



THE CENTRAL BANK OF  
THE REPUBLIC OF AZERBAIJAN

№3(11)  
2012

FINANCIAL STABILITY REVIEW  
Q3

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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

Over the past period of 2012 the Azerbaijani banking system operated in the environment of fragile growth in the global economy, elevated risks in the euro zone and volatility in the world financial and commodity markets. The Azerbaijani banking system sustained amid ongoing global uncertainties and elevated risks.

The CBA's policy was directed to maintenance of macroeconomic and financial stability in January – September of current year.

The quality of bank assets, liquidity and profitability indicators, capital adequacy of the banking sector maintained a high level. The banking system continued to institutionally develop, the economy was continuously covered with lending, aided by positive trends in the term and currency structure of savings and deposits.

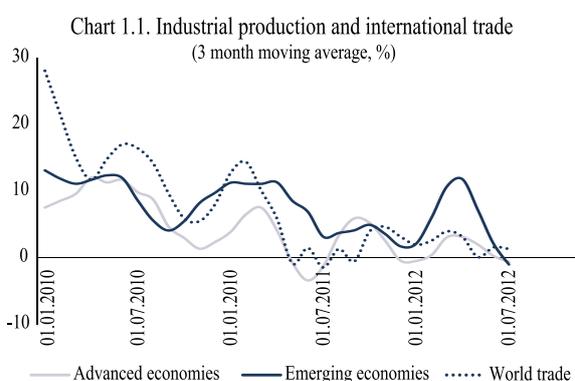
Fluctuating foreign macroeconomic environment forces banks to permanently improve risk management systems and re-evaluate risks.

# I. OVERVIEW OF THE BANKING SECTOR

## 1.1. Recent trends on the global financial stability

*Orchestrated measures by leading countries to revive the economic activity yielded certain positive changes in the global financial markets. However, risks on the financial stability are still on the air, the paramount reason for which is low confidence in the global financial system. In total, the global economic growth is very fragile.*

From the second quarter of 2012 onward growth rates in the world economy have been slowing down. While the growth was 3.6% in the quarter one, in the second quarter it declined by 1.3 p.p. and equaled 2.3%. The growth rate slowed down in DGCs too.



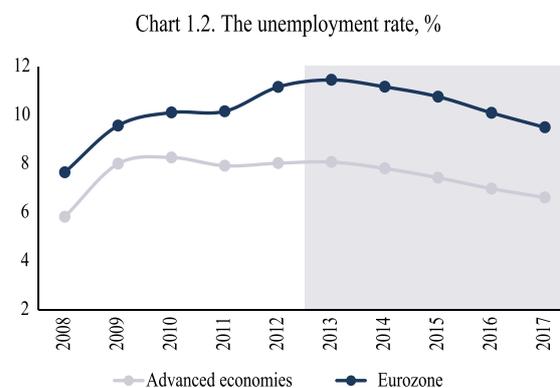
Source: WB

The global slowdown primarily stems from the Euro zone problems. While measures by European policymakers resulted in elimination of the key factors mitigating investor confidence, the uncertainty in the euro zone remains vital. The survey conducted in September suggests that the business activity index (BAI) in the manufacturing industry was neutrally zoned,

which stands for improvement of the existing situation. The index has been in a recession zone for 4 months.

The gap between central and peripheral countries in the Euro zone has magnified. Low investor confidence and macroeconomic uncertainties caused outflow of private foreign capital from peripheral countries, which, in its turn, elevates the risk of high cost of financing (government, banks and non-financial corporate sector and households) and eventually low economic growth.

The growth in DDCs fails to resolve the problem of unemployment. According to the IMF, unemployment is 7.8% in the US and 11.2% in the Euro zone. Unemployment is particularly high among the youth.



Source: IMF

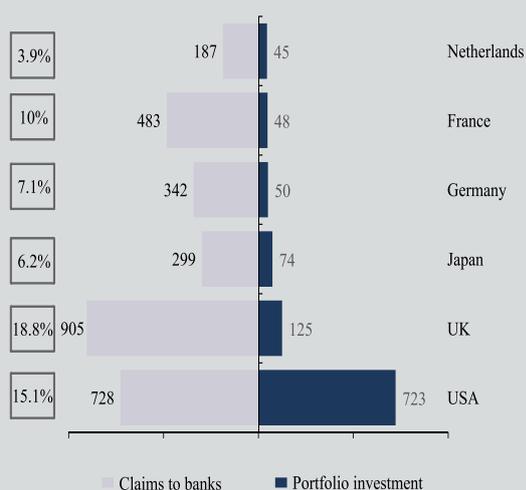
The accommodative monetary policy drives the global growth. Thus, central banks ease the interest rate policy, as well as realize programs directed at support for particular borrowers in various segments of markets and overall development of financial intermediation.

**Box 1. Effect of the monetary policy and supervisory mechanisms on cross-border capital flows**

The recent financial crisis once more proved that large scale cross-border capital flows had a considerable effect on economies. Thus, initial crisis effect in advanced economies triggered capital flow to DGCs. These processes being an integral part of the global financial system placed sustainability of the financial system in the forefront.

According to the IMF, the scale of portfolio investments to DGCs<sup>1</sup> constitutes USD 2 trillion, out of which 84% has been invested by 10 advanced economies. Claims to DGCs' banks make USD 4 trillion, USD 3.4 trillion of which (total 71.5%) falls to the share of EU countries.

Investment to Advanced and Emerging economies, USD billion



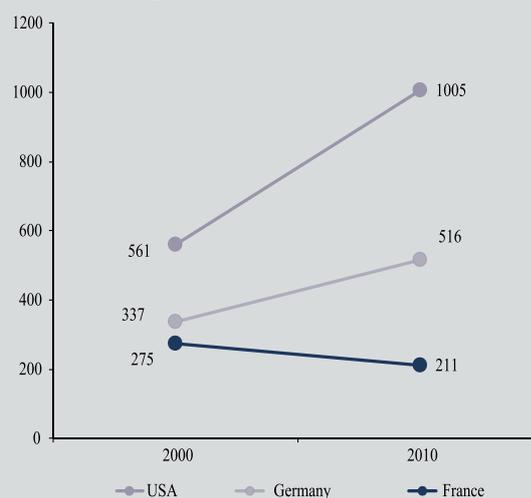
According to the IMF, in cases of failure of the monetary policy, prudential policy is capable to affect capital flow. Thus, implemented accommodative monetary policy results in high risks in capital flows which can be eliminated through prudential policy tools.

*Effect of the Capital Flow Management (CFM) mechanism on the capital flows.* The CFM mechanism is considered to be more effective compared to administrative, tax and prudential policies.

In such an instant, the monetary policy and the capital flow supervisory measures in the DDCs considerably influence the scale of financial flows directed at DGCs.

*Effect of the monetary policy in DGCs on the capital flow.* From 2009 onward most central banks eased the monetary policy that affected the capital flow to DGCs. The monetary policy, that primarily targets domestic aggregate demand, indirectly influences the capital flow. Thus, the implemented policy accelerated the capital flow to DGCs reviving economic growth, along with affecting interest rates on securities.

