CENTRAL BANK OF THE REPUBLIC OF AZERBAIJAN

MONETARY POLICY REVIEW

January – September 2011

Baku – 2011

TABLE OF CONTENTS

ACRONYMS

CBA – Central Bank of Azerbaijan

ILO – International Labor Organization

IMF – International Monetary Fund

SAR – the South African Republic

SSC – State Statistic Committee

OECD – Organization for Economic Co-operation and Development

CPI – Consumer Price Index

APPI – Agricultural Producer Price Index

NEER – Nominal Effective Exchange Rate

OG – Output Gap

OPEC – Organization of the Petroleum Exporting Countries

REER – Real Effective Exchange Rate

RSM – Real Sector Monitoring

PPI – Producer Price Index

GDP – Gross Domestic Product

WTO – World Trade Organization

CAB – Current Account Balance

FAO – Food and Agriculture Organization

SUMMARY

The Central Bank of the Republic of Azerbaijan pursued its policy in the environment of uncertainties in the world economy, high debt burden in advanced countries, dominant volatility in the world financial and commodity markets over the past period of 2011.

High oil prices in the world market contributed to the surplus in the balance of payments, which ensured growth of foreign exchange reserves and it positively affected the economic growth. In this environment, the Azerbaijani economy continued to grow and macroeconomic stability was preserved over the past 9 months. With the surplus of the balance of payments, the exchange rate of manat against US dollar was stable and the foreign exchange market operated in a self-regulatory regime. Inflation remained on a single-digit level during the reporting period having primarily been affected by food inflation.

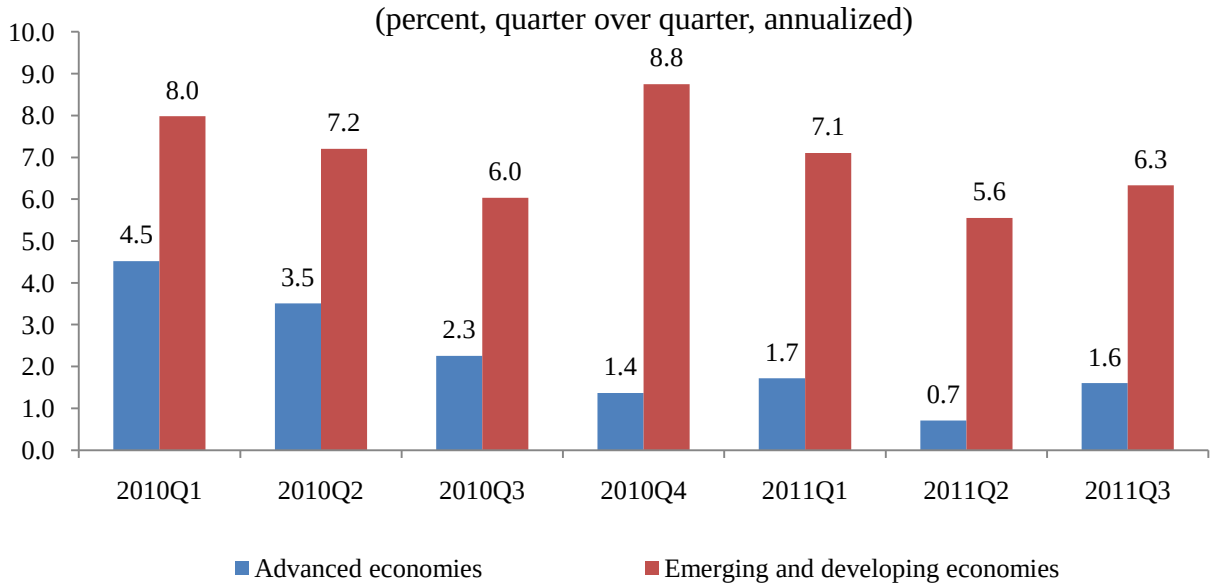
The Central Bank targeted *maintenance of inflation in an acceptable level, preserving stable exchange rate of manat, development and sustainability in the banking and financial sector* under the paramount directions of the declared monetary policy. To realize these targets the Central Bank fostered maintenance of macroeconomic and financial stability through corrections to its own policy. Given hike in the world food prices and expanded aggregate demand, the Central Bank pursued the anti-inflationary monetary policy.

I. Global economic processes and the national economy

1.1. Trends in the world economy

While Quarter I of 2011 stuck in memory with higher-than-expected global growth, Quarter II was marked by slowdown of this growth, and Quarter III – by escalated recurring recession risks in the world economy. Slowdown in the global economic growth rate was fuelled by its regional unevenness. Social turmoil in a number of oil-exporting countries, weakening of replacement of the public demand by the private in the USA, financial challenges in Eurozone and overall fiscal and debt unsustainability in advanced economies negatively affected the world economic growth.

Chart 1. Real GDP growth
(percent, quarter over quarter, annualized)



Source: IMF

In the first half of 2011 the real GDP in the USA on annual base increased by 1% which significantly lags behind 2.8% in the first half of 2010. High oil prices in the world markets, breaks in production chain due to the earthquake in Japan, lower-than-expected consumption by households negatively contributed to the economic growth. Unemployment exceeded 9% in Quarter III as in Quarter II. In July and August, business confidence index serially declined.

The crisis in Eurozone threatens to head to advanced economies leaving the community behind. The producer confidence index in September lowered in other Eurozone countries except

for Germany and France. Low producer confidence index signals poor economic growth in Quarter III. In August retail sale turnover declined by 0.3% against July, unemployment was 10%. According to rough estimations, inflation was 3%.

Box 1: Public debt

According to the estimations of the Bank for International Settlements, if the public debt to GDP ratio exceeds 85%, the debt hinders the economic growth. Hence, every 10% increase in the public debt to GDP ratio decreases the economic growth by one basis points. It is known that high and sustainable economic growth dynamics is required to significantly drop the public debt level. If this is the case, high debt burden, on the one hand, and its hindering the economic growth, on the other hand, further dramatizes the situation for the countries in question. In parallel, according to the IMF forecasts, average economic growth rate in most of the OECD countries for this and the following years will lag behind the pre-crisis level, which indicates that huge volume fiscal consolidation measures are the only way out.

Currently, the level of debt exceeds the threshold 85% in 12 out of 34 the OECD member countries. These countries take more than half of the world economy. The highest debt ratio goes to respectively Japan (213%), Greece (157%) and Italy (129%), the lowest to Estonia (15%), Luxemburg (21%) and South Korea (29%). Average indicator on the overall OECD countries makes 102%.

Source: "The real effects of debt", BIS working paper

The GDP declined by 0.5% in Quarter III in Japan. The level of unemployment plunged in record lows – 4.3% after December 2009. In August, industrial production was lower than expected, and the Consumer Confidence Index dropped.

Slump in external demand in other Asian countries resulted in decelerated economic growth. Amid high credit growth and inflation in a number of countries, the economy overheating was severer. 9.5% economic-growth in Quarter II in China was the key contributor to the world economic growth. In July, inflation reached the record highs of the last 3 years (6.5%) and slightly declined in August (6.2%). Low external demand and provided tightening measures are expected to slack the economic growth rate.

Box 2: Simulation of the effect of a possible economic shock in Europe on Asia

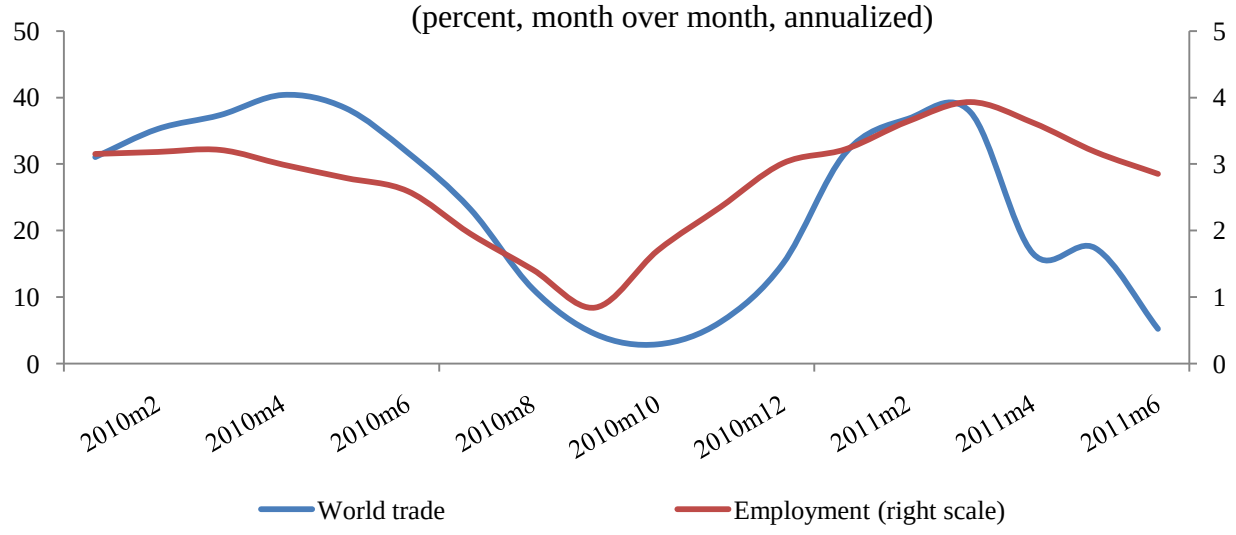
The IMF simulated the effect of a possible economic shock related to the debt challenge in Europe on Asia. Under the scenario of a severe public debt problem and eventual 3.5 basis points drop in the economic growth for the following two years (in this case the US economic growth drops by 1 basis point) the macro indicators of the Asian countries sharply deteriorate. If this is the case, the economic growth for Japan, China and other Asian countries will respectively drop by 1.8%, 3.1% and 2.1%.

In total, the effect primarily passes through real sector (export), since financial exposures of European and US banks to the Asian countries are not high. The European banks claims on Japan and China are respectively 7.5% and 3.5% of the GDP. US banks claims are 2.5% and 1.5%. Significant fiscal expansion will fail to have a huge positive effect. The fiscal expansion amounting to 2-3% of the GDP is capable to neutralize only one fifth of the negative impact stemming from the G-2 countries.

Source: "Regional Economic Outlook", IMF, October 2011

The world trade – the crucial source of economic growth in export-oriented countries - considerably decelerated which was fuelled by decline in the recovery rate of the global employment.

Chart 2. World trade and employment,
(percent, month over month, annualized)



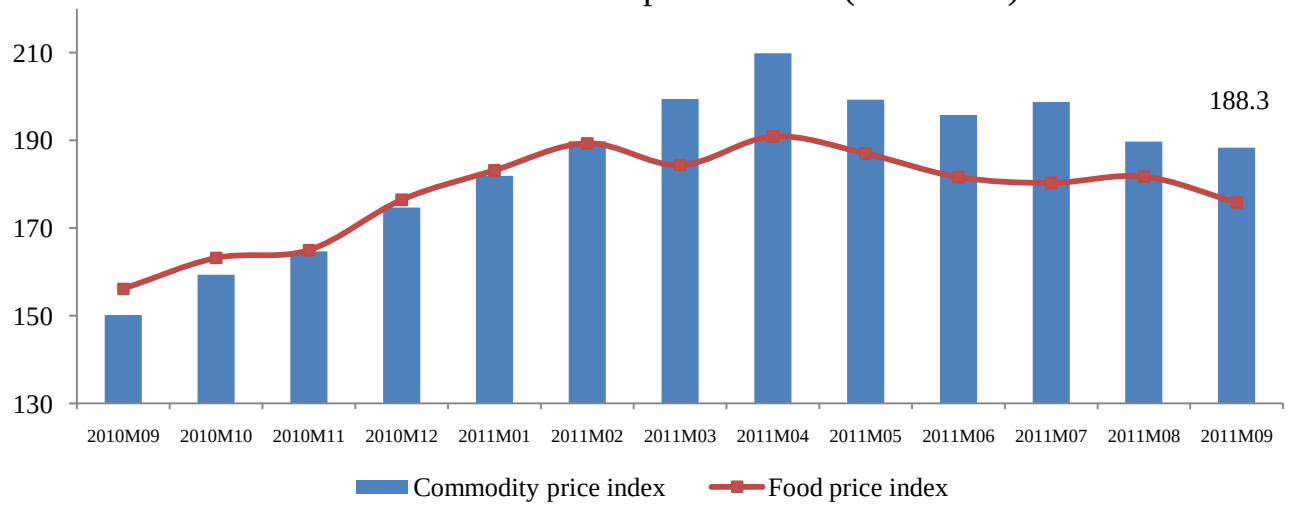
Source: IMF

Unemployment in advanced economies keeps 3 percentage points higher than the pre-crisis level. Unemployment in Great Britain was up to the highest level in 15 years. Unemployment among youth in the OECD countries jumped to 19%, which twice as much

exceeds the similar indicator for other age groups. This indicator is already 40% for Spain and Algeria.

The growth in Quarter 1, 2011 followed by low activity expectations in a short run in Quarter III and slump in demand in the world markets triggered 3.8% decline in **Commodity Price Index**. However, the price index was 25% higher against September 2010 and 14.3% lower than the peak of 2008.

Chart 3. Global price indices (2005=100)



` *Source: IMF*

Rise in wheat export by the countries of the Black Sea basin and halt of four-year export constraints by India catalyzed landslide of wheat prices. While the price for sugar dropped in August and September, it went up by 5.9% within the last three months. Overall, the food price index went down by 3.5% in Quarter III.

Import partners of Azerbaijan observed high productivity in a number of agricultural areas. Thus, in 9 months of the current year the grain production went up by 35% in Kazakhstan, and 7% in Russia, production of oily plants increased by 12% in Ukraine.

According to the FAO expectations, growth in major agricultural production sectors in the current season will pave the way to sustainable price landslides. According to projections, grain crops production will increase by 3% and rice production by 2.5% in 2011 as compared with the previous year, thus catching up with the pre-crisis level.

Box 3: Global food losses and food waste

The latest FAO forecasts indicate that the world food prices will jump by about 14% as of the yearend of the current year. The reasons for price hike are natural disasters, unfavorable weather conditions fuelled by global food losses and wastes. For estimations, suggest that annual world food losses and waste are huge.

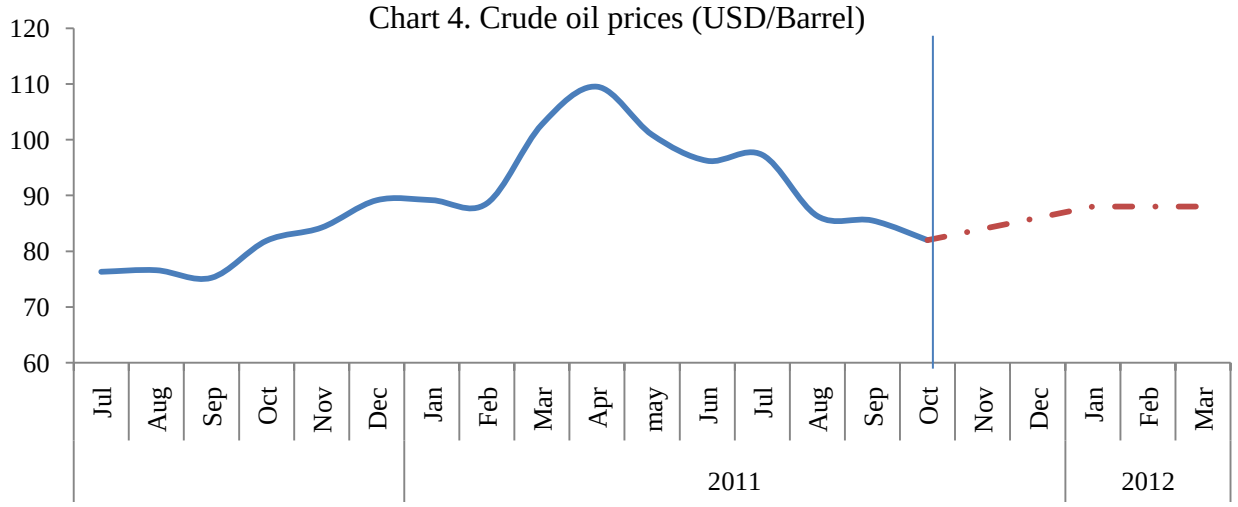
According to the estimations of the Food and Agriculture Organization of the United Nations, the volume of annual food losses and food wastes approximates to 1.3 billion ton. It takes about one third of food consumption of the world population. While food is lost at early and middle stages of food supply chain, in medium- and high-income countries food is wasted.

According to the estimations of the organization, the amount of per capita food losses and wastes in Europe and North America equals to 390-410 kg, Sub-Saharan Africa and South-East Asia – 130-180 kg. To compare, per capita food consumption in Europe and North America is 900 kg, and 460 kg in Sub-Saharan Africa and South-East Asia. 40% of food is lost at a harvesting and processing stage in emerging economies, and at retail trade – in advanced economies.

Source: "Global food losses and food waste", FAO, Rome 2011.

According to the OPEC, the challenges lingering in economies of the OECD countries, the policy of the Chinese government aimed at decrease of fuel utilization in vehicles made the demand for oil uncertain. Increase in retail sale prices in India will have a downward effect on production of energy resources. Generally, the demand for oil is expected to decline due to shrink of the world economic growth.

