



AZERBAIJAN REPUBLICSININ  
MƏRKƏZİ BANKI

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THE CENTRAL BANK OF  
THE REPUBLIC OF AZERBAIJAN

№2(10)  
2012

FINANCIAL STABILITY REVIEW  
Q2

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OF THE REPUBLIC OF AZERBAIJAN

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# Acronyms

|       |   |   |
|-------|---|---|
| CBA   | – | The Central Bank of Azerbaijan  |
| AMF   | – | The Azerbaijan Mortgage Fund under the Central Bank of the Republic of Azerbaijan |
| AZIPS | – | The Real Time Gross Settlement System   |
| IMF   | – | The International Monetary Fund   |
| SSC   | – | The State Statistics Committee of the Republic of Azerbaijan                      |
| HHI   | – | Herfindahl-Hirschman Index  |
| BCSS  | – | The Retail Payment System   |
| DGCs  | – | Developing Countries  |
| DDCs  | – | Developed Countries   |
| MF    | – | The Ministry of Finance of the Republic of Azerbaijan                             |
| REER  | – | Real Effective Exchange Rate  |
| ROA   | – | Return on Assets  |
| ROE   | – | Return on Equity  |
| GDP   | – | Gross Domestic Product  |

## INTRODUCTION

The Azerbaijani banking system sustained in the environment of slowdown in growth rates of the world economy, the sovereign debt crisis in Europe, high uncertainties in financial markets, and elevated global risks over first six months of the current year. The quality of bank assets, liquidity and profitability indicators relatively improved and overall capital adequacy was high. The banking system continued to grow institutionally, crediting of the economy endured, term and currency structure of deposits followed positive trends.

International rating agencies made upward revisions to forecasts related to Azerbaijani banks amid favorable macroeconomic dynamics and the sustainable banking sector.

# I. OVERVIEW OF THE BANKING ENVIRONMENT

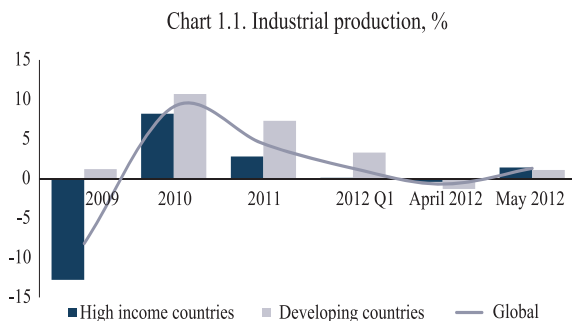
## 1.1. Recent trends on global financial stability

*Global financial stability risks increased on the backdrop of fragile growth of the world economy and the debt crisis in the Eurozone. Revival of global economic growth, as well as ongoing recovery reforms in the banking sector still challenged regulatory authorities.*

Despite **the global economic growth** expectation in the first quarter of the current year was too optimistic because of the coordinated measures by different countries and international organizations on revival of economic performance, in the second quarter the global economy witnessed negative processes. Accordingly, creation of new jobs in a number of countries was slow.

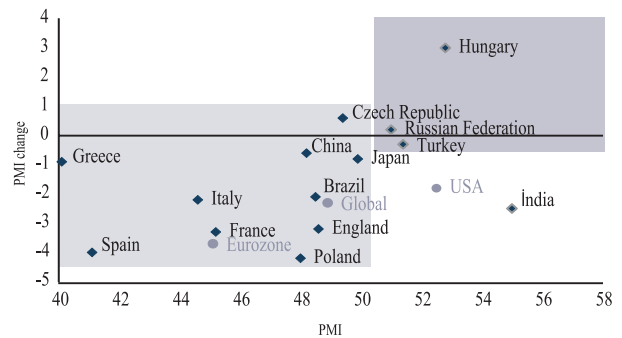
The Purchasing Managers index (PMI) in industry has declined for the first time since November 2011. According to a survey conducted in June, PMI decreased in 17 countries, while it increased in 9.

Expectations of entrepreneurs surveyed in Spain were as low as in Greece.



Source: World Bank

Chart 1.2. PMI in June and change from the beginning of the year



Source: Markit Economics, Haver Analytics

The US economy continued to recover despite fiscal consolidation (budget sequester and termination of tax exemptions) during the reporting period. According to estimations, the implied budget consolidation is capable of curbing the growth rate of the GDP by 0.5 p.p. in 2012 and 3.9 p.p. in 2013.

By the end of the first half of the year, drop in world oil prices reduced the deficit of the US trade balance; however, in total, the economic activity, particularly in industry and retail trade slowed down being accompanied by the stabilized construction sector. Currently, investments to construction are 61% below the highs of 2006 and 17% over the post-crisis lows.

Chart 1.3. Dynamics of industrial production and unemployment in the USA, %

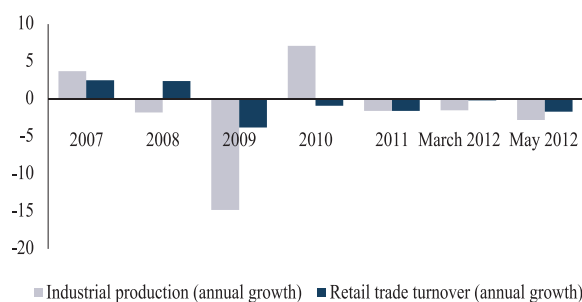


Source: World Bank

Despite the stabilized economic activity, unemployment in the US does not decline significantly. The number of new jobs falls below market expectations. As a result, the unemployment rate remains at the level of 8.2%.

During the reporting period, growth in the Eurozone was close to zero, which is primarily related to a much lower growth rate in advanced countries in Euro area and a negative in the periphery. Retail trade turnover followed negative tendencies in parallel with industry production. In May, industrial production in the Euro area and the retail trade turnover contracted 2.8% and 1.7%, respectively, on an annual basis. In addition, the slowdown in construction accelerated.

Chart 1.4. Industrial production and retail trade turnover in Eurozone, %



Source: World Bank

Deteriorated economic indicators and negative expectations resulted in ascending unemployment in Eurozone. In June the

unemployment reached the post-crisis highs – 11.2%. The youth unemployment contributed the most to the overall rise in unemployment level. Unemployment among the youth in Germany was around 8%, whereas in Spain and Greece the number was over 52%.

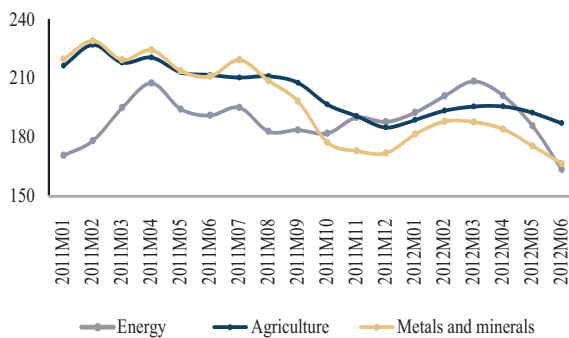
However, inflation in the Eurozone remains on an acceptable level. The conjuncture of global energy markets increases the probability of 2% inflation through the end of the year that will enable the ECB to continue with its accommodative monetary policy. High prices of agricultural products still threaten the realization of these opportunities.

During the period, the economic activity in DGCs kept slowing down as in advanced countries. Although reasons for the slow economic activity vary across countries, decline in export and low investments negatively affects all DGCs.