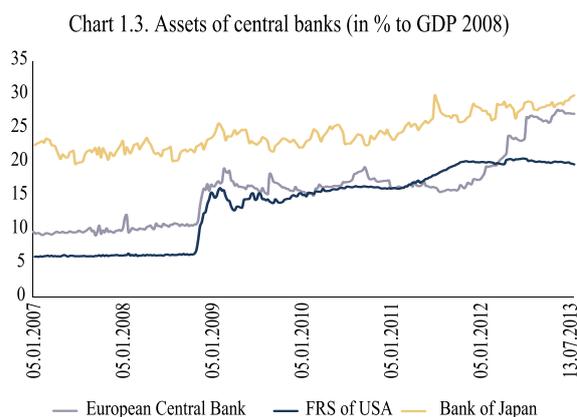
Capital flow from countries, USD billion



The measure applied to mitigate the factors causing disbalance in DGCs (inflation, exchange rate strengthening and sudden stoppage) may be used to regulate large scale financial inflows to a country. According to the IMF, this measure may be more effective for the countries with similar features.

Source: "The Multilateral Aspects of Policies Affecting Capital Flows", IMF, 2011

<sup>1</sup> Mainly 15 DGCs included to G-20.



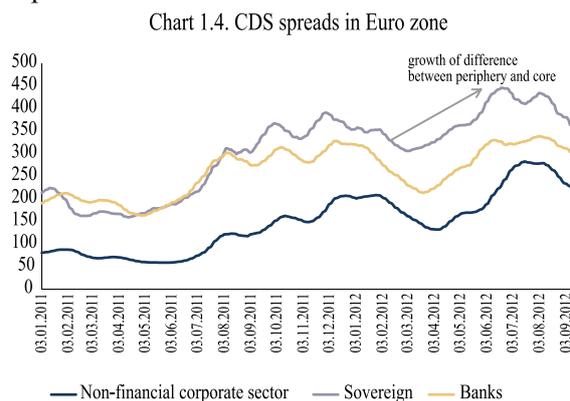
Source: IMF

Fragile economic growth and uncertainty in DDCs affect DGCs through financial and trade channels. Thus, the key reason for slowdown in the Chinese economic growth is a significant decline in export.

Inflationary pressures are incremental in high income countries, particularly in the Euro zone. Thus, inflation peaked in the Euro zone in August, that was the result of measures taken to revive slowed economic activity (liquidity injections to economy, accommodative monetary policy by central banks etc.) fuelled by price upswings in commodity markets. To note, except for the countries of Eastern Europe and the Pacific region, in the fourth quarter of the current year it will be tough for major countries to maintain economic growth without rejecting inflation targets. Thus, rising prices for food and commodities and expected surge in aggregate demand will make it difficult to maintain an acceptable level of inflation in the upcoming quarter. In January – September of the current year the commodity prices index went up by 1.7%, while food prices index increased by 12.6% in global commodity markets. Food prices were mainly affected by prices for grain and sugar. The price upswing was caused by climate conditions (dry weather) and high investor appetite on food.

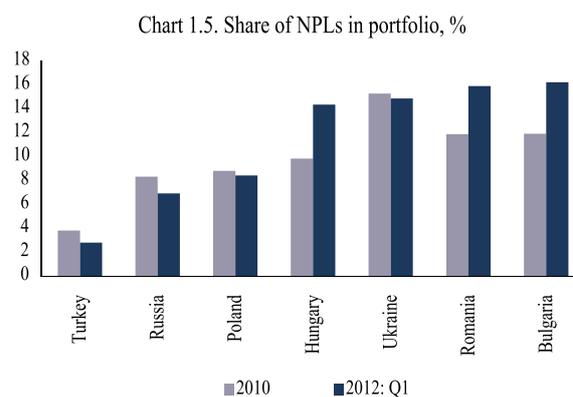
Liquidity expansion programs by the ECB and the Federal Reserve, the support for the European Stability Board by the German

Constitutional Court and the other positive factors put in motion the activity in global financial markets in the third quarter of the current year. Investors' risk aversion indicator improved and credit default swap spreads<sup>2</sup> of DGCs narrowed. Peripheries of Europe and Latin America experienced the most narrowed spreads.



Source: IMF

Uncertainties in financial and economic situations put more pressure on the quality of bank assets and capital. More restricted access to financing channels, the sovereign stress, and poor economy reduce banks' profitability.



Source: IMF

The budget consolidation in DDCs, the fragile financial system, and uncertainty increase the probability for weak economic growth next year as well. The IMF Outlook for 2013 suggests that, the growth rate on DDCs will shift to 1.5% from 2.0% in DDCs and to 5.6% from 6.0% on DGCs. The slack is mainly related to the

<sup>2</sup> Credit default swap, CDS is a credit derivative or a credit agreement. According to the agreement, buyer shall compensate the seller of the CDS either one-off, or on a regular basis. In the event of pre-defined credit event the seller will undertake to repay the loan issued by the buyer to a third party.

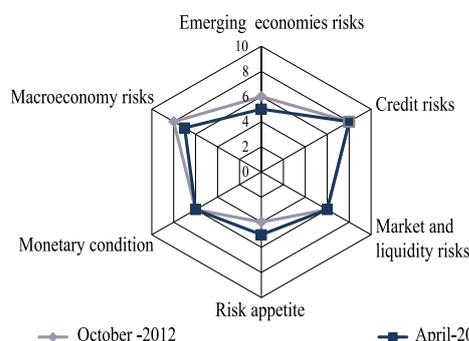
Euro zone. The IMF predicts 0.7% growth for the euro zone in 2013. The economic growth is expected to be 2.3% in the US, 1.4%, higher than the average for the euro zone, in Germany and 8.5% in China.

While liquidity injections by the ECB at the beginning of 2012 eased the pressure on banks' assets, this pressure became significant later and was accompanied by the market fragmentation. Studies suggest that, it is essential to restore confidence, hinder capital flow and take complex policy measures to reintegrate the Euro zone in a short run.

In September of the current year the European Commission unveiled proposal for the unified bank supervision in the euro area. According to the proposal, in a short run, i.e. through January 2013, it is implied to apply a Unified Supervisory Mechanism and have the ECB responsible for systemic financial institutions up to July, 2013 and all banks up to January, 2014. The EC, by the end of the current year, is planning to consolidate national prudential regulation, banking decisions and deposits' insurance systems under a unified banking decisions framework upon aligning to the EU legislation. It also includes delivery of "mandatory intermediation" authorities of the European Banking Authority over national banking authorities to the ECB.

A number of regulatory reforms have been conducted in order to boost reliability of the financial system; however, the process is restricted, since the process is in its initial phase. Also, a number of countries still intervene in currency markets, which slow down a reliable work mode of the financial system. To that end, it is essential to currently focus on financial segments that cause systemic risks as before. A high level of a liquidity and capital buffer based upon Basel III will contribute to sustainability of banks to shocks.

