CENTRAL BANK OF ARMENIA

The Monetary Policy Program of the Republic of Armenia

2' 2009

Inflation Report

YEREVAN
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The 2009 Monetary Policy Program
of the Republic of Armenia,

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Diverse impacts of external and domestic economic factors determining price behavior came out as a distinctive mark for the first quarter of 2009. With the global demand further declining, a low inflationary environment in the external sector persisted throughout the quarter, having spilled over to Armenia's commodity markets, as well. In the meantime, determined by the same factor, consumption and investment components of the domestic demand slackened, too, putting extra restrictive impact on the level of headline inflation. However, determined by the dram depreciation in early March, dram prices of the main part of imported goods were partly adjusted thus moderating the deflationary developments.

As a result of these developments, some 0.7 percent inflation was recorded in the first quarter of 2009 while the 12-month inflation made up 1.0 percent, dropping by 4.2 percentage points against the previous quarter. During the quarter, the prices of food products (alcohol and tobacco included) increased by 0.3 percent (with 0.2 percentage point contribution to inflation), the prices of non-food products increased by 1.4 percent (with 0.2 percentage point contribution to inflation), and service tariffs rose by 1.0 percent (with 0.3 percentage point contribution to inflation).

In the first quarter of 2009, core inflation made up 0.3 percent[1], while the 12-month core inflation indicator dropped by 2.0 percentage points against the respective December indicator, to amount to 3.3 percent.

External environment[2]

In the fourth quarter of 2008, the global economic growth rates slowed down sharply, and the 2008 annual growth output reached 3.2 percent against 5.2 percent recorded in the previous year. This prompted several international organizations, the IMF among them, to adjust their estimations (downside) made for 2009. In particular, as the IMF estimates, the world economic decline in 2009 will be 1.3 percent while the main developing countries will see deflationary pressures[3].

In pursuit of regaining financial stability, countries have pumped huge amounts of liquidity into financial markets and invested in the equity of financial institutions during the first quarter of 2009. Furthermore, these countries continue implementing expansionary fiscal polices in an attempt to stimulate aggregate demand.

With the global demand declining further, a low inflationary environment in the external sector persisted throughout the quarter. Global oil prices somewhat rose in the first quarter in relation to the previous yearend of the previous, with Brent crude oil having averaged USD 45 a barrel.

At the London Metal Exchange in the first quarter of 2009, the price of copper amounted to USD 3484 on average, having reduced by 55 percent y-o-y.

The price of gold, however, reported a remarkable increase during the first quarter, reaching USD 1000, with an average level of USD 910. This explains the gold's merit of being a reserve asset.

No essential shifts were seen in prices of food products. At the Chicago Board of Trade in the first quarter of 2009, the grain prices amounted to USD 6.3 a bushel (on average). The price of rice reduced (by round USD 3 in relation to the short hundredweight, 45.3 kg), having averaged in the range of USD 12.

The price of sugar rose slightly, amounting to USD 13.6 on average, while the price of butter dropped by around 30 percent compared to the previous quarter's indicator.

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[1]The core inflation calculation methodology, as developed by the Central Bank, is provided in detail in the periodical 'The CBA Review' (Q1, 2008). The core inflation indicators are regularly published in that paper.

[2]The source of all numerical data is the Bloomberg information system, except for the indicators of vegetable oil, which are presented based on data of the US Department of Agriculture.

[3]The source: World Economic Outlook, April-09, IMF, Washington:

Despite a certain rise in international prices recorded at the end of the quarter, these are nevertheless low enough in relation to the recent years thus allowing to maintain a slack inflationary environment.

In financial markets in the first quarter of 2009, the US dollar exchange rate remained stable, fluctuating versus euro in the range of 1.30 dollar. This is explained by the continued deterioration of economic situation in Euro-zone.

Driven by relentless economic recession globally, the US Federal Reserve System remained committed to its 'quantitative stimulation' policy while in the first quarter of 2009 the European Central Bank lowered interest rates by 1 percentage point to 1.5 percent.

Thus, the impact of external deflationary environment persisted in the first quarter, too, which was reflected in prices of import goods in the domestic market.

Aggregate supply

In the first quarter of 2009, the impact of the global financial and economic downturn intensified further, resulting in a 6.1 percent economic decline. As such, the decline was recorded in industry and construction branches which are more sensitive to economic developments in the external world.

Industry reported 9.7 percent reduction in value added mostly due to contraction in output volumes in *mining*, *production of building materials* and *chemical production* sub-branches, which is mainly a result of reduced external demand for the output of the said sub-branches. A decline was also observed in *energy* sub-branch due to reduced demand for electric energy and gas as a result of underutilized capacities in these sub-branches as well as lay-offs in some plans.

In the meantime, *food industry* reported an increase of output in all sub-branches, except for the production of *brandy, beer* and *natural juice.*

With a narrowing inflow of capital and reducing household income, **Construction** reported 20.5 percent decline, due to decreased volumes of construction that gets financing primarily from resources of organizations. There was however some increase of the volumes of construction recorded in areas such as agriculture, mining and residential housing.

Agriculture reported 5 percent decrease in value added mostly due to contraction in real terms in output volumes in *plant vegetation* by 14.4 percent. The decrease was driven by adverse weather conditions in the first quarter, which perhaps are showing a tendency to keep on during the second quarter as well. The output volumes in *animal breeding* sub-branch declined, too, amounting to 3.7 percent, which was determined by a certain decrease in production of meat and milk.

The slowed growth rate in **Services** recorded in the first quarter of 2009 was driven by a declined growth rate in trade volumes. The primary reason of this was nearly 50 percent reduction in the volume of motor vehicles trade. The growth recorded in other service areas was within the projection. As a result, the real growth of value added in services over the first quarter of 2009 has been 2.1 percent.

Labor market[4]

According to the Central Bank estimations, the average growth of nominal wages in the economy in the first quarter of 2009 has been nearly 10 percent, thanks to increased wages in budget-supported organizations. The average quarterly rate of unemployment has grown by 0.3 percentage point compared to the previous year's level and reached 6.6 percent. During the quarter, some 5.0 percent decline was observed in labor productivity.

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[4] *The first quarter data of the labor market are the Central Bank estimations based on actual figures for January and February and based on estimated figures for March.*

The estimations further provide that during the first quarter of 2009, no inflationary pressures from the labor market were seen, since a certain decrease in unit labor costs in the private sector has offset the inflationary pressures emerged as a consequence of increased unit labor costs in the public sector.

Aggregate demand[5]

The revised Central Bank estimations suggest that private spending in real terms in the first quarter of 2009 has declined nearly by 7.4 percent, determined by real decreases in both private investments and consumption. Furthermore, private investments have plunged at a rate faster than consumption.

During the first quarter, the private sector expenditures had a restrictive impact on inflation. Thus, according to the Central Bank estimations, the assessed level of real private spending has been below the potential by about 7 percent. This created deflationary pressures in the consumer market, reducing inflation by round 2.1 percentage points.

In the first quarter of 2009, considerable shifts with regard to selected items of the **current account** of the Balance of Payments persisted, driven by the influence of developments in both the global economy and the domestic economy, which had been observed since the fourth quarter of 2008. Thus, in the first quarter of 2009, the y-o-y decrease of export[6] of good and services was 38.3 percent, including the 47.8 percent y-o-y decrease of export of goods. As such, the decrease was noteworthy with regard to the main commodity groups. The decrease of export of goods and services in real terms has been 13.9 percent y-o-y.

The import response to domestic and external developments was mostly shown up in the first quarter of 2009 when 19.8 percent y-o-y decrease was recorded in the import[7] of goods and services (the growth rates in the fourth quarter of 2008 were still persisting). The import of goods was reduced by 21.3 percent y-o-y and the real volumes of import, by 10.8 percent y-o-y.

In the period January-March of 2009, the net inflow of total remittance of natural persons via the banking system (commercial and non-commercial transfers inclusive) increased by 11.6 percent (the net inflow amounted to USD 130.3 million). The inflow of total remittance was reduced by 28.3 percent, with some 47.1 percent decrease of outflow[8]. The y-o-y decrease of net inflow of non-commercial transfers of natural persons via the banking system in the first quarter of 2009 made up 32.1 percent. The decrease of inflow of remittance by natural persons was determined mostly by adverse developments in the Russian economy[9].

Consolidated budget

In the first quarter of 2009, the tax revenues of Armenia's consolidated budget have decreased by 16.4 percent and the expenditures have increased by 12.1 percent, compared to the same quarter of the previous year. As a result, the fiscal policy's impact on aggregate demand has been 0.5 percent expansionary[10] mostly owing to some 4.3 percent reduction of

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[5] The official data on private consumption and investments are as of the fourth quarter of 2008.

[6] In the period January-March of 2009, the decrease of export of goods (FOB) reached 47.3 percent, and 46.1 percent, without account of diamond. The quarterly indicators of services are projections.

[7] In the period January-March of 2009, the decrease of import of goods (CIF) reached 22.2 percent, and 20.7 percent, without account of diamond. The quarterly indicators of services are projections.