The IMF, in its recent outlook, predicts 3.5% global economic growth in 2012, and 3.9% in 2013. Final expectations on the global growth fall by 0.1% and 0.2%, respectively. The US economy is expected to grow 2.0% in 2012 and 2.3% in 2013. Growth expectations on DGCs also have been revised down. Thus, the growth rate for the GDP in China is assumed to be 8% in 2012, not 8.2% as it was earlier predicted, 6.1% (initial 6.9%) in India, 2.5% (initial 3.0%) in Brazil.

During the period prices in global commodity markets dropped (prices for oil, metals and agricultural products went down 25%, 15% and 2%, respectively) which reflects low global demand, the embargo on Iran and high uncertainties regarding the sovereign debt crisis in the Eurozone. According to the World Bank, 20% drop in oil prices causes 1.2 p.p. rise in the budget deficit to the GDP ratio in oil exporters while it reduces the GDP by 1.3 p.p..

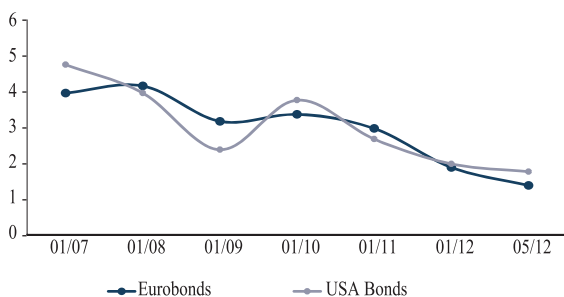
Chart 1.5. Dynamics of commodity prices



Source: World Bank

The occurrences in the global economy and uncertainties regarding the economic activity influence financial markets as well. Over the period the peripheries of the EU were in the epicenter of ongoing incremental stress in the financial market. The financial and political crisis in Greece and the banking system problems in Spain contributed to this tension. The problems that cause volatility in financial markets are capital outflow from the Eurozone, high interest rates on sovereign debt securities, financing problems of the banking sector, swollen liabilities of central banks in peripheral countries, deterioration of the quality of bank assets, low credit investments to the private sector, etc.

Chart 1.6. 10-year government bond yields, %

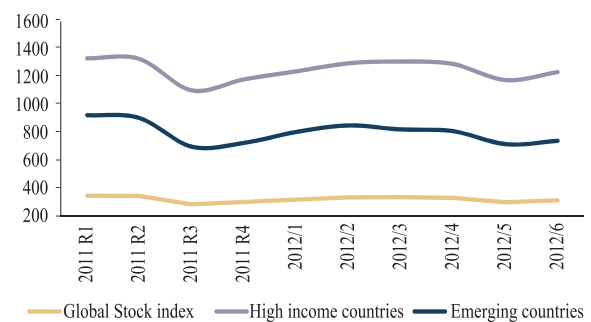


Source: Bloomberg, Thomson Reuters

Fiscal perspectives, the federal debt ceiling and pessimistic expectations emerging from the Eurozone triggered uncertainties in the US financial market and decreased medium and

long term profitability. Financial markets of certain DGCs (China, Brazil, and India) also suffer from descending investor confidence and weak growth expectations. This leads not only to decline in share prices, but also to capital outflows and the exchange rate devaluations. As a result, during the first half of 2012 fond indices went down both on DDCs and DGCs.

Chart 1.7. Dynamics of stock indices



Source: World Bank

Financial stability risks significantly elevated due to processes in the global economy and the real sector. It is not a mere coincidence that the Moody's downgraded over 15 commercial banks in Europe. The downgrade in the credit rating is reflection of decline in long-term profitability of those banks.

European banks have been forced to reduce their assets since the beginning of 2012 due to shortfall of funds and market pressures. The process of deleveraging also challenges the real sector, as the risk of expensive debt funds is elevating. The need for recapitalization of the Spanish banking system caused slump in stock markets.

According to recommendations from international financial institutions, to curb the crisis in the Euro area countries need to consolidate their budgets, make corrections to salaries and prices, conduct structural reforms and recapitalize banks.

On June 28 – 29 of the current year the



**Box 1. IMF: macroprudential policy models**

In 2011 the IMF created macroprudential policy models on the basis of surveys in 50 countries. The models are distinguished on the following key points:

- Integration of a central bank and supervisory agencies that can be full, partial or non-existent.
- Ownership of macroprudential policy mandate. Ownership can rest with a central bank, an independent committee or be shared by multiple agencies
- Role of ministries of finance. The role of a ministry of finance may be active (it has a leading role in policymaking or coordinating committees), passive (participates in committees with no specific role) or non-existent.
- Institutional separation of policy decisions and control over instruments. If the macroprudential policy responsibility is separated, multiple committees may agree various opinions and coordinate policies and events.

7 stylized models grouped given the above points are described in the below Table.

The IMF report discusses advantages and disadvantages of models; there is an important trade-off between centralization and decentralization.

Models 1, 2 and 4 give substantial power to a central bank. The advantage is that central banks already have systemic and macro perspective in the analytic framework. Another advantage is that it is easier for a central bank to take actions when external coordination is weak. Independence of a central bank is also the key in this case. The drawback is that the central bank’s macroprudential policy may come into conflict with the monetary policy that may eventually lead to less confidence in the central bank.

Models 5 and 6 require effective coordination. If the coordination exists, responsibilities may be clearly segregated across agencies. The risk is that coordination will be ineffective. In this situation the macroprudential policy will lack its own instruments.

**Macroprudential policy models**

|  | MODEL1                                 | MODEL2                                     | MODEL3                 | MODEL4                           | MODEL5            | MODEL6   | MODEL7                         |
|--|--|--|------------------------|----------------------------------|-------------------|--|--------------------------------|
| Degree of integration of central bank and supervisory agencies | Full (at a central bank)               | Partial                                    | Partial                | Partial                          | Partial           | No (Partial)   | No                             |
| Ownership of macroprudential policy mandate                    | Central bank                           | Committee related to central bank          | Independent committee  | Central bank                     | Multiple agencies | Multiple agencies                                      | Multiple agencies              |
| Role of MOF/ Treasury/ government                              | No                                     | Passive                                    | Active                 | No                               | Passive           | Active   | No                             |
| Separation of policy decisions and control over instruments    | No                                     | In some areas                              | Yes                    | In some areas                    | No                | No   | No                             |
| Existence of separate bodies coordinating across policies      | No                                     | No   | No                     | No                               | Yes               | Yes  | No                             |
| Examples of specific model countries                           | Czech Republic<br>Ireland<br>Singapore | Malaysia<br>Romania<br>Thailand<br>England | Brazil<br>France<br>US | Belgium<br>Netherlands<br>Serbia | Australia         | Canada<br>Chili, Hong-Kong, Korea<br>Lebanon<br>Mexico | Iceland<br>Peru<br>Switzerland |

Source: Sveriges Riksbank Economic Review 2012:1

EU held a summit in Brussels. In the summit to overcome the crisis it is decided to take measures on creation of a new stabilization fund, establish a unified supervisory authority over banks, introduce the Tobin tax, and foster stabilization and integration in the Euro zone. The following is implied to make the adopted decisions more effective:

- Recapitalization and reformation of sound banks. The funds of the European Stabilization Mechanism are to be used to that end.
- Coordinated budget consolidation and large-scale structural reforms.
- Adaptive monetary and liquidity policies to support economic growth and financial stability.
- Taking measures on the level of the Eurozone to stabilize financing terms and conditions in the sovereign debt liabilities market.