Chart 1.6. Global financial stability map



Source: IMF, *Global Financial Stability Report*, October 2012

Meantime, the IMF recommends focusing on the interest rate levels. Thus, as low interest rates are currently very essential, this can lead to new fragile factors in future. Although a number of reforms are advancing, the measures in the following areas need to be improved:

- global debates on advantages and disadvantages on restrictions on certain activity types for banks;
- in case of necessity, launch and monitoring of prudential norms for NBCIs, posing systemic risks within the shadow banking framework;
- analyse promotion of simpler products and organizational structures;
- improve ways of resolving problems of financially challenged financial institutions.

The recommendations with respect to regulatory and other financial policy directions capable to yield better economic results also include the following:

- sufficient capital and liquid assets, provided the role of lending, that stimulates economic growth, shall not be ignored;
- efficiently manage banks and apply supervisory measures to ensure sound financial activity on an international scale;
- apply effective mechanisms to resolve the problems of insolvent banks that provide cross-border lending operations in order to decrease volatility in cross-border capital flow.

## Box 2. Shadow banking

Shadow banking is defined to be NBCIs that form leverage and are involved in liquidity transformation. The world practice shows that on the expansion phase of an economic cycle the shadow banking rapidly boosts and, in the event of being skipped from the regulatory framework, on the phase of downturn pose significant risks both for the banking system and the economy. These risks include overall disturbance of the financial stability, intervals in the real sector crediting etc. Currently, there is no exact and thorough statistics on the shadow banking. According to the “other financial intermediaries” classification of the Financial Stability Board<sup>3</sup>, while assets of the banking system in DDCs made USD 23 trillion in 2002, in 2007 this number reached USD 50 trillion. In other words, the share of the shadow banking in assets of total financial system shifted to 27% from 23%. Money market funds have a significant

share and role in between the total shadow banking. Thus, the size of assets of these funds reached USD 2.7 trillion in the US, USD 1.5 trillion in Europe and USD 0.4 trillion in the remainder world. Corporations and retail investors employ the funds of the type as a tool for short-term funding and cash management.

The size of the shadow banking and the speed at which financial innovations are applied necessitate regular monitorings and target interventions. Currently, the FSB keeps doing the relevant job. Both monitoring and formation of the regulatory framework are essential. Policymakers are focused on ties or intersection between the shadow banking and the banking system or the real sector. It should not be disregarded that the rising share of the shadow banking in total financial system makes it necessary to be separately regulated.

*Source: “Shadow Banking”, BIS 82nd annual report, June 2012*

April 2012 was the starting point for future policy decisions on fragmentation of financial markets in the Euro zone and on enhancement of the Economic and Monetary Union architecture by European politicians. These measures are recommended to be taken on a national scale provided to be fully integrated in future in order to attain maximum efficiency.

### 1.2. Stance of the Azerbaijani economy

*In 9 months of 2012 the banking system operated in the environment of strengthened foreign position of the country, high economic activity in the non-oil sector, and maintained macroeconomic activity.*

Over the period, the foreign position of the country remained favorable amid, though fragile, global economic growth and high energy prices. According to the SSC, in 9 months of 2012, the

foreign trade turnover made USD 24.6 billion, out of which USD 17.8 billion goes to the share of export and USD 6.8 billion to import. In current January – September the surplus of the foreign trade balance constituted USD 11 billion.

In addition to export, remittances and foreign investments also contributed to foreign exchange inflows to the country. According to the preliminary data, the value of remittances to the country over 9 months made USD 1.2 billion. According to the SSC, the amount of foreign investments to the economy in January – September increased 11.9% and equaled USD 2.6 billion.

Rise in foreign exchange reserves evidences the improved foreign position of the country. In January – September, 2012 the strategic foreign exchange reserves of the country grew 11% and surpassed USD 45.2 billion, sufficient for the

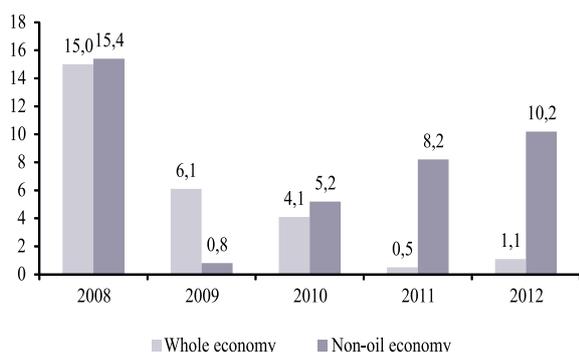
<sup>3</sup> The Board incorporates central banks, ministries of finance and other economic authorities, as well as a number of powerful international economic institutions from 24 countries.

three-year import of goods and services. The CBA's foreign exchange reserves increased 10% and exceeded USD 11 billion, sufficient for the one-year import of goods and services.

Over the reporting period the components of aggregate demand – final consumption expenditures and investments had a positive effect on the economic growth. The high growth in budget expenditures, particularly investment expenditures, factored in the aggregate demand.

In January – September, 2012 GDP growth stemmed from the activity in the non-oil sector. The two-third of the value added comes from production and one third from services.

Chart 1.7. Economic growth in January – September, %



Source: SSC

In 9 months of the current year the GDP increased by 1.1% in real terms and reached USD 39.8 billion in nominal terms. Growth in

the non-oil sector made 10.2%. Half of the GDP goes to the share of the non-oil sector that made a 4.6 p.p. contribution to total growth.

In 9 months of 2012 year over year per capita nominal money income grew 12%, final consumption expenditures equaled AZN 15.2 billion in nominal terms, or 38% of the GDP. During the reporting period investments to the economy from all sources grew 27.4% and took 25% of the GDP, 74% of which goes to the share of the non-oil sector. 79.4% of investments came from internal and 20.6% from external sources.

The vital objective over the reporting period was to maintain a single-digit level of inflation. In 9 months of 2012 average annual inflation level was 1.5%, which falls much below the previous year's level. The exchange rate of manat remained stable over the period.

In order to prevent considerable strengthening of manat in the FX market and neutralize negative impact on the competitiveness on the non-oil sector the CBA sterilized USD 978 million worth currency in 9 months. As a result, over the period the exchange rate of AZN against USD strengthened at a moderate rate, only 0.17%.

The monetary policy decisions of past period of the current year targeted price stability. Over the period the money base rose 12.4%, money supply 12.8%.

## II. DEVELOPMENT OF THE BANKING SYSTEM

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

*In 9 months of 2012 the banking sector preserved growth dynamics and deepened its financial intermediation.*

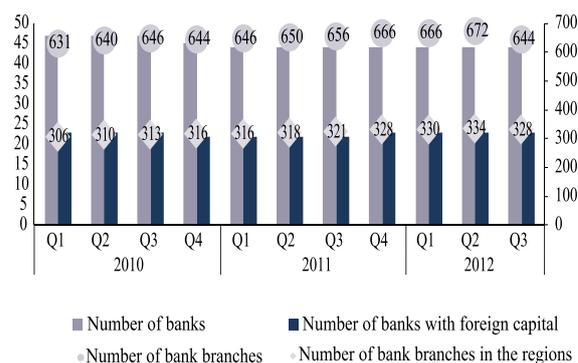
As of end-September, 2012 assets of the banking sector made AZN 15 998.9 million. Compared to the beginning of the year, bank assets grew by AZN 2 052.1 million or 14.7% (18% over the past one year). In January – September, 2012 loans rose by 15.2% (annual growth 18.5%) and constituted AZN 11170 million as of end-period, which makes 70% of bank assets.