[8] From the monetary policy viewpoint, the behavior of commercial and non-commercial remittances by natural persons is important as separation of these remittances via the banking system into commercial and non-commercial part is conventional and is made based on the declared purpose of the remitting.

[9] A principal part of remittance by natural persons comes from Russia.

[10] The impact of the fiscal sector on aggregate demand is assessed using fiscal impulses. The GDP used in the computation of the revenue impulse is actual nominal GDP and the GDP used in the computation of the expenditures impulse is potential GDP, according to the current fiscal impulses methodology.

the nominal GDP in the first quarter of 2009 in relation to the same period of the previous year.

Money and credit

In the first quarter, the impact of the global crisis was seen also on the monetary sector, thus driving the pace of the monetary policy as well as the developments of monetary indicators. The main focus of the monetary policy implemented in the period January-February of 2009 was placed on successful combination of price stability and financial system stability. Early in the year, the Central Bank had increased intervention in the foreign exchange market, in an attempt to stabilize the exchange rate, in order to neutralize risks associated with the liquidity and capital adequacy in the banking sector as a consequence of pressures of the depreciation of the national currency, savings runoff from the banking sector and the substitution of dram-denominated deposits by dollar-denominated ones. In this period of time the Central Bank pumped a sufficient amount of liquidity into the banking system, enabling banks to strengthen their financial potions and withstand the pressures that emerged as a result of the global downturn. In early March, when the financial sector was sufficiently capitalized, liquid and ready to meet further challenges of the crisis, the Central Bank stopped intervening in the foreign exchange market, getting back to a policy of floating exchange rate. As a result, the dram's exchange rate was adjusted downside, i.e. toward depreciation, and achieving the inflation target became the main emphasis of the monetary policy to moderate the inflationary risks emerged.

With domestic and external economic environments and the above said developments of the monetary policy going forward, the following is how the monetary indicators progressed: relative to the end of the previous year, the dram broad money has decreased by 33.5 percent, in which the dram-denominated deposits and currency in circulation decreased by 34.4 percent and 32.8 percent, respectively. In dram terms, the foreign currency-denominated deposits have grown by 64.9 percent (the growth in dollar terms was 37.3 percent). In the outcome, the broad money has declined by 9.9 percent and the monetary base, by 12.9 percent, resulting in 3.8 percent growth of the money multiplier.

Attributable to tightened terms and conditions, including stricter procedures for the loan origination and requirements to collateral as well as owing to the rise in interest rates, the economy lending has grown over the quarter by merely 3.6 percent or AMD 24.6 billion. The latter was driven by the impact of an abrupt depreciation of the dram's exchange rate in early March. When this impact is excluded, there is an indicator of lending to have decreased by 5.2 percent or AMD 32.8 billion.

Conditional on the same factor, and as compared to the previous yearend, in March of 2009 the foreign currency loans have grown by 26.8 percent (by 5.5 percent in dollar terms), while the dram loans have reduced by 11.9 percent.

FORECASTS FOR THE COMING 12-MONTH PERIOD

External environment[11]

In the times of the global crisis, the world economic growth in 2009 is expected to be in a negative territory (-1.3 percent), while prices in commodities markets will rest at their lows. The likely developments with external sector indicators for 2009 are reflected also in the Monetary Policy Program of the Republic of Armenia, Q1, 2009 (adjusted). It is expected that countries would continue implementing stimulating fiscal and monetary

[11] *The information provided from sources such as: the IMF, the World Bank, The Economist, Global Insight, The Financial Times, US Department of Agriculture, РосБизнесКонсалтинг and others has served a basis for the forecasts of the external sector.*

policies to improve the situation in the credit markets and recover aggregate demand to where it had been. Despite still a high degree of uncertainty, there is expectation that the economic growth and price indicators would start recovering slowly at the turn of 2009 and in the beginning of 2010, to be driven by a likely improvement of the situation with the world economy.

In particular, given the 9.5 percent decline in the Russian economy in the first quarter of 2009 (as estimated by the Russian Ministry of Economic Development), the IMF is predicting a worse scenario whereby the economic decline would reach as high as 6 percent. In new forecasts being made for the economic decline for 2009 by some organizations, the indicator has been adjusted down to 3.6 percent against the background of stricter lending terms and adverse developments in the labor market. The economic recovery of Russia is expected in 2010 (to make up 0.5 percent).

The main risks are related to slower growth rates of the world economy determined by possibly a sluggish recovery of economies.

Aggregate supply

The sectoral forecasts provided in the adjusted Monetary Policy Program, Q1, 2009 have been revised on a basis of actual indicators of the first quarter of 2009, taking into account both external and domestic developments. The revision of the forecasts for the branches of the economy suggests an estimated 5.8 percent economic decline in 2009.

In industry, the forecasts have been adjusted toward decrease. In particular, downside adjustment of growth rates was made with regard to food industry (due to reduction in expected agricultural product in the first half of the year as a result of adverse weather in the period January-April), as well as with regard to metallurgy and chemical industry sub-branches (as a result of persistently weak demand for non-ferrous metals and chemical product). Naturally, there have been adjustments of growth rates made with regard to the energy sector, accordingly. In the outcome, the value added in industry is expected to shrink by 4.5-7 percent in real terms.

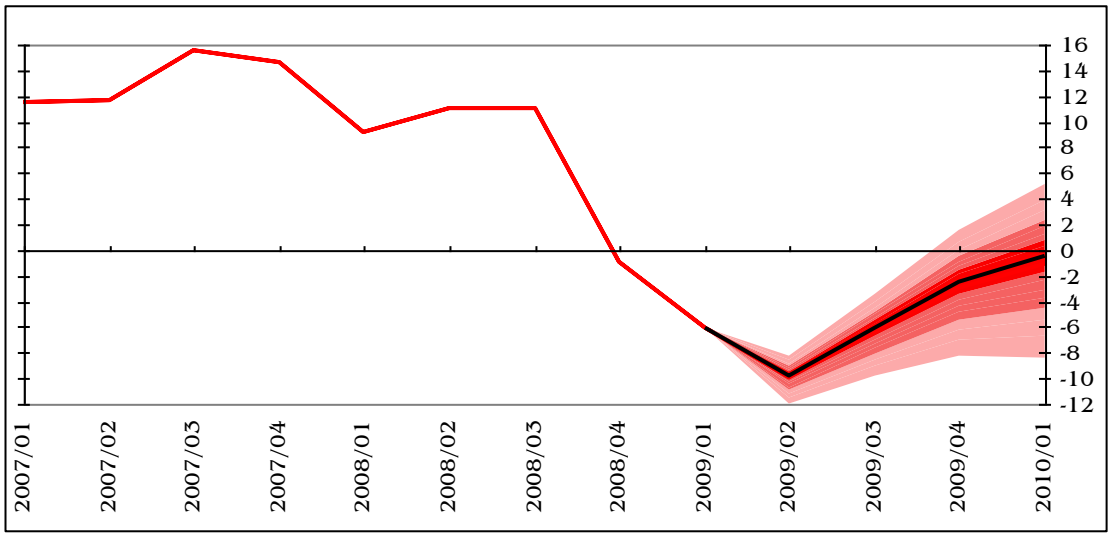
The forecast of value added has been revised downside in agriculture, which was determined by the decrease of the crop in plant vegetation expected for the first half of the year due to adverse climatic conditions prevailing over the first four months of the year. As a result, the value added in agriculture is expected to add up by nearly 3 percent in real terms.

In construction, the forecasts of value added have been revised downside, too, attributable to the expected shrinkage of the inflow of capital as well as pessimistic expectations of companies engaged in construction. The outcome is that the value added in construction is expected to decline by 15-19 percent in real terms.

In services, there has been a certain adjustment to the forecast of retail trade turnover, which was determined by less than expected growth recorded in the first quarter of the year, as well as by revised forecasts of the domestic demand. As a result, the value added is expected to grow by 2.5 percent in real terms.

On the one side, risks of the decline in the sectors of the economy and forecasted GDP indicators on the whole may emerge depending on the volumes of the anti-crisis measures and programs announced by the Government and on how quickly these could be carried out. On the other side, upside risks may emerge depending on the realization of large-scale regional-wide transport and energy projects. In the end of the year and the first quarter of 2010 the development trends of the Armenian economy will depend primarily on the developments in the world economy as well as the volumes and efficiency of the programs to be implemented by the Armenian Government.

Real GDP growth forecast distribution fan chart
(quarter to the same quarter of the previous year)



Probability distribution of the economic growth forecasts for 2009

Interval	Likelihood of economic growth in each given interval			
	Q2, 2009	Q3, 2009	Q4, 2009	Q1, 2010
« -12%	5.6%	0.1%	0.0%	0.6%
-12 - -10%	53.70%	2.10%	0.33%	1.93%
-10 - -8%	39.49%	16.71%	2.28%	4.29%
-8 - -6%	0.24%	44.79%	9.39%	8.07%
-6 - -4%	0.00%	33.85%	22.88%	12.81%
-4 - -2%	0.00%	4.08%	32.99%	17.16%
-2 - 0%	0.00%	0.06%	24.81%	19.38%
0 - 2%	0.00%	0.00%	7.88%	17.52%
2 - 4%	0.00%	0.00%	1.03%	11.54%
» 4%	0.00%	0.00%	0.06%	7.77%

Labor market

The 2009 labor market indicators have been revised to a certain extent. In particular, around 3 percent drop of average nominal wages of the economy is expected due to considerable reduction of nominal wages in the private sector and some growth of wages in budgetary organizations. The average unemployment rate will rise by around 2 percentage points.