The establishment of the unified banking supervision authority was considered to be the baseline to strengthen the integration of the financial system. However, formation of other elements of the financial infrastructure – the unified European deposits insurance system, as well as the reorganization of banks was considered to be essential.

Long-term sustainability of the financial system in the US will essentially depend on ongoing main reforms in the budgeting – tax policy.

The DGCs are facing double objectives: protect their economies from the shocks from DDCs and neutralize the factors of vulnerability from their national economies. The rapid growth of bank assets and crediting in these countries (overheating) makes future deterioration of assets actual. On the other hand, slowdown in domestic economic growth heightens pressures on banks' profitability and risks of violation of financial stability in the countries like Brazil, China, and India. Given the above, the DGCs should focus on raising the sustainability of

their national financial systems. It is important to introduce macro and microprudential policy instruments consistently in response to a complicated external economic environment.

## 1.2. State of the Azerbaijani economy

*Over 6 months of 2012 the banking system operated in the environment of the strengthened foreign position of the country and high economic activity in the non-oil sector and maintained macroeconomic stability.*

Even though over the period the foreign position of the country was fragile, ongoing growth in the global economy and high energy prices remained. According to the State Customs Committee (SCC), over 6 months of 2012 foreign trade turnover constituted USD 17.2 billion, out of which USD 12.7 billion falls to the share of export and USD 4.5 billion – to import. In January – June of the current year the surplus of the foreign trade balance was USD 8.2 billion.

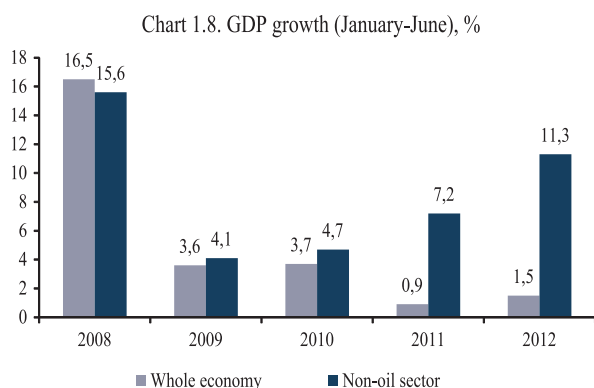
In addition to export, remittances and foreign investments also contributed to foreign exchange inflows to the country. According to the most preliminary data, over 6 months the scale of remittances to the country made USD 791 million. The amount of foreign investments to the economy, according to the SSC, increased by 5.2% in the first half and reached USD 1.7 billion.

Rise in foreign exchange reserves evidences improvement of the foreign position of the country. In January – June, 2012 strategic foreign exchange reserves of the country increased by 9% and exceeded USD 44 billion, sufficient for three-year commodities and services import. The foreign exchange reserves of the CBA grew by 5% and surpassed USD 11 billion, which are roughly sufficient for one-year - commodities and services import.

During the reporting period the components of the aggregate demand – final consumption expenditures and investments had an upward

effect on the economic growth. Over the period of high growth of budget expenditures, particularly investment expenditures factored in the aggregate demand.

In January – June 2012 the GDP growth sourced from the activity in the non-oil sector. The two third of the value added goes to the share of production and one third to services.



Source: SSC

In the first half of the current year the GDP increased by 1.5% in real terms and reached AZN 26 million in nominal terms. The non-oil sector grew by 11.3%. Half of the GDP goes to the share of the non-oil sector which made a 5.5 p.p. contribution to total growth.

In 6 months of 2012 the year over year per capita nominal income increased by 12.7%,

final consumption expenditures rose by 4.4% in nominal terms and reached AZN 9.5 billion, 37% of the GDP. During the reporting period investments from all sources grew by 29.6% and equaled 22.9% of the GDP, out of which 71.4% fell to the share of the non-oil sector. 77.9% of investments came from internal and 22.1% from external sources.

During the reporting period the key objective was to maintain single-digit inflation in the environment of revived economy. Over 6 months of 2012 average annual inflation was 2.2%, which is much below the previous year's level. The exchange rate of manat remained stable over the period.

The CBA sterilized USD 639.4 million worth currency in order to prevent significant strengthening of the exchange rate and thus neutralize negative effects on the competitiveness of the non-oil sector over the first half of the year. As a result, the exchange rate of AZN against USD strengthened at a moderate rate, only 0.1%.

Over the past period of the current year decisions taken on the monetary policy instruments targeted price stability. During the period, the money base rose 4.2%, while money supply grew by 6.9%.

## II. DEVELOPMENT OF THE BANKING SYSTEM

### 2.1. Dynamics of the key indicators of the banking system

*Over 6 months of 2012 the banking sector kept growing and further deepened its financial intermediation.*

As of the end of the first half of 2012 assets of the banking sector made AZN 14 778.8 million. Compared to the beginning of the year, bank assets grew AZN 832 million or by 6.0% (the growth was 12.5% over the past 1 year). During January – June 2012 period loans increased by 8.8% and as of the end-period they constituted AZN 10 556.7 million, which makes 71.4% of bank assets.

The deposit base of banks (funds attracted from the financial and non-financial sectors) grew by 2.7%, including 6.1% rise in deposits of individuals, which equals AZN 4372.6 million.

As of the end-June of the current year banks are numbering 44. Compared to the similar period of the previous year, banks opened 12 new branches (total 672) and 8 new bank departments (total 162). The number of banks with foreign capital was 23 as of July 1, 2012.

The number of NBCIs shifted from 125

(January 1, 2012) to 131. The number of credit unions was 103, while the number of credit institutions financed by international humanitarian institutions was 27 as of the end-period. The number of their branches has increased since the beginning of the year (74 as of January 1, 2012) and reached 110.

63 branches of the AZERPOST LLC, which render financial services to the population particularly in rural areas, posted a successful performance over the half year. As of the July 1, 2012 departments of AZERPOST LLC are numbering 913 (y.o.y. 748).

### 2.2. Liabilities of the banking system

*Over the first half of 2012 the resource base of the banking system primarily stemmed from the funds attracted from the domestic market.*

In January – June of 2012 banks' liabilities rose by 6.1% (AZN 727.3 million) and as of the end-period made AZN 12 555.6 million. Also over the period total deposits of banks grew by 2.7% and reached AZN 9704.3 million, 77.3% of total liabilities.

**Table 2.1. Growth rate of the key indicators of the banking system, %**

|                            | 2009  | 2010 | 2011 | 2012 – 6 months |
|----------------------------|-------|------|------|-----------------|
| Assets                     | 13.6  | 13.9 | 7.3  | 6.0             |
| Loans                      | 17.3  | 9.0  | 8.1  | 8.8             |
| Deposits of legal entities | -18.8 | 4.3  | 16.1 | 0.6             |
| Deposits of the households | 22.6  | 29.8 | 36.0 | 6.1             |
| Capital                    | 17.9  | 7.8  | 12.7 | 10.5            |

Source: CBA

## Box 2. Financial inclusiveness

Financial inclusiveness provides for access of all folks of people to financial services and delivery of relevant services at acceptable prices. The world practice shows that primarily poor people are vulnerable to access to financial services. Low access of poor people eventually decreases inclusiveness of the economic growth. To that end, a high level of financial inclusiveness of the population may increase financing of their expenses on education, healthcare and investment; ultimately, it means that wider economic subjects contribute to the economic growth. That's why the financial inclusiveness is currently of the key performance targets of a number of central banks.