Chart 4. Crude oil prices (USD/Barrel)



Source: US Energy Information Agency

Box 4: Oil price and economic growth

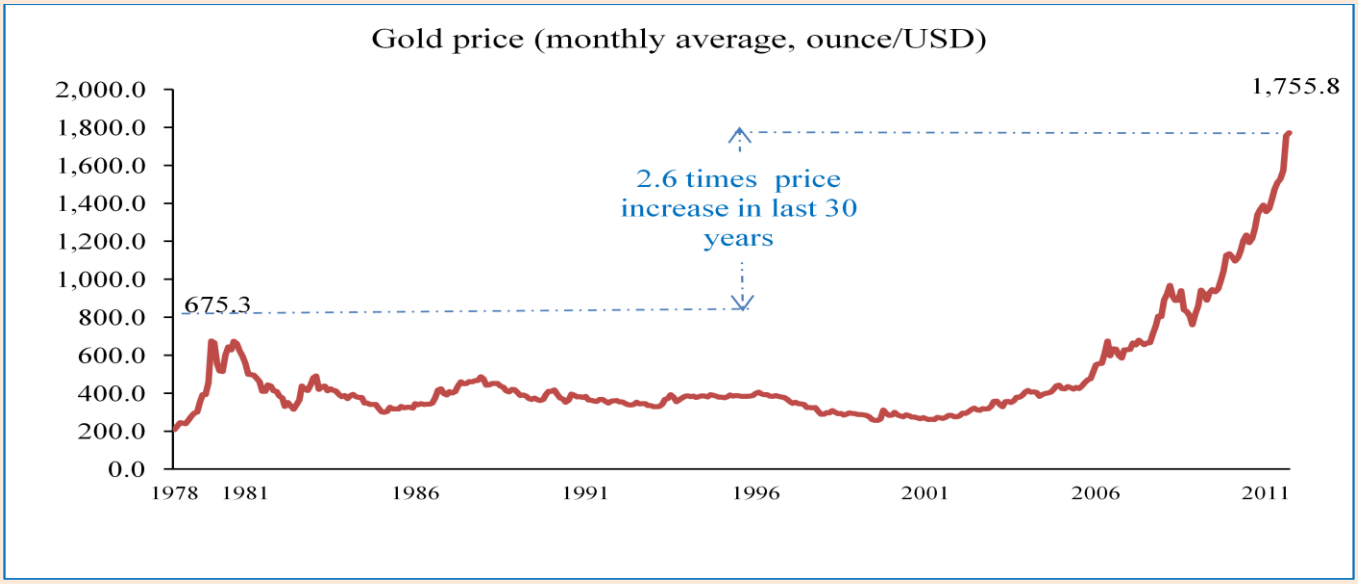
Numbers of researches investigated the relation between the world market price of oil and the global economic growth. It got about that 25% jump of the world market price for oil cuts down the economic growth in oil exporting countries by 0.5% or more. The research by Blanchard and Gali suggests that 10% hike in the world market price of oil in the US up to 1984 reduced the GDP by 0.7 basis point, the effect after 1984 made 0.25%. Further contraction of the effect may indicate climb in efficiency in the economy. The Jimenez and Sanchez estimations suggest that 10% increase in the oil price has a 0.1 – 0.5 basis point negative impact on the economic growth in G-7 countries. This effect is significant in the USA, while it is less significant in Japan.

Source: "Oil Shocks in a Global Perspective: Are they really that Bad?" IMF WP 194, 2011.

According to the World Gold Council, gold price kept jumping during Quarter III and average price per ounce since the year launch has made USD1530.

Box 5: Gold price

In general, sharp fluctuations in currencies, volatility in stock exchange indices, the sovereign debt problem in advanced economies preceded by the global crisis made certain precious metals, particularly gold more attractive as an investment tool. From this standpoint, it is not just a coincidence that the price for gold left the historical peak of early 1980s behind within 3 years and climbed by 2.6 times against that period. The price for gold has jumped by 2.2 times since September 2008.

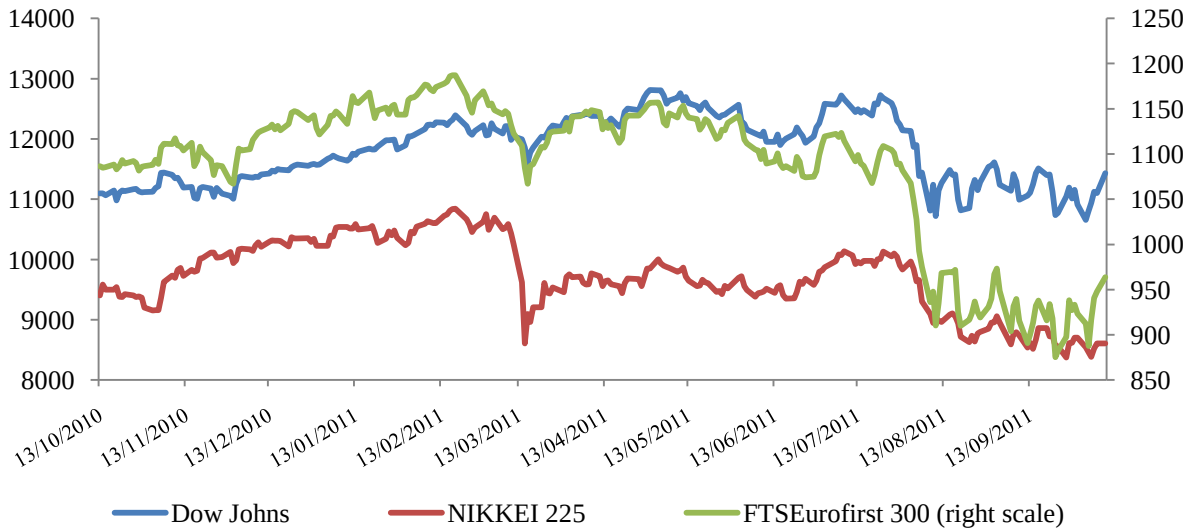


The World Bank forecasts the gold price to keep high in the current and following years. According to the estimations of the bank, average price per ounce of the precious metal will equal USD1475, and USD 1350 next year.

Source: World Gold Council

The problems in Eurozone still lingering, unsustainable economic activity in the USA and overall escalated risk of decay in the world economy catalyzed high volatility and low **activity indices** in the world markets. Whereas the demand for shares and other risky assets declined in securities market, the demand for safer assets increased. Eventual mass sales in the world bond markets in August and September brought about average 20% contraction of share prices.

Chart 5. Global Financial Indices



Source: Reuters IA

The International Monetary Fund downgraded the global economy growth forecast for the years of 2011 and 2012.

Table 1. IMF forecasts on the world economy

	2010	2011(f)	2012(f)
	Economic growth, against the previous year %		
World	**5.1**	**4.0 ↓**	**4.0 ↓**
Advanced economies	**3.1**	**1.6 ↓**	**1.9 ↓**
USA	3.0	1.5 ↓	1.8 ↓
Eurozone	1.8	1.6 ↓	1.1 ↓
Emerging economies	**7.3**	**6.4 ↓**	**6.1 ↓**
China	10.3	9.5 ↓	9.0 ↓
CIS	4.6	4.6 ↓	4.4 ↓

Economic growth, against the previous year, %			
Advanced economies	**12.3**	**6.2 ↓**	**5.2 ↓**
Emerging economies	**13.6**	**9.4 ↓**	**7.8 ↓**
Consumer prices, against the previous year %			
Advanced economies	**1.6**	**2.6**	**1.4 ↓**
Emerging economies	**6.1**	**7.5 ↑**	**5.9 ↑**

Source: IMF, World Economic Outlook Report, September 2011

According to the estimations of the Fund, this indicator will be 0.6 basis points lower for advanced economies and 0.2 basis point lower in emerging economies against the previous forecast.

1.2. Macroeconomic processes in Azerbaijan

The favorable external position and growing internal demand over the past 9 months of 2011 contributed to econonomic growth. Also support for the economic activity by the government, and enduring structural and institutional reforms positively affected the dynamics of the economy. Notwithstanding certain risks triggered by the global environment, the macroeconomic stability sustained during the period.

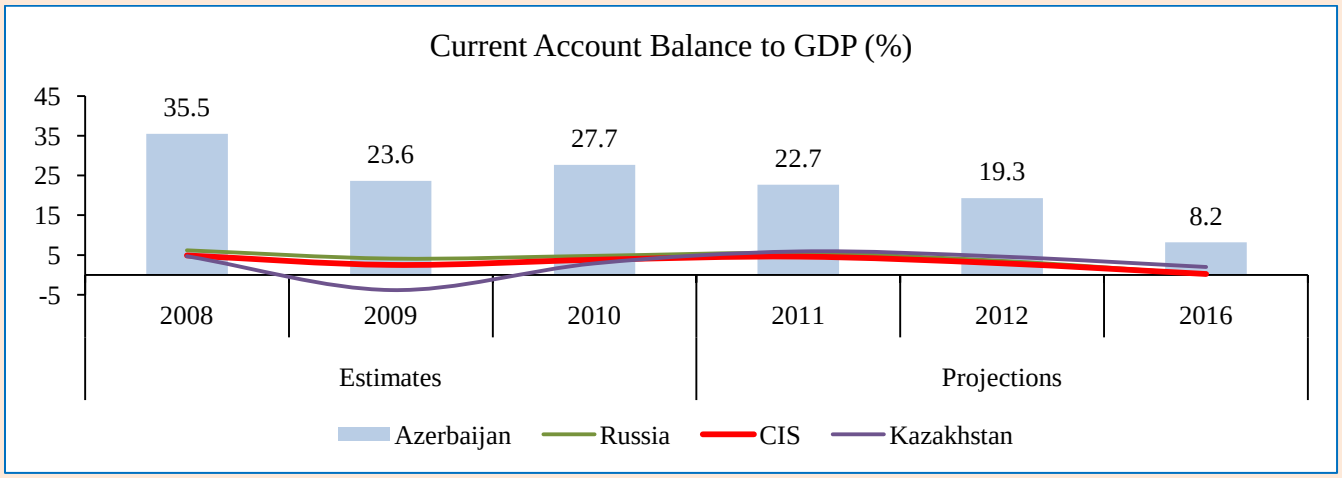
1.2.1. External sector

In January – September 2011, the external position of the country strengthened due to weak but positive growth in the global economy and high prices for energy. Particularly, high economic growth in emerging and developing economies conditioned high demand for oil and additional demand for non-oil exports.

According to the State Customs Committee, in January through September 2011 the foreign trade turnover made USD 26.6 billion, of which USD19.7 billion falls to the share of export and USD 6.9 billion to import.

Box 6: Current Accounts Balance in the CIS countries

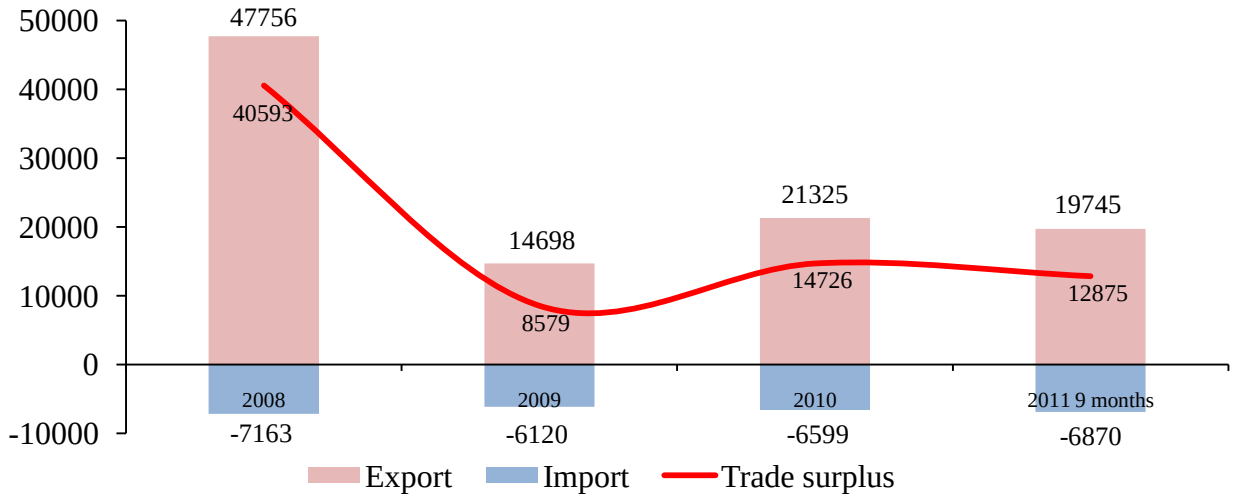
According to the IMF forecasts, the CAB to the GDP ratio in Azerbaijan in the current year and in the medium run will be the highest in the CIS. This ratio in Azerbaijan will exceed the similar indicator of the CIS for the current year and the year of 2016 by 5 and 8 times and respectively constitute 22.7% and 8.2%. The similar indicator is expected to gradually moderate and be close to zero in the CIS, including Russia in the medium run. CAB will surplus in another oil producer – Kazakhstan and make 2% of the GDP in 2016.



In total, CAB will be in deficit in all other CIS countries, except for Azerbaijan, Uzbekistan, Kazakhstan and Russia. The highest deficit will be in Armenia (-10.7%), Moldova (-10.3%) and Belarus (-9.9%).

Source: "World Economic Outlook", IMF, September 2011

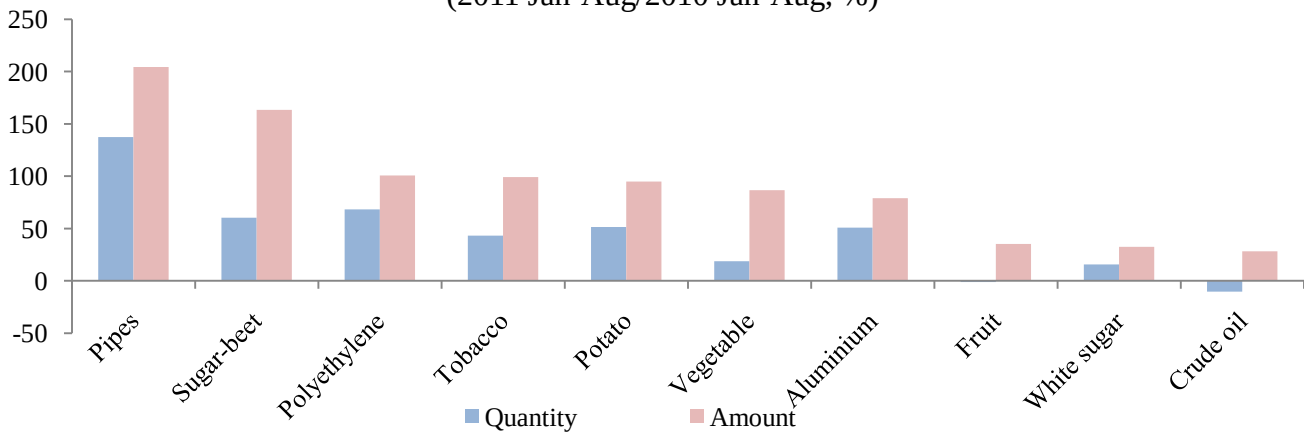
Chart 6. Trade balance (million US dollars)



Source: SSC

Export jumped by 26% (oil sector 25%, non-oil sector 33%) and import by 51%, surplus of the foreign trade balance made USD12.9 billion within 9 months of the current year against the similar period of 2010. To compare, the surplus exceeds the previous year level by USD 1.7 billion or 16%.

Chart 7. Change in export
(2011 Jan-Aug/2010 Jan-Aug, %)

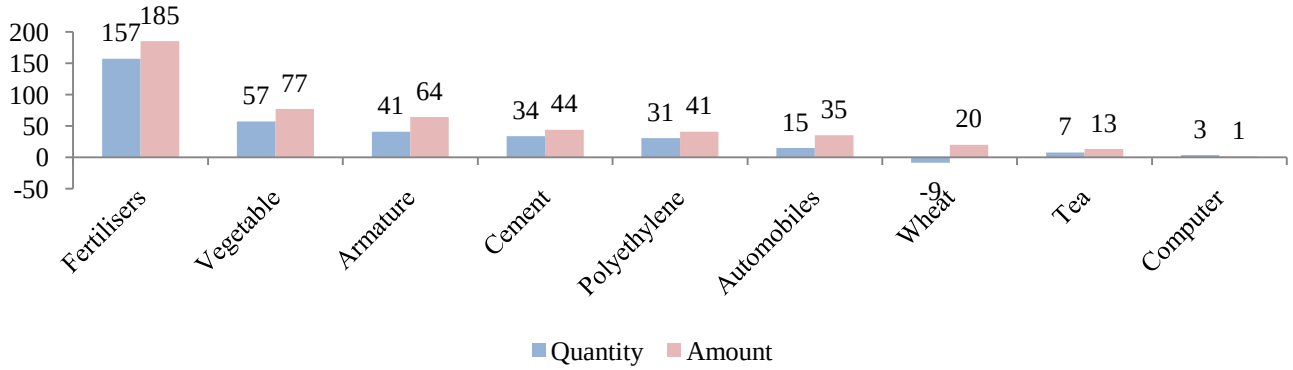


Source: SSC

Pipes, sugar beet, tobacco, polyethylene and potatoes are taking upward trends in exports. The highest growth in the non-oil export goes to chemistry (2.3 times), metallurgy (1.8 times) and fruits-and-vegetables (1.7 times).