In 2009, the developments in the labor market will create certain deflationary pressures in the consumer market, since a considerable drop of unit labor costs will be recorded in the private sector. In the yearend of 2009 and in the first quarter of 2010, the developments in the labor market will largely depend on how intensely the fiscal policy would stimulate the domestic economic activity during 2009 and how fast the world economy would recover.

Aggregate demand

Private sector spending

The estimations of private sector spending in 2009 have been revised to some extent due to adverse developments in both external and domestic economic environments. The revised estimations suggest that there will be

some 8-9 percent decline in private spending determined by expected slowing in both consumption and investments. As a result, the real private spending in 2009 will remain below its potential level by about 7.5-9.5 percent, creating deflationary pressures in the consumer market. It should be noted, however, that in the course of 2009 and in the first quarter of 2010 the behavior of private spending will largely depend on the volume and efficiency of implementation by the Armenian Government of economic stimulation programs in the private sector.

Current account

In the times of uncertainty for overcoming external sector's unfavorable developments, the forecast of the main items of current account of the Balance of Payments for 2009 has been made considering also actual indicators of the domestic economy for the first quarter, which somewhat changed the pace of further developments. This is why the export and import indicators have been revised to a certain extent in relation to the (adjusted) Monetary Policy program of the Republic of Armenia for the first quarter of 2009. Thus, in 2009 some 30-35 percent decline is expected in respect of the export of goods and services. This will be attributable mostly to the maintaining of a low level of export prices. The decline in real export of goods and services will be 5-8 percent.

In 2009 the shrinkage of the import of goods and services in dollar terms is expected in the range of 30-35 percent. The decline will be determined by the real exchange rate adjustment as well as a downside revision of the GDP forecast. As a result, the reduction of import of goods and services in real terms in 2009 is expected in the range of 25-30 percent.

Indicators of natural persons' remittances via the banking system in 2009 have not changed in relation to the adjusted Monetary Policy Program: it is expected that net remittances by natural persons via the banking system will reduce by 10-15 percent in 2009 (mostly owing to the considerable shrinkage of outflow of transfers). Furthermore, net non-commercial transfers will decrease by 30-35 percent.

In the outcome, the current account deficit to GDP ratio will be in the range of 8-10 percent.

The occurrence of risks of reduced exports and imports will be conditional on how quickly the Armenian Government will implement anti-crisis measures and programs and how fast the world economy will recover. In the event the Government programs are postponed and the world economy recovers at a slower pace imports and exports would shrink more than is expected.

Consolidated budget

The forecasts of the public sector for 2009 have been made taking into account the following indicators. Thanks to administrative measures taken in the area of tax collections the taxes to GDP ratio will remain on the same level of the previous year. It is expected that, based on he yearly results, public expenditures (excluding expenditures related to the implementation of anti-crisis measures) will be executed at least to an extent executed in the previous year.

Overall, there is assumption that the Government-initiated anti crisis measures called to mitigate the impact of the global downturn on the Armenian economy will enliven considerably starting the second half of the year. This will enhance the role of the public sector in the economy and, hence, the stimulation of domestic demand. In particular, the Government's

programs will involve promoting small and medium-size enterprises, providing support to the tradable sector as well as increasing public expenditures in infrastructures and residential housing projects. It should be mentioned that the successful implementation of the said Government measures and, accordingly, the stimulation of the domestic demand would make it possible to prevent further economic slowdown but rather rest on a 5.8 percent level of economic decline.

So, as a result of implementation of the said programs, the budget deficit is expected to be high enough, under which condition he fiscal sector's impact on aggregate demand is estimated to be 1.8 percent expansionary.

Generally, during 2009, the risks associated with the stimulation of aggregate demand will largely depend on the volumes and efficiency of implementation of the programs announced by the Armenian Government.

Money and credit

The above-said developments to be seen in different sectors of the economy in the 12-month time horizon subsequent to the first quarter of 2009 are expected to influence the financial sector in the form of large-scale expansion of the monetary indicators. Thus, as a result of implementation of anti-crisis measures and programs of the Government the broad money will increase by as much as 33 percent annually following a huge shrinking recorded in the first quarter. Further, the monetary base will increase by up to 16 percent, contributing to some activation of the economy.

An anticipated large-scale inflow to the economy will mostly affect the level of financial intermediation, leading to the growth, in annual terms, of the money multiplier (up to 15 percent) and the monetization ratio (up to 37 percent). These developments will be conditional on a huge deficit budget expected in that period of time as well as the implementation of the anti-crisis measures. Under such conditions the economy lending will grow by as mush as 33 percent in annualized terms.

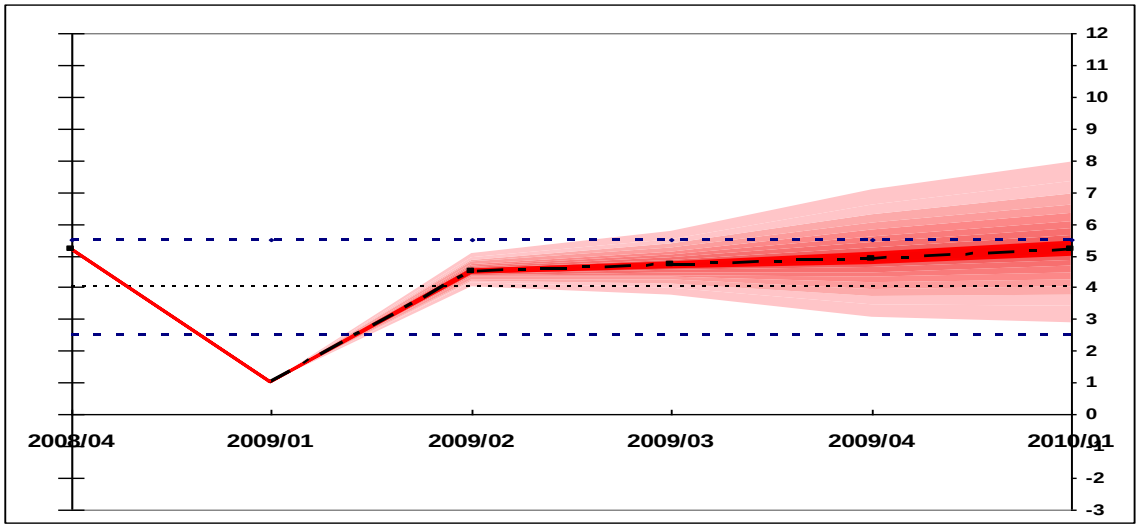
Where the Government-initiated anti-crisis measures and programs are only partially realized, the monetary indicators would, accordingly, report moderate rates of growth.

INFLATION FORECASTS AND MONETARY POLICY DIRECTIONS IN THE 12-MONTH TIME HORIZON

In the forecast period, the behavior of headline inflation will be determined by the supply-side shocks and depreciation of the dram as factors contributing to the acceleration of inflation, on the one hand, and by the persistence of a huge negative gap on the domestic demand in the upcoming period and external deflationary environment as factors contributing to curbing inflation, on the other hand. Thus, starting the second quarter of 2009, acceleration of the rate of inflation will be conditional on both the direct influence of growth of gas, electricity and water tariffs and the indirect growth of prices of other goods through the cost price. This will also be attributable to continued adjustment of dram prices of imported goods driven by the depreciation of the dram since the beginning of March. Meanwhile, GDP, staying all the time below the equilibrium, and external deflationary environment will restrain the impact of the above-said factors on the headline inflation. As a result, in the end of the second quarter inflation will be in the upper border of the target of 4±1.5 percent, and the above-said factors will influence inflation to remain

at all times in the forecast period at a level higher from the central value. Furthermore, there are downward and upward risks to inflation. The risks of deflation may emerge due to possible slowing of the pace with which the Government implements the anti-crisis programs, whereas risks of inflation may come to exist if the world economy recovers at much higher rates than projected.

Inflation forecast probability distribution fan chart[12]



2009 inflation forecasts probability distribution

Inflation band	Probability of inflation being within the given band	
	Q2, 2009	Q4, 2009
1.0-2.0%	0.00%	0.00%
2.0-3.0%	0.00%	0.04%
3.0-4.0%	0.02%	4.60%
4.0-4.5%	42.4%	15.60%
4.5-5.5%	57.5%	54.80%
5.5-6.5%	0.01%	22.90%
6.5-7.5%	0.00%	2.00%
7.5-8.5%	0.00%	0.04%
> 8.5%	0.00%	0.00%

Given the slowing of the economic activity, and considering that an effective combination of tasks to ensure price stability and stimulate the economy is now imperative, the Central Bank finds it reasonable to carry on implementing an expansionary monetary policy, while looking to cut the refinancing rate and use quantitative easing. The latter will be carried out through increased participation of the Central Bank in the secondary market of government securities and injection of additional liquidity into the banking system. This will enable the Government to allocate more government securities and execute expenditures on account of attracted

[12] *The central value of inflation is 4.5 percent projected for the second quarter of 2009 and is 4.9 percent projected for the end of 2009.*

resources, as part of ancillary economic programs, to stimulate the economic activity.

