

CENTRAL BANK OF ARMENIA

**The Monetary Policy Program  
of the Republic of Armenia**

3' 2009

**Inflation Report**



**YEREVAN  
2009**



**The Monetary Policy Program  
of the Republic of Armenia,  
Quarter III, 2009**

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## Q2 2009 ACTUAL INDICATORS AND DEVELOPMENTS

The main factor that determined the inflation behavior and monetary policy directions in the second quarter of 2009 was faster rate of economic decline. Despite the dram depreciation and some spillover of inflationary pressures from international markets in early March and the rise in the main utility service tariffs since April, the domestic inflationary environment has been generally at a low level under faster-than forecasted shrinkage of GDP. Though the rate of inflation, affected by the said factors, grew considerably in relation to the previous quarter, it however stood nearly 1 percentage point below the forecast, resting with the lower border of the target.

As a result of the above developments, in the second quarter of 2009 inflation was 4.5 percent, whereas the 12-month inflation indicator was 3.6 percent, growing by 2.6 percentage points against the same indicator recorded in the previous quarter. During the quarter, prices of food products (alcohol and tobacco included) have grown by 2.7 percent, (with 1.4 percent point contribution to inflation), prices of non-food products, by 7.5 percent (with 1.2 percent point contribution to inflation), and service tariffs have risen by 6.2 percent (with 1.9 percent point contribution to inflation). Inflation during the quarter has been driven by 39.4 percent increase in fruit price (with 1.0 percent point contribution to inflation); 20.5 percent increase in petrol price (with 0.5 percent point contribution to inflation); 16.3 percent increase in medicaments price (with 0.3 percent point contribution to inflation); and 18.3 percent rise in housing and public utility service tariffs (with 1.3 percent point contribution to inflation).

In the second quarter of 2009, core inflation was 2.1 percent<sup>1</sup> whereas the 12-mnth core inflation remained almost unchanged, around 3.4 percent, in relation the previous quarter.

### **External environment**<sup>2</sup>

The declining rates of the global economy somewhat slowed in the second quarter of 2009, though the timing within which the economy would recover still remain too uncertain. According to the IMF estimations<sup>3</sup>, the global economic downturn in 2009 will make up 1.4 percent, yet some 2.5 percent economic growth is forecast for 2010. In the second quarter of 2009 too, all countries carried on pumping liquidity into their economies through quantitative easing and expansionary fiscal policies, with the main purpose to regain stability in financial markets and boost up aggregate demand.

With global economic decline persisting, inflationary environment of the external sector remained weak, although prices of some commodities have increased during the quarter. This was explained by slightly improved expectations, the US dollar depreciation as well as factors specific to any given market.

In the second quarter of 2009, compared with the previous quarter, there has been a rise in international oil prices, with Brent crude oil having averaged USD 59 a barrel (which dropped by 51.7 percent year-on-year but rose by 31 percent in relation to the previous quarter). The increase was determined mainly by optimistic expectations for the global economy recovery as well as OPEC's consistent policy now supporting a limited supply strategy.

In the second quarter of 2009, the copper price at the London Metal Exchange averaged USD 4690 per ton, having grown by 36 percent quarter-on-quarter, whereas the year-on-year decline has been 44.5 percent.

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<sup>1</sup> The core inflation calculation methodology developed by the Central Bank is detailed in the CBA Review (Q1, 2008). The paper regularly publishes core inflation indicators.

<sup>2</sup> The source of all numerical data is Bloomberg Information System. .

<sup>3</sup> IMF World Economic Outlook Update, 08/07/09.

The gold price in the second quarter averaged USD 922, having grown by 1.5 percent against the previous quarter. The gold price has not fallen in annualized terms as well, primarily because of its being as a reserve asset.

There has been a certain rise also in prices of food products during the second quarter. The grain price at the Chicago Board of Trade averaged USD 6.8 a bushel. The rice price has not changed in relation to the previous quarter, making up round USD 12.5 per short hundredweight (45.3 kg).

There has been a considerable increase in the sugar price, which averaged USD 15.6, having grown by 17.7 percent against the previous quarter, whereas its year-on-year increase has been 27.6 percent. Increased demand in India (because of poor produce domestically) is the main driver of the rise in sugar price. The butter price has dropped nearly by 6.5 percent in relation to the previous quarter.

In financial markets in the second quarter of 2009, the US dollar exchange rate depreciated nearly by 5 percent quarter-on-quarter, having averaged 1.36 vis-a-vis Euro, whereas the US dollar appreciation has been 14.7 percent year-on-year.

Driven by continued global economic crisis, the US Federal Reserve System remained committed to its 'quantitative easing' policy. In the meantime, the 3-month US dollar LIBOR kept on dropping to 0.85 percent. In the second quarter of 2009, the European Central Bank has lowered its interest rates by 0.25 percentage point to have set them on a 1 percent level.

*So, albeit some rise in international prices recorded in the second quarter of 2009, these however are considerably at low levels, as opposed to the price levels observed in recent years, and are maintaining a low inflationary external environment.*

#### **Aggregate Supply <sup>4</sup>**

The negative impact of the global economic crisis deepened in the second quarter of 2009, thus leading to an economic decline of around 22.9% (during the period of January-June the economic decline was 16.3%). Recession was experienced in all sectors of the economy, and most notably, in the industry and construction. In particular, value added decreased by around 13.2% in the **industry** primarily due to the reduction of volumes of metal ore extraction (by 9.1%), chemical industry (by 50%), production of construction materials (by 29.7%) and jewelry products (by 56.1%) resulting from both a slowdown in construction and decreased external demand. In light of these developments the demand in electricity and natural gas dropped, and, subsequently, a decline of 9.3% was traced in the energy sub-sector.

In the **construction sector** the value added declined by around 60.6% due to reduced capital inflows and population incomes. Basically, in January-May construction activities financed by individuals and businesses declined by 68.7% and 37% accordingly.

In the sectoral breakdown of the construction area the volumes of housing, as well as building activities in the transport and trade sectors fell significantly.

In the **agriculture sector** the value added declined by 1.1% due to decreased volumes of animal production. In particular, in the animal production sub-sector a decrease was traced in production of meat and milk (by 5.9% and 10.3% accordingly in January-May), and egg production

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<sup>4</sup> The indicators for sectors of the economy and GDP growth for QII, 2009 represent estimates which are based on the actuals for January-June. In the Gross Supply and Gross Demand sections the y-o-y growth rates are presented unless otherwise indicated.

increased by 17.8%. On the other hand, during the quarter plant production grew to some extent.

In the *services sector* the value added declined by 1.1% primarily because of reduced trade volumes resulting from a decrease in car trade (by 50.2%). The decline traced in the sector of other services was mainly due to reduced financial operations and transport services.

#### **Labor Market**<sup>5</sup>

In the second quarter of 2009, despite the high rates of economic decline, the average growth of nominal wages in the economy was approximately 4.0% which resulted from a certain upward adjustment of wages in budget-supported organizations, as well as the existing rigidities of wage adjustments in the labor market. Certain persistency were also observed in unemployment, and as a consequence, the average unemployment rate for the quarter grew only by year on year 0.6 percentage points (6.9%) compared to the previous year. As a result, labor productivity considerably fell during the quarter (by around 17.0%).

These developments led to a certain growth of unit labor costs, and in the consumer market inflationary pressures of around 1-1.5% were exerted from the labor market.

#### **Aggregate Demand**<sup>6</sup>

According to the CBA estimates, in the second quarter of 2009 real private spending fell by around 19.2% in response to decreased population incomes, namely, external remittances, uncertainties in the investment environment and negative expectations about the economic activity. In the structure of private spending real investments decreased by more than 48.0%, and consumption fell by around 8.0%.

During the second quarter the private sector spending had a constraining effect on inflation. According to the CBA estimates, the assessed level of real private spending was by 9-10% below its potential level. This gave rise to deflationary pressures in the consumer market by causing the inflation rate to fall by 2.7-3.0 percentage points.

During the second quarter of 2009, in light of the developments in the world and domestic economy, no material changes occurred in items of the current account, and the trends of the first quarter continued. The trade balance deficit continued to decrease: export of goods and services<sup>7</sup> fell by y-o-y 33.8% while import of goods and services<sup>8</sup> dropped by y-o-y 28.7%. Exports declines were primarily due to the sustained low level of metal prices in global markets which resulted in high rates of decline for the main commodity groups. In the second quarter the decrease in real exports of goods and services was y-o-y 6.4%.

The reduction of imports of goods and services was conditioned by the low inflationary environment in the world markets, and the continuous decline of the domestic demand. Real imports of goods and services have decreased by y-o-y 22.7%.

In terms of total remittances of individuals effected through the banking system – these include commercial and non-commercial remittances – in the second quarter of 2009 the decrease of net inflow was y-o-y 22.0%. In addition, the decrease of net inflow of non-commercial

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<sup>5</sup> The labor market data represent the CBA estimates which are based on actual indicators for April and estimates for May and June.

<sup>6</sup> The official data on private sector consumption and investments are as of Q1, 2009.

<sup>7</sup> In January-June the volumes of export of goods (FOB) fell by 45.9%. The quarterly indicators for services are forecasts.

<sup>8</sup> In January-June the decline of imports of goods (SIF) was 27.5%. The quarterly indicators for services are forecasts.

remittances was y-o-y 35.5%. This was primarily due to the deepening recession in Russia<sup>9</sup> (according to estimations, in the second quarter of 2009 Russia's GDP fell by 10.6%) and new pessimistic expectations for development at the year-end.

In light of the above flows and declining GDP, the current account to GDP ratio, according to assessments, deteriorated. Based on estimations for H1, 2009, the mentioned ratio is 15.2% versus 12.3% recorded for the same period of the previous year.

### **Consolidated budget**

In the first six months of 2009, the fiscal policy's impact on aggregate demand has been expansionary<sup>10</sup>, which is fully attributable to the creation of expansionary expenditures impulse. The state budget expenditures have increased by 8.8 percent in comparison with the first six months of the previous period. Relative to the same period of the previous year, the taxes have declined by 18.3 percent (without account of social security charges), while a neutral impulse has been recorded based on the six months' results. The creation of expansionary expenditures impulse and neutral incomes impulse is mainly attributable to a considerably low GDP level observed over the first half of the year.

To sum up, the fiscal policy's impact on aggregate demand has been 3 percent expansionary, according to the six months' results, which is mostly determined by more expenditures and greater reduction of GDP in comparison with the same period of the previous year.

### **Money and credit**

Following the downfalls observed over the first quarter of 2009, the monetary indicators showed patterns of stabilization in the second quarter. This was determined by new equilibrium for the exchange rate created in the foreign exchange market and a policy of quantitative easing and interest rate cuts which the Central Bank carries out in a consistent manner. Particularly, during the second quarter, the Central Bank lowered the Repo Rate by 1.5 percentage points (from 7.5 percent in April to 6 percent in June), which has reflected in the reduction of interest rates in the dram money market since May. Thus, in the period May-June, the interest rates of interbank repo rates and the yield of short-term treasury bills have dropped by round 0.86 percentage point and round 0.71 percentage point, respectively.

In a situation like this, the monetary indicators have grown over the second quarter, as was opposed to the previous quarter. As well as broad money has increased by 3.9 percent quarter-on-quarter, of which deposits have grown by 6.8 percent and currency in circulation, by 11.3 percent.

Driven by the above said factors, unlike its rising in the previous quarter, the dollarization in this quarter, too, behaved in a steady manner. A good indication of this is that foreign currency-denominated deposits have grown by 3.3 percent quarter-on-quarter (in the previous quarter, the growth was 37.6 percent quarter-on-quarter).

Despite the slowdown in lending during the quarter (by 4.5 percent quarter-on-quarter), there was some revival observed in the credit market at the end of the quarter, which was reflected in both falling interest rates on lending and growing volumes of loan origination.

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<sup>9</sup> The bulk of individuals' remittances is received from Russia.

<sup>10</sup> The fiscal policy's impact on aggregate demand is estimated through the fiscal impulses. Pursuant to the current methodology for fiscal impulses, the GDP used in the revenues impulse calculation is the actual nominal GDP and the GDP in the revenues impulse calculation is the potential GDP.

PROJECTIONS FOR  
UPCOMING  
12-MONTH HORIZON

**External environment** <sup>11</sup>

In the times of global economic crisis, the world economic growth in 2009 is expected to be a negative value (-1.4 percent) while prices in commodities markets will remain on the same level, according to the IMF forecasts. Particularly, international oil prices are expected to be on average USD 60-70 a barrel for 2009 and for the first half of 2010, while the copper prices will be in the range of USD 4500-5000 per ton. The price of gold as a reserve asset will be kept at a higher level. Prices of food products are expected to grow slowly. Particularly, grain prices are expected to grow continuously in the course of the next 12-month period, up to USD 6.8 a bushel. Some price increase is expected in the sugar market as well. There is expectation that countries would carry on conducting stimulating fiscal and monetary policies to improve the situation in credit markets and enhance aggregate demand. In the yearend of 2009 and beginning of 2010, when there is likelihood that the situation with the world economy would improve, economic growth and price indicators are expected to recover slowly. The IMF estimates that economic growth in 2010 will be 2.5 percent; economic growth in developed countries will be 0.6 percent (0.8 percent in the USA, -0.3 percent in Euro zone, 1.7 percent in Japan), and economic growth in developing countries will be 4.7 percent (8.5 percent in China, 6.5 percent in India, 1.5 percent in Russia). Nonetheless, there is still a great deal of uncertainty with regard to these forecasts as risks both upside and downside are likely to emerge.

**Aggregate Supply**

Based on the revised forecasts – and primarily the adjustments which were made taking into account the decline in the construction and services sectors which have relatively large shares in the GDP - it is anticipated that in 2009 the economic decline will be approximately 12-15%.

It is expected that in the first six months of 2010 the sectors of the economy will recover their real value added growths in view of both the economic decline in the first quarter of 2009 and the expansionary programs undertaken by the Armenian government. As a result, it is anticipated that in the first six months of 2010 the economy will recover: according to the CBA estimations, the economic growth will be approximately 0.5-2%.

The economic growth risks are binary. Furthermore, downside risks prevail which depend on the level of the domestic demand which was lower than expected due to the continuous decline of the global demand, as well as on the pace of the programs to be launched by the government of Armenia. At the same time, upside risks are dependent on the progress in implementation of large-scale regional transport and energy projects by the government.

For the *industry* sector, forecasts have been adjusted upward, taking into account the large-scale government programs. In particular, it can be anticipated that real value added growth will take place in the sub-sectors of metal ore mining and metallurgical industry at the year-end thanks to the financial support provided to mining companies by the government in the form of budgetary credits and guarantees.

The expected growth in the above sub-sectors will partially compensate for the anticipated declines of real values added in the food industry (resulting from the expected production decrease in the food

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<sup>11</sup> The forecasts of external sector have been based on the information provided from the IMF, World Bank, The Economist, Global Insight, Financial Times, US Department of Agriculture, РосБизнесКонсалтинг and other sources.

processing sub-sector and export of cognac due to the decline of global demand), production of construction materials (due to the construction decline), as well as jewelry products and chemical industry. Subsequently, for the industry sector the projected value added real decline will be 4-7% in 2009.

It is expected that during the first six months of 2010 the industry sector will recover, and according to the CBA estimations, the real growth for the sector will be approximately 4 -7%.

For the **construction** sector, the value added forecasts have been adjusted downward, taking into account the expected decrease of capital inflows and population incomes, as well as the significant reduction of housing. While the decline rates will gradually slow down thanks to the provided government financial support, at the year-end the expected real value added decrease will be 40-50%.

During the first six months of 2010 the slowdown of decline rates in the construction sector will continue, and by the end of the mentioned period a positive growth rate will be recorded.

Forecasts for the **agriculture** sector have not been adjusted: a real growth of 2-3% is projected, taking into account the increase in the routine growth base, i.e., gardens and crops areas, as well as animal heads.

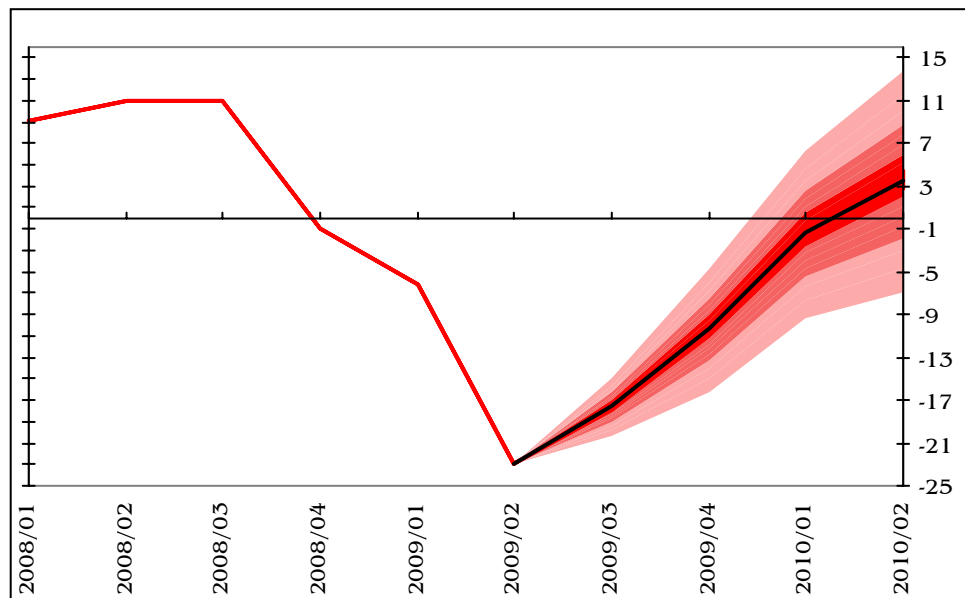
Around 4% of real growth is anticipated in the agriculture sector for the first six months of 2010.

For the **services** sector, the growth forecasts have also been adjusted downward, taking into account the adjusted projections for private and public consumption which, in turn, will impact both the volumes of sales turnover and delivered other services. Subsequently, for services a zero-level real growth of value added is anticipated for 2009.

It is expected that in the first quarter of 2010 the industry sector will recover, and according to the CBA estimations, its real growth will be approximately 4 -7%.

It is expected that during the first six months of 2010 the services sector will recover, and according to the CBA estimations, the real growth for the sector will be approximately 1-4%.