The term "financial inclusiveness" has been in use since 2000. The World Bank experts particularly studied the term and it is not a surprise that last year Global Findex\* indicators were estimated to determine the level of financial inclusiveness. The Gallup government agency surveyed over 150

thousand adults across 148 countries. The survey is composed of 18 questions and the questions are about availability of current accounts, usage of credit cards, deposit investments, credit taking, payments, etc.

The survey's results show that currently about half of adults throughout the world have current accounts with one of the financial institutions. Over the past year, the ratio of those who place deposits with financial institutions was 22%, while the ratio of borrowers was 9%. Nonetheless, 2.5 billion people in the world remain unbanked. In total, use of financial services in the world varies across regions, income and education of the population. The key barriers to access to financial services are high costs, physical distances, excess documentation, etc.

*Source: World Bank, "Measuring Financial Inclusion: The global findex database", WP 6025, April 2012*

*(\*) Global Findex (Global Financial Inclusion Database)*

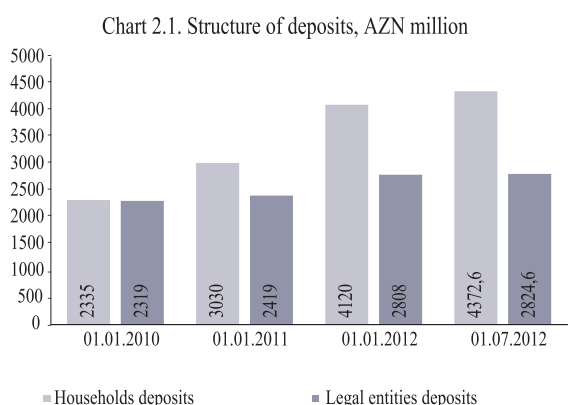
Deposits of the population increased by 6.1% during the reporting period and reached AZN

4372.6 million, the share of which made 34.8% in total bank liabilities.

**Table 2.2. Structure of banking sector resources, %**

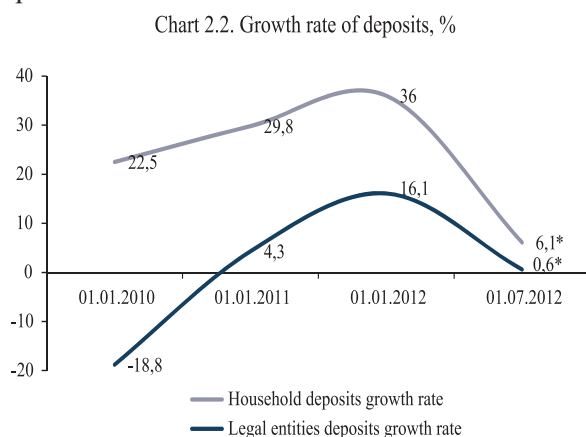
|  | 01.01.2010 | 01.01.2011 | 01.01.2012 | 01.07.2012 |
|--|------------|------------|------------|------------|
| Organizational and personal deposits                               | 39.7       | 41.9       | 46.8       | 57.3       |
| Funds raised from the CBA  | 6.4        | 4.8        | 4.9        | 6.5        |
| Loans, deposits and other funds raised from financial institutions | 8.6        | 17.2       | 13.6       | 19.9       |
| Other liabilities  | 24.5       | 18.6       | 17.7       | 16.3       |
| Total liabilities  | 79.2       | 82.5       | 83.0       | 83.4       |
| Capital  | 20.8       | 17.5       | 17.0       | 16.6       |

*Source: CBA*



Source: CBA

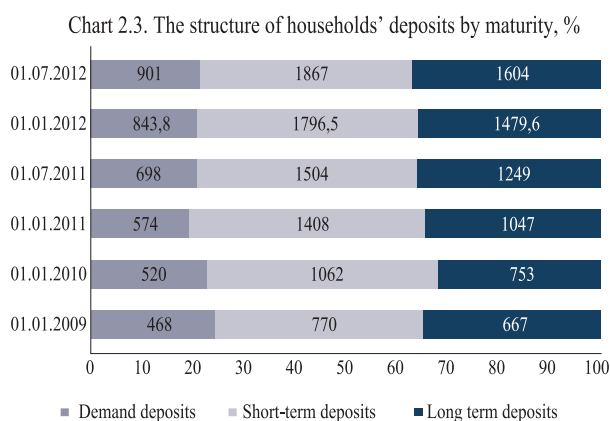
Over the past period of 2012 the term structure of deposits from the population tended to be positive.



\* Semi-annual growth rate

Source: CBA

Term deposits grew by AZN 195 million, while demand deposits increased AZN 57.6 million. The share of term deposits in total deposits constituted 79.4% as of the end-July.



Source: CBA

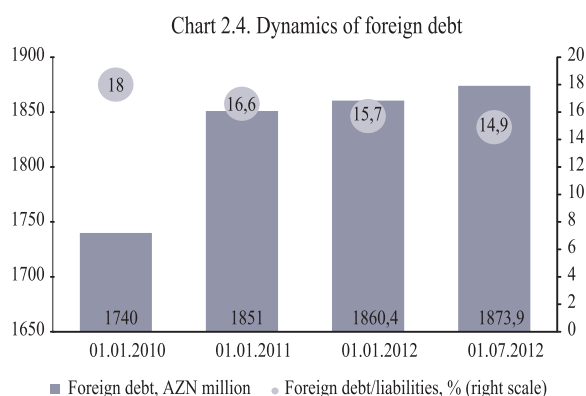
High confidence of the population in the banking system manifested itself in rise in long-term deposits and deposits in the national currency. Over the period, long-term deposits increased by 8.4% and were 36.7% of total deposits (35.9% early in year). Over the first half of 2012 deposits in the national currency rose by 8.7% and reached AZN 2480.8 million, which is 56.7% of total deposits (y.o.y. – 48.5%).

The Azerbaijani banking system was also attractive for non-resident individuals. Thus, in January – June, 2012 the volume of deposits of non-resident individuals rose by 17.7% (y.o.y. 6.7%) and constituted 10% of total deposits.

Deposits of legal entities also are prone to ascend. Deposits of legal entities increased by 9.7% over the past year and made 22.5% of bank liabilities.

Deposits in manat placed with banks by legal entities in January – June grew by 3.1%, while those in foreign currency declined by 1.6%.

In January – June of 2012 funds attracted from non-resident banks and international financial institutions grew by 1% and reached AZN 1873.9 million. The funds attracted from abroad were on an acceptable level and formed 14.9% of total liabilities.



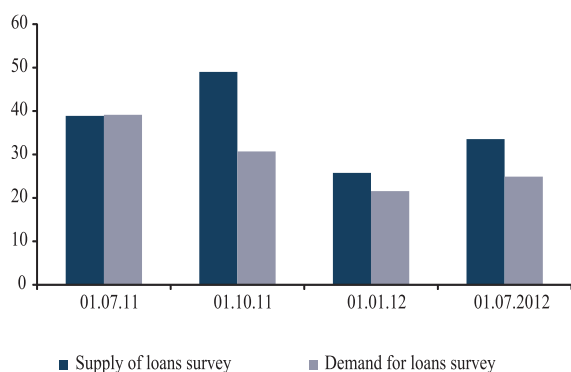
Source: CBA

### 2.3. Assets of the banking system

During the reporting period access to financial services continued to expand. Crediting is the key portion of banking services.