In the meantime however, there is uncertainty in relation to further change in inflation and economic situation in the forecast time horizon as well as the direction of monetary policy, depending on the pace of implementation of the anti-crisis measures of the Government and the speed of recovery of the global economy.

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1. SUMMARY

In the second quarter of 2009, the main factor driving inflation and the pace of monetary policy was further economic decline. More than projected shrinkage of GDP has been determined by continued adverse developments in the world economy and, as a consequence, narrowing private capital inflow. Though the rise in prices of some commodities in international markets surmised impulses for global economic recovery, many countries recorded higher than anticipated economic decline. This, therefore, prompted forecasts to be adjusted downside. In the second quarter anticipated inflationary pressures under the given macroeconomic situation have been weak, and this created a low domestic inflationary environment on the whole. In particular, the depreciation of the dram in early March and the increase in the main public utility service fees from April have not brought about significant inflationary pressures. Though the rate of inflation accelerated in relation to the previous quarter, it however was about 1 percentage point below the projection, staying at the lower border of the target band. During the quarter inflation was 4.5 percent and the 12-month inflation indicator reached 3.6 percent.

The adverse impact of the world financial and economic crisis on the Armenian economy was felt deeper in the second quarter of the year, resulting to about 23.1 percent economic decline (in the period January-June the economic decline has been 16.3 percent). The main cause for the decline lied in unprecedented slowdown recorded in construction and industry. Thus, in the second quarter the value added in construction reduced by 58.6 percent, whereas the decline in the sub-sector has amounted to 51.9 percent in the first half of the year. The value added in industry decreased by 12.6 percent during the quarter, whereas its decline in the course of the first half of 2009 has been 11.2 percent.

Notwithstanding economic decline austerities, nominal wages in the economy in the reporting period have somewhat increased driven by both a certain rise of wages in budgetary organizations and rigidity of adjustment of wages in the labor market. The unemployment rate, too, has responded to the economic slowdown at a certain time-lag. As a result, the labor productivity slowed down at a fast rate, which has led to increased unit labor costs amid rising wages. These developments demonstrated that the labor market has created certain inflationary pressures in the consumer market.

In the second quarter of 2009, the shrinkage of the domestic demand[13] went even further, totally due to a considerable decrease of private expenditures. The main cause for the latter lied in reduction of real private sector incomes determined by the narrowing of the external financial inflow, and reduced current transfers, in particular. Uncertainties in an investment environment and negative expectations for the economic activity have also compelled a decline in private expenditures. During the quarter round 17.0 percent reduction in the domestic demand was driven by a marked shrinkage (as much as 19.2 percent) in private spending. Whereas in the public sector, expenditures were almost the same as were in previous year. As a result of these developments, the real private sector expenditures have created deflationary pressures in the consumer market because of their staying below the equilibrium by round 9.0 percent, thus pushing inflation down by about 2.7 percentage points.

In the second quarter of 2009, the fiscal sector had some 2.5 percent expansionary impact on the aggregate demand. It has been generated thanks to restrictive impulse of revenues and expansionary impulse of

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[13] *The second quarter indicators of domestic demand and balance of payments are the Central Bank estimations.*

expenditures. In the second quarter tax revenues of the state budget decreased by 19.5 percent in relation to the same period of the previous year, whereas in the course of six months the decrease has been 18.3 percent. The restrictive impulse of revenues has been generated owing to an obviously low level of GDP. Relative to the second quarter of the previous year, the expenditures have grown by 5 percent. According to a computed impulses indicator, expenditures had 4 percent expansionary impact on the aggregate demand. In the first half of the year too, the fiscal sector's impact on the aggregate demand has been 3.0 percent expansionary, which was determined again by the same trends for revenues and expenditures observed during the quarter.

In view of downturn of global economy and the domestic economy, reflecting considerable slackening of external and domestic demand, the current account deficit has somewhat widened against the second quarter of the previous year, despite the reduction of the trade balance, by USD 21.2 million and totaled USD 240.3 million. Persisted large amounts of the current account deficit were determined by the narrowing of factor incomes and private transfers. As a result of faster shrinking GDP and persistently large amounts of current account, the share of current account deficit in GDP reached 13.9 percent in the second quarter of 2009. According to the estimations for the first six months of the year the current account to GDP ratio made up 15.7 percent against 12.3 percent recorded in the same period of the previous year.

In the second quarter of 2009, stabilization trends became observable in the financial market as a result of somewhat slowing decline in the global economy, as well as thanks to the Central Bank that was consistent in implementing a policy of quantitative easing and interest rate cuts. These trends were more evident in the performance of monetary indicators as these indicators have stabilized after their slackening in the first quarter of 2009. This has been fuelled by the new exchange rate equilibrium created in the foreign exchange market and a persistent conduct of quantitative easing and interest rate reduction policy by the Central Bank. Under such conditions, the dollarization has not progressed further, reflecting mainly a steady behavior of foreign currency components of the monetary aggregates.

The aforementioned developments have steered the fulfillment of the inflation target and the monetary policy directions during the quarter. A prudent combination of tasks to ensure the inflation target and stimulate the economic activity remained a priority. To this end, the Central Bank has consistently loosened the monetary conditions by means of interest rate cuts and a policy of quantitative easing. Overall, during the quarter the refinancing rate was lowered by 1.75 percentage points to 6.0 percent at the end of the quarter. Concurrent with the interest rate reduction, the Central Bank used its traditional tools and looked to a new toolkit to activate operations on quantitative easing. This enabled to increase resources of commercial banks by carrying out longer-term repo operations and actively participating in the secondary market of government securities.

2. INFLATION DEVELOPMENTS

2.1. INFLATION BY GOODS AND SERVICES, CORE INFLATION

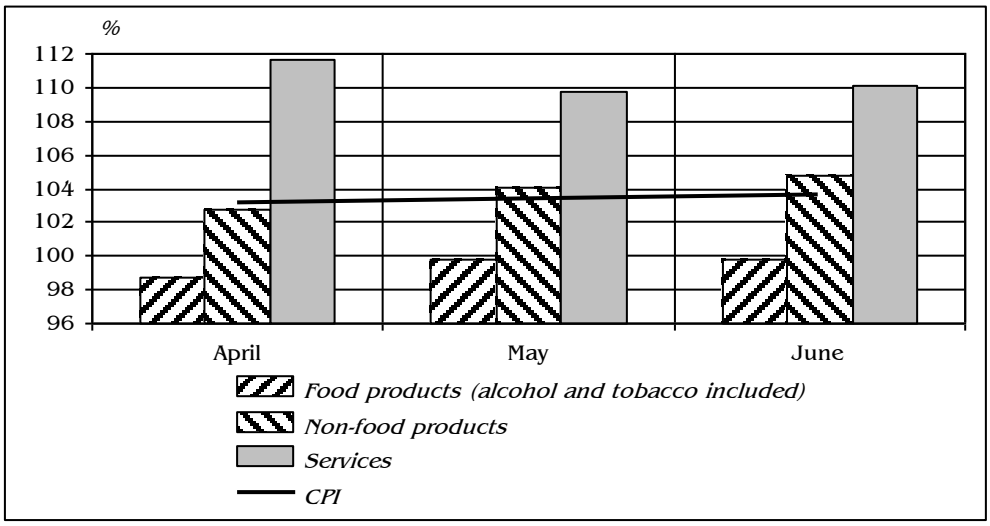
In June 2009, inflation was 3.6 percent against June 2008. Prices of food products (including alcoholic beverage and tobacco) grew by -0.2 percent, while prices of non-food products and service tariffs rose by 4.8 percent and 10.1 percent, respectively.

The increase of prices of "Food products" (including alcoholic beverage and tobacco) was mainly determined by inflation observed in items "Fruit" (24.9 percent), "Meat products" (3.1 percent), "Sugar" (12.9 percent), and "Fish" (34.5 percent), which have contributed to inflation in the group by 1.2, 0.5, 0.3 and 0.3 percentage points, respectively. Round 9.0 percent decrease of prices observed in item "Bread products" eased inflation in the group of food products by 2.5 percentage points.

The increase of prices of "Non-food products" was mainly a result of price increases in sub-items "Medicament" (24.6 percent), "Detergents" (21.0 percent), "Garment and knitwear" (8.0 percent), "Footwear" (10.0 percent), and "Beauty items" (14.1 percent), which contributed to the inflation of the group by 2.4, 1.7, 1.3, 1.1 and 1.1 percentage points, respectively. At the same time, price decrease in sub-items "Personal usage cars and petrol" (14.8 percent) and "Fuel" (7.4 percent) eased inflation in the group, contributing to inflation by -3.1 and 0.3 percentage points, respectively.

The main contribution to inflation of the group "Services" came from increased tariffs in items "Household utility services" (18.7 percent), "Medical services" (10.4 percent), "Transport services" (9.4 percent), "Education system services" (4.4 percent), which contributed to inflation of the group by 4.6, 3.2, 1.4 and 0.7 percentage points, respectively.