Accelerating import goods include fertilizers, vegetables, reinforcements, rice, cement and automobiles. The aggregate demand having expanded average import of commodities exceeded USD 1 billion. Two third of the import benefited from automobiles, mechanisms and vehicles which is related to a large-scale investment project in the economy.

Chart 8. Change in import
(2011 Jan-Aug/2010 Jan-Aug, %)



Source: SSC

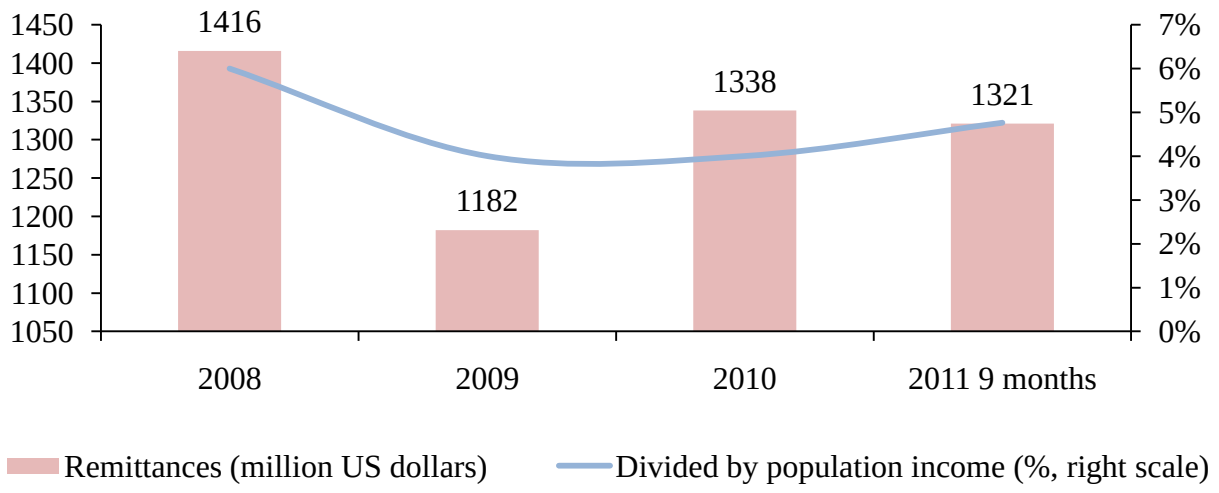
In total, major import and export commodities gained both quantitatively and in amount. Certain commodities having quantitatively decreased increased in amounts.

According to the SSC, prices for the Azerbaijani export commodities surge more rapidly than those of imports which display increase in opportunities to import more commodities and services through less export, in other words, improved trade conditions during the reporting period.

Besides export, dynamics of remittances and capital flows from abroad also had an upward effect on FX flows to the country.

According to the most preliminary data, the volume of inflows climbed by 38% in January – September 2011 against the relevant period of the previous year.

Chart 9. Remittances

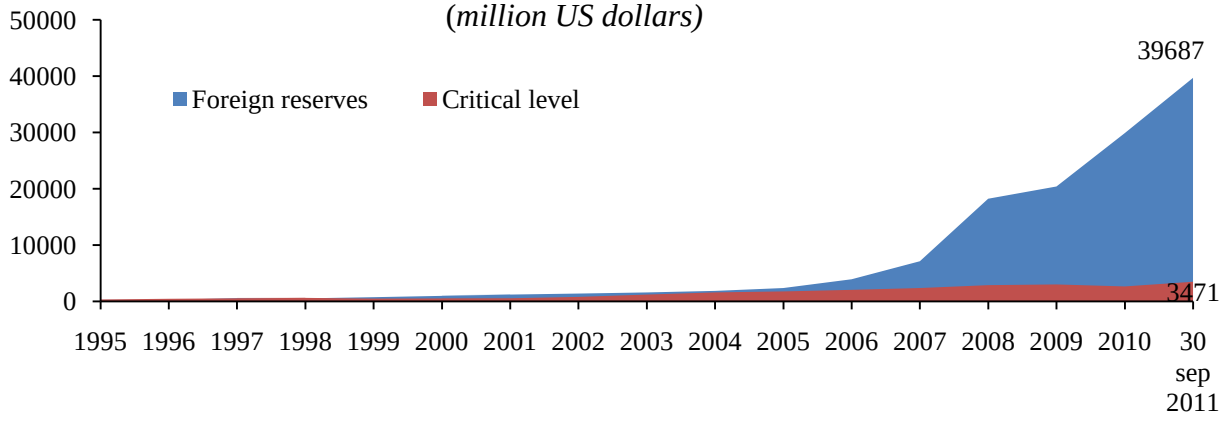


Source: CBA

The scope of foreign investments to the country economy, according to the SSC, have increased by 26% within 9 months of 2011 and equaled USD 1.8 billion.

Within 9 months of 2011, the strategic foreign exchange reserves of the country have increased by 33% and exceeded USD 39.7 billion which is sufficient for three-year goods-and-services import.

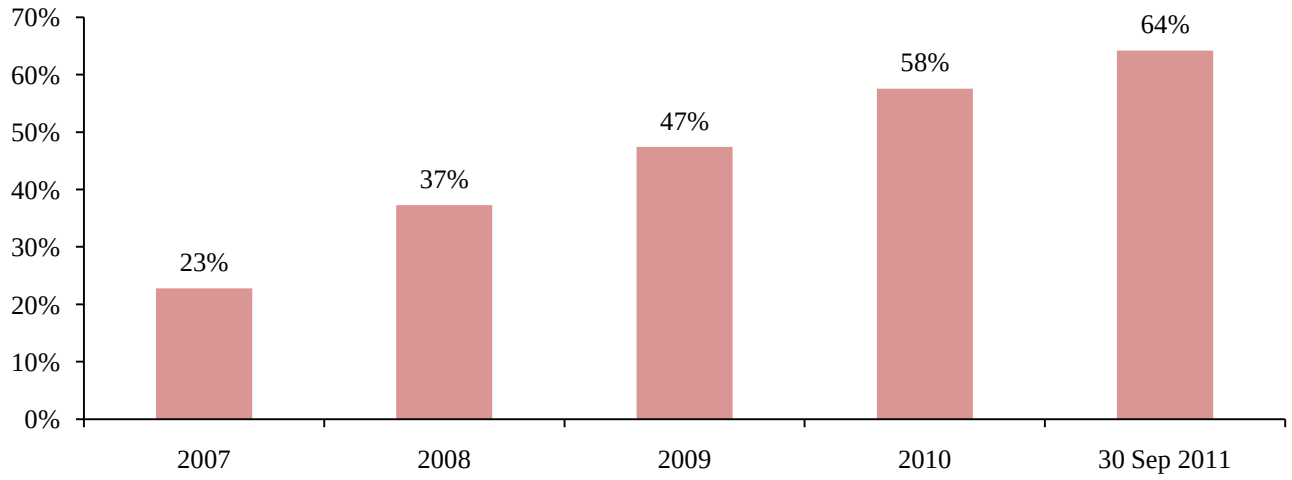
Chart 10. Sufficiency of foreign reserves
(*million US dollars*)



Source: CBA

The foreign exchange reserves of the CBA jumped by 8.4% within 9 months of 2011 and approximated to USD 7 billion, which is sufficient for six-month goods-and-services import.

Chart 11. Foreign reserves to GDP (%)



Source: CBA

Current strategic foreign exchange reserves to the GDP ratio is close to 65%. In general, a high growth rate of the foreign exchange reserves is the factor that considerably alleviates sensitivity of the country economy to possible external crisis impacts.

1.2.2. Aggregate demand

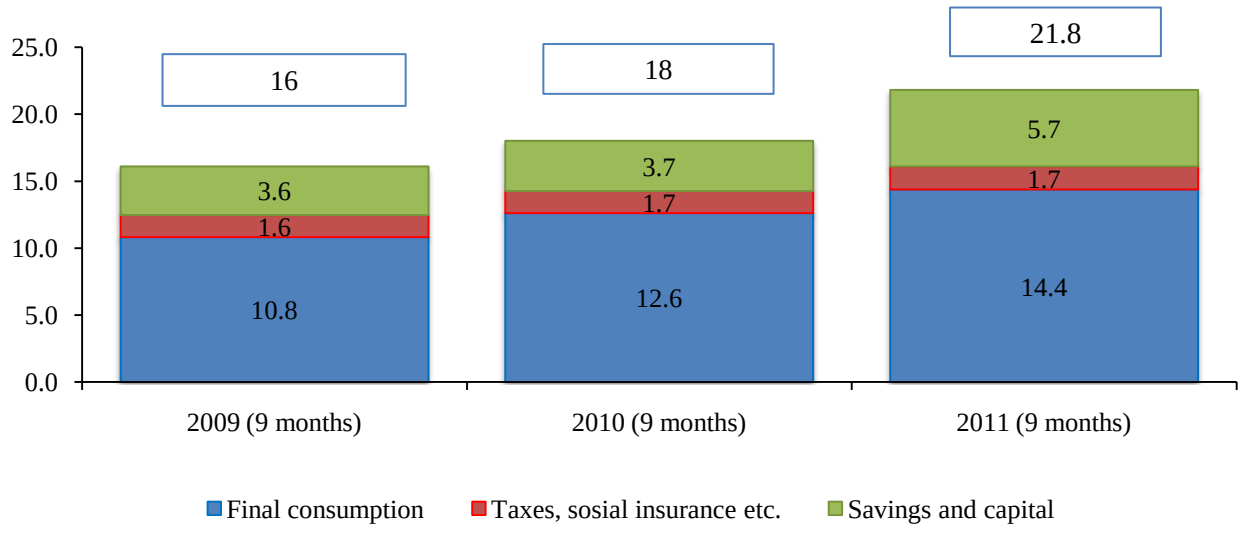
Over the past 9 months of the current year all components of the aggregate demand, including final consumption expenditures, investments and external demand, positively affected the economic growth. Surge in income of the population and internal investments to the economy

during the period, aided by favorable global environment, revived demand components of the GDP.

1.2.2.1 Final consumption expenditures. Final consumption expenditures mostly contributed to the economic growth within 9 months of 2011.

Household's consumption. Per capita nominal money income of the population during the reporting period increased by 17.6% against the relevant period of 2010 and made AZN 2409.9 or AZN 267.8 on monthly average. The population directed roughly 65.9% of the income to final consumption on purchase of commodities and services. Final consumption expenditures of the population have increased by 14.3% in nominal terms and made AZN 14.4 billion or equaled to 41.6% of the GDP against the relevant period of the previous year.

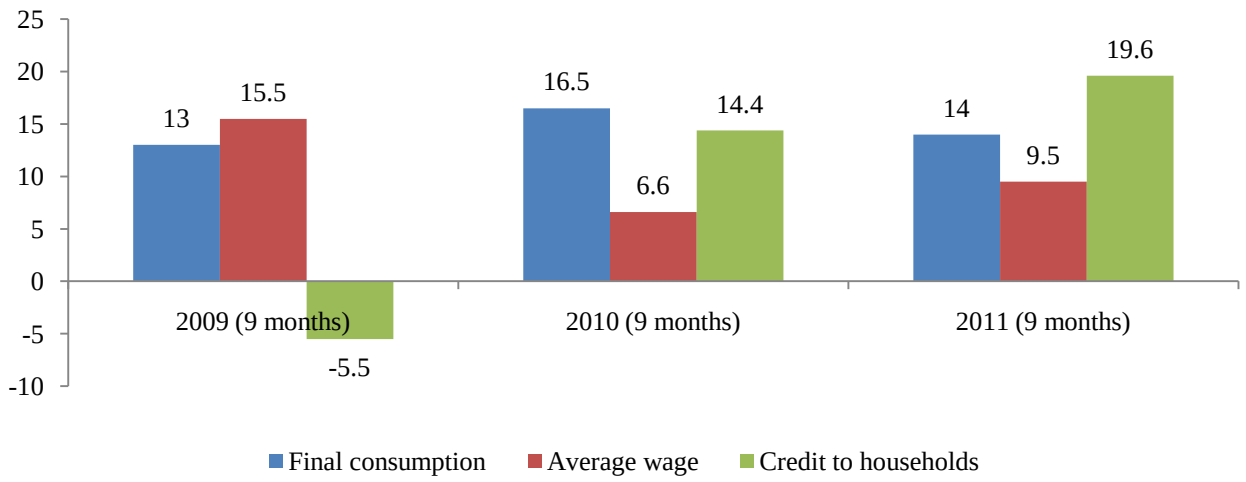
Chart 12. Population's income (billions of manats)



Source: SSC

Average monthly salary increased by 9.5% and made AZN 354.5 that contributed to maintenance of the high share of final consumption in the GDP.

Chart 13. Changes in wage and final consumption (year on year, %)

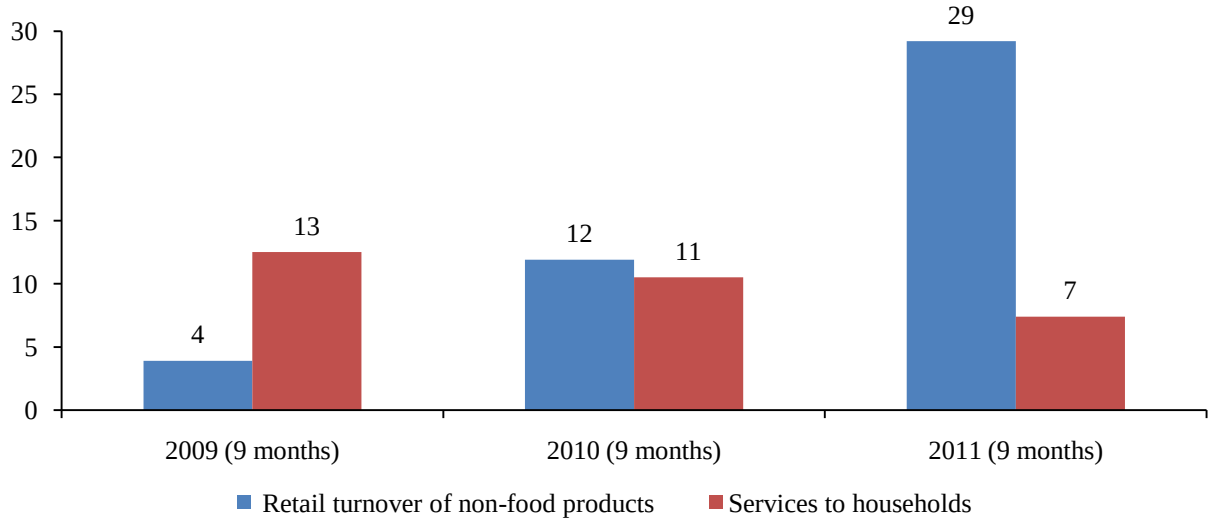


Source: SSC

Parallel step-up in loans to households also had an upward effect on demand. Thus, loans to households pumped up by 19.6% within 9 months of 2011 (by commercial banks and NBCIs).

Demand growth displays itself in increase of retail trade turnover and off-free services to the population.

Chart 14. Non-food product turnover and services to households
(percent change, year on year)



Source: DSK

Retail trade turnover gained 9.6%, whereas retail trade turnover on non-food products gained 29.2% within 9 months of 2011. Growth in off-free services to the population constituted 7.4%.

While the economic activity escalated, commodity stocks in industry and trade were diminishing according to the SSC. The Real Sector Monitoring conducted by the Central Bank also indicates boosting demand in the country. Thus, according to the results of the monitoring, actual sales in trade of durable goods (automobile, furniture etc) and industry are up, whereas balances of commodity stocks are down. The similar tendency is observed in services. Thus, average service demand index prevailed over the previous year's level roughly 2 times as much.

Government and public organizations. Government's consumption expenditures have been primarily shaped through spendings on commodities and services from the state budget. In January – August of the reporting year salaries, pensions and allowances of the population made up 33.6% of the budget expenditures.

Box 7: Fiscal indicators index

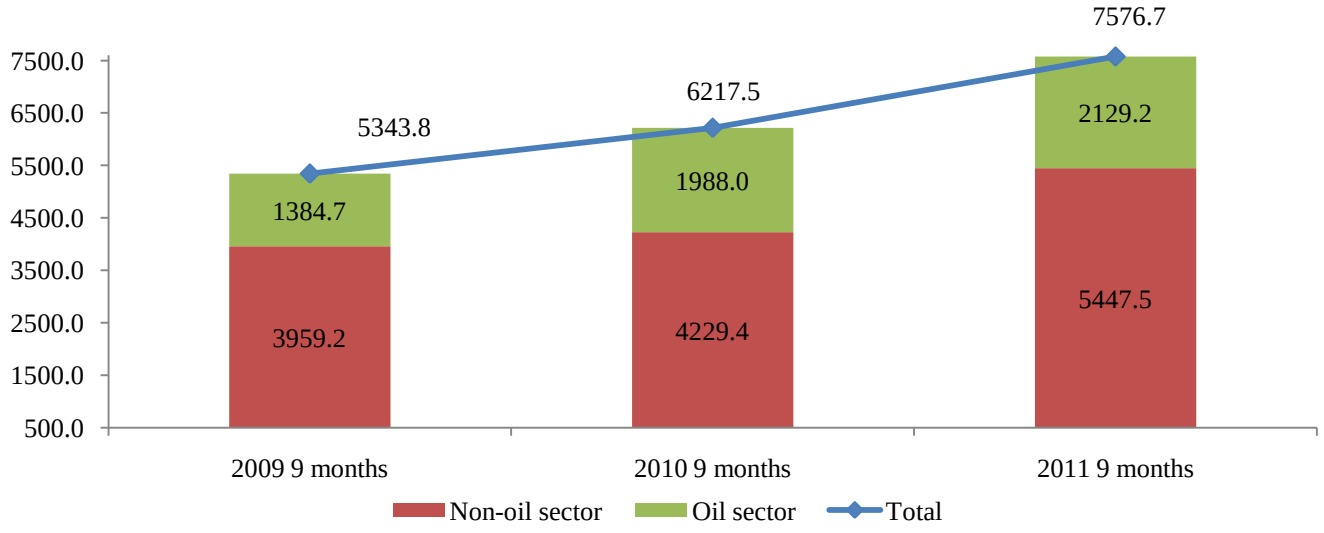
When estimating fiscal sustainability for notably one country, particularly an advanced economy, one indicator may not be sufficient. Hence, the IMF experts come up with a fiscal indicators index comprising a combination of 12 indicators which includes gap between the rate of indebtedness and economic growth rate, cyclically adjusted budget balance, overall debt burden, maturity structure of debt, government debt in a foreign currency, pension and healthcare burden of the state budget etc. The index ranges between 0 – 1. If the value is close to 1, fiscal stance is deteriorating.