The deposit base of banks (funds attracted from financial and non-financial sectors) increased by 6.7%, including 10.6% rise in deposits of individuals, that reached AZN 4556.3 million.

As of end of September, active banks were numbering 44. Compared to the relevant period of the previous year, banks opened 12 new branches (total 672) and 8 new divisions (total 162). The number of banks with foreign capital was 23 as of 1 October 2012.

The number of NBCIs shifted to 132 from 125 (as of 1 January 2012). As of the end-period, credit unions were numbering 103, while the number of credit institutions financed

Chart 2.1. Dynamics of bank network



Source: CBA

by international humanitarian institutions was 28. The number of their branches reached 112 as of 1 October 2012 (74 as of 1 January 2012).

63 branches of the AZERPOST LLC, which provide financial services to the customers, operated successfully over the last 9 months. As of 1 October 2012 departments of AZERPOST LLC were numbering 939 (y.o.y. 816).

### 2.2. Liabilities of the banking system

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

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

	2009	2010	2011	2012/9 months
Assets	13.6	13.9	7.3	14.7
Loans	17.3	9.0	8.1	15.2
Deposits of legal entities	-18.8	4.3	16.1	0.2
Deposits of population	22.6	29.8	36.0	10.6
Aggregate capital	17.9	7.8	12.7	21.8

Source: CBA

### Box 3. Consumer Finance Protection

Consumer finance protection measures not only increase competition in financial markets and positively affect risks of households, but also contribute to financial stability. Bank products and services are becoming more and more complicated, which makes protection of household investments and savings more vital.

At the Seoul summit in November 2012 the G-20 Leaders, the Financial Stability Board in cooperation with the OECD and financial institutions took forward work on consumer finance protection.

The report focuses on mortgage lending, operations with credit cards, secured and unsecured loans and proposals on fragility related financial system regulation and supervision.

Whereas consumer finance protection measures vary across countries, competent agencies are numbering 1-2 or more. Moreover, in most countries consumer protection and prudential supervision are interrelated. Some countries do not have an entity

directly involved in consumer protection; therefore, macroprudential supervisory measures indirectly protect consumers.

Consumer finance protection has been primarily concentrated on the lending activity of a responsible bank, risk identification, detailing of financial operations and prevention of excess borrowing. Consumer protection is ensured through their own competence in addition to the regulatory framework.

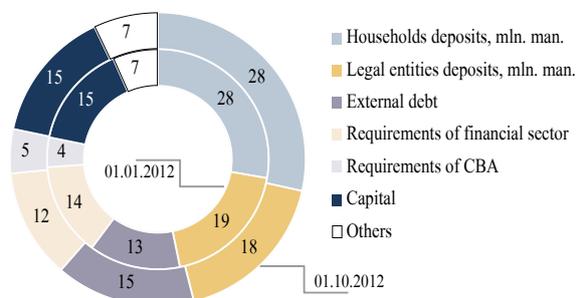
The report also hosts policy-related recommendations and proposals on future consumer finance protection related trainings. The assessments revealed that since consumer finance protection and financial stability are interrelated, consumer finance protection related trainings will contribute to the financial stability.

Source: Financial Stability Board (2011) "Consumer Finance Protection with particular focus on credit"

In January – September, 2012 banks' liabilities rose by 15.5% (AZN 1 830 million) and made AZN 13658.4 million as of end-period. Also, over the period banks' total deposits rose by 6.7% and reached AZN 10080.6 million and took 73.8% of total liabilities.

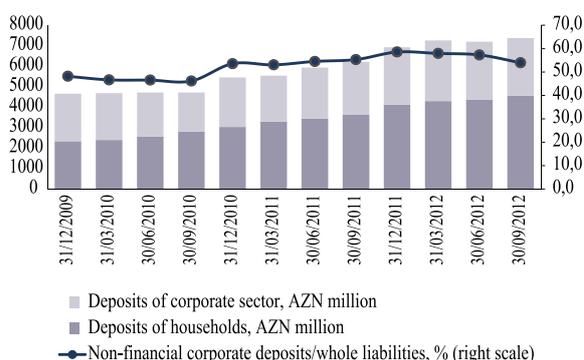
In 9 months of the current year deposits of the population increased by 10.6% and equaled AZN 4556.3 million that makes 33.3% of total bank liabilities as of end-period.

Chart 2.2. Structure of banks' resource base, %



Source: CBA

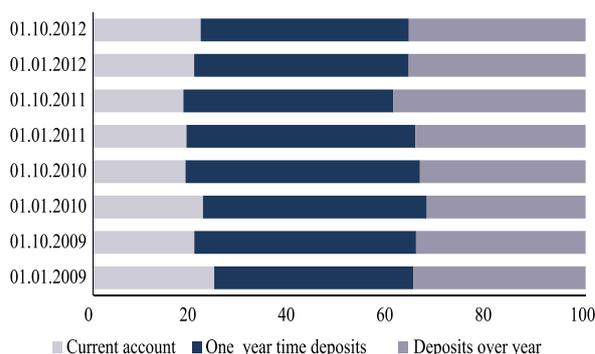
Chart 2.3. Dynamics of deposits of non-financial sector



Source: CBA

Over the past period of 2012 the term structure of deposits followed positive trends. Term deposits reached AZN 286.5 million, while demand deposits grew by AZN 150 million. The share of term deposits in total deposits made 78.2% at the end of September.

Chart 2.4. Term structure of deposits, %



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 reporting period long-term deposits rose by 10.5% and made 36% of total deposits. In 9 months of 2012 deposits in the national currency having increased by 14.6% reached AZN 2616 million and made 57% of total deposits.

The Azerbaijani banking system attracted non-resident individuals over the reporting period as well. Thus, in January – September 2012 the size of deposits of non-resident individuals grew by 19.6% (y.o.y 40%) and made 10% of total deposits.

Deposits of individuals are following an incremental trend. Over the past one year deposits of individuals rose by 15.4% and constituted total of AZN 5524.3 million.

Chart 2.5. Dynamics of external debt



Source: CBA

The size of funds attracted from non-resident banks and international financial institutions made AZN 2448.2 million. The funds attracted from abroad were on an acceptable level and amounted to 18% of total deposits.