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

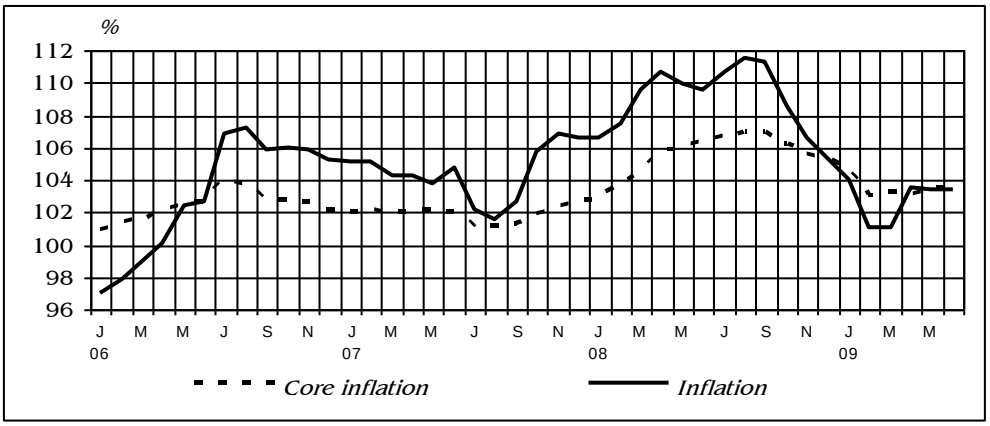


In the second quarter of 2009, inflation was 5.2percent, (6.8 percent was in the previous year) which is conditioned by price increase of food products (including alcoholic beverage and tobacco) (3.0 percent), non-food products (9.0 percent) and service tariffs (7.3 percent) contributed to headline inflation by 1.6, 1.5 and 2.2 percentage points, respectively.

In January-June 2009, inflation was 2.7 percent compared with the same period of 2008 (the same indicator was 9.0 percent in 2008 and 4.5 percent in 2007). This was mostly determined by 10.0 percent rise in service tariffs (with 3.0 percent contribution to inflation) and 1.3 percent increase of prices of non-food products (with 0.2 percent contribution to inflation). Some 0.8 percent decrease of prices of food products eased inflation by 0.4 percentage point.

In the chart below, the dynamics of 12-month inflation and core inflation are presented for 2006-2009 years.

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



In June 2009, compared with June of the previous year, core inflation was 3.4 percent, demonstrating primarily a steady behavior since the start of the year.

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 July 2006 to June 2009[14].

The calculations show that between July 2006 to June 2009, in comparison with the period from July 2005 to June 2008, the influence of trend and seasonal components on CPI has decreased by 8.2 percent and 5.8 percent, respectively, while the influence of irregular component has increased (14.0 percent).

Share of components causing fluctuations in monthly price indexes (July 2006 to June 2009) (%)

	Trend component	Seasonal component	Irregular component	Total
CPI	0.1	65.2	34.7	100.0
1. Bread products	1.9	31.2	66.9	100.0
2. Meat products	2.9	41.0	56.1	100.0
3. Fish products	0.8	40.5	58.7	100.0
4. Dairy products and oils	0.0	40.9	59.1	100.0
5. Fruit and vegetable	0.5	90.2	9.3	100.0
6. Other food products	1.5	53.0	45.5	100.0
7. Non-alcoholic beverage	0.7	23.3	76.0	100.0
8. Alcoholic beverage and tobacco	15.8	28.5	55.7	100.0
9. Garment and footwear	6.9	48.0	45.1	100.0
10. Rent, electricity, and fuel	3.2	30.4	66.4	100.0
11. Home appliances	2.1	26.2	71.7	100.0
12. Health services and medication	0.1	38.1	61.8	100.0
13. Transport and communications	1.6	45.7	52.7	100.0
14. Leisure and items of cultural products and services	0.8	86.9	12.3	100.0

The seasonal component has the largest impact on the following items: "Fruit and vegetable", "Leisure and cultural products and services", "Other food products", and "Garment and footwear".

The irregular component has the largest influence on the following items: "Non-alcoholic beverage", "Home appliances", "Bread products", "Rent, electricity, and fuel", and "Health services and medication".

[14] *The methodology of calculation is provided in the paper "Inflation in the Republic of Armenia, 2-nd half of 1999".*

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 the first quarters of 2007, 2008 and 2009 years, (%)

	2007	2008	2009
CPI	1.3	1.0	1.7
1. Bread products	4.2	2.4	1.6
2. Meat products	0.6	0.4	1.0
3. Fish products	6.7	14.9	12.1
4. Dairy products and oils	0.1	1.1	1.3
5. Fruit and vegetable	13.6	6.4	10.6
6. Other food products	0.9	0.7	1.4
7. Non-alcoholic beverage	0.1	2.6	0.0
8. Alcoholic beverage and tobacco	0.0	0.0	0.4
9. Garment and footwear	0.6	0.3	0.4
10. Rent, electricity, and fuel	0.0	4.3	9.9
11. Home appliances	0.1	0.2	0.7
12. Health services and medication	0.0	2.3	1.2
13. Transport and communications	0.3	1.7	3.1
14. Leisure and items of cultural products and services	0.1	0.0	0.7

As shown in the table above, during the last three years the prices in items "Fish products", "Fruit and vegetable" and "Bread products" kept on demonstrating high volatility in the second quarter of 2009.

2.2. FULFILLMENT OF INFLATION TARGET

Given the worsening global financial and economic situation macroeconomic developments were determined by further economic downturn. Though the increased prices of certain commodities in the world markets surmised impulses for the global economic recovery, many countries had experienced deeper economic decline adjusting forecasts downside. Meanwhile, the external deflationary environment has somewhat loosened, giving impulses of reviving world economy. Developments in the domestic environment have been diverse in terms of the impact on inflation. In particular, the dram depreciation observed since the beginning of March and increased tariffs of the main public utilities from April of this year have led to certain acceleration of inflation. However, with the economy slowed down further than projected, the impact of the above-said factors on the headline inflation has been notably weaker than anticipated. As a result, though the rate of inflation was higher in relation to the previous quarter, it stood round 1 percentage point below the forecast thus staying at the lower border of the target band.

The inflationary environment and monetary policy directions preceding the 12-month period have been characterized by the following developments: in the second quarter of 2008, inflation forecasted for the second quarter of 2009 has been at the upper border of the target, making up 5.1 percent[15]. It should be noted that in the time of forecast the level of inflation was about 10 percent, and the potential factors contributing to the persistence of still a high level of inflation in the forecast period included high oil prices, additional impacts of external inflationary pressures, too slow pace for the domestic price adjustment with respect to the drop of international prices of some commodities. At the same time, the aggregate demand has been high as well, creating preconditions for these factors to

[15] *See the Monetary Policy Program (Q3 2008) (Minutes of the Central Bank Board Meeting of July 2, 2008).*

show up. Not incidentally, in the third quarter the 12-month inflation indicator had exceeded a threshold of 11 percent. As it was expected, the latter was driven by continued rise in domestic prices of raw materials and food, regardless of easing of external inflationary pressures at that time. The impediment to import of goods to Armenia because of the conflict in the Region was added to these factors.

In a macroeconomic situation like this, stressing the importance of easing inflation expectations and reducing the deviations from the target, the Central Bank continued tightening the monetary conditions, an approach used since the middle of 2007, by lifting the refinancing rate by 0.75 percentage point (0.25 pp monthly) to 7.75 percent in September.

Starting from the fourth quarter the situation changed significantly, determined by a deflationary environment under slowing world economic growth rates due to the global economic crisis. The deflationary environment, which is further intensifying, started to reflect the domestic food and raw material markets, resulting in considerable slowing of growth rates of headline inflation. It is worth mentioning that determined by a slow response of domestic prices to the price change in global markets, the effect of loosened external inflationary pressures were spilled over to the fourth quarter from the third, contributing to the deceleration of the rate of inflation. In the outcome, 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. Under such conditions the inflation indicators expected for the second quarter of 2009 were adjusted downside in September and December to 3.7 percent and 2.7 percent, respectively.

The existing low inlationary environment enabled the Central Bank to ease the monetary conditions, aiming to moderate the volatility of gross domestic product and sustain the economic growth rates. In consideration of this, after having left the refinancing rate unchanged in the period October-November, the Central Bank lowered the refinancing rate by a total of 0.1 percentage point in December of 2008 and in January-February of 2009, to have set it at the level of 6.75 percent in February.