**Real GDP Growth Projection Probability Distribution  
(quarter over same quarter of previous year)**



### Economic Growth Projection Probability Breakdown

Economic Growth Band	Probability of Being within the Given Band			
	QIII, 2009	QIV, 2009	QI, 2010	QII, 2010
< -21%	3.16%	0.18%	0.00%	0.01%
-21 - -18%	42.10%	1.74%	0.03%	0.03%
-18 - -15%	51.03%	8.76%	0.23%	0.15%
-15 - -12%	3.68%	23.37%	1.23%	0.58%
-12 - -9%	0.01%	33.07%	4.50%	1.76%
-9 - -6%	0.00%	23.56%	11.43%	4.34%
-6 - -3%	0.00%	7.95%	20.15%	8.62%
-3- 0%	0.00%	1.26%	24.64%	13.82%
0 - 3%	0.00%	0.09%	21.04%	18.40%
3%-6%	0.00%	0.00%	11.55%	18.64%
6%-9%	0.00%	0.00%	4.35%	15.49%
9% <	0.00%	0.00%	1.10%	10.20%

#### **Labor Market**

The projections for the labor market indicators for the first six months of 2009 were adjusted to some degree, taking into account the current developments in the economy and the adjusted forecasts for other sectors. In particular, given the certain degree of mitigation of labor market rigidities, it is projected that during the second six months the average nominal wage will fall by around 1.5% due to a decline in the private sector nominal wages. Labor productivity will fall significantly (by around 12%). During the mentioned period the average unemployment rate will increase by 1.6 percentage points primarily because of under-employed capacities in the economy sectors resulting from decreased aggregate demand.

During the second six months of 2009 the labor market developments will exert certain inflationary pressures on the consumer market since the labor market rigidities will result in higher rates of decline in labor productivity than in wages. Subsequently, some growth of unit labor costs will be traced in the private sector which will trigger inflation by around 0.5-0.7 percentage points. During the first six months of 2010, however, the labor market indicators will improve to a certain degree, greatly contributed by the anti-crisis measures taken by the government towards increasing economic activity in the private sector.

#### **Aggregate Demand**

##### ***Private Sector Spending***

According to the adjusted estimates, a 15-16% decrease in real private spending is anticipated during 2009. In the structure of spending a considerable decrease (by around 35-38%) will be recorded with regard to private investments due to the significant fall of capital inflows and continuous decrease in population incomes. The real decline of private consumption will be within the range of 4-6% which will mirror the real decline of incomes in the private sector. Subsequently, during the second six months of 2009 private spending will remain below its potential level by around 8-9% and will exert deflationary pressures in the consumer market

thereby reducing the inflation rate by more than 2.4-2.7 percentage points. However, it should be noted that as early as in the first six months of 2010 the private spending decline rates will slow down considerably thanks to several anti-crisis government measures which will trigger economic activity in the private sector. Private spending will fall by 0.5 - 1.0%. Furthermore, of private consumption drops by around 0.5 - 1%, a slight positive growth will be observed in private investments.

### ***Current Account***

Further projections for the line items of the BOP of current account have been adjusted slightly taking into account the uncertainties associated with the recovery of the global market, and the new forecasts for the development of the domestic economy. Namely, it is anticipated that by the year-end export of goods and services will fall by 30-35%. This will be due primarily to the continuing low metal prices and the fact that the depreciation of the real exchange rate of AMD has a slower-than-projected impact on exports. Subsequently, by the year-end the decline of real volumes of exports of goods and services will be 8-11%, despite the expected growth of real exports of copper and molybdenum.

Compared to earlier projections, no material adjustments have been made to import forecasts because the current and expected high rates of GDP decline – which otherwise should result in a greater decrease in imports – will be compensated by the expansionary fiscal policy. In light of limited internal import substitutes, in the near term the latter will contain the high rates of import decline through import of consumer and investment products. As a result, at the end of 2009 for import of goods and services the decline will be within the range of 30-35% and for real volumes it will be 25-30%.

The projections for non-commercial remittances by individuals have not been changed, and by the year-end the decline in their net inflows will be 30-35%. These projections will rely on the present and future developments of the Russian economy.

As a result of these flows, the current account deficit to GDP ratio will be 10-12% for the year in light of its 15% level observed for the first six months of 2009.

In the first six months of 2010 the developments will depend on the rates of recovery of the global and domestic economy. It is anticipated that the export growth will be within the range of 8-11%, and the decline rates for import will be 0-3%. The growth of real export of goods and services will be 3-6%, and the decline in real import of goods and services will vary from 6% to 9%. As to individuals' remittances, it is projected that during the first six months of 2010 these remittances will grow by 5-8%, taking into account the fact that next year a positive growth in the Russian economy is expected (according to the recent IMF projections, in 2010 Russia's economic growth will be 1.5%). It is anticipated that these developments will lead to an improvements of the current account/GDP ratio in 2010.

### ***Consolidated Budget***

Thanks to the anti-crisis measures undertaken by the Government an around 24% increase in public expenditures (including net lending) compared to the previous year can be ensured by the year-end. In terms of public revenues, it is anticipated that the taxes to GDP ratio will preserve its previous year's level, and the ongoing improvement of tax administration measures is crucial for ensuring the above level.

As it was expected, the anti-crisis government programs and, hence, ensuring of 2/3 of 2009 government expenditures (including net lending) will take place during the second half of the year. A rather high level of budget deficit is anticipated for the year-end which, in turn, will lead to an impact of the fiscal sector on aggregate demand. According to estimated impulses, such an expansionary impact will be around 6.4 %. However, it should be noted that in view of large-scale government spending, according to our estimations, some difficulties may arise in terms of absorbing liquidity by the economy.

The public sector impact is again assessed as expansionary for the first six months of 2010 in light of the continuing anti-crisis measures taken by the government. It will enhance the increase in the domestic demand and subsequently, recovery of economy growth from the first half of 2010.

### **Money and Credit**

It is anticipated that after certain stabilization observed in the financial market during Q2, 2009, monetary indicators will recover their high rates of growth during the next 12 months due to the expansionary fiscal policy on the one hand and the continuing expansionary monetary policy of the CBA on the other hand. As a result, money supply will increase by 25.6% and credits and deposits will grow by 8.5% and 36.4% accordingly. If the above policies continue during the first half of 2010 then it can be expected that the growth rates for money supply and components will further increase.

As a result of injections of large volumes of liquidity into the economy and increased lending, the monetization ratio which characterizes financial intermediation will also grow by around 9.8 percentage points thus reaching the level of 29%. These developments will be primarily due to the large budget deficit projected for the above period which in turn will result in an increase in the lending indicator by 13% annually for Q2, 2010.

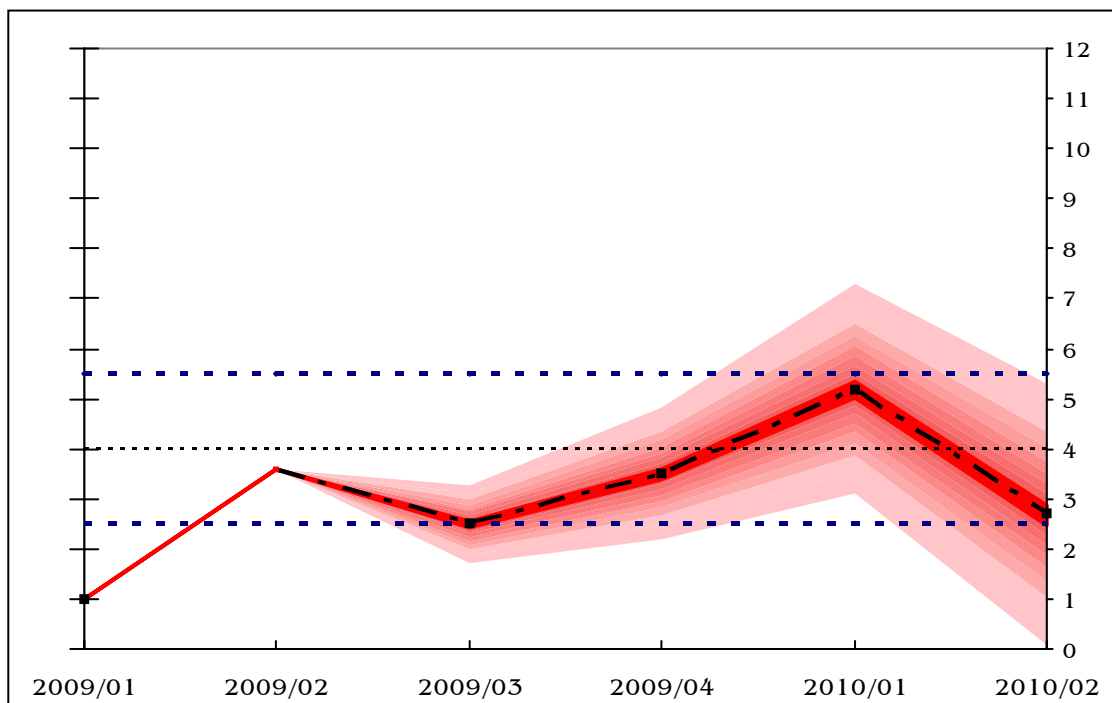
Furthermore, if any difficulties arise in relation to absorbing dram-denomination liquidity injected into the economy as a result of large-scale spending under anti-crisis government programs, the CBA and the government may undertake coordinated measures towards ensuring a smoother absorption.

## **INFLATION FORECASTS AND MONETARY POLICY DIRECTIONS IN THE PROJECTED 12-MONTH PERIOD**

During the projected period the continuing large negative gap of the domestic demand resulting from the global economic crisis will remain as the key factor which drives the general inflation behavior. At the same time it is anticipated that the combination of anti-crisis government measures and the CBA policy for reducing interest rates and quantitative easing will allow to ensure a recovery of the economic growth rates by the end of the projected period. In this case, as the results of the quarterly projections model used by the CBA show, the existing deflationary pressures will gradually weaken, and throughout the 12-month projected period inflation will remain within the target range of  $4 \pm 1.5\%$ . Given the hypothesis of unchanged interest rates and taking into account the results of the inflation model by commodity groups, at the end of Q2, 2010 the central value of the projected inflation will be 2.7%, and at the year-end of 2009 it will be 3.5%. In addition, during the projected period both downside and upside

inflation risks can emerge, dependent on how quickly the liquidity injected into the economy as a result of the anti-crisis government programs will be absorbed, the timing of recovering global economy, as well as progress in implementation of large-scale regional programs.

**Inflation Projection Probability Distribution Chart**



**Inflation Projection Probability Distribution Table**

Inflation band	Probability of Falling within the Given Band	
	QIV, 2009	QII, 2010
< 1.0%	0.09%	14.4%
1.0-2.0%	2.9%	18.7%
2.0-3.0%	23.3%	24.3%
3.0-4.0%	46.8%	21.7%
4.0-5.0%	23.9%	13.3%
5.0-6.0%	3.0%	5.6%
6.0-7.0%	0.09%	1.6%
> 7.0%	0.0%	0.4%

In order to ensure quick recovery of the economy under the condition of inflation maintaining in the target band, balanced deflationary and inflationary risks, the CBA will continue implementing an expansionary monetary policy further reducing the refinancing rate along with active implementation of quantitative easing. In light of the foregoing and large budget deficit, ensuring smoother absorption of liquidity injected into the economy attains major importance in terms of accelerating the pace of recovery of the economy and neutralizing potential inflation risks.



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## 1. SUMMARY

The third quarter of 2009 was characterized by various macroeconomic developments under which circumstance changes occurred in the inflation environment. In particular, deepened economic decline recorded at the beginning of the quarter was followed by the trends of gradual recovery of the economic activity in the end of the quarter. In the meantime, driven by expectations for the world economic recovery, prices of raw materials and certain food products have grown moderately in international markets. Given these developments in the end of the quarter, certain inflationary pressures began showing up in domestic commodities markets. As a result, despite a deep seasonal drop in prices of agricultural products, the 12-month inflation indicator has somewhat grown, making up 3.7 percent at the end of the quarter. The y-o-y decrease in prices of food products (alcohol and tobacco included) was 1.3 percent (with 0.7 pp. contribution to curbing of inflation); prices of non-food products have grown by 6.0 percent (with 1.0 pp. contribution to inflation); service tariffs have grown by 11.2 percent (with 3.3 pp. contribution to inflation). The impact of inflationary pressures began to be felt in the behavior of core inflation as well. The latter has reached 0.9 percent<sup>12</sup> in the third quarter of 2009, while the 12-month core inflation has grown by 0.3 pp. against the previous quarter and made up nearly 3.7 percent.

The adverse impact of the world economic crisis was most pronounced in the third quarter of the year. Reaching its peak (18.5 percent y-o-y) in the period January-July, the economic decline showed little yet stabilizing trends in the subsequent two months. This was determined primarily by the growth recorded in services, construction and agriculture in August-September. In the outcome, as it was expected, the GDP declining rates decelerated, and the y-o-y decrease in January-September has been 18.3 percent due to the decrease observed in all sectors of the economy, except for services.

During the quarter, decline was recorded with regard to all sectors of the economy, except for services, with industry and construction suffering the most. The decline of value added in construction in the third quarter and in the period January-September has reached 43.8 percent y-o-y, while the decline of value added in industry has been 10.3 percent y-o-y during the quarter and 10.9 percent y-o-y in the January-September.

With rigidities observable in the labor market in the third quarter of 2009, nominal wages in the economy have slightly grown driven by a certain rise of wages in both budget-supported organizations and firms in the private sector. The unemployment rate has also responded to the economic slowdown with a certain time-lag. As a result, the labor productivity slowed down considerably, and combined with rising nominal wages unit labour costs increased in the economy. These developments demonstrated that the labor market has created an estimated 1.5 percent inflationary pressures in the consumer market, according to the Central Bank.

In the third quarter of 2009, the domestic demand remained slackening primarily due to considerable decrease in private spending. The main cause for the latter was the reduction of real private sector incomes determined, particularly, by the narrowing of current transfers from abroad. Uncertainties in investment environment and negative expectations for the economic activity have also contributed to the decline in private spending.

During the third quarter about 17.0 percent reduction in the domestic demand was driven by notable shrinkage in private spending. Furthermore,

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<sup>12</sup> The core inflation calculation methodology developed by the Central Bank is detailed in the CBA Review (Q1, 2008). The paper regularly publishes core inflation indicators.

about 4 percent reduction of real expenditures in public sector was recorded, which is explained by 8 percent growth of nominal expenditures in the public sector and persistently high public expenditures deflator. In the structure of private spending, investments slowed down at a fast rate (as much as 38 percent), reflecting more than 60 percent slowdown in household- and firm-supported construction.

As a result of these developments, the real private sector expenditures have created deflationary pressures in the consumer market, according to the Central Bank estimates, pushing inflation down by 1.5 pp.

In the third quarter of 2009, the impact of the fiscal sector on the aggregate demand has been expansionary, making up 3.5 pp., according to the calculated fiscal impulse indicator. This has been generated due to slightly restrictive impulse of revenues and expansionary impulse of expenditures. The latter was determined by the growth of public expenditures and net lending to the economy. In the third quarter tax revenues of the state budget have decreased by 18 percent in relation to the same period of the previous year. The generation of restrictive impulse of revenues has been attributable to faster declining GDP versus state revenues. Relative to the third quarter of the previous year, the expenditures have grown by 8 percent. According to the calculated impulse indicator, expenditures had 4.5 percent expansionary impact on the aggregate demand.

According to the Central Bank estimates, in the third quarter the combined impact of the internal demand and labor market on prices was 0.7-1 percent inflationary.

In view of downturn of global economy and of the domestic economy, which reflected the slackening of external and domestic demand, a high level of current account deficit persisted in the third quarter of 2009. As a result, with GDP declining, the current account deficit to GDP ratio has grown in January-September, making up 14.0 percent (10.2 percent in the same period of the previous year), which was determined mostly by large-scale y-o-y narrowing of the inflow of private transfers.

In the third quarter of 2009, macroeconomic stabilization trends observed due to somewhat slowing decline in the global economy and implementation of consistent policy of quantitative easing and interest rate cuts by the Central Bank. These trends were more evident in the performance of monetary indicators as these indicators have stabilized and showed steady growth in the second and third quarters after their slackening in the first quarter of 2009. Under such conditions, high dram excess liquidity in the banking sector has contributed to interest rate cuts in secondary markets of repo operations and government securities. Unlike the dramatic growth recorded in the first quarter of 2009, the dollarization has considerably decelerated in the period April-September. At the same time, much activation was observed in the lending market, fuelling the growth of the lending indicator in the third quarter, in contrast to the previous quarters' decline.

The aforementioned developments have steered the fulfillment of the inflation target and the monetary policy directions during the quarter. Based on the prudent combination of tasks to stimulate economic activity and ensure price stability, the Central Bank has lowered the refinancing rate during the past two quarters by 2.75 pp. By means of extending long-term repos, active participation in secondary market of government securities and implementing credit programs coordinated with the Government in the framework of quantitative easing policy, the Central Bank has in the meantime pumped huge dram resources into the banking sector to recover economic activity without detriment to price stability.

## 2. INFLATION DEVELOPMENTS

### 2.1. INFLATION BY GOODS AND SERVICES, CORE INFLATION

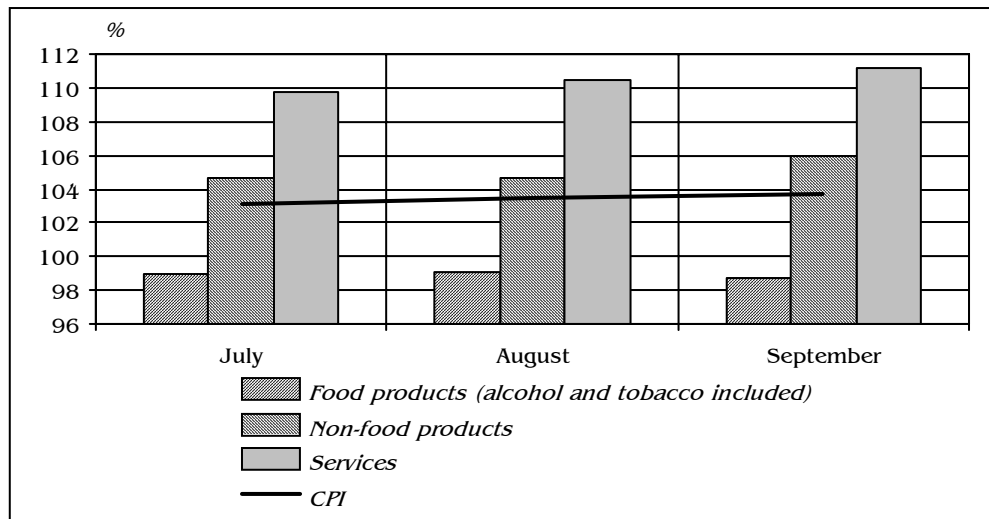
In September 2009, inflation was 3.7 percent against September 2008. Prices of food products (alcohol and tobacco included) fell by 1.3 percent (with -0.7 pp. contribution to inflation), while prices of non-food products and service tariffs rose by 6.0 percent (with 1.0 pp. contribution to inflation) and 11.2 percent (with 3.3 pp. contribution to inflation), respectively.