The index estimations suggest that the vital problem in advanced economies with respect to fiscal sustainability relates to the total public debt and overall financing need, whereas in emerging economies – to cyclically adjusted budget balance (pro-cyclical fiscal policy). If to compare with the pre-crisis period, 30 basis points jump in the public debt to the GDP ratio in advanced economies is an obvious proof for the situation in the countries in question. The simulations by the fund exhibit that the budget surplus amounting to 7.8% of the GDP for advanced economies and 2.8% - for emerging economies is required to bring the debt burden up to a manageable level through 2020.

Source: "Fiscal Monitor", IMF, September 2011

1.2.2.2 Investment expenditures. Investment to the economy from all sources within 9 months of 2011 made USD 7.8 billion having increased by 21.9%, which equals 22.5% of the GDP. It includes 76.6% increase in domestic and 23.4% increase in foreign investments.

Chart 15. Investment (millions of manats)



Source: SSC

71.9% of investment was directed to the non-oil sector. In total, investments to the non-oil sector exceed the previous year's level by 28.8%. In the non-oil sector, the growth rate of investments to machinery and equipment, communications and chemistry was particularly high.

Bank loans played a crucial role in investment activity in the non-oil sector along with public investments. Thus, investments financed through bank loans increased by 2.6 basis points against the similar period of the previous year.

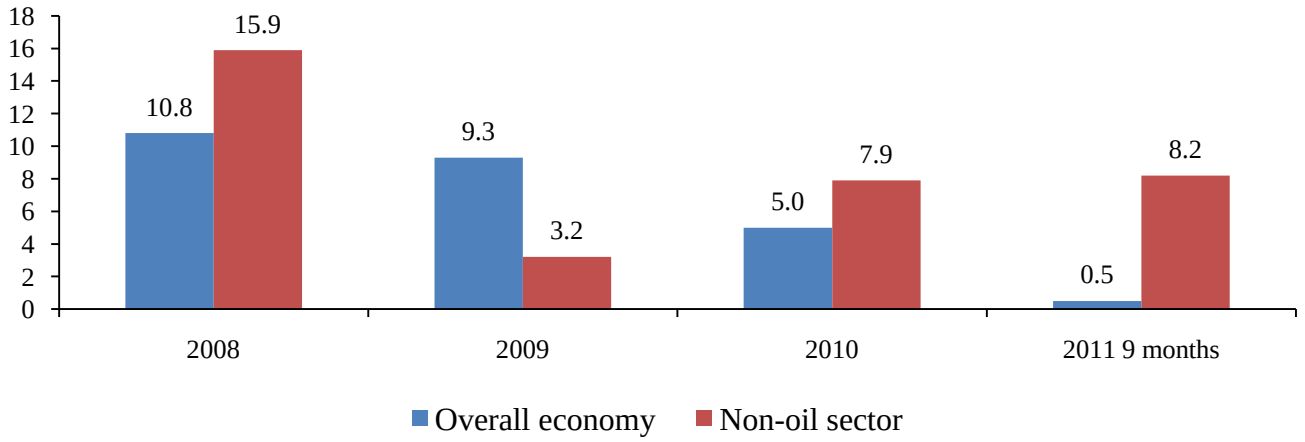
1.2.3. Aggregate supply

The economic growth kept pace with the aggregate supply within 9 months of the current year which primarily benefited from the non-oil sector.

9 month economic growth. In January-September 2011, the GDP growth was 0.5% in real terms and exceeded AZN 34 billion in nominal terms. The oil-and-gas sector posted 7% drop whereas the non-oil sector posted 8.2% jump. 67% of the value added was due to the share of production and 33% - to services.

The GDP growth stemmed from the activity in the non-oil sector. Thus, roughly 50% of the GDP was the share of the non-oil sector and the sector made a 3.6 basis point contribution to the overall growth.

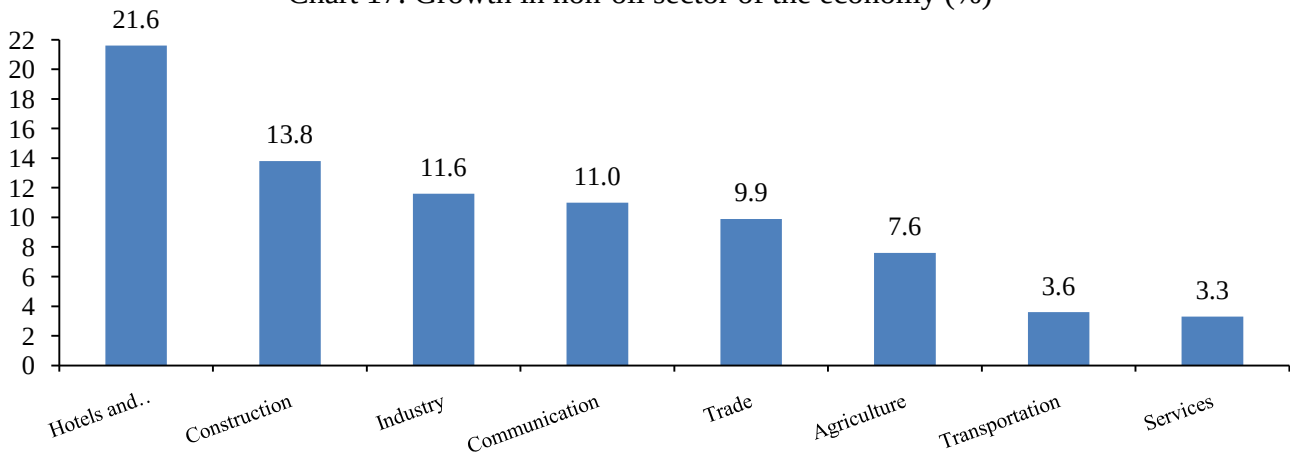
Chart 16. Economic growth (%)



Source: SSC

All segments of the non-oil sector posted growth over the past 9 months. The highest growth rate goes to hotels and restaurants, construction, industry and communications. Growth in the industry mainly sourced from the food industry, metallurgy, machinery and chemistry. The high growth observed in agriculture occurred both in production of plant growing and in livestock.

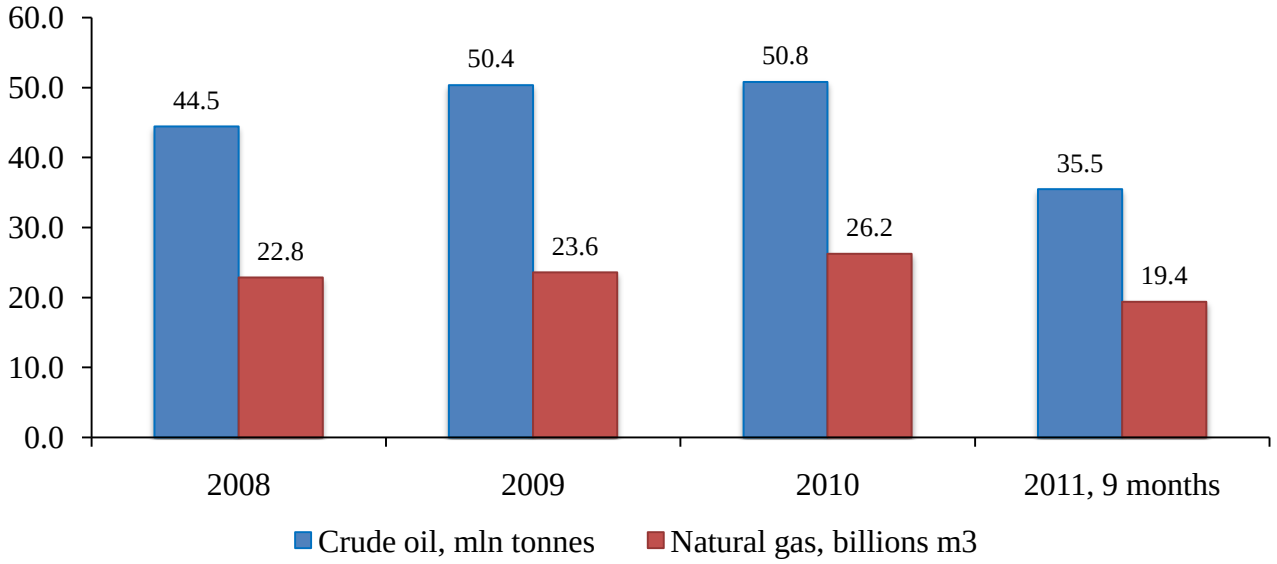
Chart 17. Growth in non-oil sector of the economy (%)



Source: SSC

During the reporting period crude oil production dropped by 7.5%, while natural gas production dropped by 2.6%. Over 1 ton gold has been produced from gold mines over the past period.

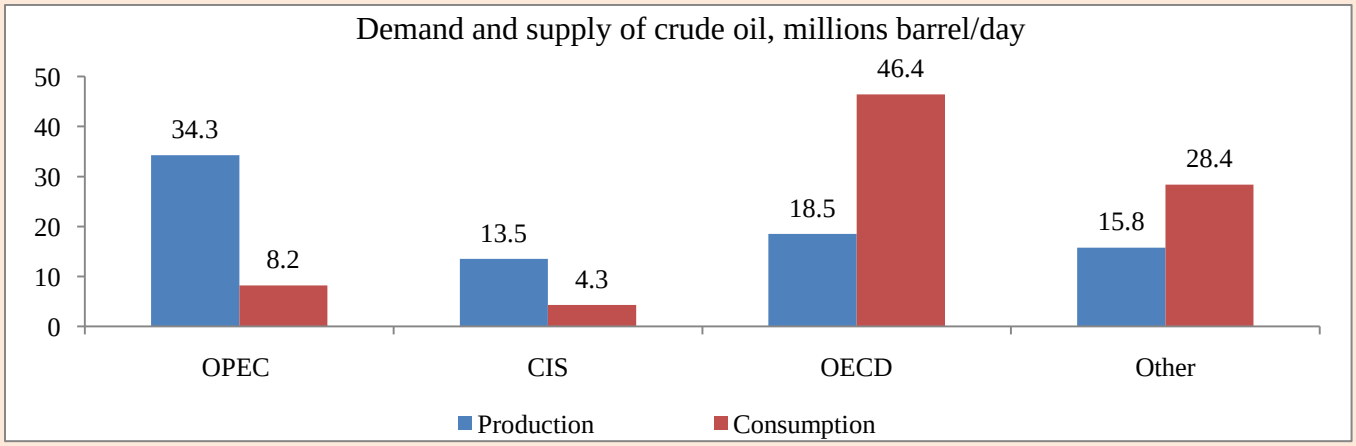
Chart 18. Crude oil and natural gas extraction



Source: SSC

Box 8. Demand and supply balance in the world crude oil market

Crude oil is the vital commodity in international markets and vastly influences all segments of the industry. Hence, proper estimation of processes occurring in the oil market is considered the pre-requisite of analysis of other markets. The OPEC countries enjoy a vital share in the global oil supply. The OPEC gathers key oil exporting countries under the same umbrella and coordinates their production related policies.

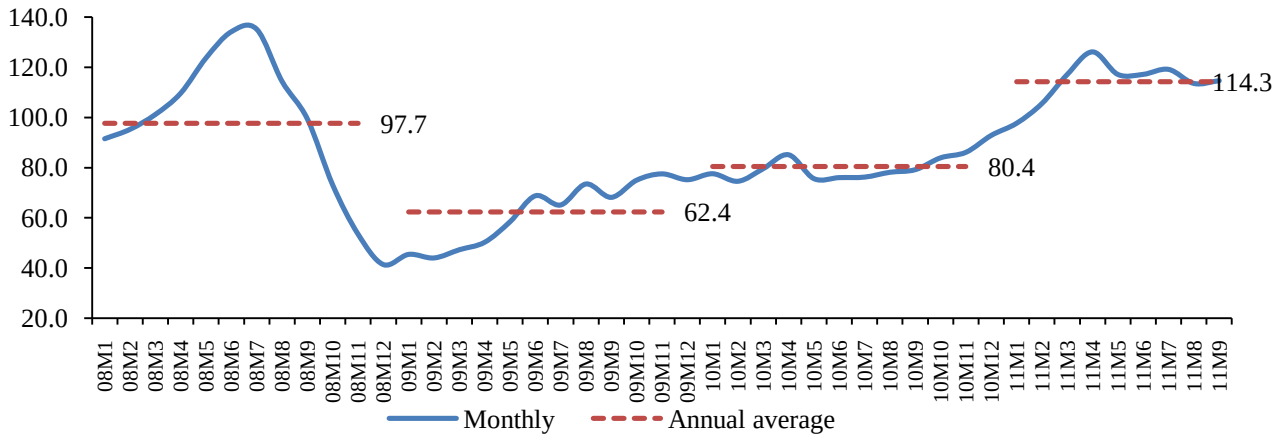


It strives to affect prices and operates under a production quota system of each member country. The OPEC provides 40% of the world crude oil supply, daily producing 34.2 billion barrel oil. The OECD countries have always had a specific share on the demand side. Nevertheless, recent economic growth in other regions and eventual considerable jump in oil consumption are the paramount components of the growth in global demand. In 2000 - 2010 there is decrease in the share of the OECD countries against 40% increase of the share of consumption of other countries. Nonetheless, the OECD countries cover half of the international demand for crude oil and the USA is still the prima consumer (20% of the overall demand). As per the sectors of the economy, huge portion of the global demand goes to transportation (55%), industry (31%), households and trade (8%), power production (6%).

Source: The Central Bank of Argentina, "Inflation Report: Third quarter 2011"

Over 9 months of the current year the average price for "BTC FOB Ceyhan" Azerbaijani oil made USD 114.3. The highest price throughout the period was in April (126.2), and the lowest in January (97.7). In the reporting period the average price for oil is above the average price of the previous years. In general, if to compare with the depth of the crisis, the price for the Azerbaijani oil gained over 2 times. According to the IMF, the forecast for the yearend of the current year and the following year is respectively USD 107 and USD 102.

Chart19. "BTC FOB Ceyhan" oil price (barrel/USD)



Source: www.socar.az and IMF

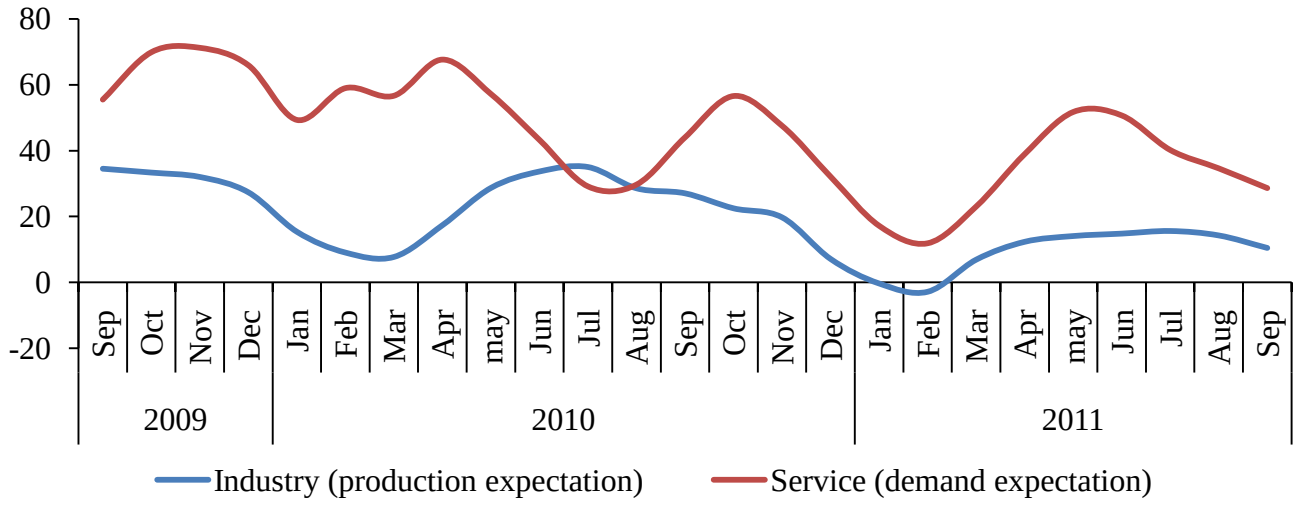
The GDP, created in the oil sector, exceeded the relevant period of the previous year by AZN 1.9 billion or 12% in nominal terms while dropped in real terms, because of high oil prices against the previous year.