Change in bank assets primarily (6% growth in the first half of the current year) sourced from credit investments. During the first half of the year credit investments rose by 8.8 % and made AZN 10 556.7 million as of the end-period. The surveys\* conducted by the Central Bank demonstrate ascending loan demand which is derived from increase in economic performance of the non-oil sector.

Chart 2.5. Bank lending survey



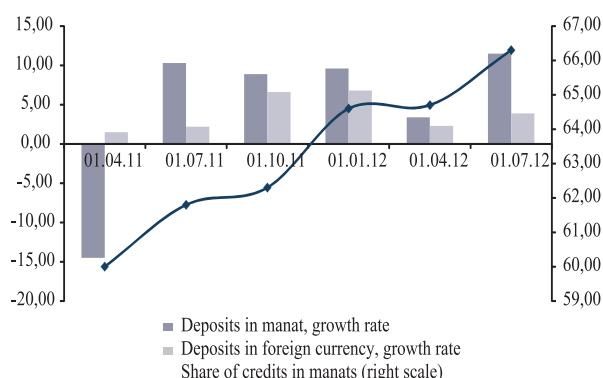
Source: CBA

Over the period, credit investments rose at the expense of long-term loans. Thus, short-term loans decreased by 1.5%, while long-term loans increased by 13.2% over the period. The share of long-term loans in the structure of the credit portfolio was 73.3% as of July 1, 2012 (70.5% as of January 1, 2012).

The currency structure of the credit portfolio remained stable over 6 months.

Growth rate of loans in the national currency (11.5%) exceeded that of loans in the foreign currency (3.9%). As a result, the share of loans

Chart 2.6. Currency composition of the loan portfolio, %

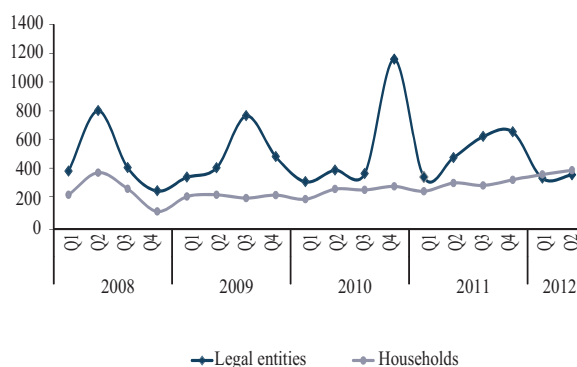


Source: CBA

in manat in total portfolio shifted to 66.3% from 64.7%.

Loans granted by banks to legal entities increased by 5.3% and made AZN 6313.4 million (the share in portfolio 59.8%) as of the end-period, while retail loans showed a higher and more stable growth rate.

Chart 2.7. New credits, AZN million



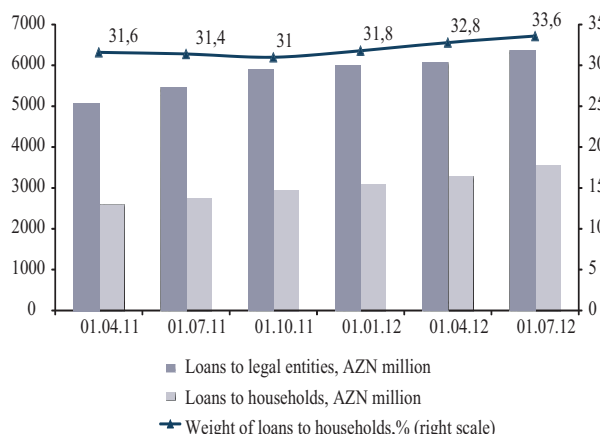
Source: CBA

Loans to households (on banks) rose by 15% over the reporting period and constituted AZN 3548.2 million by the end-period.

Over the first half of the current year, consumer loans (on all credit institutions) increased by 16.3% and took 75.8% of loans

\* The survey results were estimated via a "balance method": "Balance method" is the gap between the share of respondents who responded "increase" (easing) in total number of respondents and the share of those who answered "decrease" (tightening). The gap is called an index, that characterizes any manifestation on a component and is estimated as a basis point. The change rate of the index ranges between -100 and +100.

Chart 2.8. Dynamics of the structure the credit portfolio by borrowers, %



Source: CBA

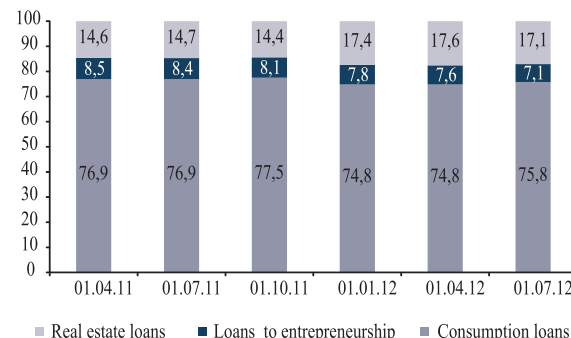
to households. Real estate and automobile loans are 65% of the loans to individuals.

Over 6 months loans to individuals for construction and purchase of real estate grew by 12.8% and made AZN 649.3 million as of July 1, 2012. The share of these loans in the portfolio of loans to households was 17.1% as of the end-period. Loans to individuals engaged in entrepreneurship grew by 4% and took 7.1% of loans to households.

The share of long-term loans to individuals (on all credit institutions) in total portfolio grew by 2.2% p.p. and took 73.2% (AZN 2783.8 million) of the portfolio over the first half of the current year.

No significant change was observed in the sectoral structure of the credit portfolio. As of

Chart 2.9. Loans to individuals, %



Source: CBA

the end-period, the one third of the portfolio goes to the share of households.

Whereas loans to trade and services in the credit portfolio rose by 1.6%, their share in the portfolio decreased by 2 p.p. and made 27.4%. At the same time, loans to agriculture and processing increased by 8.2%, transport and communications 0.9%, industry and production 10.5%, construction and property 15.2%. Loans on plastic card operations grew by 15.5 %.

Over the first half of 2012 credit institutions continued crediting of regions. Credit investments to regions rose by 10% over the period. Loans in the national currency in credit investments to regions prevailed over those in the foreign currency as in previous periods, and took 76.9% of the credit portfolio as of July 1, 2012.