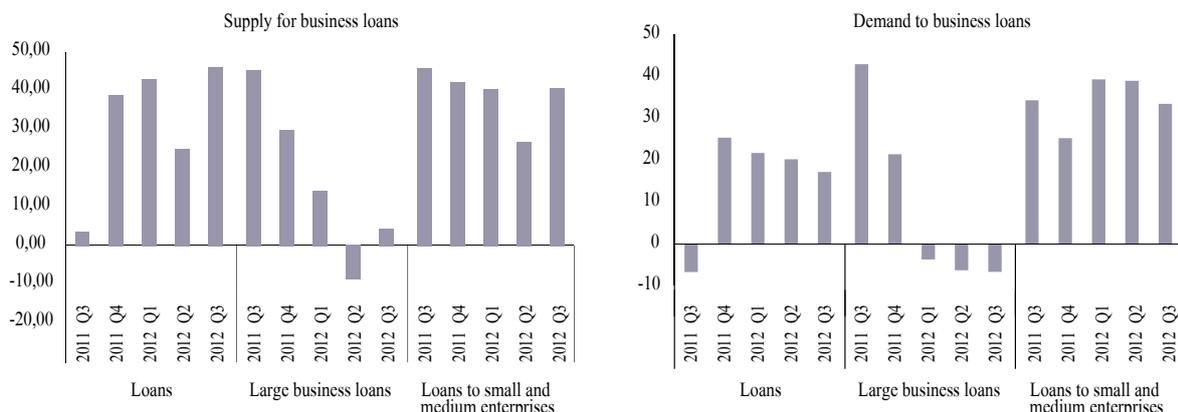
### 2.3. Assets of the banking system

Over the reporting period, access to financial services has kept expanding. Credits remain to be the key asset of banking services.

Change in bank assets (14.7% rises in the third quarter) primarily sourced from credits. Credits rose by 15.2% over the period and amounted to AZN 11169.7 million. According to a CBA survey, the dynamics of credit demand is stabilizing. As in previous periods, SME's demand for lending is rising. Long-term loans have become more attractive for the corporate sector. High supply for business loans mainly relates to banks' high credit demand expectations, and subdued interest rate and collateral depreciation risks.

Over the period, credit growth stemmed from long-term loans. Thus, short-term loans rose by 5.4%, while long-term loans grew by 19.3%. The share of long-term loans in the structure of the lending portfolio increased by 2.5 p.p.

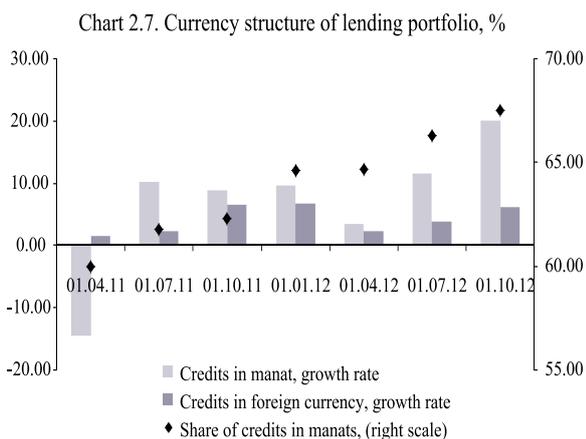
Chart 2.6. Supply and demand for business loans



Source: CBA

and made 73% as of 1 October 2012 (70.5% - January 1, 2012).

At the end of Q3 of the current year the currency structure of the lending portfolio remained relatively stable.



Source: CBA

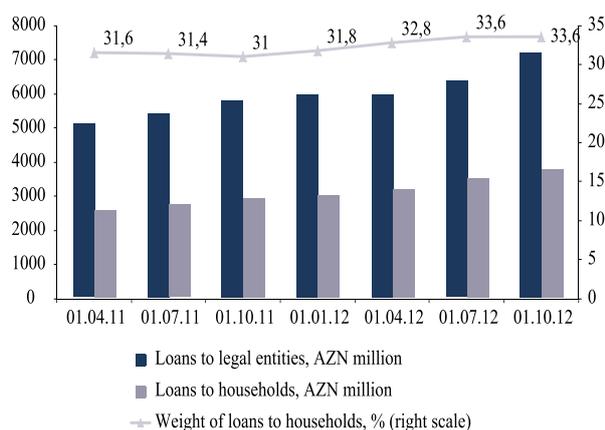
Over the period, the growth rate of the loans in the national currency (20.1% rises) prevailed over that of the loans in a foreign currency (6.1% rise). As a result, the share of loans in AZN increased to 67.5% from 64.7%.

Loans to legal entities by banks grew by 12.2% over the period and made AZN 7225.5 million (64.7% of the portfolio) as of the end-period.

Over the period, loans to households (by banks) grew by 21.7% and constituted AZN 3756.1 million as of the end-period. Consumer loans (by all credit institutions) rose by 26.2% and constituted 77.4% of total loans to households.

In 9 months of the current year real estate purchase and construction loans to individuals

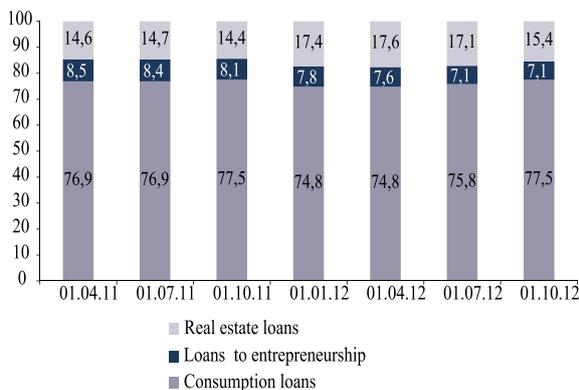
Chart 2.8. Dynamics and structure of the lending portfolio by subjects



Source: CBA

increased by 8.3% and as of October 1, 2012 constituted AZN 623.5 million. The share of these loans in the portfolio of household loans was 15.4% as of the end-period. Loans

Chart 2.9. Purpose structure of loans to individuals, %



Source: CBA

**Table 2.2. Sectoral structure and dynamics of banks' lending portfolio**

Sector	01.10.12		Growth in 9 months, %
	AZN million	Share in lending portfolio, %	
Trade and services	2 844.6	25.5	0.04
Households	3 756.1	33.6	21.7
Agriculture and manufacturing	516.9	4.6	13.2
Construction and property	1 103.4	9.9	26.1
Industry and production	774.9	6.9	32.9
Transport and communication	439.1	3.9	7.2
Other	1734.5	15.6	20

Source: CBA

to individuals engaged in entrepreneurship activities rose by 11.4% and took 7.1% of household loans.

As of the end of the third quarter the share of long term loans to individuals (on all credit institutions) in total portfolio posted a 2.9 p.p. growth and took 73.9% (AZN 2986.9 million) of the portfolio.