Economic growth expectations. According to forecasts of the Government, CBA as well as international institutions, the economic growth is expected to endure in the country in the nearest horizon. The IMF, in the recently released economic outlook, suggests that the economic growth in Azerbaijan shall continue in the current and following years. The Fund predicts 0.2 and 7.1% economic growth in the country respectively for 2011 and 2012[1]. The IMF also forecasts over 9% GDP growth on the non-oil sector of Azerbaijan.

The Real Sector Monitoring (RSM) conducted by the CBA also confirms optimistic expectations over economic activity. Thus, according to the findings of the RSM, demand expectation index on production and services has been prone to growing since the beginning of the year. Positive expectations were particularly observed in chemical, construction materials production and textile subsections. The highest positive expectations in services belong to communication, hotel and transport subsectors. Such positive expectations manifested themselves in decrease of stocks in industry and trade.

[1]Source: BVF, www.imf.org / World Economic Outlook

Chart 20. Expectations

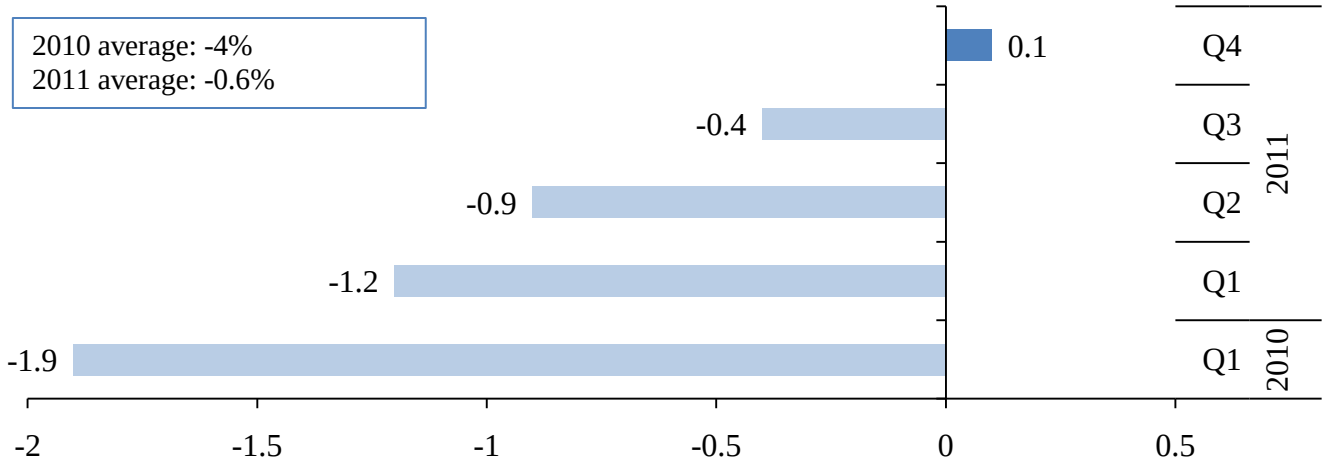


Source: CBA. Note: Moving average is used to smooth out fluctuations, as monitoring findings are likely to be exposed to seasonal changes.

In general, findings of the RSM conducted by the CBA demonstrate increase in the number of enterprises with incremental production and risen turnover and sustainability of this growth.

According to the CBA estimations, output gap (gap between the potential and actual levels of the GDP) will decline from -4% in 2010 to -0.6% in 2011.

Chart 21. Output gap (to previous quarter, %)



Source: CBA

The output gap is approaching a neutral level in Quarter III of 2011. It is expected to be positively zoned from Quarter IV amid escalated public demand.

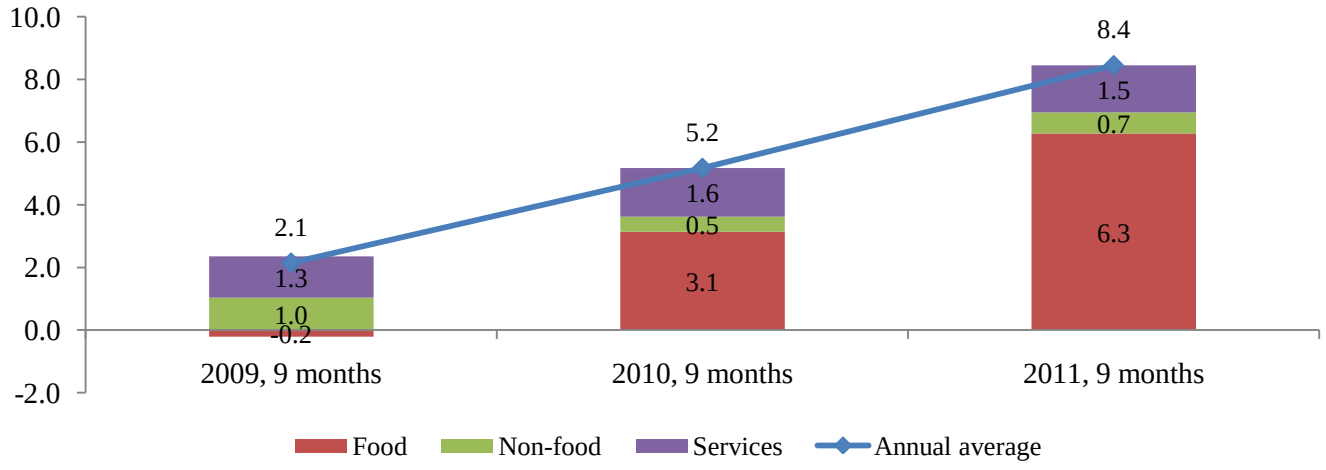
1.2.4. Macroeconomic equilibrium

The country preserved macroeconomic stability against the backdrop of amplified inflationary processes in the world industry and revival of the aggregate demand. Inflation primarily sourced from external factors during the period.

1.2.4.1. Consumer price index (CPİ): In current September prices have hiked by 3.5% since the beginning of the year and 7.7% against the relevant period of the previous year which was mainly affected by rise in prices, particularly food prices in international commodity markets.

Average annual inflation made 8.4%. 6.3 basis points of the average annual inflation were due to rise in food prices, 0.7 basis points – non-food products and 1.5 basis points – hike in services. Average annual inflation in food products made up 11.4%.

Chart 22. Average annual CPI (%)



Source: SSC

Average annual inflation on non-food products equaled 2.8%, and increased by 0.4% against the launch of the year. Prices on services are up by 4.9%, and average annual was 4.5%.

Hence, decompositional analysis of inflation suggest that, over the past 9 months of the current year prices went up primarily against the dynamics of prices for food products. Thus, ¾

of the inflation falls to the share of food inflation. The vital factor in hike of food prices was rise in prices for grain crops, livestock and livestock products.

Box 9. Effect of food prices on CPI

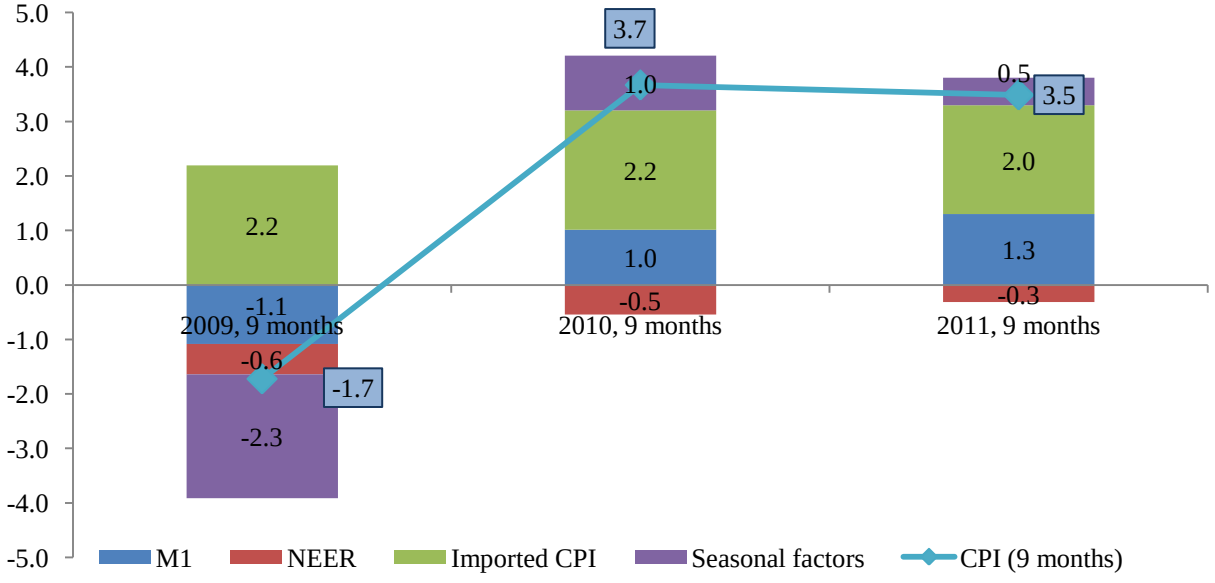
As of the end of Quarter III of 2011 food prices in the world market dropped from the highs of the recent months. However, the food prices index of the IMF for 2011 exceeds the relevant index of 2010 by 20% and considerably prevails over the average real value of the last ten years.

While the middle line food share in the CPI basket of developed countries is 17%, this indicator is 31% in developing countries. A high share of food in the CPI basket indicates that economies of these countries will be strongly affected by shocks in food prices. Thus, according to the 2008 indicators, effect of food prices on total inflation of developing countries was 5 basis points and only around 1% in developed countries. In recent periods this share was 2% for emerging economies and 0.5% for advanced economies.

IMF, World Economic Outlook, September 2011

Over the past 9 months of 2011 gradual jump in money supply, inflation in partner countries and seasonal factors had an upward and the change in the nominal effective exchange rate a downward effect on prices.

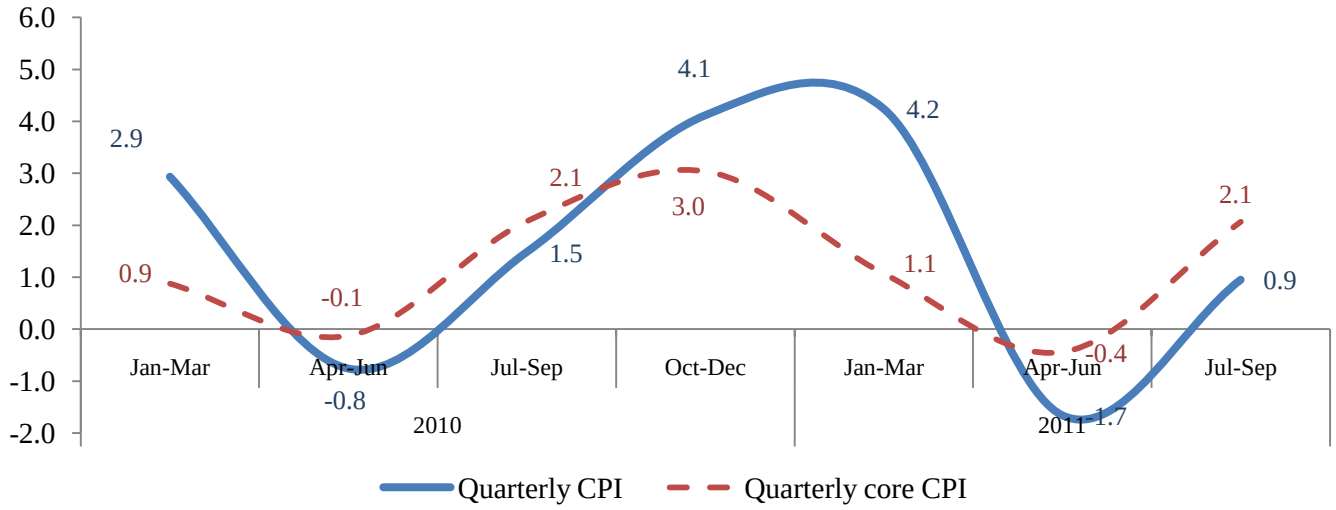
Chart 23. CPI decomposition by factors (percentage points)



Source: CBA estimations on the basis of the SSC data

Traditional downward effect of summer months was followed by upward effect of seasonal factors on the CPI. Thus, in July-September growth in consumer prices was 0.9%, and core inflation - 2.1%.

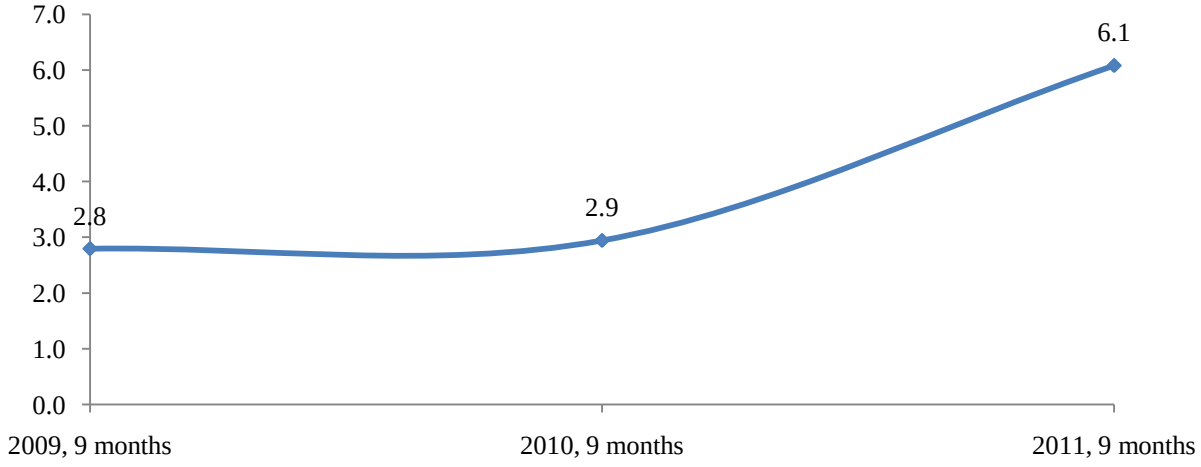
Chart 24. Consumer Price Indexes (%)



Source: SSC

Average annual and core inflation against the relevant period of the previous year (June/July) during the period[2] respectively was 6.1% and 5.8%. Consumer prices (core) have gained 2.7% since the beginning of the year.

Chart 25. Core CPI, annual average, %



Source: SSC

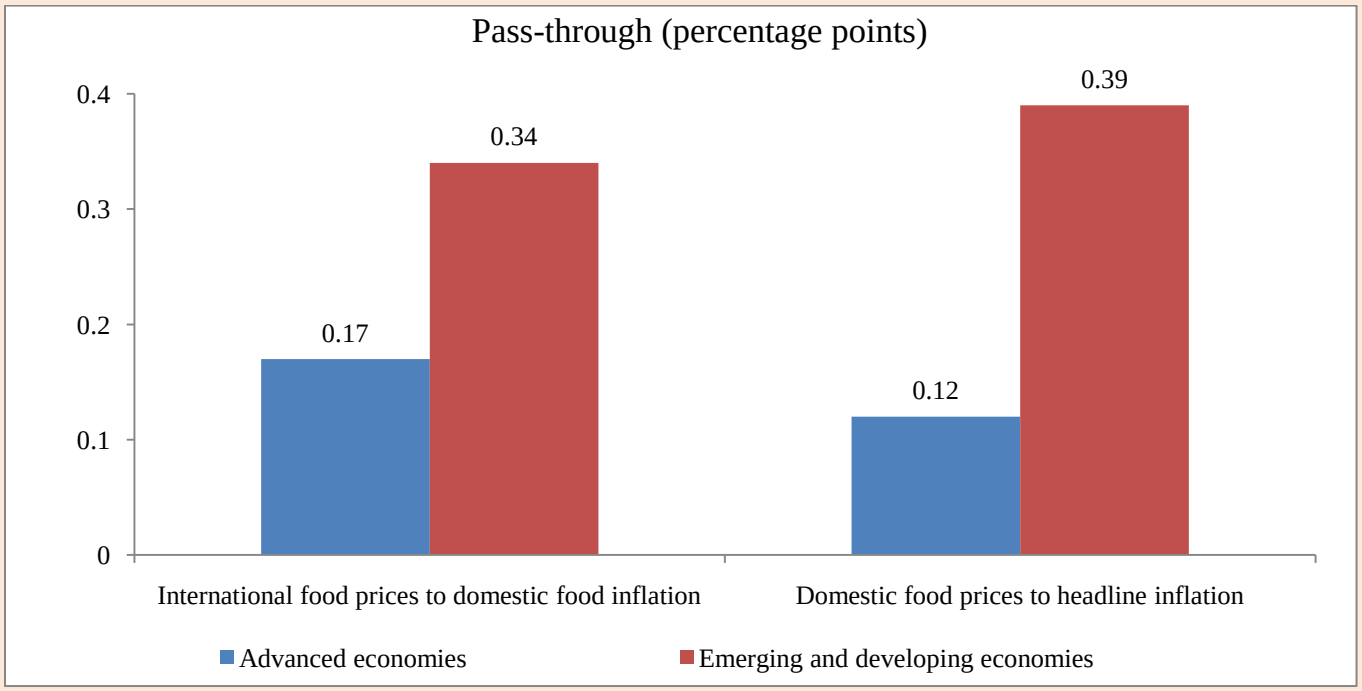
[2] Core inflation is defined as infltaion adjusted from changes in prices for commodities regulated by the government and seasonal factors.