However, March of 2009 was momentous in a sense that in a special Board Meeting of March 3 the Central Bank asserted that Armenia's financial system was adequately capitalized, liquid and sound enough to meet further challenges of the crisis, and therefore decided to limit the Central Bank's intervention to the foreign exchange market. In this Meeting the Central Bank Board lifted the refinancing rate by 1.0 percentage point to 7.75 percent. The lifting of the refinancing rate was driven by then prevailing high risks that inflation would outstrip the target because of the depreciation of the dram and because of concerns that the increase, starting April, of the main public utility service tariffs might have its ancillary impacts. Actually, in the time of worsening global crisis and an abruptly reducing domestic demand, the said inflationary factors proved to have been weak. The steep depreciation of the national currency in early March has led to the adjustment of prices of import goods in the subsequent months. The extent of the adjustment was, however, notably smaller than estimated. In particular, as of the end of March the 12-month inflation has been a mere 1 percent which was 1.5 percentage points below the lower border of the target band. In the second quarter, the increased tariffs of the main public utility service were added to the impact f the said factor. Nevertheless, the 12-month inflation indicator persisted at the lower border of the target band, prompting the Central Bank to continue an expansionary monetary policy and promote the faster economic recovery, also in consideration of deflationary factors such as a low inflationary environment in the external markets and deeper-than-forecasted economic slowdown,

according to the first quarter results. The monetary policy of the second quarter was prominent in that, in addition to interest rate cuts, the Central Bank carried out an active policy of quantitative easing. Concurrent with reducing the refinancing rate by a total of 1.75 percentage points in the period April-June, the Central Bank used its traditional tools and looked to a new toolkit to activate operations on quantitative easing. This enabled to increase resources of commercial banks by carrying out longer-term repo operations and actively participating in the secondary market of government securities.

3. INFLATION FACTORS

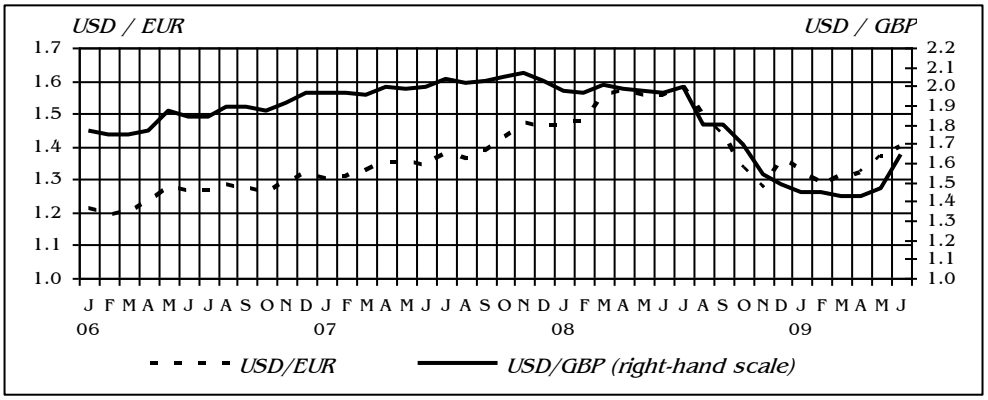
3.1. EXTERNAL ENVIRONMENT

Driven by the depth of the world economic downturn and uncertainties in timing for recovery, international financial institutions regularly have to revise their estimations for world growth outlook. According to the July estimations by the IMF, the world economic slowdown in 2009 is projected to reach -1.4 percent versus the previous year's 3.1 percent growth, whereas some 2.5 percent growth is projected by 2010. In this quarter too, almost all countries were intensively implementing anti-crisis measures to ensure stability in financial markets and stimulation of the world demand.

Although during the quarter the prices of certain goods go up, a low inflationary environment of the external sector, however, persisted in the second quarter as well amid the downturn of the global economy.

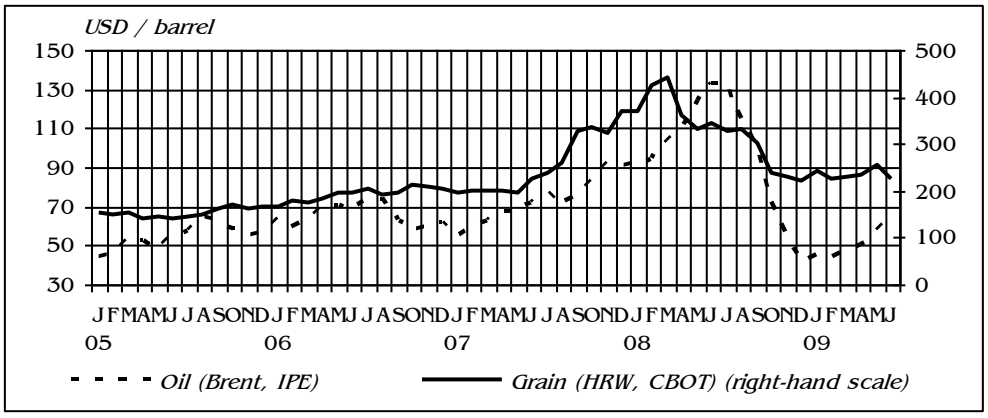
In the second quarter of 2009, the US dollar depreciated q-o-q by nearly 5 percent, reaching 1.36 dollar vs. euro, whereas the y-o-y appreciation of the dollar has been 14.7 percent. The global oil prices rose in relation to the previous quarter No essential changes took place with regard to international food prices. An exception was sugar, the price of which has grown notably during the second quarter.

In the second quarter of 2009 the US dollar remained firm in relation to euro



During the second quarter of 2009, oil prices have grown. At the beginning of the quarter the price of 'Brent' was in the range of USD 50 a barrel; at the end of the quarter it reached USD 70 a barrel (an average increase of 27.9 percent q-o-q). However, relative to the previous year, the price of oil is still low. As a result, oil prices in the second quarter have fallen by 53 percent y-o-y compared to 53.5 percent fall in the previous quarter. The increase of oil prices 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: copper price, for example, increased by 35 percent compared with the previous quarter to amount to USD 4663 per ton on average. The y-o-y decrease has been 44.8 percent.

Oil prices kept on low throughout the quarter



In the second quarter of 2009, grain prices have dropped by an average of 31.1 percent y-o-y, fluctuating in the range of USD 6-7.5 a bushel yet growing by 3.0 percent q-o-q. In the 2009/2010 marketing year, some 656 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 14 tons, to amount to 181 million tons. A most impressive increase is expected in Kazakhstan, from 12.5 million tons to 14.5 million tons, while decreases are expected in Russia, from 63.7 million tons to 60.0 million tons, and Ukraine, from 26 million tons to 18.5 million tons.

The prices of sugar have considerably risen during the quarter, reaching their highs in 20 years. The main cause for this is the expectation of decrement of the world stocks due to the draught in India (India boasts one of the major producers as well as consumers of sugar in the world). It is expected that in 2009-2010 India will import 5 million tons of sugar compared to an import of 2.7 million this year.

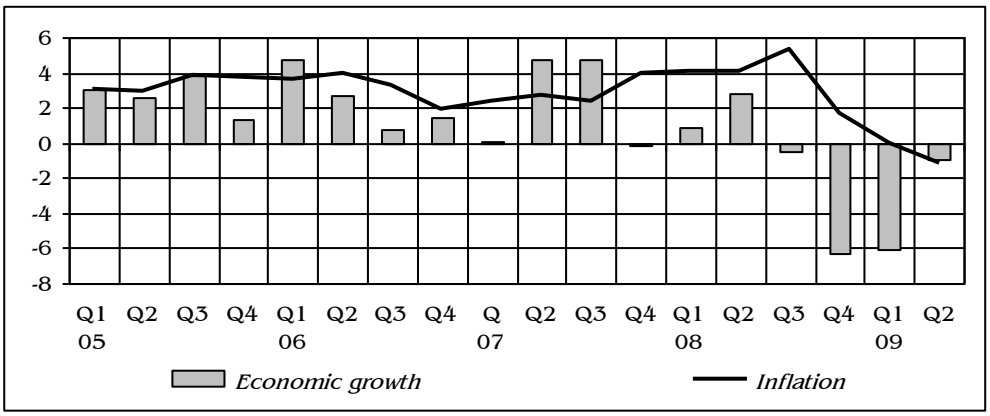
Below is a review of economic developments in the USA, Euro-zone and Russia, which make the largest share in the global economy and which are the main partners to Armenia. The review of economic developments of countries neighboring Armenia will follow thereafter.

Preliminary estimates suggest that in the second quarter too, the **United States of America** has been posting economic decline for four quarters in a row, making up 1.0 percent y-o-y (6.4 percent in the previous year). The main reason of the downturn was reduced gross domestic investment that led to the shrinkage of GDP by 2.64 percentage points. On the other hand, increased personal consumer spending resulted in some 0.88 percentage point decline of GDP. At the same time, net export and public expenditures have positively contributed to the growth of GDP, by 1.38 and 1.12 percentage points, respectively.

In the second quarter of 2009, the deficit of net export reduced to 2.5 percent of GDP (5.1 percent in the same period of the previous year). Declined imports in terms of both number and value contributed to such reduction. The US dollar's appreciation in the second quarter (y-o-y 14.7 percent against Euro) also contributed to the decline in import prices of raw materials in dollar terms.

In the second quarter of 2009, some 1.14 percent y-o-y deflation was recorded in the US (-0.04 percent in the previous quarter). This has been attributable mainly to prices still persisting at their low in commodities and fuel markets. Given the economic slowdown and sharp deceleration of the rate of inflation, the Federal Reserve System remained committed to the policy of 'quantitative easing', while maintaining a target corridor for interest rates of federal funds in the range of 0-0.25 percent.