Table 2.3. Sectoral structure and dynamics of banks' loan portfolio

| Sector                       | 01.07.12    |                                | Growth in 6 months,% |
|------------------------------|-------------|--------------------------------|----------------------|
|                              | AZN million | Share in the loan portfolio, % |                      |
| Trade and services           | 2889.3      | 27.4                           | 1.6                  |
| Households                   | 3548.3      | 33.6                           | 15                   |
| Agriculture and processing   | 494.5       | 4.7                            | 8.2                  |
| Construction and property    | 1008.2      | 9.5                            | 15.2                 |
| Industry and production      | 644.3       | 6.1                            | 10.5                 |
| Transport and communications | 413.2       | 3.9                            | 0.9                  |
| Other                        | 1559        | 14.8                           | 7.9                  |

Source: CBA



**Table 2.4. Loan and deposit amount in regions (excluding Baku), AZN million**

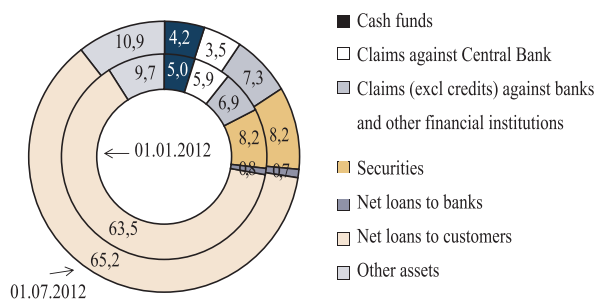
| Date       | Loan exposures |          |                     | Deposits |          |                     |
|------------|----------------|----------|---------------------|----------|----------|---------------------|
|            | Total          | in manat | in foreign currency | Total    | in manat | in foreign currency |
| 01.01.2011 | 1262,9         | 879,6    | 383,3               | 223,4    | 154,3    | 69,1                |
| 01.01.2012 | 1271,7         | 940,1    | 331,5               | 327,6    | 242,7    | 85                  |
| 01.04.2012 | 1273,4         | 972,1    | 301,3               | 386,9    | 270,2    | 116,7               |
| 01.07.2012 | 1398,7         | 1075,5   | 323,2               | 381,7    | 287,8    | 93,9                |

Source: CBA

Long-term loans take the remaining portion of loans in regions 66.5%. I yarımillikdə bankların qiymətli kağızlara investisiyaları 5,9% artaraq 1 iyul 2012-ci il tarixinə 1207,1 mln. manata (1 yanvar 2012-ci il tarixinə 1139,3 mln. manat) çatmışdır.

In the first half of the year bank investments to securities increased by 5.9% and reached AZN 1207.1 million (AZN 1139,3 million as of January 1, 2012) as of July 1, 2012.

Chart 2.10. Bank asset structure, %



Source: CBA

Over the reporting period the share of securities in assets remained stable (8.2%) against the beginning of the year, while the volume of securities increased.

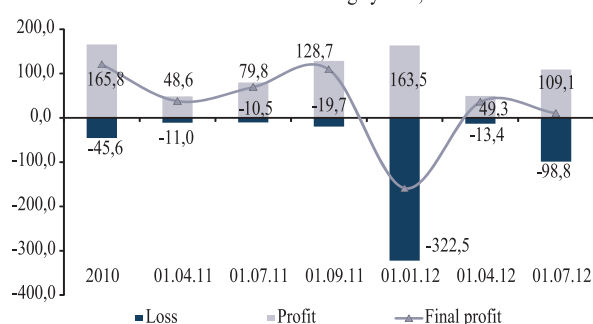
#### 2.4. Financial results of the banking sector performance

Over the period overall financial results of the banking system were satisfactory.

In the first half of the current year profit

of banks made AZN 19.1 million. Net profit after taxes constituted AZN 10.3 million. The number of banks operating with profit and loss over the period was 35 (y.o.y 33), and 9 (y.o.y. 11), respectively.

Chart 2.11. Profit of the banking system, AZN million



Source: CBA

Interest income on loans to customers increased by 12.4% (total AZN 546.9 million interest income). The year over year interest income to average assets ratio decreased by 0.1 p.p. and made 7.6% as of the end-period.

Year over year increase in income from other interest bearing operations (interbank exposures, investments and financial lease) was 10.4% and its ratio to average assets remaining stable made 0.6%. Total interest income increased by 12.2% (AZN 64.5 million) when compared to last year and reached AZN 593.7 million as of July 1, 2012.

Over 6 months total year over year increase in total non-interest income was 15.5% and constituted AZN 163 million by the end-period.

### Box 3. Key principles for management of interest rate risk

Interest rate risk is defined as changes in financial stance of a bank as a result of volatile interest rates. Since interest income is one of the key sources of banks' profit, interest rate risks should be monitored and managed. Swings in interest rates affect bank's profit and capital. As a result of interest rate changes current value of future cash flows changes and impacts the value of bank assets and liabilities. To make the bank's performance sustainable and safe, interest rate risks need to be effectively managed.

According to the results of the BIS studies, the key principles for management of interest rate risks are as follows:

- Strategies and policies regarding interest rate risks should be established, risks should be monitored and supervisory actions should be taken.
- Bank's business structure and the level of interest rate should be effectively regulated.
- Responsible persons should be designated to manage interest rate risks and duties should be segregated to avoid conflict of interests.
- It is essential to be pro-active to reveal risks inherent for new products and avoid risks.
- Banks should have a system in place to cover sources of interest rate risks and evaluate interest rate changes.
- Banks should identify operational risks regarding interest rate risks.
- Sensitivity of banks to losses in stress situations should be evaluated and considered in establishing interest rates limits and policies.
- An adequate information system should be in place on delivery of interest rate evaluation, monitoring, control and reporting.
- Banks should have internal control to manage interest rates (permanent independent control, evaluation of the system's effectiveness).
- A capital level should be established in harmony with interest rate risk and the risk management policy.
- Data on the level of interest rate risks and their management policy should be disclosed to the public.
- Supervisory agencies should receive periodic and sufficient data from banks to identify the level of interest rate risk in banks.
- Supervisory agencies should assess internal systems on evaluation of risks in banks. Supervisory agencies should assess internal risk system based upon evaluation of interest rate risks covered in bank statements.

*Source: Principles for the management and supervision of interest rate risk, July 2004, Bank for International Settlements*

Rise in net income from foreign exchange operations and commission fees for other services contributed to this increase.

Overall total income (interest and non-interest) of banks constituted AZN 756.7 million and year over year increase was 12.9% (AZN 86.4 million).

Due to increase in the volume of term deposits of individuals, as of the end of the first 6 months,

year over year increase in interest expenses was 12.6% and made AZN 321.5 million. Year over year decrease in interest expenses to average assets ratio was 0.1 percentage point and made 4.4%.

Year over year increase in non-interest expenses was 17.2% and constituted AZN 284.9 million as of July 1, 2012, the reason for which is rise in expenses associated with salaries in

**Table 2.5. Profit structure, AZN million**

|                        | January - June 2011 | January – June 2012 | Change, % |
|------------------------|---------------------|---------------------|-----------|
| Interest income        | 529.2               | 593.7               | 12.2      |
| Interest expenses      | 285.4               | 321.5               | 12.6      |
| Non-interest income    | 141.1               | 163.0               | 15.5      |
| Non-interest expenses  | 243.1               | 284.9               | 12.5      |
| Total income           | 670.3               | 756.7               | 17.2      |
| Total expenses         | 528.5               | 606.4               | 14.7      |
| Net operating profit   | 141.7               | 150.3               | 6.1       |
| Loan loss provisioning | 66.7                | 132.0               | 97.9      |

Source: CBA

the banking sector, other types of compensation and fixed assets used in the banking system. The non-interest expenses to average assets ratio almost remained unchanged (+0.1 p.p.) against the relevant period of the previous year and made 3.9%.

Year over year rise in banks' total expenses (interest and non-interest) was 14.7% (or AZN 77.9 million) and equaled AZN 606.4 million.

In January - June of the current year banks' operating profit constituted AZN 150.3 million. ROA was 0.1%, while ROE was 1.2 %.