Box 10. Monetary policy response to food prices shock

Volatility of food prices fuelled by probability of long-term rise in food and fuel prices becomes more and more actual for monetary politicians. Another uneasy moment is that long run hike in food and fuel prices may reduce real salaries (with possible later spiral effect). If that is the case, ongoing price hikes will be expensive to fight with.

Researches suggest that pass through capacity of hikes in food and fuel prices to inflation are higher in emerging economies than in advanced ones. It has three reasons: a) pass-through capacity of changes in world food prices to internal prices is high in emerging economies; b) share of food and fuel consumption is high; c) inflation expectations are hard to manage.

Simulations allow to conclude that in the countries where regulatory intuitions are not trusted and the share of food products in a consumer basket is high, central banks should target core inflation and strengthen its communication (share of food products in the consumer basket is 17% in advanced and 31% in emerging economies). Gradually earned political confidence enables a central bank to stabilize inflation (both core and total) without utterly tightening the monetary policy and increasing output gap. Targeting of the core inflation does not necessarily mean that the food and fuel prices should be ignored. They should be permanently monitored, pass through capacity of food and fuel prices on total prices and the reasons for volatility always being on the focus.



**These parameters are imprecisely estimated, and there is a wide dispersion among individual country results. Consequently, only the median is reported.*

It is crucial to properly forecast the inflation target, since the key challenge is in inflation's being unexpected and volatile rather than its high level. From this standpoint it is not advisable to set a low target and extremely tighten the monetary policy to achieve it. Because in case of huge discrepancy between the real indicator and the target, both the central bank will be less trusted and inflation will go out of control. Hence, if inflationary

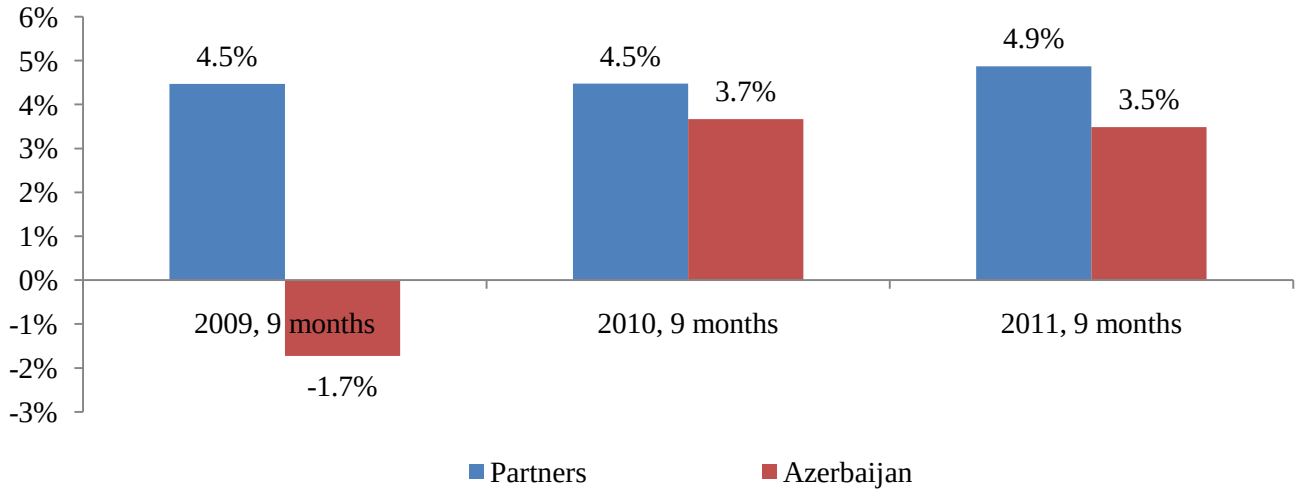
target realistically set, despite eventual high level, its minimum deviation from the actual indicator may assist to both elevate political trust, and effectively manage expectations.

To strive to stabilize total inflation through direct targeting by whatever means may pose central banks to a huge risk. Thus, extreme tightening of the monetary policy in this case may negatively affect the economic growth, which may trigger further unemployment and dropped income level.

***Source:* IMF, World Economic Outlook, September 2011**

Over the past 9 months of 2011 average annual core inflation was higher comparing to the recent years.

Chart 26. Domestic and foreign CPI (%)

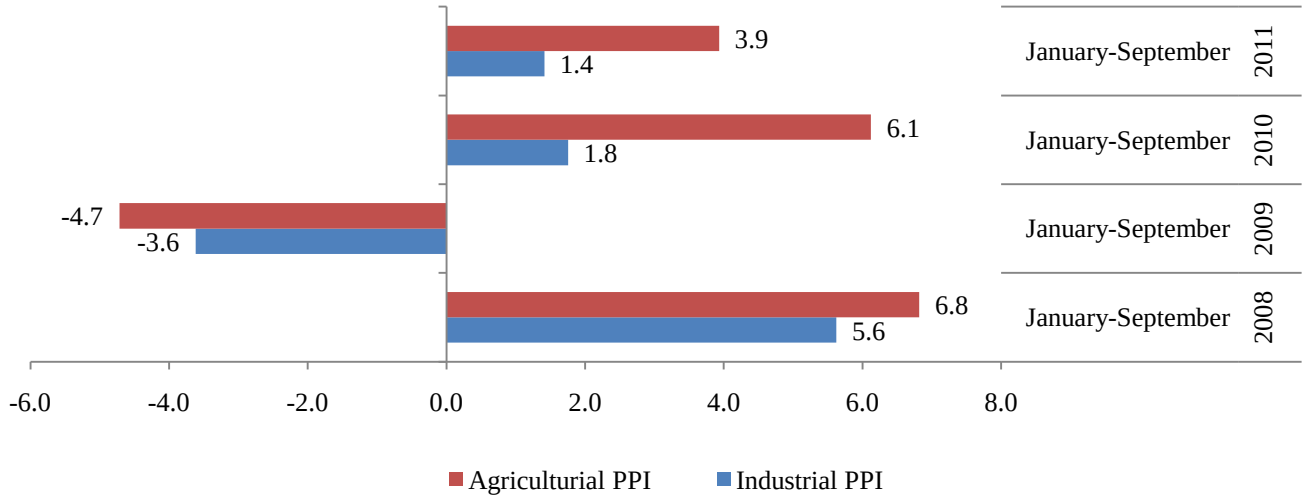


Source: SSC

To note, inflation in trade partners in 9 months of the current year surpasses inflation in Azerbaijan by 1.4 basis points. According to the IMF forecasts, average weighted annual inflation in the CIS is expected to come to 10.3% in 2011.

1.2.4.2. Industrial Producer Price Index (IPPI): IPPI went up 26.3% on average annual. Over the past year IPPI jumped by 12.5%.

Chart 27. Sectoral inflation (9 months , %)



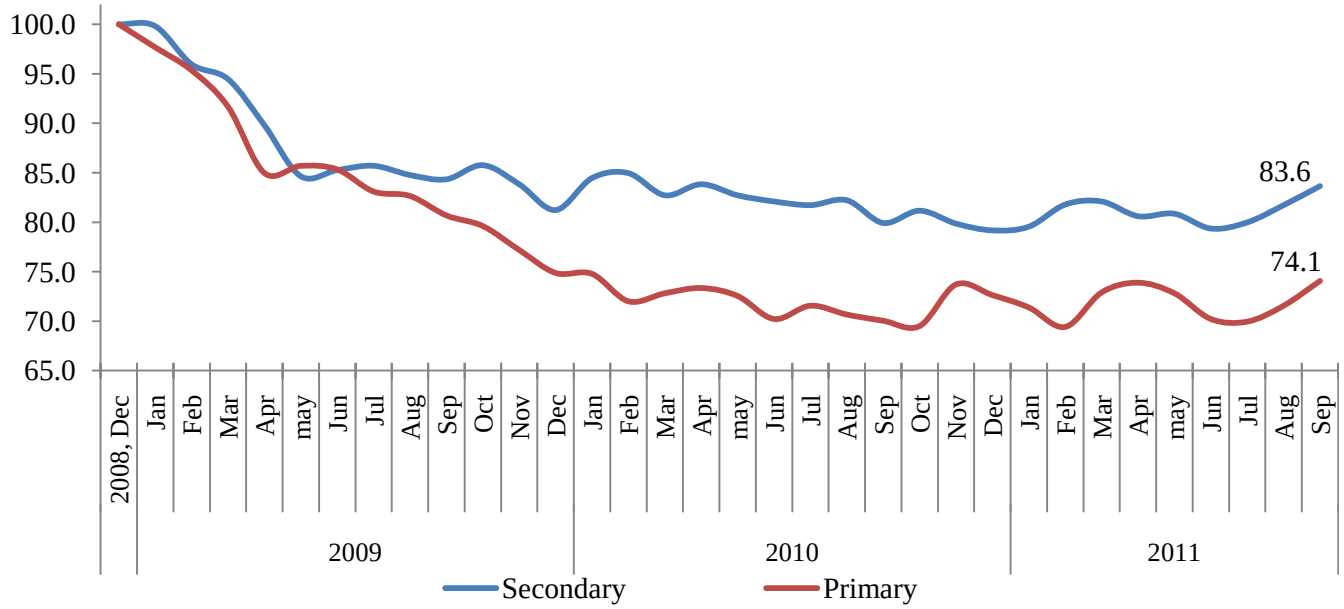
Source: SSC

The growth rate of IPPI varied throughout the industry. For instance, on average annual producer prices were up by 30.8% in mining industry, 29.4% in textile industry, 21.7% in chemical industry, 17.5% in food industry, 9.4% - in metallurgy, and down by 2% in production of pharmaceuticals.

1.2.4.3. Agricultural producer price index (APPI): APPI rose by 11.5% on average annual. The price dynamics was 21.2% on perennials and 11.8% on livestock and livestock products.

1.2.4.4. Real estate prices: According to MBA LTD Appraisal and Consulting Company, over the past 9 months of the current year there was a slight activity on segments of the real estate market (primary and secondary housing markets, land market, cottages, non-residential object). Over the past 9 months price hike in secondary and primary markets was 5.7% and 2.0% respectively. However, the price for 1 sq.m residential space falls below the level of 2008 by 17.4% in the secondary and by 25.9% in the primary market. While residential rent fees went up 2.8%, rent fee for commercial objects went down 12.1%. The number of transactions in the secondary housing market during July-September 2011 increased by 8.8%.

Chart 28. Price changes in housing market (2008 Dec=100)



Source: "MBA LTD" Appraisal and Consulting Co

Box 11: Period of a real estate cycle

The IMF experts studied cyclic behavior of real estate prices in a number of advanced economies. The researchers investigated periods of ups and downs in prices, rise-fall duration of a cycle, cumulative price increase or decrease in phases. It became known that average price hike duration in advanced economies prevails over price fall duration. At the same time, the latest price hike duration varies throughout countries. Thus, housing prices have been gaining in Holland and Belgium since 1985. In Sweden and Switzerland the growth period for a housing cycle respectively starts from 1996 and 2000. If to otherwise utter, duration of the last price rise in Holland and Belgium is roughly 100 quarters, in Sweden and Switzerland 56 and 40 quarters. To compare, this period was 8 for S.Korea, 18 – for Australia, 23 – for Finland. Cumulative price gain was by 2 times in Holland, 1.4 times in Sweden, 22% in Switzerland, 14% in S.Korea.

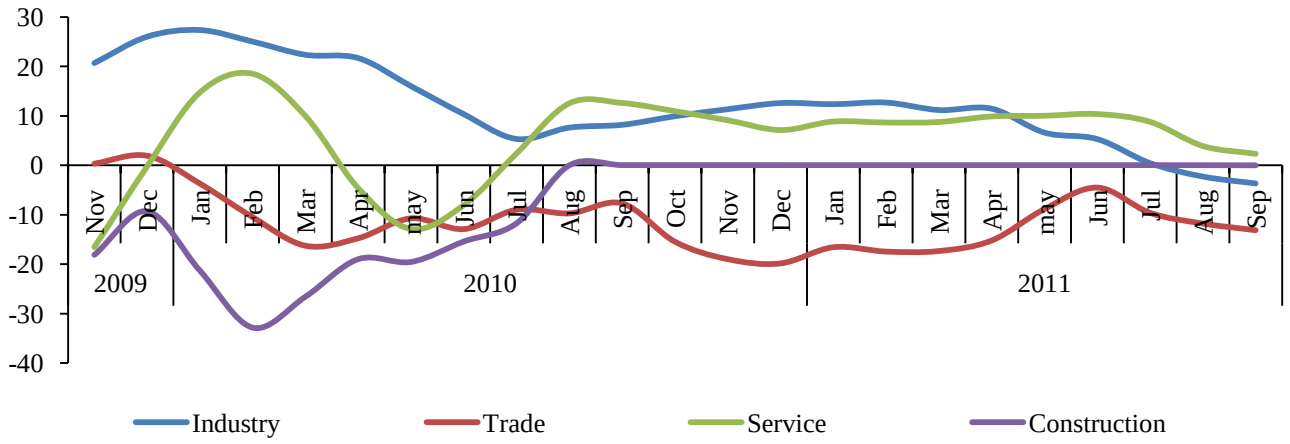
Source: "How Long Do Housing Cycles Last? A Duration Analysis for 19 OECD Countries" WP 11, 231.

Mortgage lending still under way had an upward effect on activity in the real estate, especially in the secondary market. In January-September, 2011 banks issued AZN 68.8 million worth loans, the volume of the loans refinanced by the Azerbaijan Mortgage Fund made AZN 50.6 million.

1.2.4.5. Inflation expectations. According to forecasts of international financial institutions, inflation is expected to maintain a single-digit level in 2011. Under the latest release of the IMF, average annual inflation in Azerbaijan is forecast to make 9.3% in 2011.

There are no significant ups in price rise expectations in the economy according to the findings of the Real Estate Monitoring conducted by the CBA.

Chart 29. Price expectations (3 months moving average)



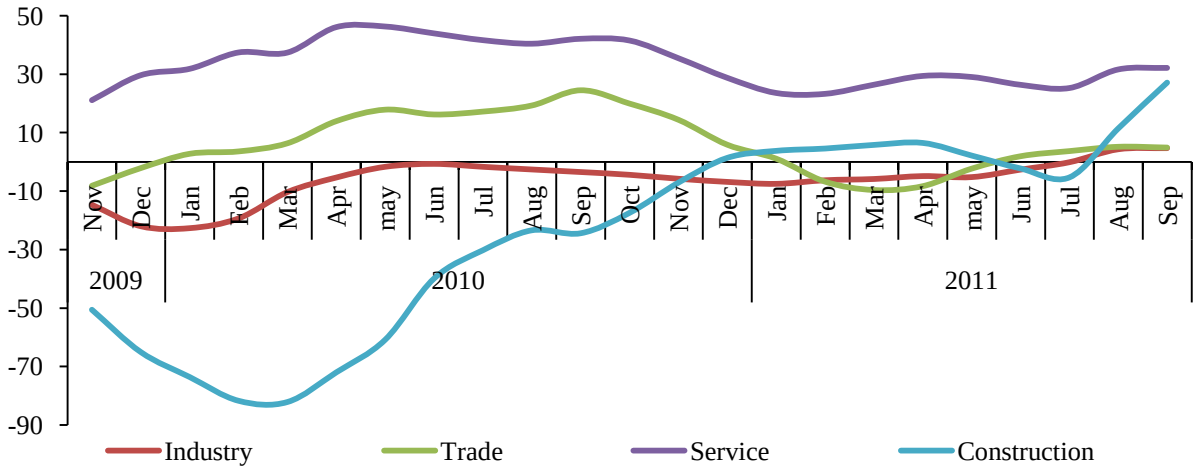
Source: CBA

In trade and industry, sectors of the economy price expectations index were in negative zone, while for services it was positive. The index is close to neutral in construction.

1.2.4.6. Employment. As of the end of the reporting period, the number of economically active population was 4597.9 thousand persons, out of which 4343.7 thousand persons are engaged in the economy and various sectors of the social area. According to the SSC, the number of hired labor has been increasing in recent months. The number of new job openings in January-September of the current year is 74 thousand, including 50 thousand permanent jobs.

The CBA observations within the real sector monitoring in up to 300 enterprises also demonstrate increase in employment. Thus, the staff in the monitored entities went up by 5%.

Chart 30. Employment expectations (3 months moving average)



Source: CBA

According to the CBA monitoring, employment expectations in all sectors (industry, trade, service and construction) were in positive zone.

II. Monetary and exchange rate policies

Over 9 months of 2011 the Central Bank targeted maintenance of inflation in an acceptable level, prevention of extreme volatility of the exchange rate of manat, and preserving stability in the banking and financial system in accordance with declared key directions of the monetary policy.