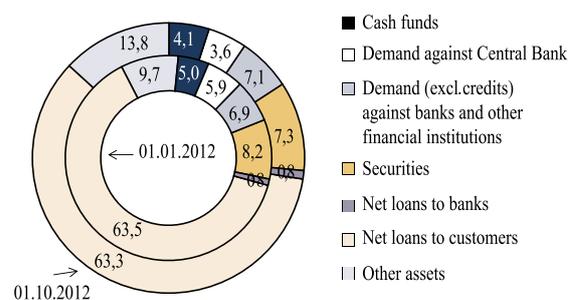
Over 9 months of the current year the share of loans to trade and services in the sectoral structure of the lending portfolio declined by 3.8 p.p. and constituted 25.5%. As of the end-period, credits to the households were one third of the total portfolio.

Loans to trade and services rose by 0.04%, agriculture and manufacturing by 13.2%, transport and communication by 7.2%, industry and production by 32.9%, construction and property by 26.1%. Growth on loans on credit card operations was 28.1 %.

In 9 months of 2012 credit institutions kept regional crediting. Credit investments to regions over the period increased by 8%.

As in previous periods, loans to regions in the national currency prevailed over those in the foreign currency and as of October 1, 2012 took 74.3% of the lending portfolio. Long-term loans to regions were 66.3% of the total loans to regions.

Chart 2.10. Structure of bank assets, %



Source: CBA

**Table 2.3. Loans and deposits on regions (excluding Baku), AZN million**

Tarix	Credit investment			Deposits		
	Total	In AZN	In foreign currency	Total	In AZN	In foreign currency
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
01.10.2012	1372.9	1020.8	352.1	360.9	279.2	81.3

Source: CBA

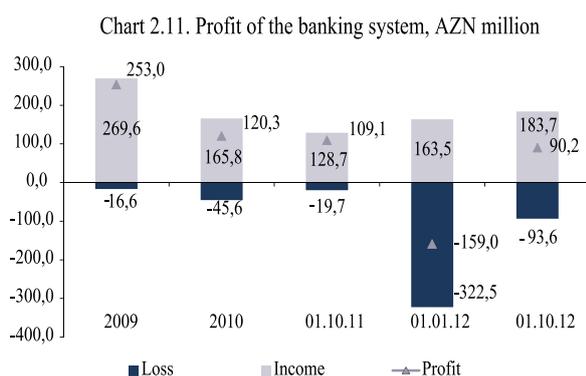
Over the first 9 months of the current year, bank investments to securities rose by 2.7% and reached AZN 1169.6 million as of October 1, 2012 (AZN 1139.3 million as of January 1, 2012).

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

*Over the period, banking system's overall financial results were positive.*

Over the third quarter, banks generated AZN 103.4 million worth profit. Net profit after taxes made AZN 90.2 million.

Over the period the number of banks operating with profit and loss were respectively 32 (31 as of 01.10.2011), and 10 (12 as of 01.10.2011).



Source: CBA

Over the period banks' interest income on loans to customers rose by 10.2% (total AZN 826.2 million interest income on loans to customers). The y.o.y. decrease in the interest income to average assets ratio was 0.4 p.p. and made 7.4% as of the end-period.

The y.o.y. increase in income from other interest bearing assets (interbank exposures, investments and financial leases) was 22.4% and its ratio to average assets remained stable and made 0.7%. In the third quarter y.o.y. increase in total interest income was 11.2% (AZN 91.4 million) and reached AZN 905.4 million.

The y.o.y. increase in banks' total non-interest income in 9 months of the current year was 18.2% and as of the end-period constituted AZN 267.9 million. Rise in net income from foreign exchange operations and commission fees for other services contributed to this increase.

Banks' overall total income (interest and non-interest) made AZN 1173.3 million, y.o.y. increase being 12.7% (AZN132.3 million).

The y.o.y. increase in interest expenses was 11.1% as of the end-period and made AZN 479.5 million due to rise in interest expenses on term deposits of individuals. The y.o.y. decline

Table 2.4. Profit structure, AZN million

	January-September 2011	January-September 2012	Change, %
Interest income	814	905.4	11.2
Interest expenses	431.5	479.5	11.1
Non-interest income	226.7	267.9	18.2
Non-interest expenses	375	433.2	15.5
Total income	1040.7	1173.3	12.7
Total expenses	806.5	912.7	13.2
Net operational profit	234.3	206.6	-11.9
Loan loss provisioning	115.7	158.2	36.7

Source: CBA

in ratio of interest expenses to average assets was 0.2 p.p. and made 4.5%.

The y.o.y. increase in non-interest expenses was 15.5% and as of October 1, 2012 made AZN 433.2 million, the reason for which is the rise in expenses associated with salaries, other compensation types in the banking system, and fixed assets employed in banking. The non-interest expenses to average assets ratio remained unchanged against the relevant period of previous year and was 3.9%.

The y.o.y. increase in banks' total expenses (interest and non-interest) was 13.2% (or AZN 106.2 million) and constituted AZN 912.7 million.

In January – September of the current year banks' operational profit made AZN 260.6 million. ROA of bank assets was 0.8%, while ROE was 6.7 %.

## 2.5. Capital of the banking sector

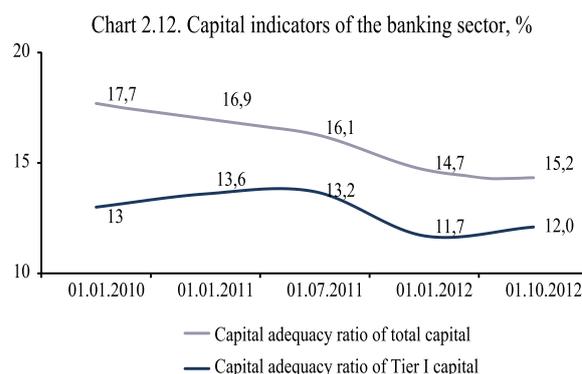
*Over the reporting period the banking sector has kept strengthening the capital base and capital adequacy indicators of the system have maintained an acceptable level.*

In January – September, 2012 the size of banking system's aggregate capital rose by 21.8% or AZN 411.2 million and as of the end-period reached AZN 2297.3 million.

In 9 months of the current year rise in the aggregate capital sourced from authorized capital. The authorized capital grew by AZN 396.3 million or by 25.1%, its share in the aggregate capital reached 86% (82.6% as of the beginning of the year). Total reserves have risen by 18.6% (AZN 29.7 million) since the beginning of the year. Investments to shares of subsidiaries and other credit institutions, intangible assets was AZN 206.3 million (y.o.y. AZN 155 million).

Capital adequacy on the banking sector was far above the threshold and as of the end-period made 15.2%.

In 9 months of 2012 Tier I capital adequacy having increased 0.3 p.p. made 12%, which is twice above the threshold (Tier I capital adequacy ratio 6%).



Source: CBA

Table 2.5. Structure of bank capital, AZN million

	01.01.2012	01.10.2012
Authorized capital	1558.9	1955.2
Share premium	20.7	20.7
Retained net profit (loss)	-40.7	-116.3
Profit of current year	163.5	183.7
General reserves	159.5	189.1
Other funds of capital	151.5	206.3
Aggregate capital	1886.3	2297.3
Deductions from capital	-119.5	-132.3

Source: CBA

#### Box 4. Information asymmetry and capital adequacy

Information asymmetry is the situation in which one group has more information than the other group. When customers have more information about themselves than bank managers, or, vice versa, this situation challenges the quality and number of issued loans. Elevated credit risk of a counterparty forces lender not to lend their funds, which eventually results in credit shortfall, lower expenses, downturn in the economy and uncertainty in the financial market. Thus, banks face more capital needs amid insufficient information with an eye to evaluate credit and market risks.