The decrease of prices of food products (alcohol and tobacco included) was mainly determined by items "Bread products" (-10.2 percent), "Fats and Oils" (-4.0 percent), and "Eggs" (-7.0 percent), which have contributed to headline inflation by -1.5, -0.2, and -0.1 pp. respectively, whereas items "Sugar (26.8 percent)", "Vegetable and Potato" (5.0 percent), "Fruit" (7.8 percent), "Fish" (36.4 percent), and "Meat products" (2.1 percent) have contributed to headline inflation by 0.4 pp (for sugar) and by 0.2 pp (for the remaining items).

The increase of prices of "Non-food products" was mainly a result of price increases in sub-items "Medicament" (24.9 percent), "Detergents" (19.3 percent), "Garment and knitwear" (10.8 percent), "Footwear" (9.9 percent), and "Beauty items" (14.6 percent), which have contributed to inflation by 0.4, 0.3, 0.3, 0.2, and 0.2 pp., respectively. At the same time, price decrease in sub-items "Personal usage cars and petrol" (11.8 percent) and "Fuel" (8.6 percent) eased inflation in the group, contributing to inflation by -0.4 and -0.1 pp., respectively.

The main contribution to inflation of the group "Services" came from increased tariffs in items "Household utility services" (19.1 percent), "Medical services" (10.8 percent), "Transport services" (11.1 percent), and "Education system services" (8.2 percent), which have contributed to inflation of the group by 1.4, 1.0, 0.5, and 0.4 pp., respectively.

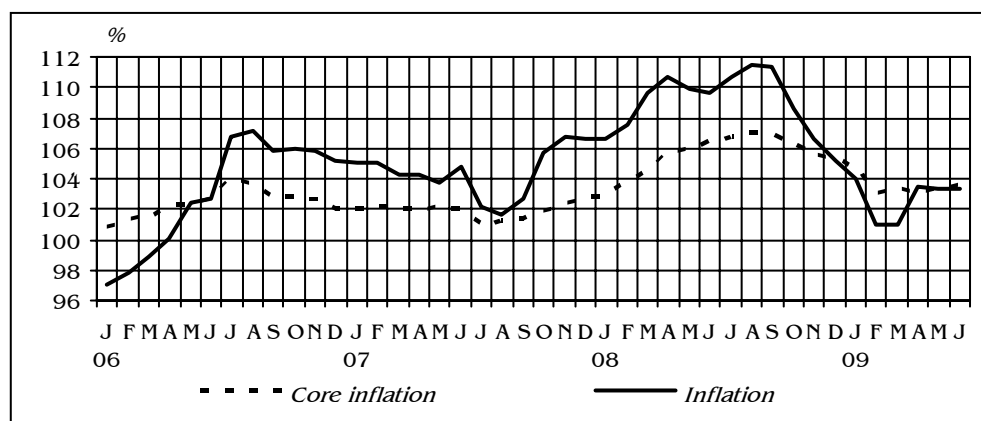
*The 12-month CPI in the third quarter of 2009 by the main items of goods and services*



In the third quarter of 2009, inflation was 2.7 percent against December of 2008 (the same indicator in the previous year was 4.2 percent). This was driven by 9.5 percent rise in service tariffs and 11.3 percent increase in non-food prices, which have contributed to headline inflation by 2.8 pp. and 1.8 pp., respectively. Further, some 3.4 percent decrease in prices of food products eased headline inflation by 1.8 pp. In January-September 2009, against January-September 2008, inflation has been 2.9 percent (the same indicator was 9.7 percent in 2008 and 3.8 percent in 2007). The risen service tariffs alone (as much as 10.2 percent) have made 3.0 pp. contribution to that indicator. The prices of non-food

products have grown at the same time by 2.6 percent, contributing to inflation by 0.4 pp., while some -0.9 percent decrease in prices of food products eased headline inflation by 0.5 pp.

*Inflation and core inflation, 2006-2009 (% to the same month of the previous year)*



In September 2009, compared to September of the previous year, core inflation was 3.7 percent, somewhat growing in relation to the same indicator recorded in the previous quarter.

#### Statistical review of inflation fluctuations

In order to review the changes in Consumer Price Index and in price indexes of individual items included in consumer basket, as well as to discover the factors determining their fluctuations, the influence of three components (trend, seasonal and irregular components) used in Statistics theory was separated and assessed for the time period from October 2006 to September 2009<sup>15</sup>.

The calculations show that between October 2006 to September 2009, in comparison with the period from October 2005 to September 2008, the influence of irregular component and trend component on CPI has increased by 11.0 percent and 2.0 percent, respectively, while the influence of seasonal component has decreased by 13.1 percent.

*Share of components causing fluctuations in monthly price indexes (October 2006 to September 2009) (%)*

Item	Trend component	Seasonal component	Irregular component	Total
CPI	1.8	67.9	30.3	100.0
1. Bread products	6.1	30.5	63.4	100.0
2. Meat products	2.8	34.2	63.0	100.0
3. Fish products	5.0	35.8	59.2	100.0
4. Dairy products and oils	1.3	41.0	57.8	100.0
5. Fruit and vegetable	1.4	91.3	7.2	100.0
6. Other food products	1.8	59.2	39.0	100.0
7. Non-alcoholic beverage	0.0	25.0	75.0	100.0
8. Alcoholic beverage and tobacco	7.3	36.6	56.1	100.0
9. Garment and footwear	8.9	46.9	44.2	100.0
10. Rent, electricity, and fuel	2.3	31.3	66.4	100.0
11. Home appliances	11.8	21.7	66.5	100.0
12. Health services and medication	2.2	43.3	54.5	100.0
13. Transport and communications	4.8	43.9	51.3	100.0
14. Leisure and items of cultural products and services	1.1	85.8	13.0	100.0

<sup>15</sup> The methodology of calculation is provided in the paper "Inflation in the Republic of Armenia, 2-nd half of 1999".

The seasonal component has the strongest impact on the following items: "Fruit and vegetable" (91.3 percent), "Leisure and cultural products and services" (85.8 percent), "Other food products" (59.2 percent), and "Garment and footwear" (46.9 percent).

The irregular component has the strongest impact on the following items: "Non-alcoholic beverage" (75.0 percent), "Home appliances" (66.5 percent), "Rent, electricity, and fuel" (66.4 percent), "Bread products" (63.4 percent), and "Meat products" (63.0 percent).

The consumer price index variance was reviewed also by using monthly price index variation coefficients for every single item.

*Monthly price index variation coefficients in Q3 of 2006-2009 (%)*

Item	2006	2007	2008	2009
CPI	0.3	1.9	1.4	1.7
1. Bread products	0.2	1.4	0.5	0.5
2. Meat products	0.5	1.1	1.1	0.6
3. Fish products	10.9	1.7	21.4	0.1
4. Dairy products and oils	0.0	2.2	0.1	0.7
5. Fruit and vegetable	4.1	13.4	16.0	17.6
6. Other food products	0.8	1.1	0.5	2.5
7. Non-alcoholic beverage	0.6	0.0	0.0	0.1
8. Alcoholic beverage and tobacco	0.0	0.0	0.0	0.1
9. Garment and footwear	0.8	0.2	0.5	1.8
10. Rent, electricity, and fuel	1.1	0.0	0.0	0.1
11. Home appliances	0.5	0.4	0.5	0.4
12. Health services and medication	3.0	0.3	0.6	0.7
13. Transport and communications	1.2	0.1	0.5	0.8
14. Leisure and items of cultural products and services	2.0	2.5	1.4	3.4

As shown in the table above, during the last three years the prices in items "Fruit and vegetable" kept on demonstrating high volatility in third quarters of the last three years. The volatility of prices in item "Fish products" has been large in third quarters of 2006 and 2008.

## 2.2. FULFILLMENT OF INFLATION TARGET

The third quarter of 2009 was distinctive for the signs of recovering world economy. This fuelled a moderate growth of international prices and created inflationary expectations, which were also shown up in Armenia's domestic markets under stabilizing GDP. While in the beginning of the quarter the price behavior in consumer market was pointing to the lack of deflationary environment, in September inflationary pressures were already evident in the market.

The inflationary environment and monetary policy directions preceding the 12-month period have been characterized by the following developments: in the end-September of 2008, inflation forecasted for the third quarter of 2009 has been at the lower border of the target, making up 3.5 percent<sup>14</sup>. At the time, the actual 12-month inflation indicator was in excess of 11 percent (see Chart 1 hereunder). Potential factors contributing to anticipated deceleration of inflation rate in the face of adversities of global downturn and their impact on the domestic economy and

<sup>14</sup> See the Monetary Policy Program (Q4 2008) (Minutes of the Central Bank Board Meeting of October 2, 2008).

uncertainties and risks associated with the further behavior of inflation included expected slackening of world demand and expected price adjustments in the domestic market due to price-fall in international markets observed in the last couple of months. As a result of considerable decrease of food and raw material prices supported by the above said factors, the fourth quarter of 2008 and the first quarter of 2009 (normally, these are periods of intensive inflation) reported unusually low quarterly inflation levels of 0.9 percent and 0.7 percent, respectively. Therefore, as of the end of March the 12-month inflation made up a mere 1 percent which was 1.5 pp. below the lower border of the target band. With such a low inflationary environment, the Central Bank lowered the refinancing rate in December-February by a total of 1.0 pp.

In view of likely impacts from depreciation of the dram in early March and increase of the main public utility service tariffs in April, the inflation forecasts for the third quarter of 2009 have been adjusted upside (estimated to reach 4.7 percent, Chart 2 hereunder). Actually, in the time of worsening global crisis and an abruptly reducing domestic demand, the said inflationary factors proved to have been less evident than expected. In the second quarter, driven by adjustment of import prices and increased public utility fees, the inflation rate somewhat accelerated, thus throwing inflation in the lower border of the target band. These developments prompted the Central Bank to continue an expansionary monetary policy through enhanced use of tools for quantitative easing and concurrent with interest rate reduction, as part of the strategy to challenging further economic decline and ensuring price stability.

Overall, in consideration of prudent combination of tasks to spur economic activity and ensure price stability, the Central Bank has lowered the refinancing rate during the past two quarters by 2.75 pp. By means of extending long-term repos, active participation in secondary market of government securities and implementing credit programs coordinated with the Government in the framework of quantitative easing policy, the Central Bank has in the meantime pumped huge dram resources into the banking sector to recover economic activity without detriment to price stability. Under such an expansionary monetary policy the 12-month inflation at the end of the third quarter of 2009 made up 3.7 percent, persisting at the lower border of the target band.

Inflation Forecasts made in September 2008 and March 2009 for Q3, 2009; and Actual Inflation

Chart 1. Inflation forecast in September 2008

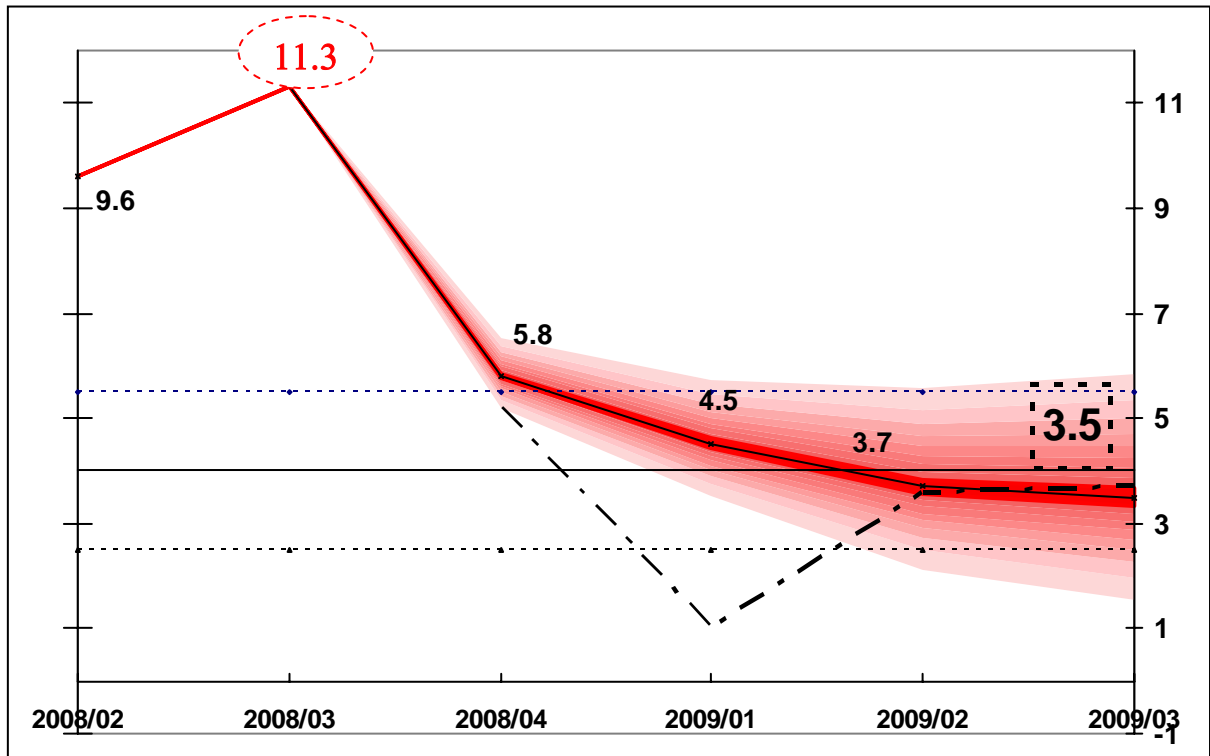
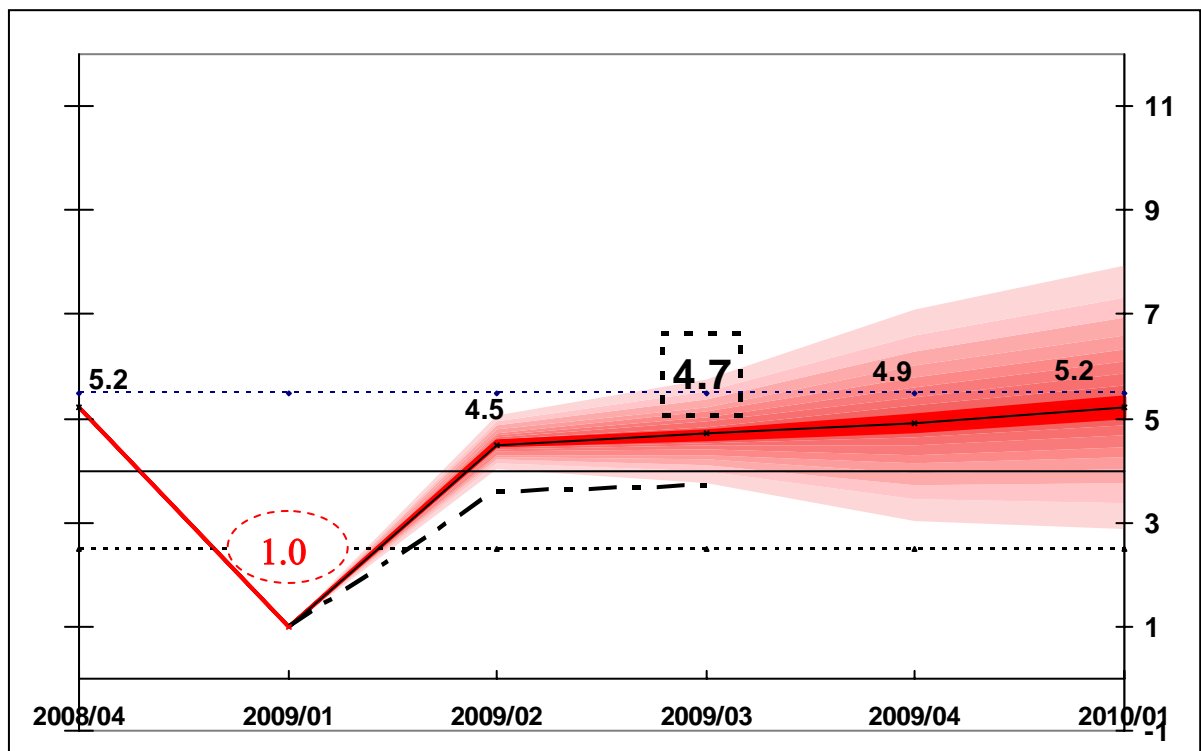


Chart 2. Inflation forecast in March 2009



- ⬢ Inflation at the time of forecast
- Inflation being forecast for reporting quarter
- · - · Actual inflation

### 3. INFLATION FACTORS

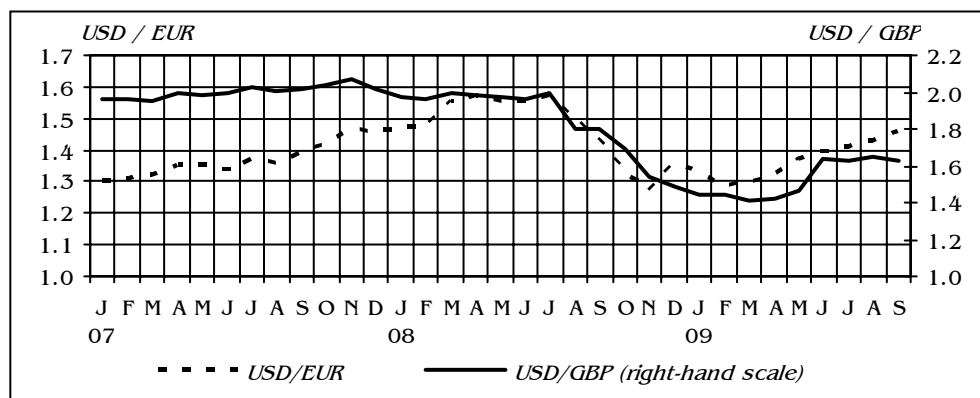
#### 3.1. EXTERNAL ENVIRONMENT

In the third quarter of 2009 signs of recovering world economy were already evident, which provided international financial institutions with an optimism to look to remake their forecasts of the world economic growth outlook. According to the estimations by the IMF, in 2009 the world economic slowdown will reach -1.1 percent, whereas some 3.1 percent growth is projected by 2010. Notwithstanding the evidence of stabilization trends observable during the quarter, almost all countries were still implementing anti-crisis measures to ensure stability in financial markets and stimulation of the world demand.

Although during the third quarter international prices stood below the previous year's level, they continued increasing throughout the quarter and resulted in moderate inflationary pressures in the domestic market.