2.1. Foreign exchange market and exchange rate of manat

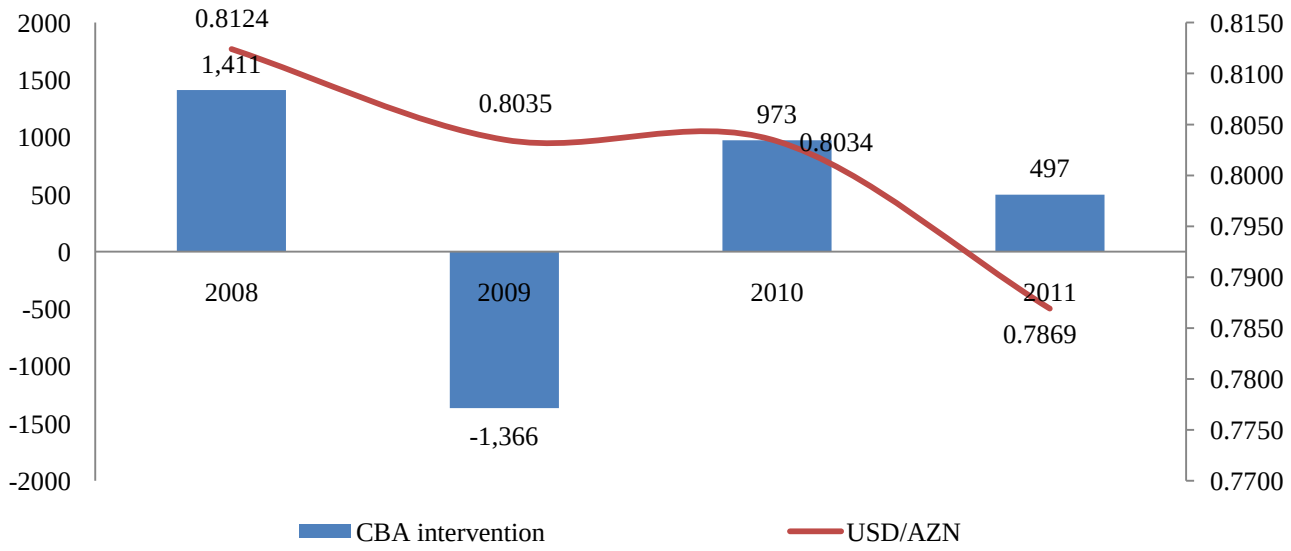
Over the past 9 months of 2011, the Central Bank continued its exchange rate policy within a new operational framework and in the environment of expansion of supply channels in the foreign exchange market.

Thus, the Central Bank has started to provide its exchange rate policy within a corridor through bilateral exchange rate of USD/AZN. Along with being favorable from communication standpoint, this mechanism escalates the Central Bank's transition to a floating exchange rate regime in the long run.

The exchange rate of manat strengthened as a result of a huge surplus in the balance of payments and utilization of oil revenues for economic development. However, to prevent

substantial strengthening of the exchange rate thus neutralizing negative impacts on competitiveness of the non-oil sector the Central Bank has sterilized USD 497 million worth foreign currency over the past 9 months.

Chart 31. CBA intervention in (9 months, millions of US dollars)



Source: CBA

As a result, manat strengthened against USD at a moderate rate – only 1.4% during the reporting period. Stability of the national currency had a positive effect on macroeconomic stability and stability of the financial sector during the period.

While the nominal exchange rate of manat depreciated against currencies of certain trade partner countries, it appreciated against the currencies of other countries during the period. The dynamics of the nominal bilateral exchange rate of manat had an effect on change of real bilateral exchange rates. Manat depreciated against currencies of some countries (Eurozone, Georgia, Japan, China, S.Korea) both in nominal and real terms in January-September. Manat appreciated against the currencies of the USA, Great Britain, Turkey, Ukraine, Israel and Belarus both in nominal and real terms.

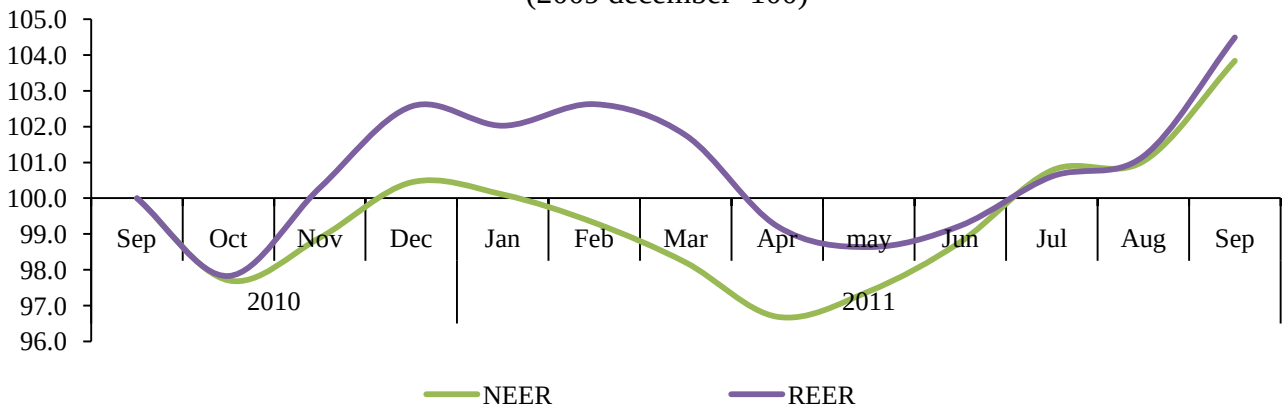
Table 2. Bilateral nominal and real effective exchange rate indices of manat against the currencies of the key trade partners in 9 months (percent)

	against December 2010	
	Nominal bilateral exchange rate index *	Real bilateral exchange rate index
USA	101.6	102.0
Eurozone	97.2	98.5
Great Britain	100.3	100.3
Turkey	119.5	118.3
Russia	100.5	99.3
Ukraine	101.9	101.2
Georgia	95.9	98.3
Iran	104.4	98.8
Kazakhstan	101.4	98.8
Japan	93.6	96.4
Israel	103.5	104.8
China	97.6	97.5
Belarus	177.6	105.4
S. Korea	98.8	98.2

**Average monthly change in exchange rate of manat against the currency of the partner-country.*

During the reporting period, the non-oil trade weighted NEER (trade turnover weighted) appreciated by 3.4%. The difference between the inflation in partner countries and the one in Azerbaijan had a 1.5 basis points downward effect on REER.

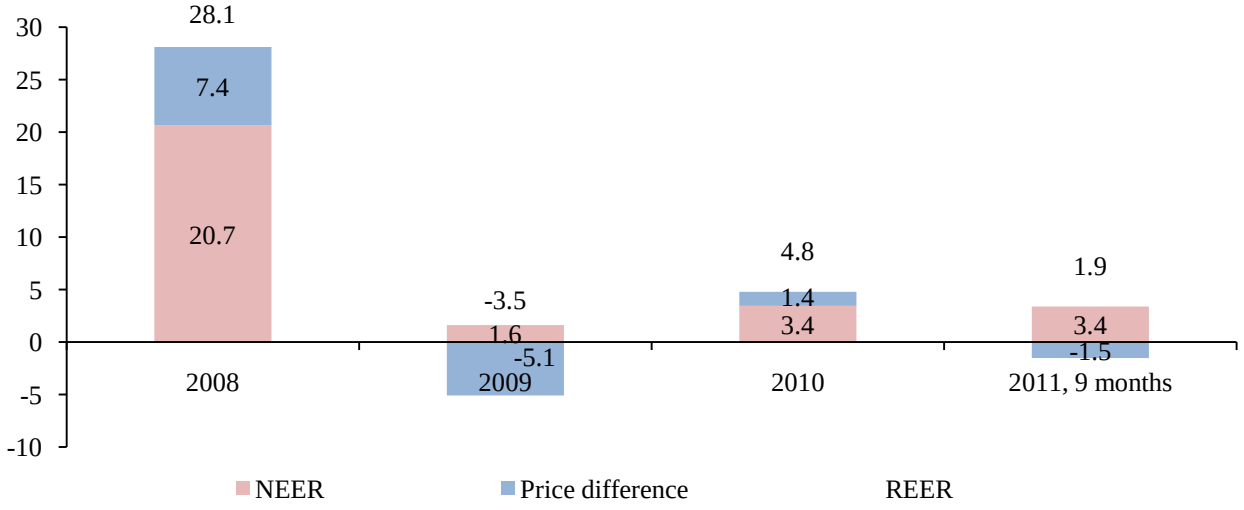
Chart 32. Non-oil trade weighted NEER and REER
(2009 december=100)



Source: CBA

Non-oil weighted real effected exchange rate appreciated only by 1.9%

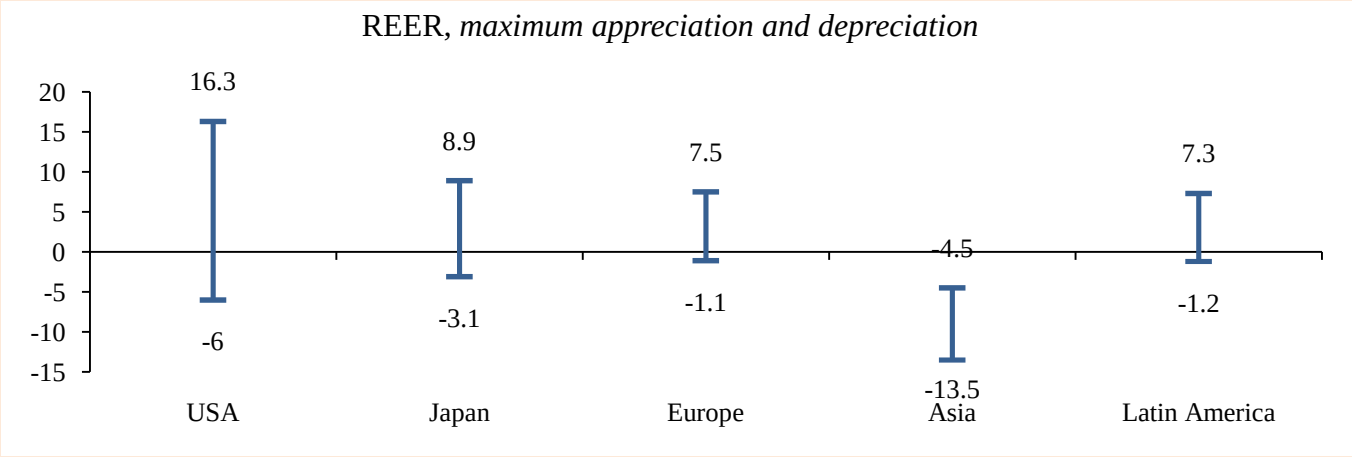
Chart 33. REER decomposition (%)



Source: CBA

Box 12. Real effective exchange rate

The IMF experts estimated maximum appreciation and depreciation thresholds of the REER throughout the regions of the world.



Analysis of estimations suggests that expectations on the REER appreciation in the USA, Japan, Europe and Latin America are favorable from the standpoint of competitiveness of the country economy. Thus, if this is the case, our commodities remain competitive in these partner countries.

Source: "World Economic Outlook", BVF, sentyabr 2011

Hence, the foreign exchange market predominantly functioned in a self-regulatory regime and the bilateral exchange rate of manat remained stable. The multilateral exchange rate of manat was affected from extreme fluctuations of the bilateral exchange rate as a result of devaluation in a number of partner countries.

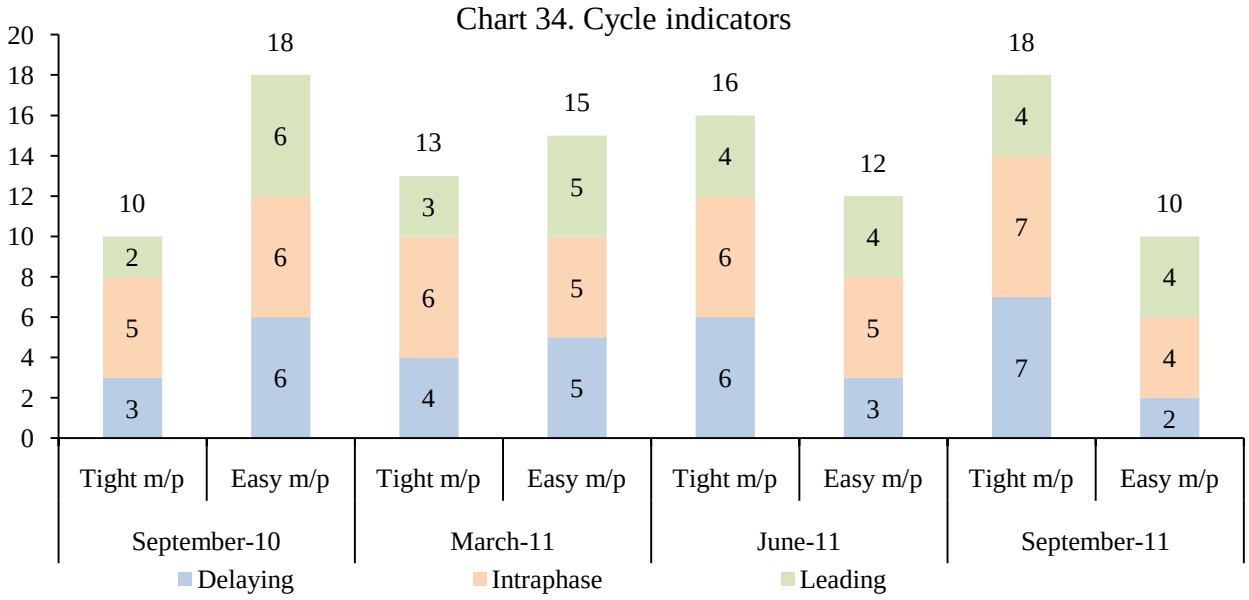
2.2. Monetary policy instruments

Hike in food prices in the world market, mounting foreign exchange revenues of the country, expansion of money supply growth sources related to heightened public demand and expectations on acceleration of the non-oil sector growth made strengthening of control over inflationary factors and their regulation in a preventive regime actual again during the reporting period. Given this the Central Bank pursued anti-inflationary policy over the past period of the current year.

To note, given high inflation during the year a number of countries of the world started to tighten the monetary policy. The IMF also in its latest releases recommends tight monetary policy in emerging economies with observable economic overheating which resulted in tightened monetary policy in 38 countries only in recent 4 months.

The CBA analyzes up to 30 cyclic indicators when taking decisions on parameters of the monetary policy tools. They include leading, coincidence and lagging cyclic indicators. Over the past 9 months of the current year the number of cyclic indicators for correction of the monetary policy, permanently analyzed by the Central Bank, prevailed.

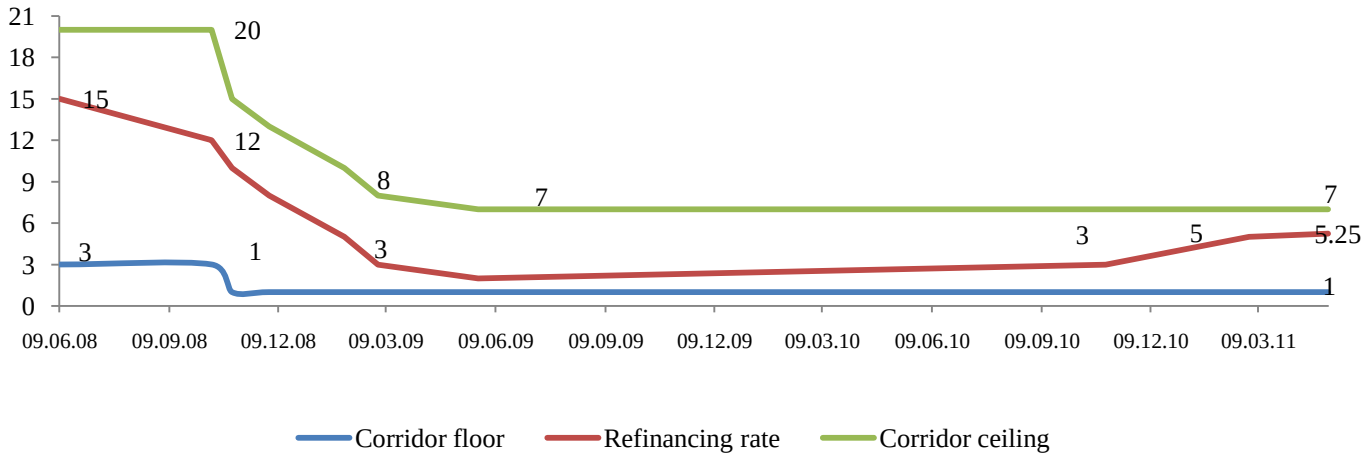
Chart 34. Cycle indicators



Source: CBA

In the view of these processes, as well as revival of aggregate demand, inflation factors and forecasts of the balance of payments, the Central Bank took a decision to move the refinancing rate from 3% up to 5% from March 1, and to 5.25% - from May 6. This decision in parallel is aimed at increase in opportunities of the Central Bank to sterilize excess money supply via ensuring an appropriate condition in the financial markets.

Chart 35. Interest rate corridor (%)



Source: CBA

In order to regulate growth rates of the money supply, the required reserve norm on internal and external liabilities of banks have been twice corrected over the past 9 months. Step 1 included shift of the required reserve norm from 0.5% up to 2% (from 01 May 2011), and Step 2 – up to 3% (from 01 July 2011).