Information asymmetry yields two major consequences: adverse selection and moral hazard risks.

- Adverse selection occurs before the transaction when borrowers (households and banks) are customers with potential credit risk.
- Moral hazard occurs after the transaction when borrowers (households and banks) engage in risky activities.

Depositors make improper selection with respect to a bank selection, or in the event of failure to assess banks, primarily weak banks maintain low capital position using depositors' lack of information. As a result, it is hard to differentiate strong banks from weak ones. If vice versa, i.e. depositors are capable to assess banks, the strong banks will maintain high capital adequacy in light

of depositors' assessment skills. The depositors, who see bank has adequate capital, will request less compensation due to bank's reliability and accept lower interest rates. When depositors fail to differentiate banks' strength, it leads to Akerlof's "The Market for lemons". The Akerlof's "The Market for lemons" problem discusses situations when buyers do not know fair value of cars in markets for used cars, thus pay lower or higher than the fair value.

Depositors have a number of ways to eliminate challenges in assessing banks:

- Depositors monitor banks' shareholders.
- Bank managers ensure evaluation of banks by rating agencies.

If banks go bankrupt, shareholders can only claim the remainder, the amount that is remained after bank pays all its liabilities. Therefore, shareholders will monitor the bank more carefully. This will ensure that depositors' funds are in more reliable hands. In order to defend depositors' and investors' interests, government institutions should request banks to have them evaluated by rating agencies on a regular basis.

*Source: Kevin Dowd, Does asymmetric information justifies bank capital adequacy regulation?*

As of end-September 2012 the leverage ratio on the system was above the threshold – 9.6%.

#### 2.6. Interest rates in banks

*In 9 months of 2012 average weighted nominal interest rates on loans and deposits in manat and a foreign currency declined.*

The y.o.y. decrease in average interest rates on loans in manat was 0.6 p.p. and made 15.4%. The y.o.y. decrease in average nominal interest rates on deposits in manat shifted to 10.2% from 10.8%. Interest rates on loans in a foreign currency declined 0.8%, while that of deposits nearly remained stable.

Over the period interest margin in manat

**Table 2.6. Interest rates on deposits and loans**

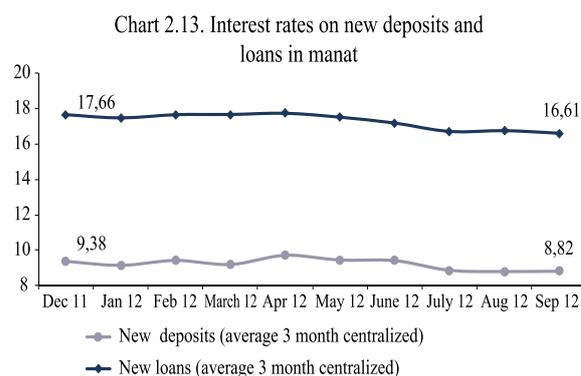
Date	Loans		Deposits	
	in AZN	in foreign currency	in AZN	in foreign currency
01.01.2012	16.3	16.8	10.3	11.1
01.07.2012	15.7	15.4	10.3	10.8
01.10.2012	15.4	15.5	10.2	10.5

Source: CBA

on average was 5.6%, and 5.1% in foreign currency.

Average weighted interest rates on newly issued loans, attracted deposits and interbank loans have partially declined since the beginning of the year.

As at 01.10.2012 the interest rate on interbank loans in manat declined 1.36 p.p. when compared to the beginning of the year and made 8.5%, while in a foreign currency this indicator equaled 5.78% upon a 2.2 p.p. decline.

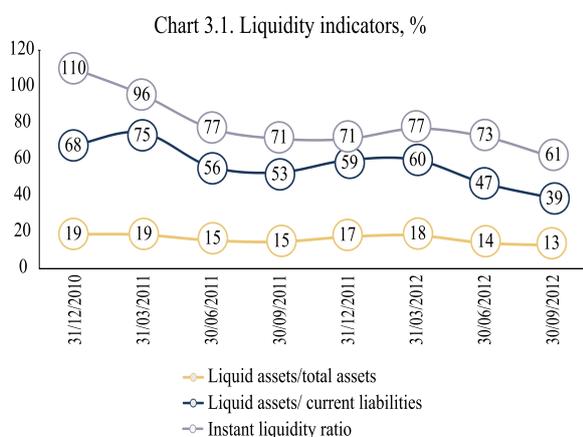


Source: CBA

### III. RISKS IN THE BANKING SYSTEM

In the third quarter, while the share of external funding in banks' resource base increased, deposits remained the key source. The maturity gap analysis of assets and liabilities suggests acceptable liquidity in the banking system.

In current January – September banks maintained an acceptable level of liquidity. While the scale of highly liquid assets slightly declined due to recovery of the lending activity, the liquid assets to total assets ratio was above the threshold (10%). The share of liquid assets in current liabilities dropped to 39% from 47%. The instant liquidity ratio was 61% which is above the CBA's threshold (30%).

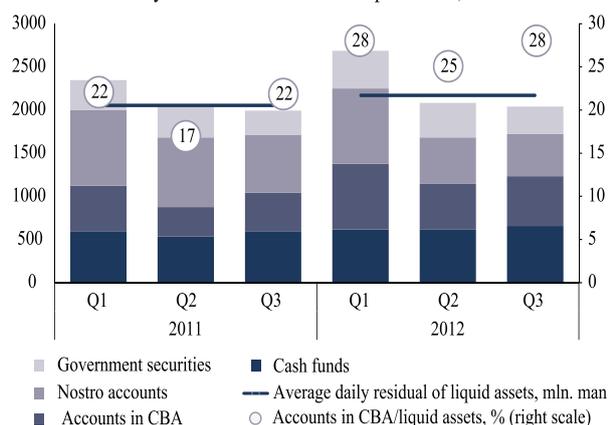


Source: CBA

In January – September the y.o.y. average daily balance of highly liquid assets rose AZN 116 million (6%) and reached AZN 2169 million.

As of 01.10.2012 the share of cash funds, nostro accounts and government securities in the structure of highly liquid assets respectively was 32%, 24% and 16%. The share of bank's accounts with the CBA in liquid assets made 28% as of the end-period.