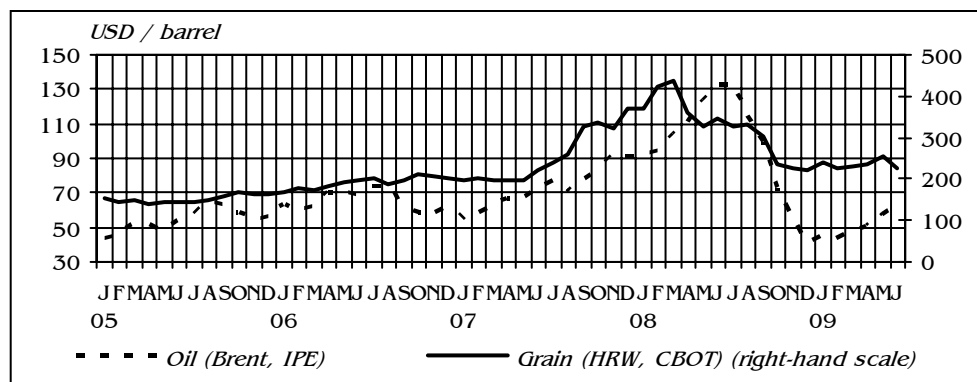
In the third quarter of 2009, the US dollar depreciated against Euro by 5 percent q-o-q, reaching 1.43 dollar for one euro, whereas the y-o-y appreciation of the dollar has been 4.8 percent. The global oil prices rose in relation to the previous quarter, by 15.6 percent. Global grain prices have dropped notably, whereas sugar prices kept on rising throughout the third quarter.

*In the third quarter of 2009 the dollar kept on depreciating in relation to euro*



During the third quarter of 2009, oil prices kept on growing, with 'Brent' staying in the corridor of USD 60-73 a barrel. However, the price level was still below the previous year's level (an average 41.0 percent decrease y-o-y). The increase of oil prices during the quarter was attributable mostly to optimistic expectations for the world economic recovery and persisting limited supply by oil producing countries. The prices of industrial metals have grown, too: copper price, for example, has increased by 27 percent compared with the previous quarter to amount to USD 5880 per ton on average. The y-o-y decrease has been 23.3 percent.

*Oil prices kept on low throughout the quarter*



In the third quarter of 2009, grain prices have dropped by an average of 34.2 percent y-o-y, fluctuating in the corridor of USD 5.0 – 6.3 a bushel,

dropping by 15.7 percent q-o-q. As estimated by the US Department of Agriculture, in the 2009/2010 marketing year some 668 million tons of crops of grain are expected in comparison with the previous year's 682 million tons. Since the expected volume of the crops in 2009 will again exceed the estimated consumption, the world stocks of grain will slightly increase this year, too, by round 20 tons, to amount to 186.7 million tons. A most impressive increase is expected in Kazakhstan, from 12.5 million tons to 15.0 million tons, while decreases are expected in Russia, from 63.7 million tons to 57.5 million tons, and in Ukraine, from 26 million tons to 20.0 million tons.

The prices of sugar have considerably risen during the quarter, reaching their highs recorded in 20 years (an average growth of 20.7 percent y-o-y). The main reason for this is the expectation of decrement of the world stocks.

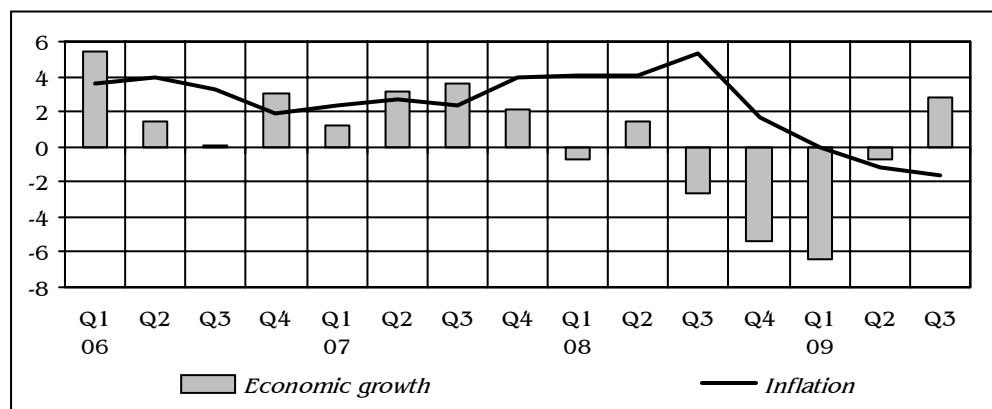
Below is a review of economic developments in the USA, Euro-zone and Russia, which make the largest share in the global economy and which are the main partners to Armenia. The review of economic developments of countries neighboring Armenia will follow.

Preliminary estimates suggest that in the third quarter the **United States of America**, after a decline for four quarters in a row, posted an economic growth, making up 2.8 percent y-o-y against 0.7 percent decline in the previous quarter. The main contribution to the growth came from consumer expenditures (with 2.36 pp. contribution), exports (with 1.49 pp. contribution), and public sector expenditures (with 0.48 pp. contribution).

In the third quarter of 2009, the deficit of net exports was reduced to 2.7 percent of GDP (3.6 percent in the same period of the previous year), and declined imports in terms of both quantity and value contributed to such reduction. In the third quarter the US dollar's appreciation against Euro (y-o-y 4.8 percent) also contributed to the decline in import prices of raw materials in dollar terms.

In the third quarter of 2009, some 1.6 percent y-o-y deflation was recorded in the US (-1.15 percent in the previous quarter). This has been attributable mainly to prices still persisting at their low in commodities and fuel markets. Though stabilization trends in economies were already evident in the third quarter of 2009, the Federal Reserve System remained committed to a fiscal and monetary policy stimulation strategy, whilst maintaining a target corridor for interest rates of federal funds in the range of 0-0.25 percent.

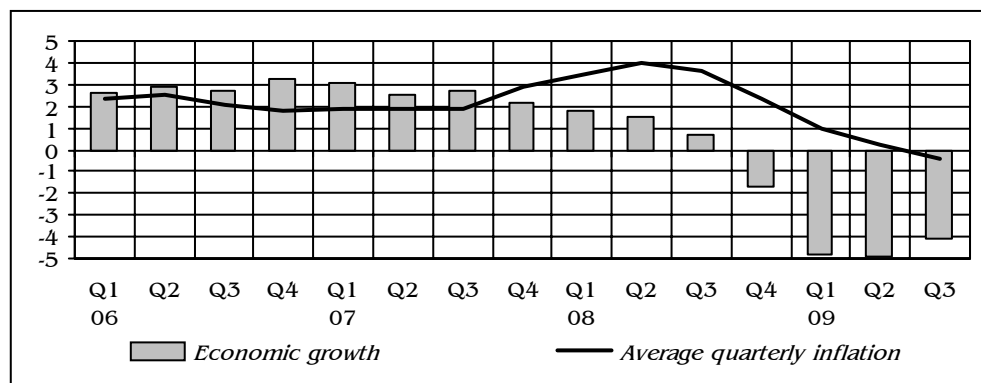
*USA has posted an economic growth for the third quarter of 2009*



According to the preliminary data from the EuroStat, in the third quarter **Eurozone** posted some 0.4 percent economic growth against the previous quarter, following the downfall in three quarters in a row, while 4.1 percent decline was recorded y-o-y (in the previous quarter these indicators were -0.2 percent and -4.8 percent, respectively).

In the third quarter of 2009, the consumer price index fell by 0.4 percent y-o-y against 0.2 percent inflation recorded in the previous quarter. During the quarter the European Central Bank kept interest rates the same, at the 1.0 percent level.

*Eurozone posted y-o-y economic decline*



Certain revival was seen in economic climate in **Russia** at the end of the third quarter of 2009. A GDP growth of 13.9 percent was recorded versus the second quarter. In the third quarter of 2009, high declining rates of GDP in relation to the third quarter of the previous year, persisted and reached 8.9 percent y-o-y.

Under such conditions, the Russia's finance minister is yet reluctant to speak of crisis overcoming and beginning of economic recovery.

Decline in industry in the third quarter of 2009 reached 11.0 percent y-o-y, and 13.5 percent based on the results for nine months past. In the period January-August of 2009, the decline in non-tradable sectors, i.e. trade and construction, has been 4.7 percent and 18.5 percent, respectively.

In view of the said developments, the IMF made new forecasts, whereby the economic decline in Russia in 2009 will reach 7.5 percent, a further negative progress than forecasted previously. In 2010 however, there is expectation that the Russian economy will grow into a positive territory, by 1.5 percent, in contrast to previous expectations, whereby forecasts were about a 0 percent growth.

In the third quarter of 2009, high shrinking rates of the current account surplus persisted amidst net outflow of capital and financial assets. Net outflow of funds via the capital and financial account amounted to USD 23.7 billion compared to USD 9.6 billion in the same period of the previous year. This has been due to net outflow of funds by the banking sector. With these balance of payments flows, the reserves of the Central Bank of Russia have decreased by USD 12.1 billion during the third quarter and amounted to USD 413.44 billion as of October 1, 2009.

Following stabilization in the second quarter, the nominal exchange rate of the ruble vs. the dollar tended, however, to depreciate in July-August, as things with the deficit of the balance of payments remained unenthusiastic. Nevertheless in September, the ruble appreciated vs. the dollar again. As a result, in the third quarter the average nominal exchange rate of Russian ruble vs. the US dollar has appreciated by 2.8 percent against the previous quarter's average, with 29.1 percent y-o-y depreciation, however. During the third quarter, the Russian Central Bank has acted as net seller in the foreign exchange market in order to halt the ruble to depreciate further.

The trend of subsiding inflation remained to be seen during the third quarter, with y-o-y inflation making up 11.5 percent (12.5 percent in the previous quarter). Although the inflation rates were prone to decelerate, it is

however estimated that they would remain high as a result of expansionary monetary and fiscal policies.

In the third quarter the Central Bank remained implementing a policy of interest rate cuts by reducing them four times (two times in September alone). They were reduced from 11.5 percent set in June to make up 10.0 percent as of September 30, 2009. Taking into account that the domestic demand is not high yet, and the expectations for depreciating exchange rate have slackened, the Central Bank's policy aimed to create positive expectations in the economy, particularly with regard to the stimulation of the lending activities.

#### *Macroeconomic Situation in Neighboring Countries*<sup>15</sup>

*Turkey: a dramatic economic downturn in Turkish economy recorded in the first quarter of 2009 was followed by somewhat decelerated rates of decline in the second quarter. As a result, 7.0 percent<sup>16</sup> y-o-y decline indicator was recorded. Some improvement has been posted with regard to real private sector consumption indicator, which reported 0.6 percent y-o-y decline (10.2 percent decline in the previous quarter). High declining rates of real private investment persisted, making up 29.7 percent y-o-y. The indicators of y-o-y growth of real consumption and investment in the public sector have been 0.5 percent and 5.5 percent, respectively. Net foreign demand remained contributing positively to the GDP (the decrease in imports outpaced the decrease in exports). The slowdown has been most evident in processing industry, construction and wholesale and retail trade, which reported declining rates of 14.4 percent, 19.9 percent, and 20.6 percent, respectively, in the period January-June of 2009.*

*With the domestic and foreign demand reducing, the creation of current account surplus and huge volumes of net inflow of capital in the period July-August came as two important changes in the structure of balance of payments. Thus, in the period mentioned the current account surplus has been created mainly owing to USD 6.8 billion-worth balance of services surplus. The current account surplus amounted to USD 347 million in contrast to USD 7.0 billion deficit recorded in the same period of the previous year. As for the capital and financial account flows, some USD 5.4 billion-worth of net inflow was recorded in the period July-August, compared to the net outflow recorded in previous quarters.*

*Foreign direct investment, net has reduced in July-August by 64.7 percent y-o-y and amounted to USD 792 million. Some USD 2.0 billion-worth net inflow was posted with regard to portfolio investment. Item 'Other investment' has also posted net inflow. In this structure, net foreign assets of banks have reduced by USD 1.8 billion, whereas net foreign assets of other private sector have increased by USD 1.0 billion.*

*As a result of these flows, in the period July-August the balance of payments has posted a surplus, which led to some USD 3.8 billion increase of official reserves of the Central Bank of Turkey.*

*The trend of appreciating Turkish lira versus the US dollar observable since the second quarter persisted throughout the third quarter, too: the average nominal exchange rate of lira appreciated by 4.6 percent against the previous quarter, whereas the average depreciation has been 23.7 percent against the third quarter of the previous year.*

<sup>15</sup> Review of the macroeconomic situation in neighboring countries is important in a sense that, being under the influence of similar economic turbulences, developments in these countries may indirectly influence the Armenian economy. Crises of 1990s showed that indirect influence channels, including common export markets, lending organizations or countries, investors, etc, from the regional standpoint are becoming increasingly influential on economic developments of countries. Therefore countries periodically monitor macroeconomic developments not only in neighboring countries but also partner countries in the Region. Note, that Iran is not included in the selection because the latter's numerical data are not complete and are issued in such delays when they lose timeliness.

<sup>16</sup> Official economic growth data for the third quarter of 2009 are not available.

*In view of developments occurring globally and domestically, consumer price growth rates remained declining also throughout the third quarter of 2009, with the y-o-y inflation having reached 5.3 percent in the third quarter (5.7 percent in the previous quarter).*

*During the third quarter the Central Bank of Turkey continued its policy of lowering interest rates: in September, the Bank set the interest rate at 7.25 percent (8.75 percent in June). In consideration of the fact that inflationary pressures keep on easing and that the economic activity would recover at a sluggish pace, the Central Bank of Turkey finds it reasonable to carry on implementing an expansionary monetary policy.*

**Azerbaijan:** *this country's economy is maintaining real GDP growth rates thanks to extraction of oil, natural gas and other carbohydrate resources. In the period January-September of 2009 the GDP growth has been 6.1 percent, and 0.8 percent in the non-oil sector<sup>17</sup>. In a time-span of nine months, oil extraction has increased by 8.5 percent against the same period of the previous year<sup>18</sup>. It should be noted however that, with GDP deflator dropped by 31.3 percent, the nominal GDP has shrunk by 27.1 percent in relation to the same period of the previous year. Industry's contribution to the GDP growth has been 49.9 percent; agriculture – 6.5 percent; construction – 7.6 percent; services – 27.5 percent; and net taxes on manufacture and imports – 8.5 percent. The IMF's forecast of GDP growth is 7.5 percent for 2009 and 7.4 percent for 2010<sup>19</sup>.*

*In the period January-September of 2009, the average inflation in Azerbaijan has been 2.1 percent. There was some 0.4 percent deflation on food products; 4.3 percent inflation on non-food products; and 6.4 percent inflation on services<sup>20</sup>. In the period mentioned, the household incomes have increased by 9.8 percent; average monthly wages have grown by 15.5 percent to make up USD 370 (Manat 296.6)<sup>21</sup>.*

*As a result of export-import transactions in the period January-September of 2009, the country has seen a positive surplus of trade balance amounting to USD 5.6 billion. The foreign trade volumes, however, have decreased more than 3.1-fold in relation to the same period of the previous year, which was driven by 3.9-fold much reduction in export volumes<sup>22</sup>. In the period January-September of 2009, exports have reached nearly USD 10 billion, of which export of 20.3 million tons of crude oil amounted to USD 7.98 billion<sup>23</sup>.*

*In January-September of 2009, foreign investments in oil sector of Azerbaijan have amounted to USD 1.7 billion; foreign investments in non-oil sector have reached nearly USD 4.8 billion<sup>24</sup>.*

*In January- September of 2009, the manat's exchange rate has slightly depreciated vis-a-vis the US dollar by 0.31 percent, while the average exchange rate appreciation in a nine-month period of the year has been 2.75 percent y-o-y.*

*Relative to the end of December of 2008, economy lending has grown by 8.6 percent, while non-performing loans have been added 1.9-fold<sup>25</sup>. Furthermore, in the period January-September of 2009, there has been some 11.8 percent reduction in the volumes of bank deposits, of which deposits in national currency have shrunk by 17.3 percent and deposits in foreign currency, by 7.3 percent. As of the end of September of 2009, the share of foreign currency-denominated deposits has been 58.3 percent of total deposits<sup>26</sup>.*

*Pursuig to ensure financial stability of the banking sector and maintaining economic activity, the Central Bank of Azerbaijan lowered, on February 2, 2009, the refinancing rate by 3 percent, and 2 percent, on March 2, and a further 1*

<sup>17</sup> Source: Azerbaijan Central Bank Statistics Bulletin, January-September, 2009, Table 1.1.

<sup>18</sup> Source: <http://abc.az/rus/news/39455.html>.

<sup>19</sup> Source: <http://abc.az/rus/news/39396.html>.

<sup>20</sup> Source: Azerbaijan Statistics Committee, [http://www.azstat.org/sdds/en/P\\_1/L\\_C\\_P.shtml](http://www.azstat.org/sdds/en/P_1/L_C_P.shtml).

<sup>21</sup> Source: <http://abc.az/rus/news/39449.html>.

<sup>22</sup> Source: <http://abc.az/rus/news/39335.html>; [http://www.azstat.org/sdds/en/F\\_T/e\\_tr01.shtml](http://www.azstat.org/sdds/en/F_T/e_tr01.shtml).

<sup>23</sup> Source: <http://abc.az/rus/news/39361.html>

<sup>24</sup> Source: abc.Az, 21 October, 2009, <http://abc.az/rus/news/39447.html>.

<sup>25</sup> Source: Azerbaijan Central Bank Statistics Bulletin, January-September, 2009, Table 2.8.

<sup>26</sup> Source: Azerbaijan Central Bank Statistics Bulletin, January-September, 2009, Table 2.3.

percent, on May 25, setting it at the level of 2 percent<sup>27</sup>. Along with this, the ratio of reserve requirement in national currency as well as in foreign currency was reduced by 2.5 percent and set at the level of 0.5 percent<sup>28</sup>.

To overcome the global economic crisis, a pool of assets of the State Oil Fund, foreign exchange reserves of the Central Bank of Azerbaijan and foreign exchange deposits of the Ministry of Finance was established to create a 'security cushion' for a total of USD 18 billion or nearly 50 percent of the GDP, as of October 1 2009<sup>29</sup>.

Foreign exchange reserves of the Central Bank of Azerbaijan have decreased in the period January-September of 2009 by 16.9 percent and amounted to about USD 4.8 billion as of September 30 2009<sup>30</sup>. As of October 1 2009, the assets of State Oil Fund of Azerbaijan have amounted to USD 13.3 billion<sup>31</sup>.

**Georgia:** as in the third and fourth quarters of 2008 as well as in the first and second quarters of 2009, the country had been posting economic decline. In the first six months of 2009 the economic decline has been 8.5 percent<sup>32</sup>. In the GDP structure in the first quarter of 2009, the largest growth was recorded with regard to public administration (13.1 percent), trade sector (11.8 percent), agriculture (9.6 percent), transport (7.6 percent), and industry (12.0 percent)<sup>33</sup>. In consideration of the fact that economic growth in Georgia was slowing at a faster pace than it had been forecasted earlier the year, the National Bank of Georgia adjusted the annual GDP contraction indicator to have been in excess of 4 percent in 2009.

In the nine months of 2009, inflation in Georgia has been 2.5 percent y-o-y, while some 0.7 percent inflation was recorded in relation to December of the previous year. Moreover, compared to the previous December, deflation was recorded with regard to durable and semi-durable goods, whereas some 0.2 percent inflation was recorded with regard to nondurable goods and 4.4 percent with regard to services<sup>34</sup>.