## 2.5. Capital of the banking system

*During the reporting period the banking system continued to strengthen its capital base and the capital adequacy was maintained on an acceptable level.*

In January – June of 2012 the volume of aggregate capital of the banking system increased by 10.5% or AZN 198.5 million and constituted AZN 2084.8 million as of the end-period. Over the period, the paid-in capital was the key source of aggregate capital growth. The share of paid-in capital in aggregate capital was 92.7%

**Table 2.6. Structure of the banking system capital, AZN million**

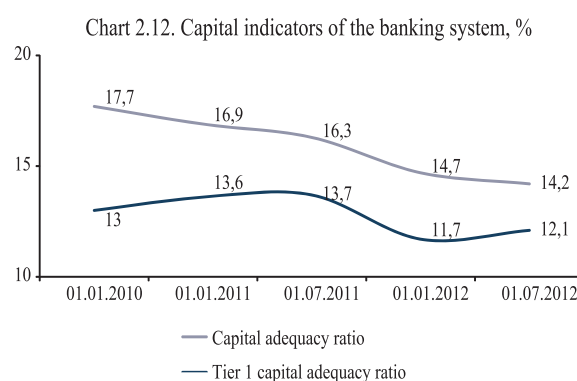
|                             | 01.01.2012 | 01.07.2012 |
|-----------------------------|------------|------------|
| Paid-in capital             | 1558.9     | 1932.5     |
| Share premium               | 20.7       | 20.7       |
| Retained net gains (losses) | -40.7      | -130.5     |
| Profit of the current year  | 163.5      | 109.1      |
| Total reserves              | 159.5      | 183.4      |
| Other funds of capital      | 151.5      | 105.1      |
| Capital                     | 1886.3     | 2084.8     |
| Deductions from capital     | -127.1     | -125.4     |

Source: CBA

(82.6% as of the beginning of the year). At the same time, the paid-in capital grew by AZN 373.6 million or 24%. Total reserves rose by 15% (AZN 23.9 million). Investments to shares of subsidiaries and other credit institutions and intangible assets constituted AZN 105,1 million (y.o.y. AZN 152,8 million).

Capital adequacy on the banking sector was far above the threshold and made 14.2% by the end of period.

Tier I Capital adequacy ratio in the first half of 2012 was twice above the threshold (Tier I capital adequacy ratio – 6%) and increased to 12.1% from 11.7%.



Source: CBA

The leverage ratio was above the threshold and constituted 10.2 % by the end of June, 2012.

#### Box 4. Deleveraging in the banking system of developed countries

Since the onset of the financial crisis banks have been vis-a-vis with the need for deleveraging. European banks were under more pressure in the second half of 2011 to that end. Amid contracted financing channels the ECB started to issue secured loans with up to three year maturity in December 2011. Whereas this created wide opportunities for banks, the market situation is not as satisfactory. Thus, banks' credit risks are still high enough and a number of banks are dependent on central bank loans. In such environment banks are facing the need for increase in the capital level and decrease in assets through lending limits to comply with capital requirements.

The Eurozone banks have decreased the volume of loans and disposed of a portion of assets in order to contract their balances. Certain banks are planning to reduce EUR 2 trillion worth assets according to the medium-term business plans. The

said structural changes are to support the banking system's sustainability. However, the economy and the financial system are likely to face adverse risk to result from considerable reduction in assets of European banks.

Overall, deleveraging is associated with structural and cyclic pressures.

Structural pressures:

- Necessity to make corrections to banks' business models.
- Necessity to strengthen the level of capitalization.
- Reduce dependency on non-stable financing sources.

Cyclic pressures:

- Sovereign debt and the situation in bank financing markets.
- Economic situation.

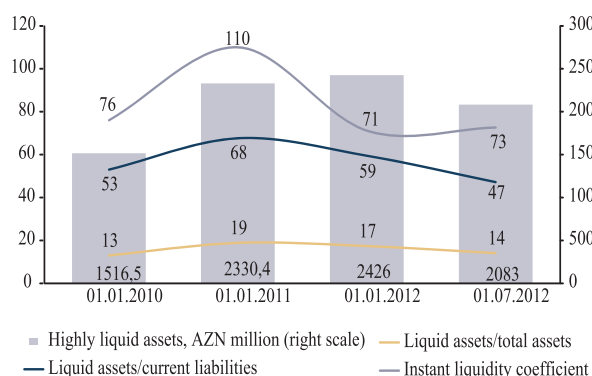
Source: Global Financial Stability Report, April 2012, International Monetary Fund

### III. RISKS IN THE BANKING SECTOR

During the reporting period liquidity of the banking system was on an acceptable level to timely meet liabilities to creditors and debtors. The quality of assets was maintained on an adequate level through preventive regulation and improvement of risks management systems in the banking sector.

Liquidity remained on an acceptable level in January-June of the current year. The ratio of liquid to total assets was above the threshold (10%), while the volume of highly liquid assets declined slightly due to the recovery of lending activity. The share of liquid assets in current liabilities declined to 47% from 59%. However, the instant liquidity ratio moved to 73% from 71% (threshold 30%). Average daily balance of highly liquid assets increased by AZN 226.1 million (11%) during January- June and made AZN 2275.2 million.

Chart 3.1. Dynamics of liquidity indicators, %

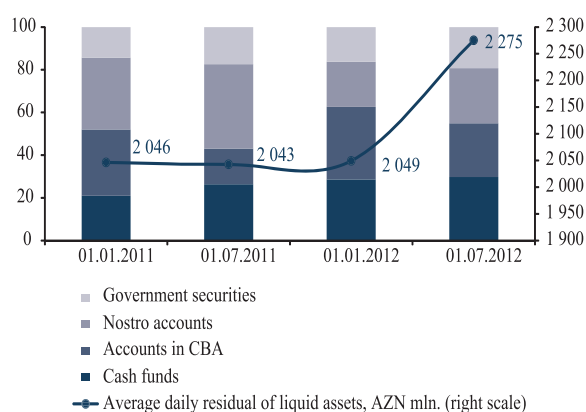


Source: CBA

As of July 1, 2012 the share of cash funds, nostro accounts and government securities in the structure of highly liquid assets was 30%, 26% and 19%, respectively. At the end-period

the share of banks' accounts with the Central Bank in liquid assets was 25%.

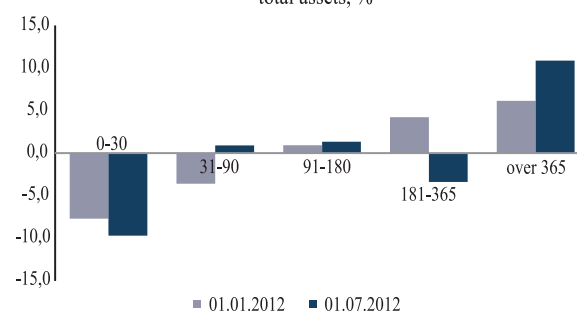
Chart 3.2. Structure of liquid assets, %



Source: CBA

Over the first quarter of 2012 the maturity gap on assets and liabilities maintained an acceptable level.

Chart 3.3. Difference between total assets and total liabilities/ total assets, %



Source: CBA

The currency structure of assets and liabilities was balanced to manage the impact of exchange rate risks. Over the past one year the share of assets in foreign currency in total assets declined to 38.7% from 43.6%. The share of liabilities in the foreign currency in total

### Box 5. Prices in the real estate market and financial stability

The macroeconomic situation influences prices in the real estate market. Thus, in the period of economic growth profitability of households and the corporate sector, overall demand goes up, which stimulates price rise in the real estate market.