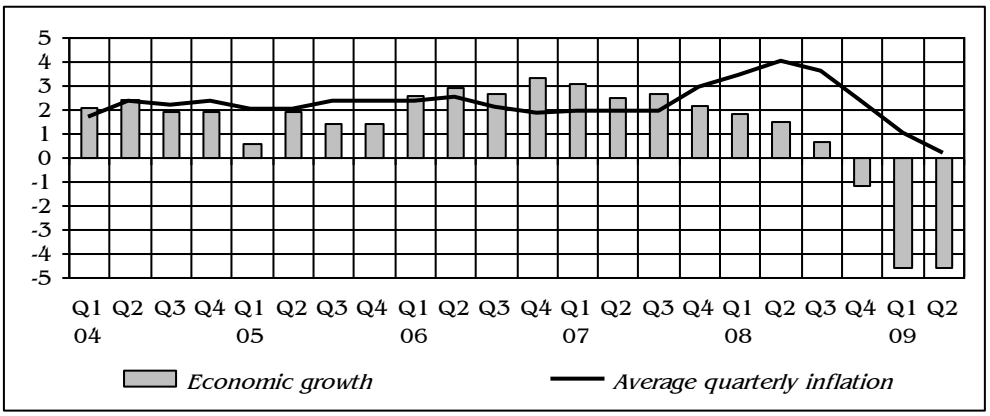
USA has been posting an economic decline for four quarters in a row



Economic slowdown in **Euro-zone** in the second quarter of 2009 has been -4.6 percent y-o-y and -0.1 percent q-o-q (in the previous quarter these

indicators were -2.5 percent and -4.9 percent, respectively), according to the preliminary data from the EuroStat. Meanwhile, in the second quarter the trade balance surplus reached EUR 9 billion instead of about -1.6 billion surplus in the second quarter of the previous year.

In Euro-zone, too, the economic decline carries on



The growth of consumer price index continued falling in the second quarter of 2009, making up 0.2 percent y-o-y. During the quarter the European Central Bank lowered the interest rates by 0.25 percentage point to a 1.0 percent level.

In the second quarter of 2009, economic decline in **Russia** paced further: an estimated decline reached 10.9 percent, according to data from the Federal Statistics Service of Russia. Further deterioration of the economic situation defused all the expectations that the Russian economy had touched the bottom back in the first quarter of 2009 and that it had started recovering.

Negative growths were recorded in all sectors of the economy: decline in industry in the second quarter of 2009 reached 15.4 percent y-o-y, and 14.8 percent based on the results for the first six months. In the period January-June of 2009, the decline in non-tradable sectors, i.e. trade and construction, has been 3 percent and 19.3 percent, respectively.

Given the said developments, some international organizations make new forecasts even further downward. According to the IMF forecasts, the economic decline in 2009 would reach 6.5 percent.

In the second quarter of 2009, high shrinking rates of the current account surplus persisted amidst net inflow of capital and financial assets. The current account surplus has reduced by USD 18.2 billion to make up USD 8.1 billion. The positive balance on the capital and financial account has been achieved thanks to net inflow of funds of the private sector (excluding commercial banks). With these balance of payments flows, the reserves of the Central Bank of Russia have increased by USD 21.4 billion during the second quarter and amounted to USD 412.59 billion as of July 1, 2009.

During the second quarter of 2009, the Russian ruble tended to appreciate as opposed to the depreciation observed in the first quarter. Thus, the ruble's average nominal exchange rate vs. the US dollar appreciated by 5.2 percent against the average exchange rate reported in the previous quarter, whereas the y-o-y depreciation has been 36.4 percent. During the second quarter the Russian Central Bank has acted as net purchaser in the foreign exchange market in order to curb further appreciation of the ruble.

With the nominal exchange rate appreciating, the inflation rates declined in the second quarter to reach 12.5 percent y-o-y (13.8 percent y-o-y in the previous quarter). As a result of expansionary monetary and fiscal policies, it is estimated that though the inflation rates would decelerate by the yearend against inflation of the previous year, they would however remain high. During the second quarter, the Central Bank has thrice cut the

refinancing rate setting it at 11.5 percent in June (from December 1, 2008 to April 23, 2008 the refinancing rate has been set at the level of 13.0 percent).

Macroeconomic Situation in Neighboring Countries [16]

Turkey: *Influenced by the global economic crisis, economic decline in the country has accelerated since the start of the year. The deepest economic decline, 13.8 percent, recorded in Turkey's history was in the first quarter of 2009*[17]*. The economy has been posting economic downturn for as long a period as six months, and the country is officially in the phase of recession. The uncertainties about the US's support to Turkish economy have led to postponement with regard to consumption and investment in the private sector, hence, to high falling rates of the economy (demand). As a result, the domestic demand (without change in the stocks) has incurred a negative impact of 13.7 percentage points, although net external demand has made some 7 percentage point positive contribution (the decrease in imports outpaced the decrease in exports). The slowdown was considerably observed in processing industry, construction and wholesale and retail trade by 18.5 percent, 18.9 percent and 25.4 percent, respectively.*

With the domestic and external demand continuously shrinking, the slowing of export has accelerated during the second quarter of 2009, resulting in the broadening of the current account deficit against the previous months. In the period April-May, the current account deficit has amounted to USD 2.86 billion (with USD 9.98 billion of deficit recorded in the same period of the previous year). As for the capital flows, some USD 556 million-worth of net inflow was recorded in the second quarter against net outflow recorded in the first quarter. By item "Other investment" the net capital outflow has been offset by net inflow of portfolio investments and foreign direct investments. As a result of these flows, the balance of payments has posted a deficit, which led to some USD 1.2 billion decrease of official reserves of the Central Bank of Turkey.

The trend of depreciating Turkish lira versus the US dollar observed in the first quarter of 2009 has turned to appreciation: in the second quarter of 2009, the average nominal exchange rate of lira has appreciated by 5.1 percent against the previous quarter, whereas the average depreciation made up 24.2 percent against the second quarter of the previous year.

During the second quarter the Turkish lira depreciated vs. the Euro and US dollar basket.

Given persistently slowing global economy and domestic demand, there has been a steep decline in consumer price growth rates observed in the second quarter of 2009, and the y-o-y inflation made up 5.7 percent (8.4 percent in the previous quarter).

In the aforementioned period, the Central Bank of Turkey continued its policy of lowering interest rates: in June the Bank set the interest rates at 8.75 percent (in March, the level of interest rates was 10.5 percent). In consideration of the fact that inflationary pressures have eased and that the economic activity would recover at a slowed and delayed pace, the Central Bank of Turkey looked to a policy of abrupt interest rate cuts, while injecting liquidity to ensure smooth performance in financial and credit markets.

Azerbaijan: *The country's economy is maintaining real GDP growth rates thanks to extraction of oil, natural gas and other carbohydrate resources. In the first half of 2009 the GDP growth has been 3.6 percent, and 4.1 percent in a non-oil sector*[18]*. It should be noted however that, with GDP deflator dropping by 35.4*

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[16] *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.*

[17] *Official economic growth data for the second quarter of 2009 are not available.*

[18] *Source: Azerbaijan Central Bank Statistics Bulletin, January-June, 2009, Table 1.1.*

percent, the nominal GDP has shrunk by 33.1 percent in relation to the same period of the previous year. Industry's contribution to the GDP growth has been 47.7 percent; agriculture – 4.8 percent; construction – 9.5 percent; services – 29.2 percent; and net taxes on manufacture and imports – 8.8 percent[19]. The GDP is estimated to grow by 18.9 percent in 2009.

In the period January-June of 2009, the average inflation in Azerbaijan has been 3.7 percent, while some 3.1 percent deflation was recorded compared to December of 2008. Average increase of prices of food products has been 2.1 percent; non-food products – 5.8 percent; and services – 5.4 percent[20]. In the period mentioned, the household incomes have increased by 16.2 percent; average monthly wages have grown by 19.0 percent to make up USD 370 (Manat 298)[21].

As a result of export-import transactions in the period January-June of 2009, the country has seen a positive surplus of trade balance amounting to USD 3.1 billion. The foreign trade volumes, however, have decreased more than 2.4-fold in relation to the same period of the previous year, which was driven by over thrice as much reduction in export volumes[22]. In the period January-May of 2009, oil and oil products have accounted for 91.8 percent of export, while machinery and equipment have accounted for 34.9 percent of import[23].

In January-June of 2009, foreign direct investments in oil sector of Azerbaijan have reduced by 35.5 percent to USD 1052.8 million. In the meantime, foreign direct investments in non-oil sector have constituted 24.8 percent of total investments[24].

In January-June of 2009, the manat's exchange rate has slightly depreciated vis-a-vis the US dollar by 0.38 percent, while the average exchange rate appreciation in the first half of the year has been 3.69 percent y-o-y.

As of the end of December of 2008, the volumes of economy lending have shrunk by about 10 percent, while non-performing loans have been added by one and half times[25]. Furthermore, in the period January-June of 2009, there has been some 26.3 percent reduction in the volumes of bank deposits, of which deposits in national currency have shrunk by 28.6 percent and deposits in foreign currency, by 24.5 percent. As of the end of June of 2009, the share of foreign currency-denominated deposits has been 43.1 percent of total deposits[26].