As a result of export-import transactions realized the period January-September of 2009, the country's trade balance deficit has reached USD 2.3 billion. Relative to the same period of the previous year, exports of goods (FOB) have decreased by 23.3 percent and amounted to USD 0.8 billion and imports of goods (CIF) have decreased by 24.9 percent and amounted to USD 3.1 billion<sup>35</sup>.

In the first six months of 2009, gross inflow of foreign investments has amounted to USD 226.1 million, representing a more than 5-fold decrease y-o-y. The contraction of foreign investments has been driven by both reduced volumes of equity and other capital. In the first six months of 2009, gross inflow of portfolio investments has been negligible, having reached USD 4.2 million – in the second quarter outflow of portfolio investments has been USD 2.3 million<sup>36</sup>. In the period January-September of 2009, inflow of money transfers from abroad has amounted to USD 592.7 million, representing some 16.9 percent decrease compared to the same period of the previous year<sup>37</sup>.

In the nine months of 2009, the average exchange rate of lari has depreciated vis-a-vis the US dollar by 11.8 percent y-o-y; and relative to the end of 2008, lari's depreciation has been 0.6 percent<sup>38</sup>.

<sup>27</sup> Source: <http://www.nba.az/default.aspx?go=699>.

<sup>28</sup> Source: Azerbaijan Central Bank Statistics Bulletin, January-September, 2009, Table 2.12.

<sup>29</sup> Source: <http://abc.az/rus/news/39232.html>

<sup>30</sup> Source: <http://abc.az/rus/news/38873.html>; <http://www.nba.az/default.aspx?lng=en>.

<sup>31</sup> Source: Day.Az, 20 October, 2009; <<http://www.abc.az/rus/news/economy/177516.html>>.

<sup>32</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 1.1. In Georgia, data on GDP and GDP component dynamics for the first nine months of the year will be published on December 30 2009.

<sup>33</sup> Source: [http://www.statistics.ge/\\_files/english/nad/GDP%20at%20current%20prices.xls](http://www.statistics.ge/_files/english/nad/GDP%20at%20current%20prices.xls).

<sup>34</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 1.1.

<sup>35</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 5.4.

<sup>36</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 5.3.

<sup>37</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 5.8.

<sup>38</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 4.7.

*Pursuing to support financial stability of the banking sector in the times of global financial crisis, the National Bank of Georgia has thrice lowered the refinancing rate during the first half of the year, first time on February 18 (by 1 percent), on March 18 (by 0.5 percent) and on April 15 (by 0.5 percent), down to 6.0 percent<sup>39</sup>.*

*The volumes of bank lending have reduced by 12.9 percent in the period January-September of 2009; the volumes of loans in national currency have reduced by 30.0 percent and in foreign currency, by 6.3 percent. The share of non-performing loans in total loans has made up 4.1 percent<sup>40</sup>. The dollarization of the economy is subsiding. As of October 1 2009, the FX deposits have constituted 72.8 percent in total whereas this coefficient had been 75.8 percent as of January 1 2009<sup>41</sup>.*

*Foreign exchange reserves of the National Bank of Georgia have grown in the period January-September of 2009 by round 35.8 percent and amounted to USD 2.0 billion as of September 30 2009<sup>42</sup>. In the same period of time, Georgia's foreign debt has increased too, and as of September 30 2009 amounted to USD 3.3 billion<sup>43</sup>. The increase of foreign debt was attributable to the loans attracted from international financial organizations and a USD 500 million-worth of sale of government papers at the London Stock-Exchange<sup>44</sup>.*

## **3.2. BALANCE OF PAYMENTS<sup>45</sup>**

### **3.2.1. Current account**

In the times of slowdown of both global and domestic economies, reflected in reduced external and domestic demand, the current account deficit remained high in the third quarter of 2009. As a result, with the GDP declining, the current account to GDP ratio has been 14.0 percent in January-September (10.2 percent in the same period of the previous year). Despite a notable trade balance improvement, huge y-o-y reduction in volumes of inflow of income and private transfers prevent the current account deficit from falling further. In the third quarter of 2009 the current account deficit has reduced by USD 29.3 million y-o-y and amounted to USD 316.9 million, and its share in GDP has made up 11.8 percent.

In the third quarter of 2009 the trade balance deficit was reduced by USD 190.4 million and amounted to USD 545.6 million. In the third quarter the y-o-y decline in exports and imports were 35.6 percent and 28.8 percent, respectively. The decline of the trade balance deficit has been attributable to faster reducing imports over reducing exports.

The main cause for the deceleration of declining rates of exports in dollar terms was attributable to metal prices recovering quickly due to positive expectations from the global economy. The high rates of reduction in the real values of export has remained. This is because structural problems associated with exports hinder the positive demonstration of economic stimulation programs and real exchange rate depreciation. The decline in exports was mainly due to items "Base metals and article thereof", "Products of prepared food", "Precious and semi-precious stones, precious metals and articles thereof" and "Mineral production", with their 12.4, 7.5, 6.1 and 2.4 percentage point impacts, respectively.

Though price increases remained in trend in global markets during the third quarter, they are still at a lower level in comparison with the same

<sup>39</sup> Source: National Bank of Georgia, Press Release, January-September 2009 [www.nbg.gov.ge](http://www.nbg.gov.ge)

<sup>40</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 3.5.

<sup>41</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 3.15.

<sup>42</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 5.1.

<sup>43</sup> Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-September 2009, Table 5.2.

<sup>44</sup> Source: Georgian Business Consulting, October 9 2009, [www.gbc.ge](http://www.gbc.ge).

<sup>45</sup> The Q1 2009 data are forecasts by the Central Bank of Armenia.

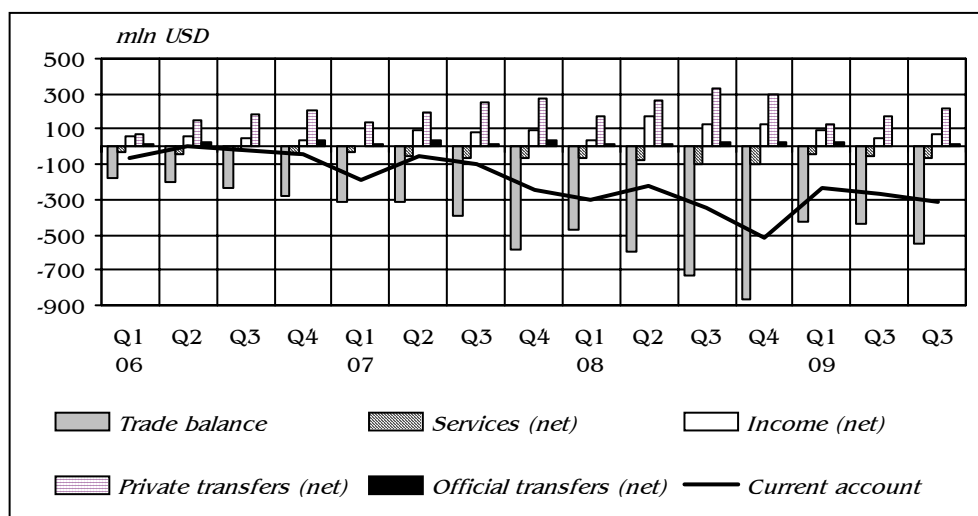
quarter of the previous year. This, coupled with the reduction of domestic demand, has led to persisting high downfalls in imports in dollar and real terms. The y-o-y declining rates of imports of items “Machinery and equipment”, “Machinery and apparatus” have notably decelerated while import of item “Base metals and article thereof” has increased by 9.7 percent y-o-y thanks to anti-crisis measures. Items “Products of prepared food”, “Transport means”, “Precious and semi-precious stones, precious metals and articles thereof” and “Textile articles” (with their contributions of 2.1, 4.7, 8.3, 4.6 and 3.8 percentage points, respectively) have greatly contributed to the reduction of imports.

There have been no essential shifts in terms of geographic distribution of external trade, and the trends of the preceding quarter persisted. The shrinkage of the trade balance deficit was driven by reduction in trade balance deficit of all groups of countries. Thus, the trade balance deficit reduced mainly due to the reduction in trade balance deficit with the USA, Turkey, China and Japan by USD 55.3 million, USD 37.1 million, USD 49.7 million and USD 24.1 million, respectively. The trade balance deficit with the EU states has reduced by USD 17.5 million (by 10.3 percent) and with the CIS<sup>46</sup> states, by USD 14.0 million (by 5.6 percent).

The decline in the trade balance deficit has led to the reduction of the balance of services deficit: in the third quarter of 2009 it shrank by 33.6 percent y-o-y to USD 64.8 million mostly due to a decrease in the balance of transport services deficit. The export and import of tourism services have increased, respectively, by 11.9 percent and 4.3 percent y-o-y. As a result, in the third quarter export of services decreased by 0.7 percent y-o-y and import of services decreased by 11.3 percent y-o-y.

Driven by still adverse developments in the Russian economy<sup>47</sup>, private remittances<sup>48</sup> kept on slowing down at fast rates (In Russia, the GDP decline in the third quarter of 2009 made up 9.4 percent y-o-y). In the third quarter of 2009, the net inflow of seasonal worker income has reduced by 37.1 percent y-o-y and amounted to USD 152.3 million while item “Income on investment” reported net outflow amounting to USD 80.0 million. In the outcome, item “Income” reported net inflow amounting to USD 72.4 million. In the third quarter of 2009 high declining rates in private transfers persisted, and some 36.1 percent y-o-y decline has been recorded.

*In the third quarter of 2009 high declining rates in current account deficit persisted*



<sup>46</sup> From September 2009 on, Georgia indicators will not be included in the CIS states' indicators.

<sup>47</sup> The main portion of private remittances comes from Russia.

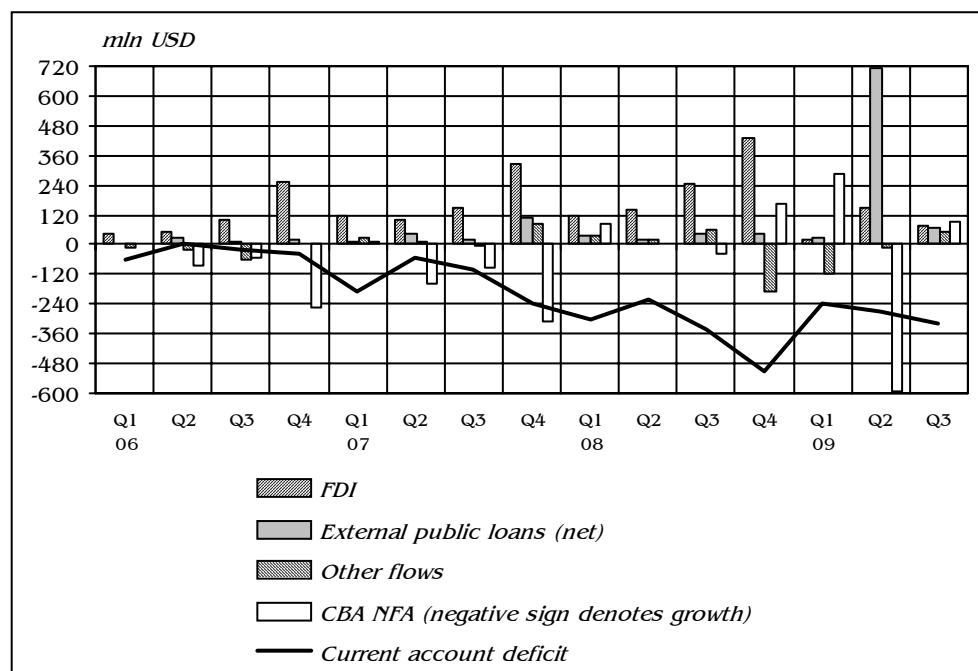
<sup>48</sup> In the third quarter of 2009, some 39.6 percent y-o-y decrease in net non-commercial transfers was recorded. As such, inflow of non-commercial transfers have reduced by 36.7 percent y-o-y and outflow of non-commercial transfers have reduced by 13.9 percent y-o-y.

### 3.2.2. Capital and financial account

In the third quarter the capital and financial account posted net inflow amounting to USD 221.2 million, down by 42.4 percent or USD 162.9 million against the same period of the previous year. Net inflow of funds generated primarily from public loans and foreign direct investment. However, the inflow of these funds has not been sufficient to finance the current account deficit, which resulted in reduction of net foreign assets of the Central Bank by USD 95.7 million.

Individual items of the capital and financial account posted the following flows: inflow of capital transfers amounted to USD 26.4 million (USD 34.2 million in the third quarter of the previous year). Net Inflow of public loans amounted to USD 79.2 million in the third quarter of 2009.

*In the third quarter of 2009 the current account deficit exceeded net inflow of capital and financial account*



Item "Other investment"<sup>49</sup> reported net inflow of USD 49.5 million determined primarily by USD 49.2 million decrease of net foreign assets of the private sector (commercial banks excluded).

### 3.3. INTEREST RATES, EXCHANGE RATE, AND MONETARY DEVELOPMENTS

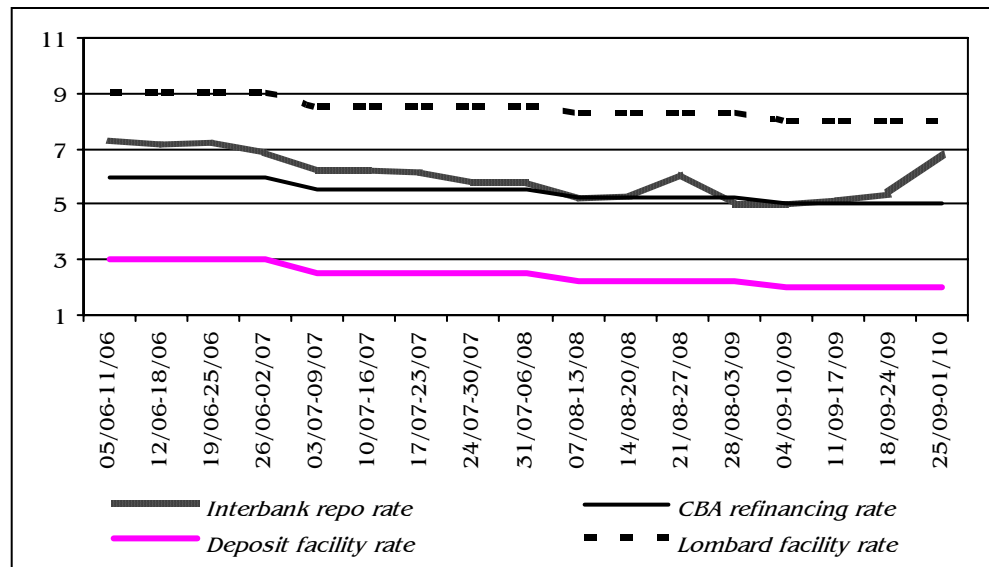
#### 3.3.1. Interest rates

In the third quarter of 2009 some improvement of the global economic climate has brought in price increases on raw materials and certain food products, which in turn affected respective domestic prices. During the quarter, however, low inflation environment was created, and the 12-month inflation stood below the projection, staying at the lower border of the target band. Therefore, stressing the importance of implementing an expansionary monetary policy, the Central Bank lowered the Refinancing Rate in the third quarter to 5 percent from 6 percent.

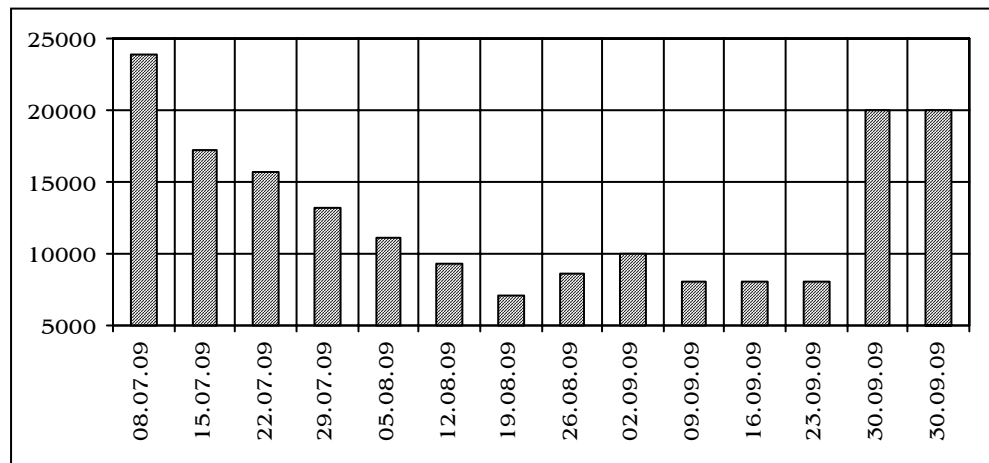
In the meantime, given the rule of even distribution of interest rates on standing facilities against the repo interest rate, the Central Bank lowered these rates accordingly and set them at the level of 2.00 percent and 8.00 percent in September.

<sup>49</sup> Net foreign assets of the banking system and other private sector.

*Interest rates of CBA operations and market repo rates*



*CBA repo operations in the third quarter of 2009 (million AMD)*



In the third quarter of 2009 the banking sector saw high excess liquidity which affected the operations carried out by the Central Bank. In particular, the Central Bank continued offering commercial banks to enter into repo transactions each Wednesday. As a result, the average weekly volumes of repo operations performed in the third quarter amounted to AMD 12.3 billion (AMD 35.5 billion in the same period of the previous year). The Central Bank further resorted to using the long term repos, with a total volume of AMD 1.5 billion at the end of the quarter (AMD 4 billion in the previous quarter).

During the third quarter the Central Bank continued purchasing treasury bills in the secondary securities market.

During the quarter the average daily volume of deposit invested by commercial banks with the Central Bank amounted to AMD 13.2 billion against AMD 3.9 billion in the previous quarter.

Interest rates of government securities and repo transactions have fallen due to expansionary policy which the Central Bank had been implementing since the beginning of the year.

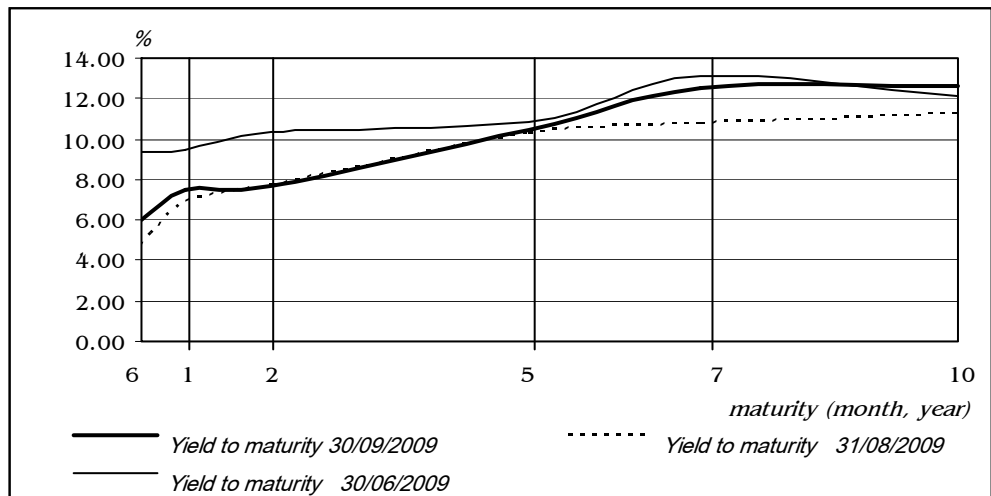
The volume of operations performed in the interbank and intrabank repo market during the third quarter made up AMD 122.4 billion, which was double the volume recorded in the previous quarter. The market repo interest rate was 5.45 percent in September against 7.48 percent recorded in June.

