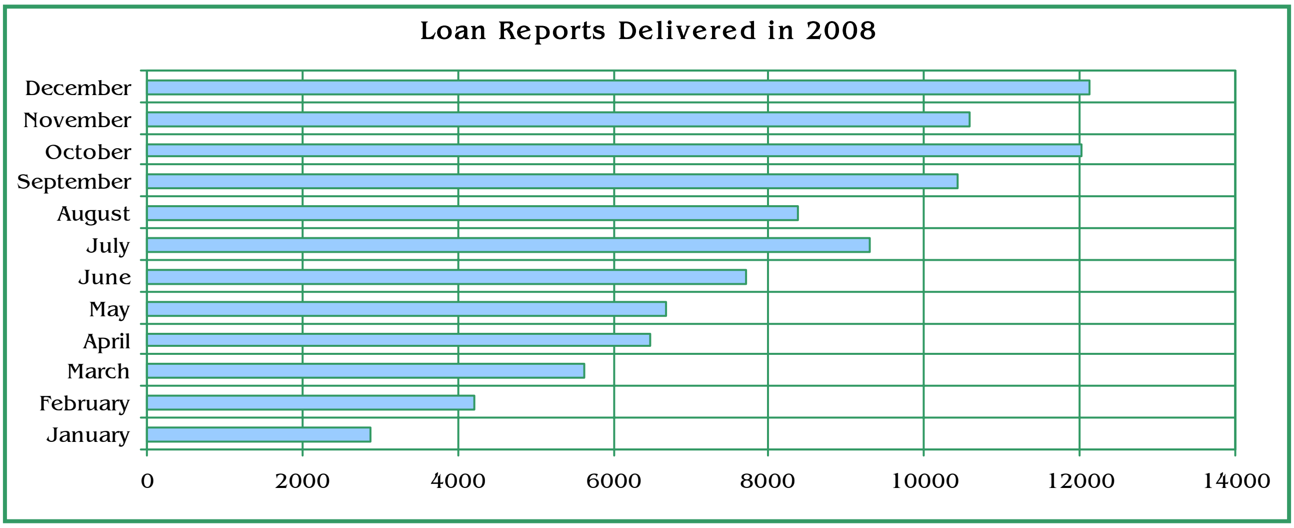


Source: ACRA Credit Bureau

The number of loans available in the database has increased by 2.2 fold during the year to top 2.3 million in the end of the year.

Everyone, resident or legal entity, can obtain information about own credit history from the credit bureau. To receive information about its customer and/or counterparty, a legal entity should enter into a contract with the credit bureau on provision of services and seek consent in writing from the subject of credit history.

The Credit Bureau has begun delivering loan reports since April of 2007. Until the yearend, the number of reports has increased by 5-fold against 2007.



Source: ACRA Credit Bureau

A multilayer coding system, supported by special firewall hardware, has been developed to protect database and store information owned by the ACRA, and to prevent unauthorized access by outsiders. The system traces all actions as well as an ongoing monitoring of the system is in place to prevent suspicious and unauthorized action.

5.5. ANTI-MONEY LAUNDERING

The year 2008 has been a turning point in the improvement of anti-money laundering legislation. On May 26, the National Assembly adopted in the third reading the main legislative act regulating the field, that is the new Law on Combating Money Laundering and Terrorism Financing (hereinafter, the Law), and the laws on changing and amending 15 other laws as necessitated by the adoption of the Law. The Law came into force on August 31.

The Law possibly sets down the requirements of the international standards in combating ML/ FT. It also expands the scope of the reporting entities by means of involving non-financial institutions and persons as stipulated by international standards (e.g. realtors, lawyers, accountants and other persons).

During 2008, the FMC was actively involved in activities aimed at international cooperation, thus maintaining formerly established relations with international counterparts, as well as concluding new agreements on cooperation (Memoranda of Understanding) with foreign FIU-s. Based on Egmont group model designed for Financial Intelligence Units (FIUs), the Financial Monitoring Center has signed Memoranda of Understanding with the Financial Intelligence Units (FIUs) of the Russian Federation, Belarus, Georgia and Ukraine. Over the period, the FMC cooperated with foreign FIU-s in the field of information exchange, as well as assisted in the research carried out by international organizations, through submitting the requested analysis on the legal system and law enforcement practices in the Republic of Armenia.

The FMC engaged in sponsoring activities aimed at the establishment of foreign FIU-s. In particular, the FMC provided support to the Egmont Group accession of the FIU to be established in the Islamic Republic of Iran. The Financial Monitoring Center has offered its assistance and is willing to provide technical assistance in establishing and developing local FIUs in Kazakhstan and Tajikistan. Within a mission of the International Monetary Fund the FMC participated in the visit to Turkmenistan aimed at assisting in the formation of an AML/CFT system and the establishment of a financial intelligence unit in that country.

With efforts of the Financial Monitoring Center, seminars interpreting provisions of the Law were arranged. Particularly, series of seminars were held by the specialists of the FMC and invited foreign experts for the employees of the Central Bank, banks, insurance companies, currency dealers/ brokers, money transfer businesses, attorneys, notaries, independent lawyers and firms providing legal services, independent accountants and accounting firms, persons organizing prize games and lotteries, as well as casinos.