Box 13. Reserve requirements

Roughly 90% of central banks oblige commercial banks to hold reserves to cover their liabilities. Depending on the goals for maintenance of required reserves diverse forms may be applicable. Three key purposes why required reserves are inevitable:

Prudential – create reserves to fight liquidity and settlement risks and withdrawal of deposits from a bank: When central banks mostly ensure prudential and insurance functions through supervision, deposits insurance and other means, it dampens prudential purpose of the required reserves.

Monetary control – prevent growth in balance sheets of banks, monetary aggregates and inflation: required reserves are used as a monetary policy tool via 2 channels: money multiplier and impact of required reserves on interest rate spreads. Required reserves with no interest paid or the ones with interest rates that considerably fall below existing market rates influence and increase the spread between deposit and lending rates. Repayment of interest to banks for surplus reserves may be utilized as a monetary policy signal.

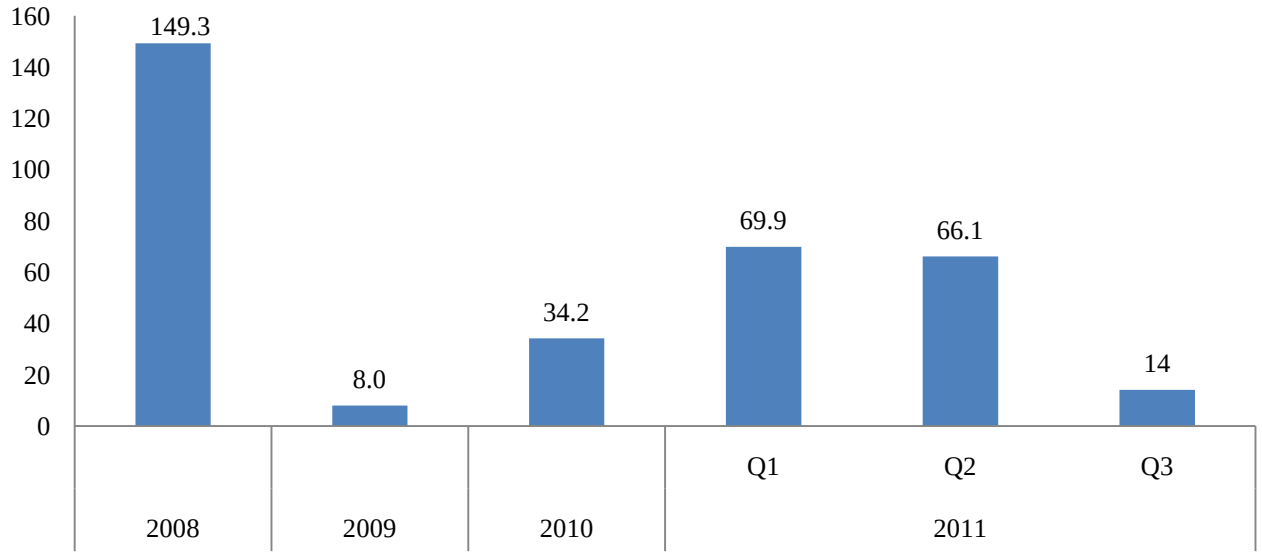
Liquidity management – influence the banking system liquidity through increasing-decreasing reserve requirements: it may be provided through interest-free required reserves and interest bearing surplus reserves. When surplus reserves bear interest, this interest rate may be the lowest threshold for interbank market rates. Maintenance of required reserves through averaging method may be a vital facility to smooth out liquidity shocks in the market and prevent volatility in short-term interest rates.

In addition, required reserves may be utilized as a tool of **control over capital flows.** To that end deposits of non-residents are subject to high non-interest bearing required reserves. This policy may be efficient when capital flows move through banks.

***Simon Gray "Central Bank Balances and Reserve Requirements", IMF*. February, 2011**

987 millions of manats worth notes have been issued over the past 9 months of 2011 for sterilization operations according to the established monetary policy. Of which AZN 617 million worth notes were auctioned and AZN 519.7 million - placed.

Chart 36. CBA notes (end of period, million manats)



Source: CBA

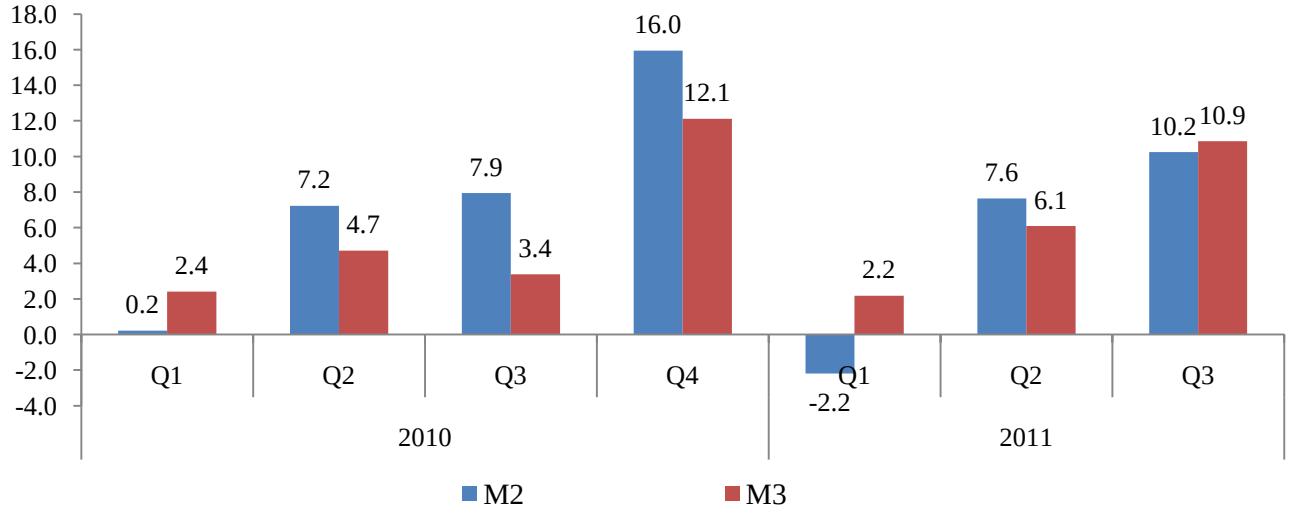
Average yields on notes made 2.72% at the last auction, while this indicator was 2.20% at the beginning of the year.

The volume of notes in circulation as of 1 October 2011equaled AZN 14 million.

2.3. Money supply

Over the past 9 months of 2011 money supply has kept pace with the demand of the industry fuelled by seasonal factors. As in previous years, money supply growth accelerated to the end of Quarter III of the current year.

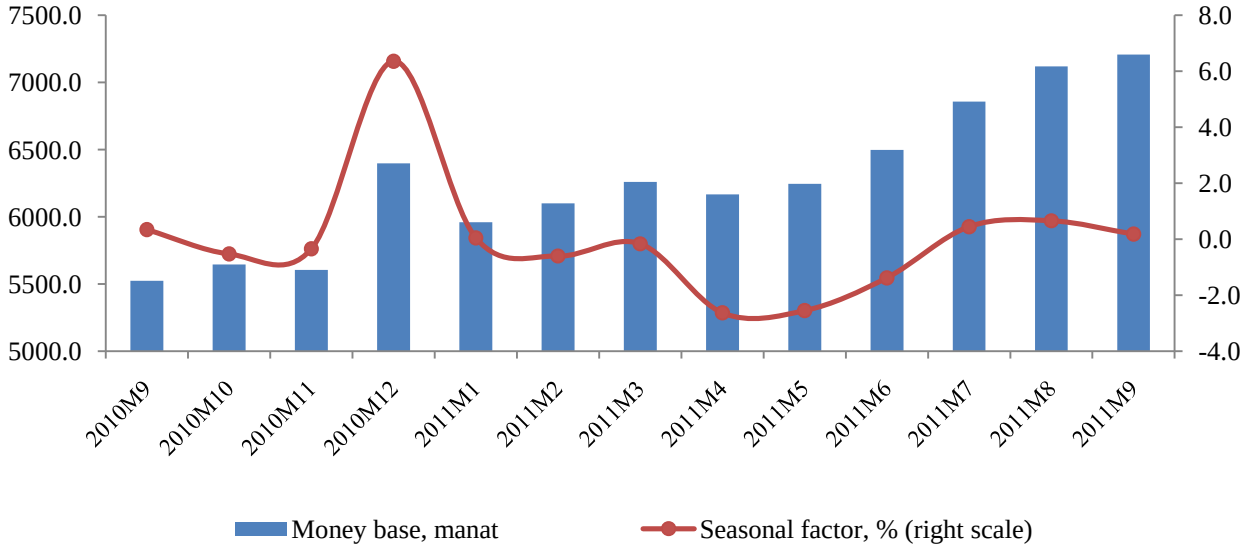
Chart 37. Monetary aggregates (quarter to quarter change, %)



Source: CBA

Money base has grown by 12.7% during the period. Estimations suggest that seasonally adjusted money base jumped by 20% against the beginning of the year.

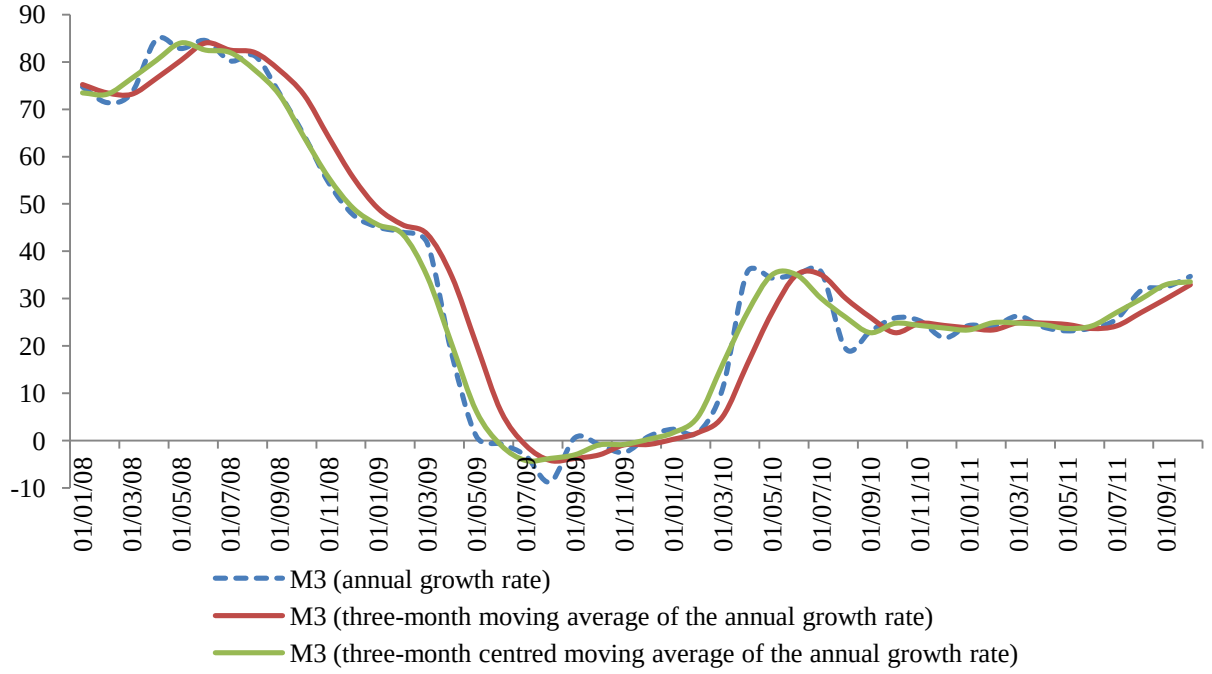
Chart 38. Seasonal factors' impact on the monetary base



Source: CBA

During the period broad money supply (M3) increased by 20% against the beginning of the year and constituted AZN 12652.2 million, broad money supply in manat climbed 16% and made AZN 9630.3 million.

Chart 39. Dynamics of the M3 monetary aggregate change (%)



Source: CBA

These indicators respectively jumped 34.7% and 34.6% against the relevant period of the previous year.

Table3. Monetary aggregates, millions of manats

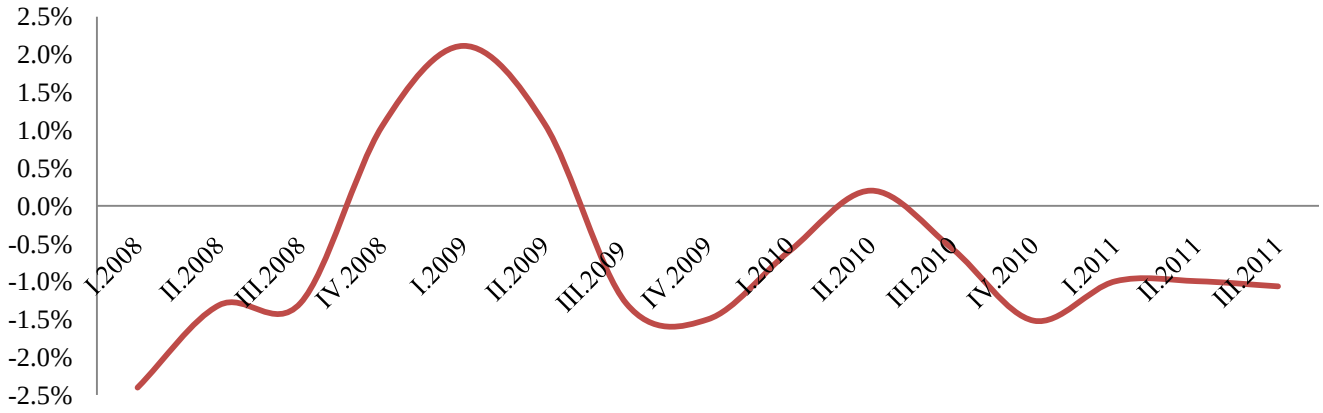
	01.01.11	01.04.11	01.07.11	01.10.11
M0 (Cash)	5455.8	5427,1	5851.6	6465.9
M1 (Cash, demand deposits and savings)	6718.9	6608.5	6972.4	7809.7
M2 (Cash, demand and term deposits and savings, in manat)	8297.5	8115,5	8735.4	9630.3
M3 (Cash, demand and term deposits and savings in manat and FX)	10527.5	10757,4	11412.5	12652.2

Source: CBA

Almost neutral multilateral nominal exchange rate of manat and growth of the money supply had an easing effect on the Monetary Condition Index[3].

[3] Used to measure how easy or tight the monetary policy is, given changes in money supply and exchange rates.

Chart 40. Monetary Condition Index



Source: CBA

Despite the Central Bank decisions to tighten the monetary policy parameters and relatively accelerated inflation, in general the Monetary Condition Index is accommodative.

2.4. Institutional base for the monetary policy

The Central Bank continued tailored activities to develop the institutional base of macroeconomic management and the monetary policy over the past 9 months of 2011.

The Monetary Policy and Financial Stability Committee of the Central Bank (MPFSC) held 10 meetings over the past 9 months of 2011. The Committee promptly followed the macroeconomic stance, analyzed external and internal factors and generated adequate policy decisions. These decisions primarily covered parameters of the exchange rate and monetary policy tools, paramount directions of the financial stability policy.

The Central Bank kept improving the measures on adjustment of the monetary policy mechanism to the post-crisis challenges and international standardization over the past 9 months of 2011. Researches were conducted to form counter-cyclic prudential management in Azerbaijan. The Central Bank drafted the strategy on the monetary and financial stability policies to that end. Analyses and discussions with the foreign experts involved, with respect to liberalization of the exchange rate regime, were under way to improve the monetary policy, with the effect of changes in the exchange rate on the real sector having been estimated.

Within the framework of improvement of the monetary policy tools, new regulations on reserve requirements were drafted, the interest rate corridor applied in the Central Bank was researched whether to improve.

The research base that ensures effectiveness of the monetary and financial stability policies at the Central Bank continued to develop during the reporting period.

Risk identification and management were prioritized to increase the potential for evaluation and management of the financial stability. Stress-tests and financial stability indicators helped identify weaknesses and strengths of the financial system, sustainability and vulnerability of the banking sector was regularly evaluated.

Additionally, the Dynamic Stochastic General Equilibrium model was on the stage of improvement. The Azerbaijani economy was simulated built upon the mathematic-analytic specification of the model. A working paper of the model is currently being developed given micro- and macroeconomic specifications of the country.

To evaluate the response function of the Central Bank in Azerbaijan, the estimations conducted in some countries of the world on the Taylor rule were investigated, which generated an appropriate methodology on Azerbaijan. Output gap, its influence on potential and actual inflation gaps of the money supply, exchange rate and oil price were estimated to that end.

The way to determine a critical level for inflation in Azerbaijan was in parallel researched during the period, the panel VAR model is being evaluated on the oil exporting countries. Sources of economic fluctuations in oil exporting countries (Azerbaijan, Kazakhstan, Russia and Iran) are being researched to that end.

The factors to affect the cost of the acquiring tariff have been studied, the research on how to optimize the branch network of banks and NBCIs provided and proposals generated.

The factors and elements that shape interest rate, service fees and cost of tariffs were analyzed, the opportunities on how to lower them were studied. Financial services tariffs were compared with those of other countries to that end.

The Central Bank focused on further improvement of the statistic database and its alignment to international standards in 2011. The project on multifunctional and prompt unified Electronic Statistical Database and Analytic Reporting System (ESAS) to be launched at the Central Bank was under way which was aided by alignment of the Balance of Payments format to the new methodology of the IMF (6th edition).

Charts and tables used

Charts

Tables

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