The issuance and allocation of short term treasury bills in the third quarter of 2009 made up AMD 14 billion against AMD 23.0 billion recorded in the previous quarter.

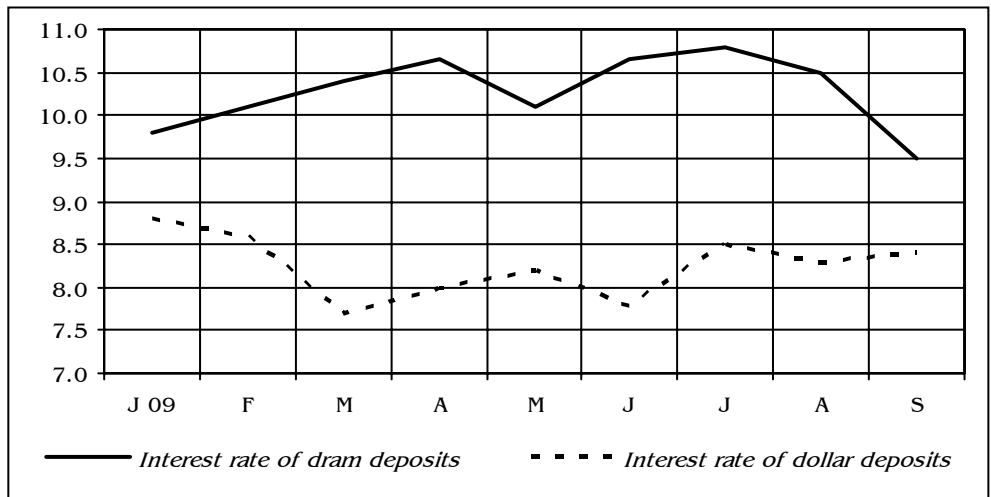
Interest rates in primary market of treasury bills have reduced notably during the third quarter of 2009. In September, the average yield on short-term papers was 6.2 percent; that of medium-term papers was 10.27 percent and that of long-term papers was 13.33 percent, down by 4.5, 3.6 and 2.2 pp respectively against June<sup>50</sup>.

The yield curve analysis shows that in September of 2009, relative to June of 2009, in the secondary market of government securities yields have fallen all along the curve, with an exception of the long-term segment. The prevailing part of the change in the position (102 percent) is attributable to the convexity of the curve (from 0.18 to 0.36), which points to the widened spread between interest rates of long term and short term treasury bills.

*Interest rates has decreased in the secondary market*



*In the banking sector, interest rates of dram deposits dropped*

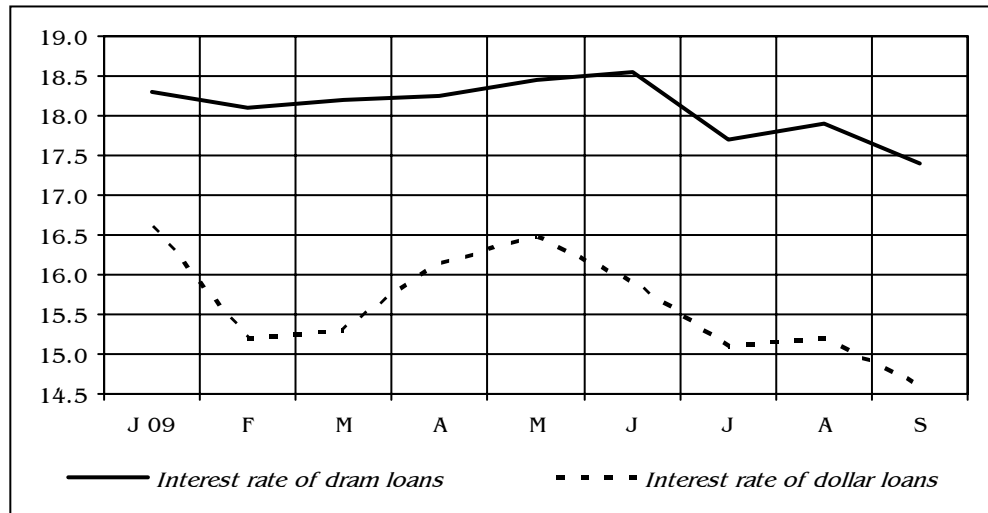


Interest rates of loans and deposits in Armenian dram and US dollar trended down. In September of 2009, interest rates of dram and dollar deposits were 9.5 percent and 8.4 percent, respectively. Relative to the previous quarter, interest rates of dram deposits dropped by 1.1 pp whereas interest rates of dollar deposits grew by 0.6 pp. As a result, the spread of interest rates of dram and dollar deposits has been 1.1 pp against 2.8 pp recorded in the previous quarter.

<sup>50</sup> In the closing days of the third quarter interest rates demonstrated short-term volatility in the upside direction.

In September of 2009 interest rates of dram loans made up 17.4 percent, and dollar loans, 14.6 percent, down by 1.2 pp and 1.3 pp, respectively, in relation to the previous quarter. As a result, in September the spread of interest rates of dram and dollar loans was 2.8 pp in relation to 2.6 pp recorded in the previous quarter.

*In the banking sector, interest rates of dram and dollar loans dropped*



In September of 2009, the interest rate spread of loans and deposits in Armenian dram remained unchanged, at 7.9 pp., while the interest rate spread of loans and deposits in US dollar was 6.2 pp, dropping by 1.9 pp from 8.1 pp recorded in June of 2009.

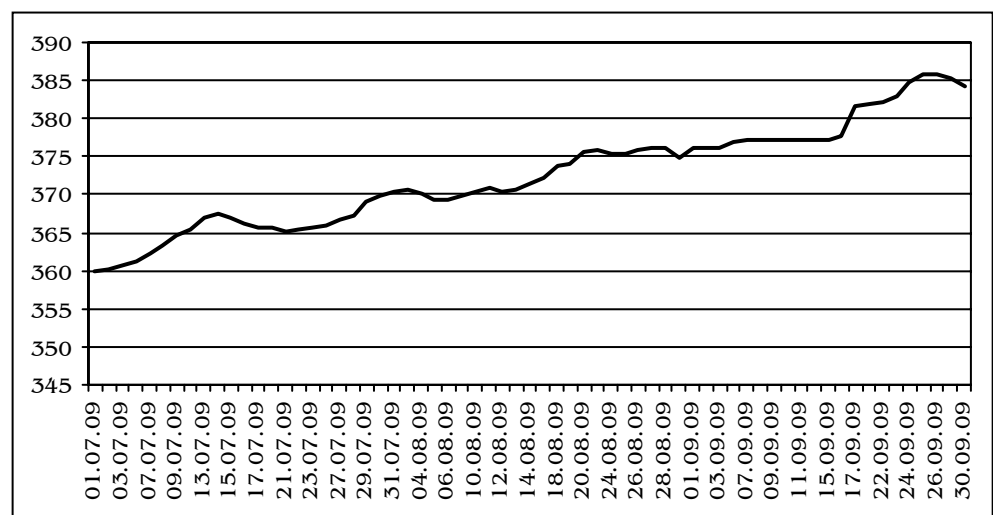
### 3.3.2. Exchange rate

In the domestic foreign exchange market in the third quarter of 2009 the dram's exchange rate versus the US dollar showed a depreciation trend.

At the end of the quarter, relative to the end of the previous quarter, the dram has depreciated versus the dollar by 6.3 percent to 384.28 from 360.06 for one dollar. Whereas at the end of September, relative to the end of September of the previous year, the dram has depreciated versus the dollar by round 21.4 percent to 384.28 from 302.12 for one dollar.

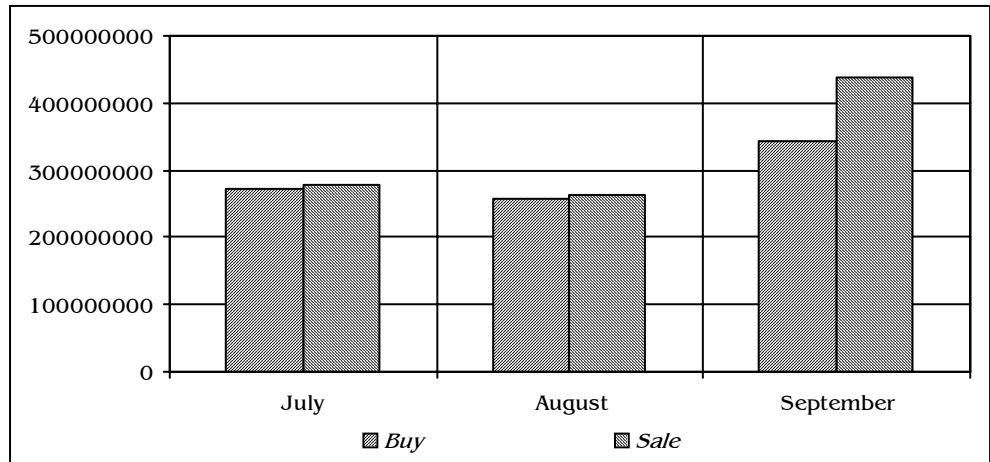
In the third quarter of 2009, relative to the same period of the previous year, the average quarterly AMD/USD exchange rate has depreciated by 18.9 percent to 372.64 from 302.30 for one dollar.

*AMD/USD exchange rate dynamics in the third quarter of 2009*



The aggregate volume of interbank market transactions carried out during the third quarter of 2009 has been USD 1854 million<sup>51</sup>, down by 23.5 percent from the third quarter volumes of the previous year (USD 2424 million).

**Operations in the foreign exchange market**



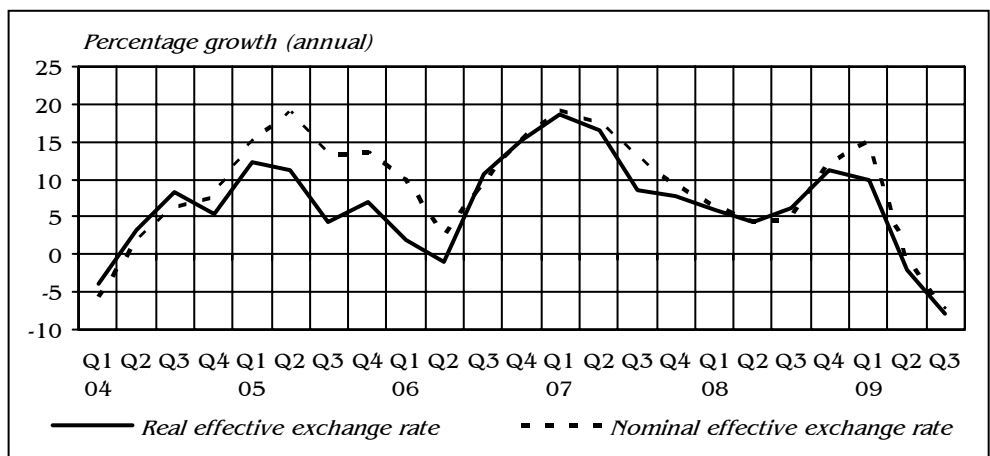
The volumes of transactions in the EUR/AMD exchange market have increased, with an aggregate volume reaching EUR 267 million, up by 21.7 percent against the previous year's indicator.

In the third quarter the Central Bank has sold round USD 98 million to commercial banks to handle the dram supply and moderate volatilities in the dram's exchange rate.

During the third quarter the y-o-y depreciation of the dram's exchange rate versus the dollar has been faster compared with the average weighted depreciation of partner countries' exchange rate versus the dollar. This has driven the dram's nominal effective exchange rate to depreciate by 7.4 percent y-o-y and by 3.2 percent q-o-q. In September of 2009 the nominal effective exchange rate depreciated by 12.7 percent y-o-y.

In the third quarter of 2009, the average quarterly inflation has been 3.0 percent y-o-y in Armenia and 4.9 percent y-o-y in partner countries. The weighted average inflation in partner countries has been influenced by inflation in Russia and Ukraine, by 2.5 and 1.3 pp, respectively. As a result, in the third quarter of 2009 the real effective exchange rate has depreciated by 7.9 percent y-o-y (2.1 percent in the previous quarter), while the depreciation in September of 2009 has been 12.9 pp in relation to September of the previous year.

**In the third quarter of 2009, real and nominal exchange rates kept on depreciating**

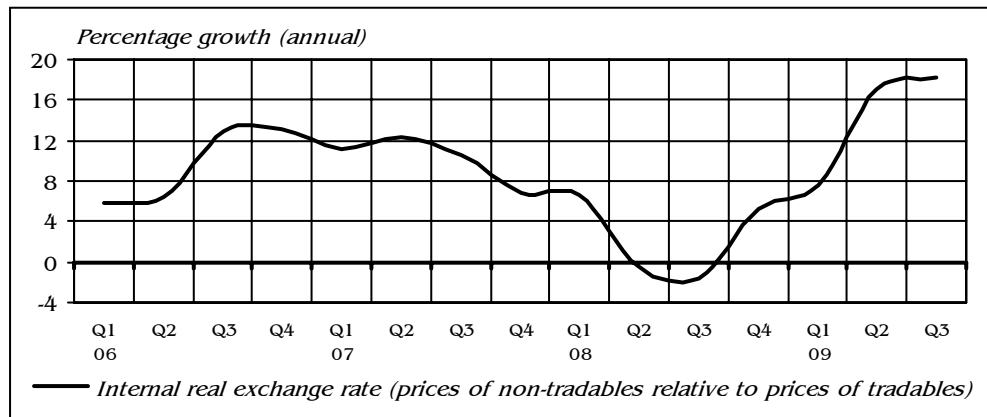


<sup>51</sup> Including the volumes of trades on the stock-exchange totaling USD 157.09 million.

In the third quarter of 2009, the internal real exchange rate appreciated by 18.3 percent y-o-y (appreciation in the previous quarter has been 17.0 percent), which is a result of faster growth of prices in non-tradable sector over prices in tradable sector.

In the third quarter prices of non-tradable goods and services have increased by 17.4 percent y-o-y, whereas prices of tradable goods have decreased by -0.78 percent change versus 16.9 percent and -0.02 percent, respectively, recorded in the previous quarter. In the third quarter prices of tradable goods remained almost unchanged under the y-o-y depreciation of the dram's nominal exchange rate and notable y-o-y drop in international prices. Increase of prices in non-tradable sector was determined mainly by risen gas and electricity tariffs.

*In the third quarter of 2009, internal real exchange rate kept on appreciating*

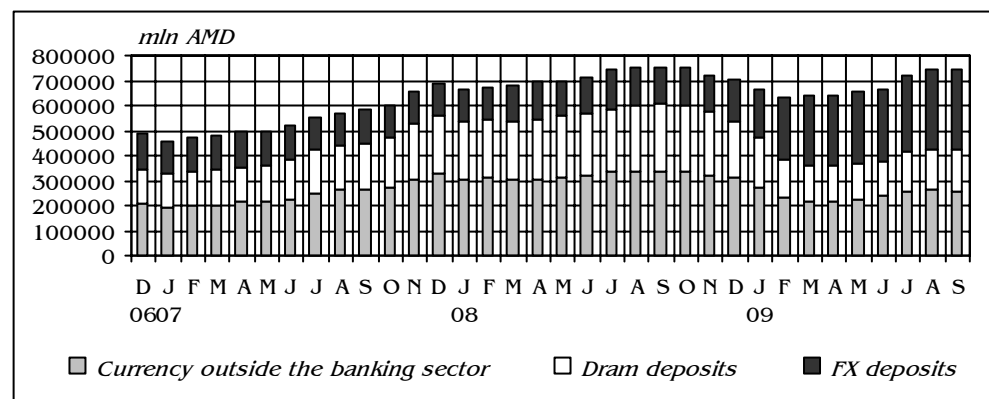


### 3.3.3. Monetary developments<sup>52</sup>

In the third quarter of 2009, there have been trends of stabilization observed in the financial market following somewhat slowed rates of decline in the global economy, as well as due to the Central Bank's consistent policy of quantitative easing and interest rate reduction. These trends were most pronounced in the performance of monetary indicators as they demonstrated steady growth patterns in the second and third quarters after the first quarter slackening. In the period April-September the dollarization has notably weakened in contrast to high advancement in the first quarter.

As actual figures show, dram broad money has grown by 11 percent q-o-q due to the growth in dram deposits by 16.7 percent and increase of currency in circulation by 7.6 percent. For comparison, in the previous quarter the indicators named above reported quarter-on-quarter increases by 6 percent, -1.6 percent and 11.3 percent, respectively.

*Dram broad money has grown fast enough in the second and third quarters after a steep slowdown in the first quarter*

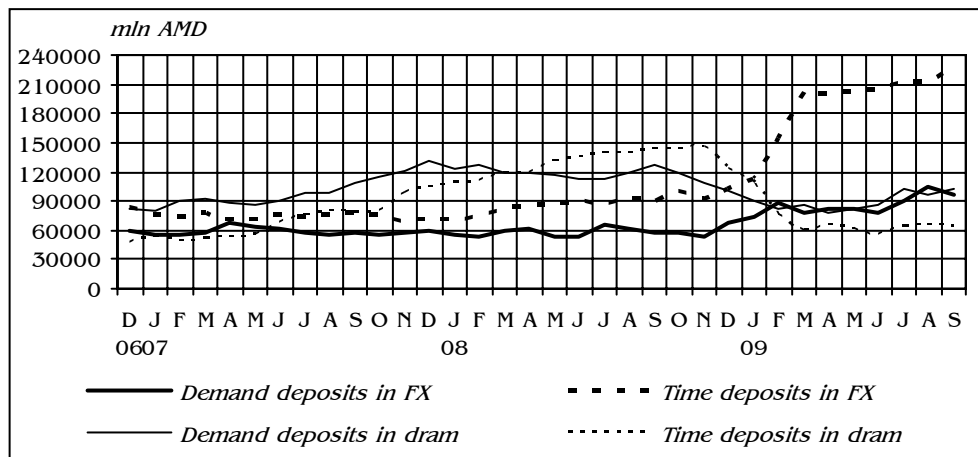


<sup>52</sup> Starting from the third quarter of 2008, the Inflation Report covers summary balance sheet indicators of depository institutions, i.e. the Central Bank, commercial banks and credit organizations.