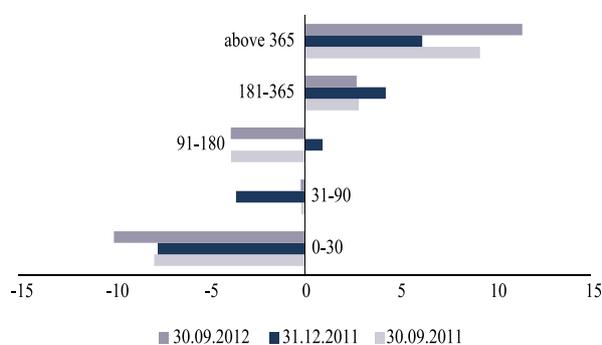
Chart 3.2. Dynamics and structure of liquid assets, AZN million



Source: CBA

Over the period banks' maturity gap on assets and liabilities was on an acceptable level.

Chart 3.3. Gap between assets and liabilities to assets ratio, %



Source: CBA

In 9 months the quality of the lending portfolio was on an acceptable level. The share of overdue loans in total loans made 6.5% as of the end-period.

In general, CBA's regular stress-tests demonstrate that the Azerbaijani banking sector is resilient to extreme macroeconomic shocks.

Capital adequacy remains sustainable. In parallel, market and liquidity risks are improving. Credit risks are on a manageable level.

### Box 5. Design of the Early Warning System (EWS) (applied models)

The recent global financial crisis urged economists and policymakers to focus on prediction of financial turmoils.

A number of countries and international financial institutions have been studying reasons and probabilities of crisis occurrences in recent 20 years. The methodology on formation of preventive indicators of the crisis is under way, macroeconomic stress-testing techniques have been developed. Measures on the macroeconomic model – the key component of the EWS enabling to evaluate results of stress scenarios for a medium-horizon are continuing.

The *Kaminsky-Lizondo-Reinhart* (KLR) model can be particularly specified from among the models tracked on crisis prediction. This model was created in 1998, the aim of which is to signal of a crisis through a vast number of monthly indicators. The KLR model tries to predict a crisis through visible changes in depreciation of the average weighted monthly exchange rate and loss of reserves over the following 24 months. Thus, a pre-crisis higher-than proper level of any macro-financial variable across the country signals of crisis probability in upcoming months. In 2000 the model was improved through addition of new indicators (evaluation of a real exchange rate, banking crisis, depreciation of capital, export reduction, reserves to broad money, recession etc.).

As the KLR model, *The Developing Country Studies Division Model* employs a predictive horizon on crisis probability. Variables are measured in percentage and a linear model is formed of 5 variables: deviation of a real exchange rate from the trend, the current accounts to the GDP

ratio, export rise, growth in reserves, the M2 to reserves ratio.

The IMF developed the *Policy Development and Review model* within the EWS frame. The model incorporates considerable balance indicators to predict a crisis: financial leverage on a corporate level and the short-term debt to capital ratio, balance indicators of banks and foreign debt of the corporate sector (as the share of export), the investors' and shareholders' rights protection regime.

The IMF has been regularly using *Goldman Sachs WATCH (GS- WATCH)* and *Credit Suisse First Boston's (CSFB) Emerging Market Risk Indicator* models since 1998. The GS-WATCH model is used to predict a crisis in upcoming 3 months based upon weighted average of a three-month exchange rate and changes in reserves. Variables include credit boom, rise in export and reserves, demand for external financing, changes to fund indices, political risk, contagion effect and global liquidity. The model is estimated using monthly indicators; however predictions are weekly updated to be reflected in reports of analysts. The Credit Suisse First Boston's (CSFB) Emerging Market Risk Indicator model was reviewed in 2000 through updating particular variables and slightly reducing their number. This model predicts over 5% depreciation for the following month. These variables are nearly similar to those used in other models.

Source: IMF staff papers "Assessing Early Warning Systems: How have they worked in Practise?"

## IV. PAYMENT SYSTEMS

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

In 9 months of 2012 AZN 84 503 million worth 19007 million pcs of transactions were conducted in the National Payment System. The y.o.y. increase in the number of transactions was 41.9% (5 614 thousand pcs), and in total volume was 16.1% (AZN 11 732 million).

Average daily number of transactions over the reporting period was 96 thousand, total volume of AZN 426.8 million (y.o.y. respectively 67.6 thousand pcs and AZN 367.5 million).

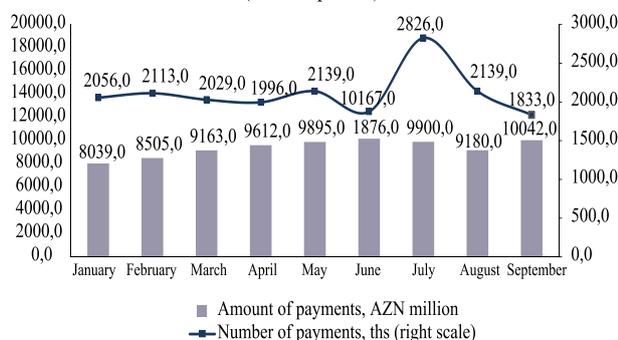
Out of cashless payments 90.5% was made through the AZIPS system, total volume of which constituted AZN 76486 million (343 thousand pcs of transactions). The y.o.y. increase in transactions was 14.1% (AZN 9 477 million). The amount per payment order on average equaled AZN 229.6 thousand.

9.5% (AZN 8 million) of payments were made through the BCSS in terms of amount. The share of the BCSS in terms of quantity made 98.2% and on the result of the reporting period constituted 18.664 million pieces of payments, that surpassed the previous year by 39.1% (AZN 2255 million) in terms of volume and 42.2% (5542 thousand pcs) in terms of number. The amount per payment order on average equaled AZN 434.9.

Commercial banks continued developing plastic card servicing infrastructure. As of the end of 9 months of 2012 plastic cards were serviced via 2224 ATMs and 36702 POS-terminals across the country. To note, the y.o.y. increase in the number of POS-terminals was 2.8 times as much.

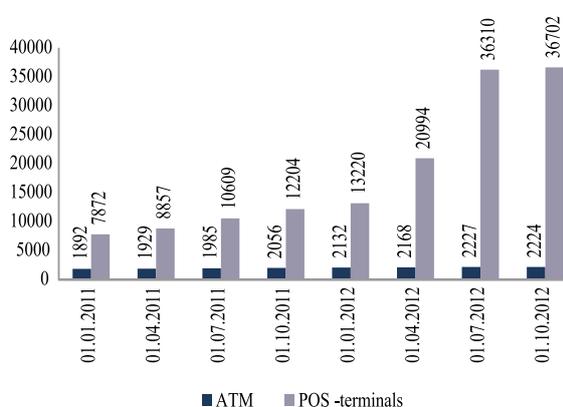
In 9 months of 2012 AZN 5493 million worth 35.512 million transactions were conducted via ATMs. The number of POS-terminal transactions was 3131 thousand pieces and the volume made AZN 403 million.

Chart 4.1. Dynamics of payment orders in the National Payment System (Jan – Sep 2012)



Source: CBA

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



Source: CBA

Over the period the number of plastic cards rose 340 thousand pieces and equaled 4.9 million pieces, which made on average 820 payment cards per thousand (mature) persons.

Internet banking is expanding. Thus, AZN 4.2 million worth 20.1 thousand of transactions were conducted through Internet-banking.

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