The consumption level of households is determined on the basis of income. Price rise in the real estate market creates the wealth effect and leads to high consumption.

Real estate is an essential investment asset in the economy. High prices in the real estate market stimulate construction and related sectors. Accordingly, profitability, employment and demand go up. Price swings impact the behavior of buyers and sellers.

Given the correlation between prices in the real estate market and aggregate demand, the monetary policy agencies find the monitoring of prices critical. Reasons for price swings in the real estate market should be identified with a view to maintain price stability and develop appropriate policies.

Bank loans are one of the vital funding sources of the real estate market. Banks, in most of the cases, when issuing loans take real estate as collateral. Thus, price falls in the real estate market reduces the value of securitization and may cause deterioration of assets. If that is the case, banks profitability is sacrificed and banks issue limited number of loans. The real estate may be pledged as collateral for construction and related loans, as well as other type of loans. Price falls lead to less profitability in the area and borrowers are challenged to meet their liabilities. On the other hand, rise in bank loans may cause price swings influencing the balance between demand and supply.

Given the key role of price swings in the real estate market, banks need to properly evaluate the impact of these swings on their balance sheets.

*Source: Real estate indicators and financial stability, April 2005, Bank for International Settlements*

liabilities declined to 46.9% from 53.7%. Over the first half of 2012 the quality of the credit portfolio was on an acceptable level. The share of overdue loans in total loans made 6.5% as of the end-period.

In general, regular stress-tests conducted by the CBA demonstrate that the Azerbaijani banking system is resilient to extreme macroeconomic shocks.

### Box 6. Recent trends in macro stress-testing

The IMF began using the macro stress-testing ten years ago as an integral part of the FSAP. The method, that assesses existing weaknesses in the economy, became popular among most central banks. The initial stress-testing models Bunn et al (2005) were simple and rested upon balancing the relation between aggregate profit and loss on a macro level. However, introduction of more advanced study and assessment techniques (Segoviano and Padilla (2006)) enabled more reliable evaluations.

Elsinger et al (2006) developed a model covering market, credit, interest rate and interbank credit risks for the Austrian banking system. He managed to more comprehensively encompass the riskiness of the balance sheet using all credit registry data. The model is built upon the VAR evaluation of allocation of losses on the entire financial sector or a group of banks. Moreover, the model enables to follow the spillover risk in the banking system. Another model is the Drehmann et al (2010) model that ensures rebalancing per balance sheet item.

A more comprehensive RAMSI model has been developed by the Bank of England. The key goal of the approach, that uses the Drehmann et al (2010) model as a standard block, is to model leading channels incorporating mechanisms of all significant adverse relations. This method allows for the credit

risk in the interbank market, as well as enables to build adverse relations with the channels from market and liquidity risks.

The macroeconomic adverse relation is addressed in Jacobson's studies as well. They are composed of 3 standard models: (i) the average frequency module of company defaults as a measuring unit evaluating financial stability; (ii) the module interfacing company defaults with specific factors inherent to macro and balance sheet; (iii) the module that tracks changes to the balance sheet depending on macro indicators.

Recent significant progress in stress-testing is associated with liquidity risk evaluations. The similar approach has been developed by Barnhill and Schumacher (2011). According to this approach, the relation between creditability and liquidity during the recent crises was calibrated. Van den End (2008) developed another model – the one that focuses on liquidity risk rather than the model that covers all risks simultaneously. When reviewing the Holland banking system he identified that any stress emerging in one bank may rapidly spillover to the entire system.

*Source: European Banking Authority 2011, "2011 EU- Wide Stress-Testing"*

Capital adequacy maintains a sustainable level with parallel improvement in market and liquidity risks. Credit risks are well managed.

## IV. PAYMENT SYSTEMS

During the reporting period payment systems ensured stable and uninterrupted operations. The scale and number of transactions in the National Payment System adequately responded to the economic activity in the country.

By the first half of 2012, AZN 55.381 million worth 12.209 million transactions were made in the National Payment System. Year over year the number of operations increased by 57.8% (4472 thousand), and rise in total volume was 23.6% (AZN 10.566 million).

During the reporting period average daily number of operations was 92.5 thousand, while total volume equaled AZN 419.6 million (year over year 58.6 thousand and AZN 339.5 million, respectively).

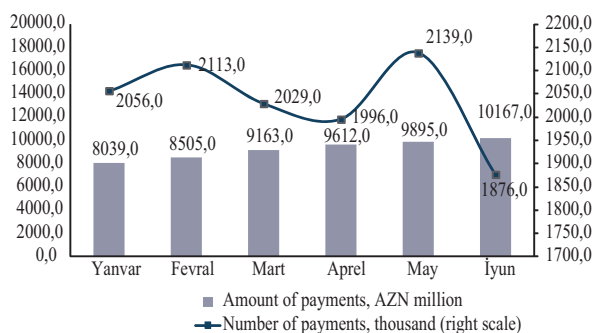
91.1% of cashless payments were made via the AZIPS, the total amount of which constituted AZN 50 477 million (217 thousand transactions). Year over year rise in total volume of transactions was 27.6% (AZN 47 000 million). The amount per payment order on average made AZN 240.8 thousand.

8.6% (AZN 4.9 million) of transactions were made via the BCSS in terms of amount. The share of the BCSS in terms of quantity was 98.2%, 11.992 million payments were made during the reporting period. This exceeded year over year transaction volume by 54.7 % (AZN 1 733 million) and number of transactions by 58.5 % (4 425 thousand). Average amount per payment was AZN 411.3.

Commercial banks continued to expand plastic card infrastructure. As of the end of the first half of 2012, 2 227 ATMs and 36 310 POS-terminals across the country served banks' plastic cards. It must be noted that, year over year rise in the number of POS-terminals increased 3.4 times.

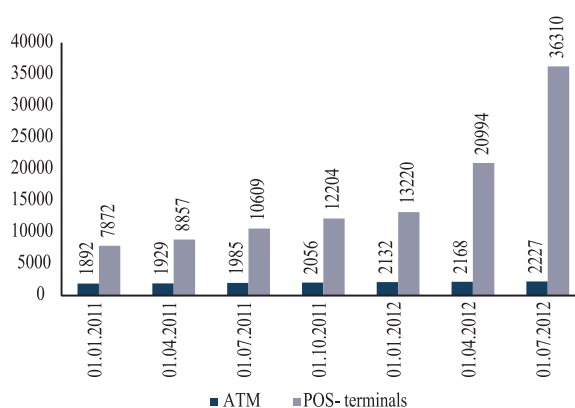
In the first half of 2012 AZN 3 565 million worth 23 403 million transactions were made through ATMs. The number of transactions through POS-terminals was 1 988 thousand, while their value equaled AZN 234 million.

Chart 4.1. Dynamics of payment operations in the National Payments System (January – July, 2012)



Source: CBA

Chart 4.2. The number of installed ATMs and POS-terminals



Source: CBA



The number of plastic cards grew 245.5 thousand over the year and reached 4.8 million, which makes on average 804.3 payment cards per thousand persons (mature).

Internet-banking is expanding. Thus, AZN 2.7 million worth 13.3 thousand transactions was conducted through Internet-banking.

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