In the reporting period, the dollarization of the economy has accelerated, reflecting 13.8 percent q-o-q growth of FX deposits in dram terms, whereas the same indicator's growth in the previous quarter was merely 1.2 percent.

While in previous quarters some growth was recorded in the structure of demand deposits and time deposits in foreign currency, this quarter reported growth in respect of all components by maturity and currency, at relatively faster rates. Demand deposits and time deposits in foreign currency have grown by 22.3 percent and 10.5 percent q-o-q (by 14.6 percent and 3.5 percent in dollar terms). Demand deposits and time deposits in dram have grown by 18 percent and 14.7 percent q-o-q.

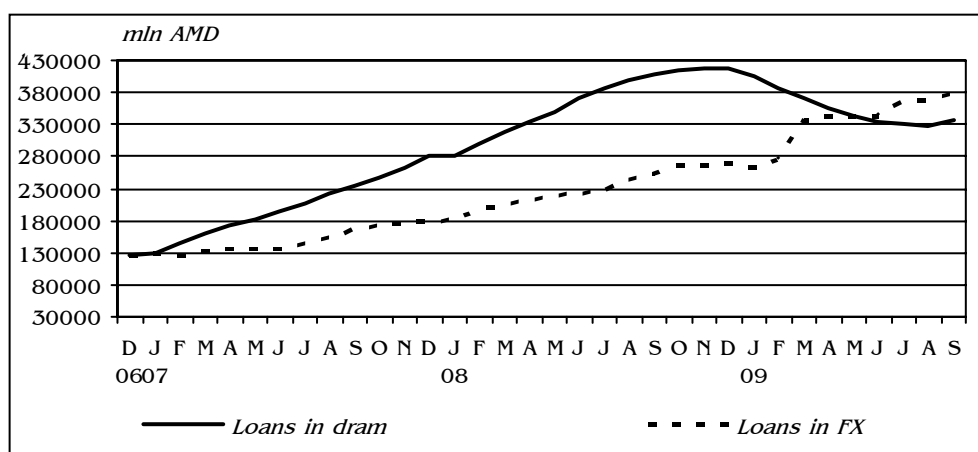
*Starting 2009, the volume of dram deposits again fell behind that of FX deposits*



As a result of flows of the above components, broad money has grown by 12.2 percent q-o-q.

By supply-side factors, monetary aggregates have grown totally owing to net domestic assets of depositary institutions, with 56.1 percent or AMD 138.6 billion increase in relation to the previous quarter, while net domestic assets have decreased in this period of time by 13.9 percent or AMD 57.7 billion.

*Starting 2009, loans in dram have reduced but again turned to growth in the third quarter*

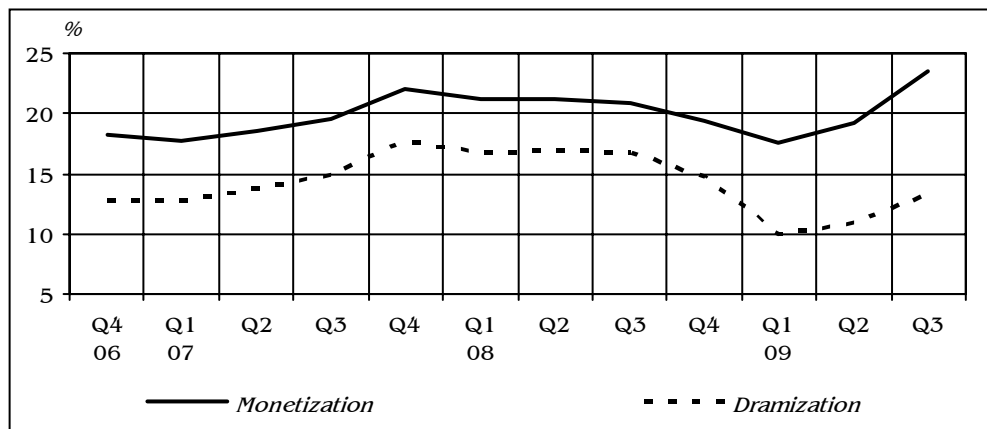


Despite the tightening of credit conditions the economy lending saw certain activation during the quarter, which was markedly attributable to loan resources provided by the banking sector to the economy (AMD 18.1 billion) as part of anti-crisis measures taken jointly by the Central Bank and the Government as well as attributable the growth of loans provided by banks at their own expense. At the end of the third quarter, relative to the

previous quarter, lending volumes have increased by 5.6 percent. During the quarter FX loans in dram terms have increased by 11.4 percent (the growth in the first and second quarters has been 26.2 percent and 17.6 percent, respectively). The growth of lending in dollar terms has been 4.4 percent (the growth in the first and second quarters has been 5.3 percent and 3.4 percent, respectively). Volumes of lending in dram have increased in this quarter by more than 1.1 percent as opposed to the decrease recorded in previous quarters, by 11.5 percent and 10 percent, respectively. However, the dram to foreign currency ratio of funds made available for lending is still on the side of foreign currency, making up 47/53 versus the previous quarter's ratio of 49/51.

In the third quarter of 2009, the dollarization of the economy (measured as a ratio of foreign currency deposits to broad money) made up 43.3 percent, a more than 2.2-fold increase in relation to the respective indicator in the previous year.

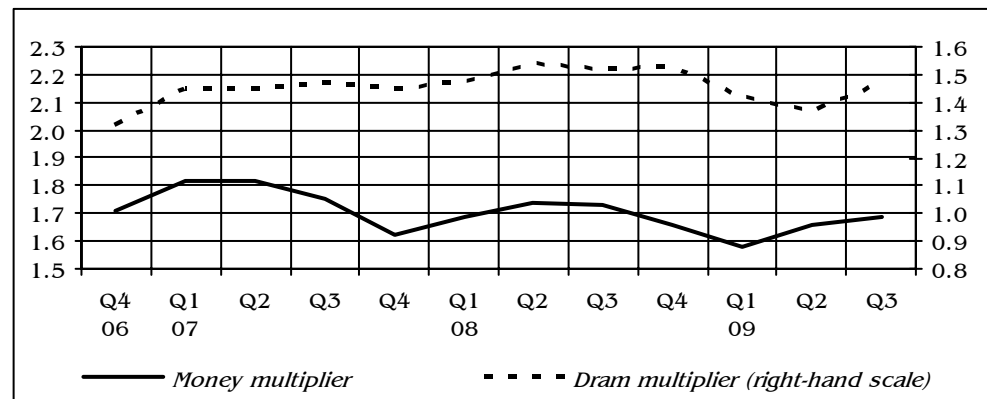
*In the third quarter of 2009, the monetization and dramization ratios have somewhat grown*



Given the economic stabilization the monetization and dramization ratios, described as indicators of financial intermediation, have trended upward starting the second quarter of 2009 (these have dropped by 9.3 percent and 33.1 percent in the first quarter but increased by 9.1 percent and 11.1 percent in the second quarter, and by 18.7 percent and 20.9 percent in the third quarter).

Some 7.3 percent increase of the dram multiplier relative to the previous quarter's 3.5 percent drop points to the stabilization of financial intermediation in dram, in concurrence with the slowing of money multiplier from the previous quarter's 5.1 percent to 1.8 percent growth.

*The money and dram multipliers*

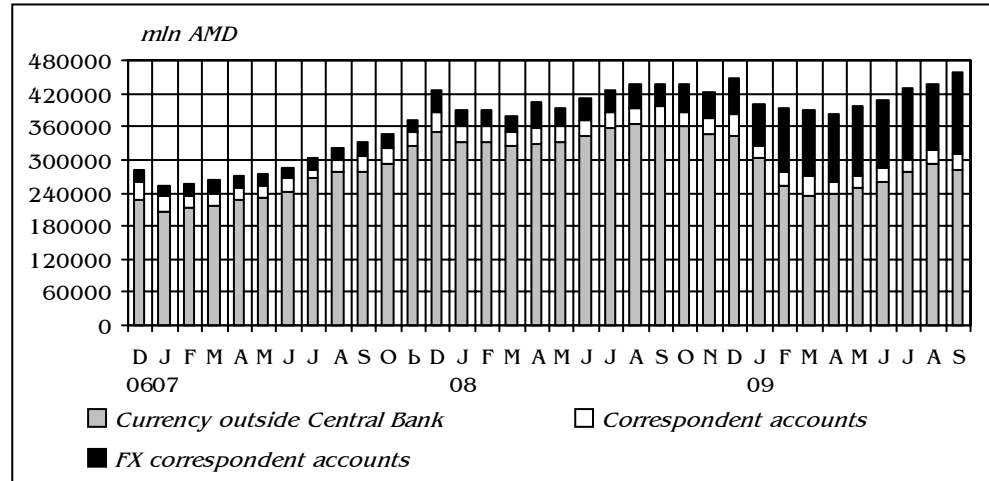


The actual results of the third quarter suggest that the dram intermediation has grown to some extent owing to an active policy of quantitative easing implemented by the Central Bank.

## Monetary base

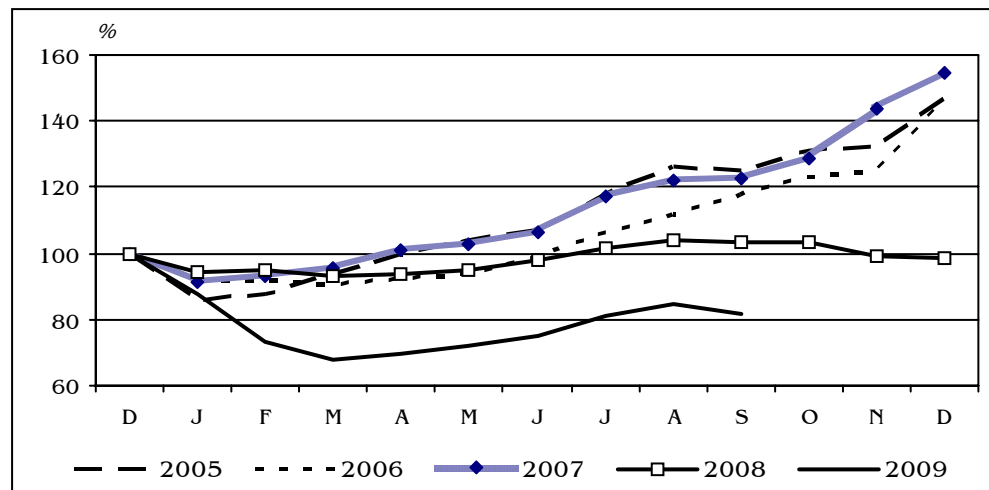
With some stabilization back on track, the Central Bank has increased money supply in the third quarter of 2009 too, consistent with the economy's demand for the dram. As a result, at the end of September, the q-o-q growth of monetary base has been 13.2 percent (versus 4.1 percent growth in the second quarter and 12.9 percent reduction in the first quarter). As regards the growth of monetary base, some 8.8 percent growth of currency outside the Central Bank and 20.7 percent increase of funds with correspondent accounts of commercial banks contributed to the growth.

*FX correspondent accounts still hold a large share in the structure of monetary base*



Currency outside the Central Bank has recurred in the performance over 2008 with only a difference that it decreased at a faster rate during the first quarter of 2009.

*Currency outside the Central Bank decreased at a faster rate in the first quarter of 2009*



## 3.4. AGGREGATE DEMAND AND AGGREGATE SUPPLY

### 3.4.1. Aggregate demand

#### Domestic demand

*Private consumption and investments*<sup>55</sup>. In the third quarter of 2009 the domestic demand declined further, mostly determined by a considerable reduction in private spending. This has been due to contraction of private sector incomes because of reduced remittances. Uncertainties in the investment environment and unstable expectations for

<sup>55</sup> The real growth indicators of private consumption and investments for the third quarter are the Central Bank estimations. The actual figures of these indicators are available as of the second quarter of 2009. Estimations of real growth presented in this section are relative to the same quarter of the previous year, unless otherwise stated.

economic activity have further contributed to the reduction in private spending.

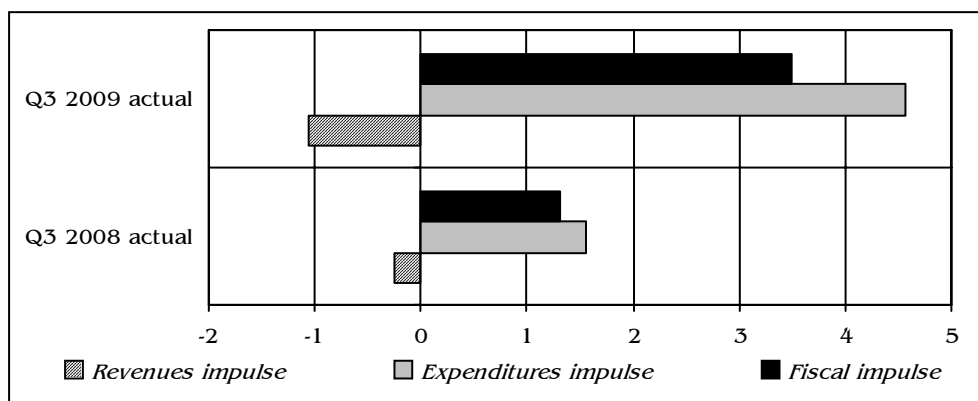
In the third quarter of 2009, the domestic demand has decreased nearly by 17 percent in real terms in contrast to 11 percent growth recorded for the same period of the previous year. The decrease of the domestic demand was principally determined by contracted private expenditures, whereas about 8 percent increase in public expenditures in nominal terms and a high public expenditures deflator have resulted in about 4 percent reduction in real expenditures.

In the third quarter of 2009, private spending has decreased nearly by 17 percent in real terms in contrast to 12 percent growth recorded for the same period of the previous year. In the structure of private spending, investments have reduced by more than 38 percent, reflecting some 66.8 percent slowdown in construction financed by households and organizations. The reduction in private consumption has been 4 percent against 8 percent growth of the respective indicator recorded in the previous year.

In the third quarter the real private sector expenditures had a contractionary impact on inflation. Based on the Central Bank estimations, the estimated actual level of real private expenditures has been below its natural/potential level nearly by 5 percent. This has created deflationary pressures in the consumer market pushing inflation down by 1.5 pp.

**Public consumption and investments<sup>54</sup>.** In the third quarter of 2009, the fiscal policy's impact on the aggregate demand has been expansionary, which was determined by increased public expenditures and economy lending owing to realization of anti-crisis programs by the Government. The fiscal sector had 3.5 pp expansionary impact on the aggregate demand, which was attributable to negligibly restrictive influence by revenues and expansionary influence by expenditures.

*In the third quarter of 2009, the fiscal impulse had an expansionary impact*

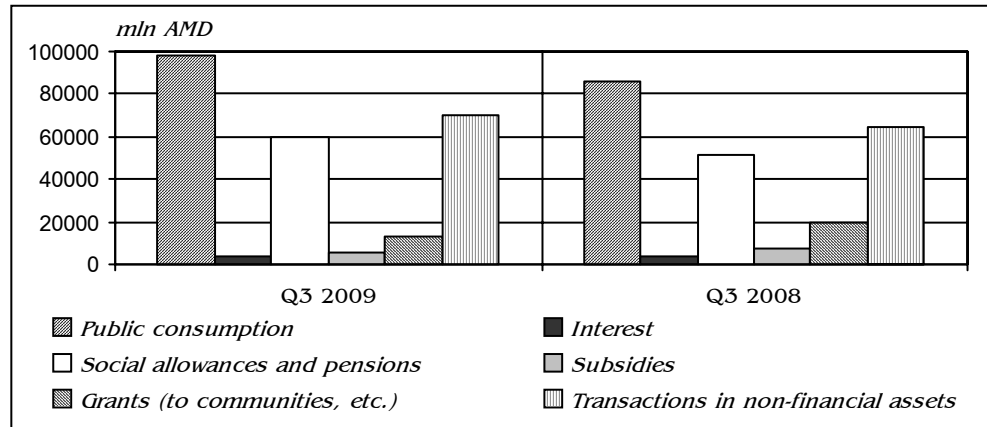


Further decline in economic activity in Armenia in the first half and in the third quarter of the year had its continuous effect on the state budget as well, especially with regard to the level of tax revenue collections. In the third quarter, too, the indicator of state budget revenues was considerably lower from the projected revenue levels outlined in quarterly proportions set by the Government as well as in adjusted program indicator for the quarter. Overall, based on the quarterly results, the state budget revenues

<sup>54</sup> Preliminary actual data on consolidated budget were used in the analysis of the fiscal sector for the third quarter of 2009. The classification was done in compliance with classification outlined in the Manual "Government Finances Statistics - 2001". The calculation of impulses was also based on the third quarter preliminary consolidated budget indicators and done in comparison with the same period of the previous year, using an approach of comparable statistics.

had some 1.0 percent restrictive impact on the aggregate demand, which was determined by faster declining rates of GDP in relation to revenues.

*In the consolidated budget expenditures in the third quarter of 2009 only subsidies and other transfers reduced*



On the part of expenditures, 4.5 pp<sup>55</sup> expansionary impulse was recorded in the third quarter of 2009, determined by the increase of expenditures in relation to the same period of the previous year and notably lower GDP level. In the third quarter, public expenditures have grown by about 8 percent in relation to the same period of the previous year. Current expenditures have increased by 7.8 percent; expenditures in Item 'Transactions with non-financial assets', by 8.5 percent. In current expenditures, public consumption has grown by nearly 13.8 percent y-o-y and allowances and pensions, by 18 percent y-o-y. Conversely, subsidies and other transfers have reduced by 26 percent and 33 percent.

Expenditures in item 'Transactions with non-financial assets (capital expenditures)' have notably increased in the first half and in the third quarter of 2009 due to external financing received through PIUs. The share of expenditures disbursable from external financing has amounted to 40 percent (22 percent in the same quarter of the previous year).

Based on the nine-month results, expenditures have grown by 10 percent in relation to the same period of the previous year, which is generally consistent with the Government's anti-crisis program to cushion the downfall of economic activity. In the period January-September current expenditures have grown by 7.7 percent and expenditures in item 'Transactions with non-financial assets', by round 20 percent.

State budget revenues have reduced by 14 percent in relation to the third quarter of the previous year; in the revenues structure, only tax revenues<sup>56</sup> have reduced (by 18 percent y-o-y), while social security charges and other revenues have reported y-o-y growth of 1.2 percent and 30.7 percent, respectively.

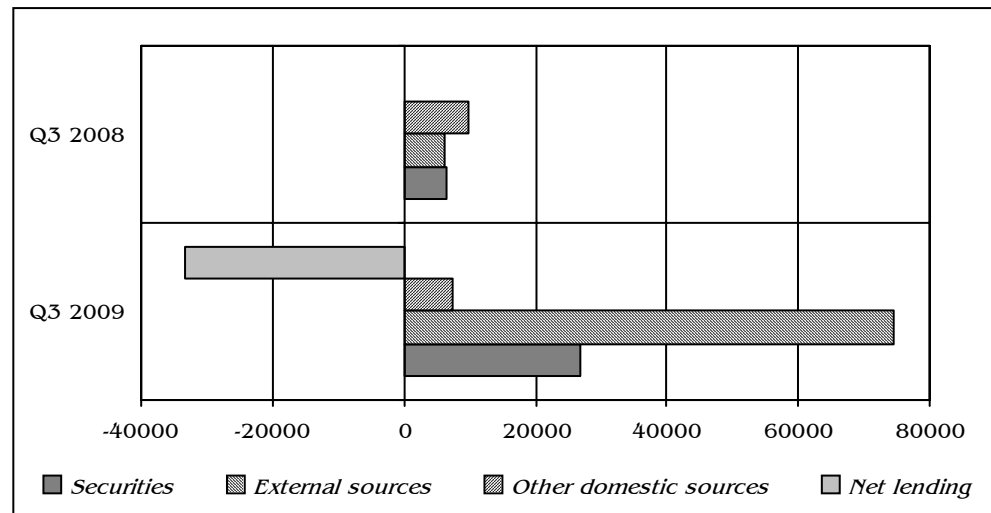
In third quarter, the decrease of indirect taxes amounted to 21 percent, due to decrease of imports volumes and direct taxes decrease by 3.6 percent. The share of indirect taxes has reduced by 2.4 pp and amounted to 63 percent of tax revenues, whereas the share of direct taxes has increased by 3.8 pp and amounted to 25.7 percent of tax revenues.

Based on the nine-month results the decrease of revenues has been 13.6 percent. The decrease of tax revenues has been 18 percent while the increase of other revenues and social security charges has been 31.7 percent and 2.1 percent, respectively.

<sup>55</sup> The GDP used in the calculation of the revenues impulse represents actual nominal GDP and the GDP used in the calculation of the expenditures impulse represents estimated level of potential GDP.

<sup>56</sup> The tax revenues also include state duty.

*In the third quarter of 2009, external sources for deficit financing prevailed*



It is worth to mention that the main impact of government anti –crisis measures and those expansionary impact of fiscal sector was expecting in the second half of the year.

In the third quarter of 2009, the budget deficit has been AMD 75.4 billion<sup>57</sup> or about half of the deficit for the past nine months.

The economy stabilization program, SME development program, rehabilitation zone program and other relevant programs will continue to be financed during the fourth quarter of 2009, too, which will generate a high level of budget deficit during the year. The fiscal policy will have an expansionary impact on the aggregate demand.

*The main macroeconomic indicators in Q3 2008 and Q3 2009, in real terms*

Item	Q3 2008 / Q3 2007	Q3 2009 / Q3 2008
Real GDP	11.1	-20.8
Domestic demand	11.3	-16.6
Consumption	7.8	-5.2
Public	5.7	-10.7
Private	8.2	-4.1
Capital investment	17.4	-35.2
Public	-11.4	14.5
Private	19.7	-38.2
Export <sup>58</sup>	-6.9	-5.0
Import <sup>58</sup>	12.9	-18.0

### 3.4.2. Aggregate supply<sup>59</sup>

Adverse impact of the global economic crisis was most eminent in the third quarter of 2009. In the period January-July economic decline reached peak (18.5 percent y-o-y). However, in the next two months it showed some stabilization patterns mostly due to the growth recorded in services, construction and agriculture. As a result, as it was expected, the GDP declining rates slowed down, under which circumstance the y-o-y decline in the period January-September<sup>60</sup> has made up 18.3 percent, driven by decline in all branches of the economy, except for the services.

<sup>57</sup> The indicator is preliminary and is taken from preliminary report of the state budget as prepared by the Ministry of Finance.

<sup>58</sup> This relates to the export and import of goods and services.

<sup>59</sup> This section provides y-o-y growths, unless otherwise indicated.

<sup>60</sup> In August the GDP grew by 17% against July, due to the growth recorded in agriculture (24.1%), construction (7.5%) and services (3%), while in September, against August, the growth of the DGP by 4.8% was the result of growth recorded in industry (6.4%), agriculture (29.2%), construction (25.6%) and services (6%).

**Industry** reported 10.3 percent y-o-y decline in value added in the third quarter (10.9 percent y-o-y decline in the period January-September), mainly due to the decreases recorded in production volumes in chemical industry, food industry and production of construction materials.

Particularly, the real decline of food industry in the period January-September has been 6.8 percent y-o-y. During the quarter meat and milk production volumes have reduced by 5.4 percent and 2.2 percent, respectively, due to the decline in animal breeding. At the same time, notable decreases have been posted with regard to brandy (22.6 percent), non-alcoholic beverage (25.3 percent), mineral water (38.5 percent), spring water (41.9 percent), canned food (16.8 percent) and salt production (18 percent). Increases in volumes of production of vegetable oil (80.9 percent), natural juice (46.4 percent), meat product (24.1 percent), confectionery (13.6 percent) and wine (20 percent) have somewhat eased overall decline in food industry. The volumes of production of construction materials kept on shrinking (by 29.2 percent) due to reduced production of cement, aluminum and metallo-plastic items because of declined construction volumes as well as due to 48 percent reduction in chemical industry because of termination of production of caustic soda and synthetic rubber<sup>61</sup>.

Growth has been posted in metallurgy, 12.3 percent y-o-y due to high growth of production of copper concentrate, aluminum rolls, aluminum foil as well as production of tobacco, rubber and plastic items, respectively, by 21.3 percent and 24.7 percent y-o-y.

Some 16.5 percent decline has been posted with regard to energy due to reduced demand for electricity and gas as well as temporary suspension of the operation of the nuclear power plant<sup>62</sup>.

**Construction** was also affected notably by the adverse developments in world economy, reflecting reduced capital inflow and household income. As a result, the value added of construction has declined by round 43.8 percent in the period January-September. The decline in construction volumes has been attributable mostly to reduced volumes of construction financed by households, 73.7 percent y-o-y, whereas the decline in construction financed by private organizations has been 4.6 percent y-o-y.

As a result, there have been notable changes in the construction financing sources: reduced household construction was concurrent with increased construction supported by private organizations, international loans, state budget and community funds.

Concerning branch structure of construction, in the period January-September of 2009, the deepest decline has been posted with regard to construction in trade (57.0 percent), residential housing (93.1 percent), and processing industry (31.1 percent), whereas increases were recorded in construction in energy and agriculture, by 2.7-fold and 29.6 percent y-o-y, respectively.

**Agriculture** reported 0.7 percent y-o-y decline in value added in the third quarter, under which circumstance the decline of value added in the period January-September has been 1.3 percent y-o-y. The decline has been attributable to reduced volumes in plant-growing (1.5 percent y-o-y) due to poor grains output (4.4 percent) and animal breeding (0.9 percent y-o-y) due to reduced meat and milk production (6.4 percent).

**Services** reported some 1.7 percent decline in value added, in contrast to previous quarters' performance, whereas the January-September

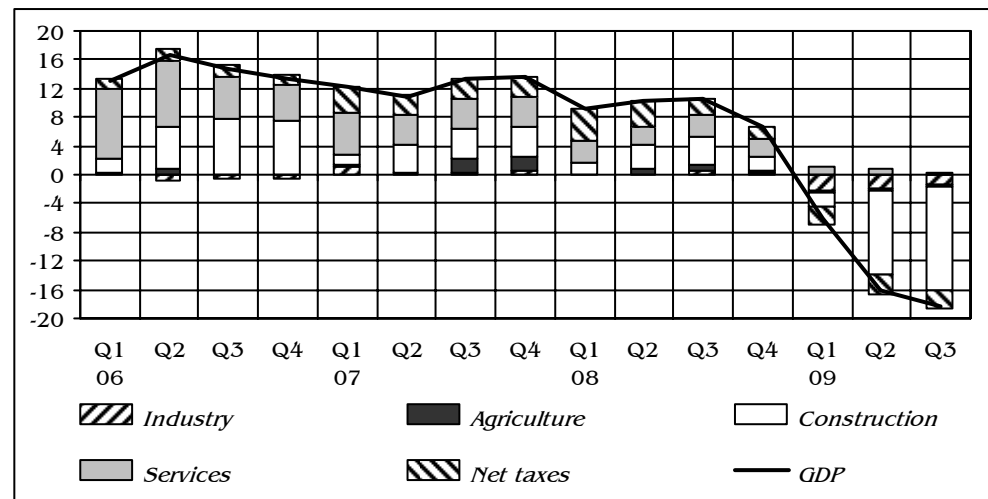
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<sup>61</sup> Temporary suspension of Nairit plant was conditioned by repair works in the workshop that was damaged from fire on May 14, 2009 and repair works in other workshops.

<sup>62</sup> From September 5, 2009, operation of the Armenian nuclear power plant was suspended temporarily for scheduled repair purposes for the duration of 46 days.

growth has been merely 0.5 percent y-o-y. The growth rate declined in wholesale trade (mostly consumer goods trade turnover) and declined car sales, respectively by 9.5 percent and 44.8 percent y-o-y.

*The real GDP growth rate and Sector contributions*



In the meantime the volume of rendered services has reduced in the period January-September by 1.2 percent y-o-y. Relatively deeper decline has been posted with financial services (13.1 percent), transport (7.7 percent) and travel service (15.6 percent).

### 3.5. LABOR MARKET <sup>63</sup>

In the third quarter of 2009, some growth in nominal wages was observable in the economy fostered by increase of wages in budget-supported organizations and private sector companies. The unemployment rate has also responded to the economic slowdown with a certain time-lag. As a result, the labor productivity decreased abruptly, combined with rising nominal wages unit labour costs increased in the economy. These developments demonstrated that the labor market has created certain inflationary pressures.

According to the Central Bank estimations, the average growth of nominal wages in the economy in the third quarter of 2009 has been about 7 percent. Wages have notably increased in areas such as healthcare, education and trade but wages decreased in construction.

The average quarterly unemployment rate has increased by 0.7 percentage point and made up 7 percent. In the period of nine months the number of officially unemployed has risen by 7.6 percent and the number of employed reduced by 1.4 percent.

During the quarter the growth of labor productivity has dropped notably, by round 20 percent due to the slowdown of economic activity.

As a result of these developments, the unit labor costs have increased, bringing up to 1.5 percent inflationary pressures in the consumer market.

<sup>63</sup> The third quarter labor market data are the Central Bank estimates based on actual July and August indicators and estimated September indicators. The growth estimations presented in this section are relative to the same quarter of the previous year, unless otherwise specified.

### 3.6. IMPORT PRICES AND PRODUCER PRICES

#### 3.6.1. Import prices

Trends observable in global commodities markets from the second quarter have persisted in the third quarter too, In particular, prices of raw materials and food products kept on increasing in the third quarter, which is perhaps driven by optimistic expectations for the world economic recovery, and the dollar depreciation.

According to the Central Bank estimations, in the third quarter of 2009 the dollar prices of imports have dropped by 8.4 percent y-o-y, compared with about 10.7 percent y-o-y reduction recorded in the previous quarter.

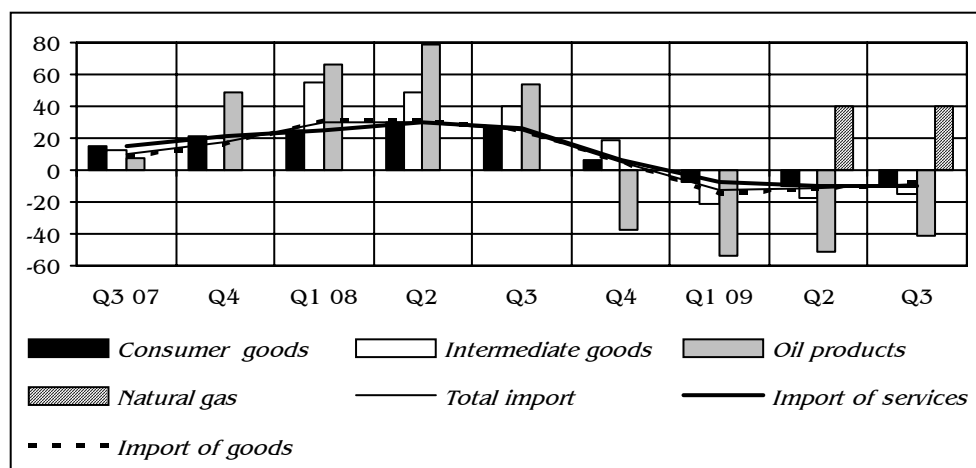
Item	Q3 08	Q4 08	Q1 09	Q2 09	Q3 09
Import (total)	25.5	5.6	-12.7	-10.7	-8.3
Import (services)	25.7	6.4	-7.3	-10.2	-9.4
Import (goods)	25.4	5.2	-14.4	-10.9	-7.9
Capital Goods <sup>64</sup>	0.0	0.0	0.0	0.0	0.0
Consumption Goods	25.7	6.4	-7.3	-10.2	-9.4
Intermediate Goods	39.8	18.2	-21.1	-17.7	-14.8
Diamond <sup>64</sup>	0.0	0.0	0.0	0.0	0.0
Oil Products	54.0	-37.2	-53.5	-51.7	-40.9
Natural Gas	0.0	0.0	0.0	40.0	40.0

The decline in dollar prices has been attributable to both low prices of intermediate goods and oil products and consumer goods persisting also in the third quarter of 2009.

Prices of intermediate goods have decreased by 15.1 percent y-o-y (against 17.7 percent y-o-y decrease in the previous quarter), which was attributable to falling prices of grain. The impact of prices of intermediate goods on total prices has been -4.1 percent.

Though the dollar prices of oil products have risen in the third quarter, which was determined by optimistic expectations for the world economic recovery, a low level of prices still persists based on the yearly results. Oil prices have reduced by 40.9 percent y-o-y (against 51.7 percent drop in the previous quarter), making -2.6 percentage point contribution to total import prices.

*In the third quarter of 2009, low prices of imported goods persisted*



In the third quarter of 2009, the price decrease of consumption goods has been 9.4 percent y-o-y, making -1.8 percentage point contribution to the total import prices. On the whole, the impact of exchange rate depreciation in partner countries has been more remarkable (14.8 percentage points)

<sup>64</sup> The lack of estimates on prices of capital goods and diamond is due to their sharp volatility. Therefore a change in prices is estimated to be zero.

than that of the inflation (5.4 percentage points). As European currencies depreciated, the impact of Euro-zone on total import prices has been -0.3 percentage point, Russia's impact, -0.6 percentage point and Ukraine's impact 0.7 percentage point.

Given the 8.3% y-o-y drop in international prices and 23.2% y-o-y depreciation of average nominal AMD/USD exchange rate the dram prices of imported goods included in the consumer basket have increased in the third quarter by 0.7 percent y-o-y.

### 3.6.2. Producer prices <sup>65</sup>

The GDP deflator in January-September of 2009 has been 99.8 percent y-o-y, lagging behind the respective indicator of the previous year by 10.5 percentage points. Producer price decrease during the quarter was due to the fall in prices of construction and agriculture, where prices kept on falling as has been observable since the first quarter of 2009.

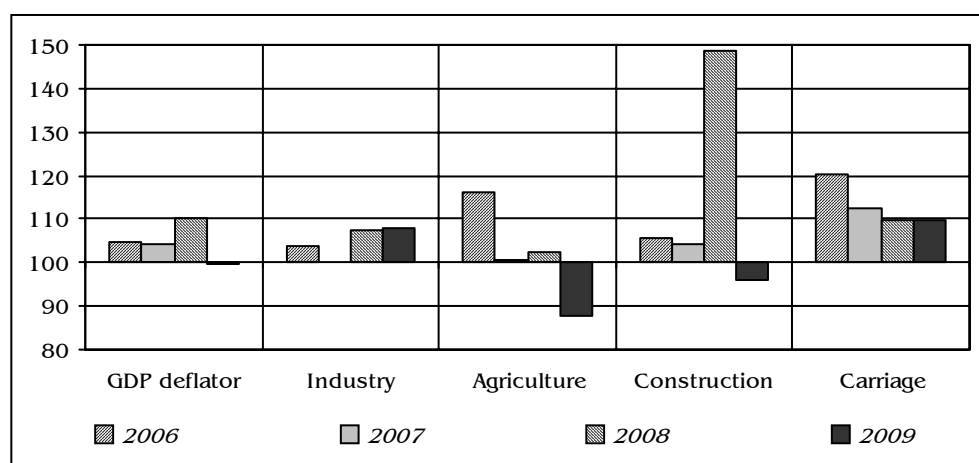
In **Agriculture** in the third quarter of 2009 prices have dropped by 12.1 percent y-o-y mainly attributable to rich crops of fruit and vegetables and resulting drop in their prices. Price drop in *animal breeding was the result of price decrease of meat products and dairy*.

The prices in **Construction** have grown by 7.8 percent owing to more than 30 percent increase of wages in Government-funded construction.

In **Industry** the y-o-y increase of producer prices amounted 8.1 percent, determined totally by 30.7 percent rise in electric energy, gas and water supply tariffs as observed in the period January-September. At the same time prices of mining industry have decreased by 31.3% y-o-y due to the lower international prices for non-ferrous metals in third quarter compared with the second quarter.

In the third quarter of 2009, **Carriage** costs have increased by 9.8 percent y-o-y as a result of 26.5 percent rise in *railway carriage* costs (as new tariffs of railway service were set starting January), 14.3 percent rise in *air transportation* and 13 percent rise in pipeline transportation fares (as gas tariffs have been increased in April 1 2009 from 110 to 154 US dollar).

*In the second quarter of 2009, prices have increased in construction and dropped in agriculture*



### 3.7. INFLATION EXPECTATIONS

CBA summarized the surveys on inflation expectations of financial organizations, households, and non-financial organizations of real sector for the third quarter of 2009.

<sup>65</sup> Presents price indices and their q-o-q changes, unless otherwise mentioned. Price indices of the branches of economy are indices of production output.

According to the surveys covering banks and credit organizations, expectation of high inflation have continued to ease in the financial sector. Majority of the banks pointed to the range of 2.5-5.5 percent 12-month inflation while the previous quarter expectations were in a range of 5.5-8.5 percent. Expectations of credit organization have mainly coincided with that of the banks and have distributed in the aforementioned range. Although the expectations of the financial sector have somewhat moderated but still are higher than the inflation target.

Expectations of households and non-financial organizations of real sector concerning future prices of food products have been somewhat increased. Expectation of stable prices is with 59.7 percent of respondents versus 62.3 percent in the previous quarter, and those expecting price increases constituted 35 percent versus 32.8 percent in the previous quarter.

Based on the results of survey, both commercial banks and credit organizations expect unchanged market interest rates for the upcoming one-year horizon. Expectations of interest rates of attracted and allocated dram and foreign currency assets are mainly stable as well.