Pursuig to ensure financial stability of the banking sector and maintaining economic activity, the National Bank of Azerbaijan lowered, on February 2 2009, the refinancing rate by 3 percent, and a further 2 percent, on March 2 2009, setting it at the level of 3 percent. 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.

Foreign exchange reserves of the National Bank of Azerbaijan have decreased in the period January-June of 2009 by 17.2 percent and amounted to about USD 5.1 billion as of June 30 2009[27]. As of July 1 2009, the assets of State Oil Fund of Azerbaijan have amounted to USD 11.9 billion[28].

Georgia: *As in the third and fourth quarters of 2008 as well as in the first quarter of 2009, the country has been positing economic decline by 3.9 percent, 2.5 percent and 5.9 percent, respectively[29]. In the GDP structure in the first quarter of 2009, the largest growth was recorded in trade sector (12.5 percent), industry (12.4 percent), public administration (11.4 percent), and agriculture (9.8 percent)[30]. 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.*

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[19] Source: http://abc.az/rus/news/36742.html.
[20] Source: Azerbaijan Statistics Committee, http://www.azstat.org/sdds/en/P_I/I_C_P.shtml.
[21] Source: Azerbaijan Central Bank Statistics Bulletin, January-June, 2009, Table 1.1.
[22] Source: http://www.azstat.org/sdds/en/F_T/e_tr01.shtml.
[23] Source: http://www.day.az/news/economy/165159.html.
[24] Source: http://abc.az/rus/news/37572.html>.
[25] Source: Azerbaijan Central Bank Statistics Bulletin, January-June, 2009, Table 2.8.
[26] Source: Azerbaijan Central Bank Statistics Bulletin, January-June, 2009, Table 2.3.
[27] Source: http://www.nba.az/default.aspx?go=278.
[28] Source: abc.Az, 24 July, 2009, <http://abc.az/rus/news/36996.html>.
[29] Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-June 2009, Table 1.1. In Georgia, data on GDP and GDP component dynamics for the first half of the year will be published on September 30 2009, as the country prepares to move to a new system of statistics.
[30] Source: http://www.statistics.ge/_files/english/nad/GDP%20at%20current%20prices.xls.

In the first six months of 2009, inflation in Georgia has been 5.4 percent y-o-y, while some 1.3 percent inflation was recorded in relation to December of the previous year. Moreover, compared to the previous December, deflation was recorded with regard to all groups of goods, whereas some 2.9 percent inflation was recorded with regard to durable consumption goods[31]. As forecasted by the National Bank of Georgia, by the yearend, inflation would persist at a low level.

As a result of export-import transactions realized the period January-June of 2009, the country's trade balance deficit has reached USD 1,477.4 million. Relative to the same period of the previous year, exports of goods (FOB) have decreased by 35.3 percent and amounted to USD 515.1 million and imports of goods (CIF) have decreased by 37.1 percent and amounted to USD 1992.5 million[32].

In the first quarter of 2009, gross inflow of foreign investments has reached USD 124.5 million, representing a 2.3-fold decrease q-o-q, and 4.3-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 quarter of 2009, gross inflow of portfolio investments has been negligible, having reached USD 6.5 million[33]. In the period January-June of 2009, inflow of money transfers from abroad has amounted to USD 358.0 million, representing some 20.9 percent decrease compared to the same period of the previous year[34].

In the first half of 2009, the average exchange rate of lari has depreciated vis-a-vis the US dollar by 9.8 percent y-o-y; however lari's appreciation has been 0.5 percent compared to the end of December of 2008[35].

Pursuing to ensure 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[36]. Moreover, the National Bank has started using, since June 3 2009, a new monetary policy instrument, a foreign currency swap facility, aimed at enhancing the accessibility to loans in national currency in the economy and further reducing dollarization.

As the volumes of bank lending have been reduced considerably, the Georgian Government decided on stimulating the economy by means of issuance and allocation of treasury bills, on the account of further deepening the budget deficit. The purpose of such an action was to boost the securities market which, in turn, would promote the financial markets, increase the effectiveness of the monetary policy implementation and enhance the country's financial stability.

Foreign exchange reserves of the National Bank of Georgia have grown in the period January-June of 2009 nearly by 2.5 percent and amounted to USD 1518 million[37] at the end of June.

3.2. BALANCE OF PAYMENTS [38]

Driven by the global and domestic economic developments, the second quarter of 2009 was marked with faster declining rates of GDP. The latter, with still a high level of current account deficit, has resulted in the deterioration of the current account to GDP ratio. In the second quarter of 2009 a considerable inflow of capital was observed mostly in the form of loans attracted by the public sector. In the meantime, an active process of dollarization by the private sector has come to an end and no outflow of foreign currency funds has taken place, as a result. Nor there have been noticeable shifts in the current account components, and the trends from the previous quarter persisted. The deficit of trade balance kept on

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[31] Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-June 2009, Table 1.1.
[32] Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-June 2009, Table 5.4.
[33] Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-June 2009, Table 5.3.
[34] Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-June 2009, Table 5.8.
[35] Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-June 2009, Table 4.7.
[36] Source: National Bank of Georgia, Press Release, January-June 2009 www.nbg.gov.ge
[37] Source: National Bank of Georgia, "Monetary and banking statistics bulletin", January-June 2009, Table 5.1.
[38] The Q1 2009 data are estimations by the Central Bank of Armenia.

reducing as export of goods[39] had decreased by 45.3 percent y-o-y and import of goods[40], by 30.1 percent y-o-y. Private transfers kept on slowing fast as some 35.2 percent y-o-y decrease had been recorded in the reporting period. The latter was influenced by further slowdown of the Russian economy[41] (in the second quarter of 2009, the shrinkage of GDP in Russia has been 10.9 percent[42]).

As a result such developments, the current account deficit has somewhat increased (by USD 21.2 million) in relation to the second quarter of the previous year in spite of the reduction in the trade balance deficit, and amounted to USD 240.3 million.

The y-o-y decline in exports in dollar and real terms has been attributable mainly to a persistently low level of metal prices as well as reduced external demand. The decline in imports has been driven by substantial y-o-y falls in prices in global markets and continued decline in the domestic demand.

In the second quarter of 2009, net inflow of capital and financial account has been USD 662.8 million mostly due to loans attracted by the public sector. The latter has substantially exceeded the current account deficit. This caused the balance of payments to report surplus, which resulted in an increase of gross external reserves of the Central Bank. In the meantime, gross external reserves have been added up owing to loans attracted from the IMF.

Though international prices of a number of raw materials have grown during the second quarter of 2009, these are still at their low levels in relation to the same quarter of the previous year.

Current account

In the time of slowdowns in economies globally and domestically, which reflect declined external and domestic demand, the current account deficit has somewhat increased (by USD 21.2 million) in relation to the second quarter of the previous year in spite of the reduction in the trade balance deficit, and amounted to USD 240.3 million. Persisting current account deficit remained to be conditional on the narrowing of incomes and inflow of private transfers. The share of current account deficit in GDP has increased to make up 13.9 percent in the second quarter. According to estimations for the first six months of the year, the current account to GDP ratio has been 15.7 percent as compared with 12.3 percent in the same period of the previous year.

In the second quarter of 2009, the trade balance deficit has reduced by USD 143 million and amounted to USD 459.1 million. The decreases in exports and imports in the second quarter have been 45.3 percent and 30.1 percent y-o-y, respectively. The balance of trade has improved owing to faster shrinking values of imports over those of exports.

The decline in exports in dollar and real terms[43] has been attributable mainly to a persistently low level of metal prices as well as reduced external demand. Exports of nearly all commodity groups have decreased at high rates. In the second quarter of 2009, the export of item "Base metals and articles thereof" has decreased by 50.6 percent y-o-y (with a negative contribution making up 17.6 percentage points). The y-o-y reduction in export of item "Mineral production" in the second quarter of 2009 has been 43.7 percent (with a negative contribution making up 8.6 percentage points).

In the second quarter of 2009, the y-o-y decrease of item "Precious and semi-precious stones, precious metals and articles thereof" has been 59.4 percent, of which the decrease of export of diamond has been 76.3

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[39] The decrease of export of goods (FOB) in the period January-June 2009 has been 45.9 percent.
[40] The decrease of import of goods (CIF) in the period January-June 2009 has been 27.5 percent.
[41] Prevailing portion of private remittances comes from Russia.
[42] http//gks.ru.
[43] In the second quarter of 2009, the y-o-y exports of ferromolybdenum, copper concentrate and aluminum foil have increased in real terms.

percent. However, the export of gold included in the item has increased by 16.7 percent y-o-y and reached USD 9.3 million.

Reduction in export of item "Products of prepared food" continued: in the second quarter it reached 45.7 percent y-o-y, which was determined mainly by a substantial decrease in export of brandy to Russia.

Export of item "Textile articles" has decreased by 55.5 percent y-o-y and export of item "Machinery and equipment", by 34.4 percent y-o-y. The total weight of these two items in total exports in the second quarter of 2009 has been 7.1 percent.

Persisting environment of low prices in world markets, coupled with weakening domestic demand, has led to the continued high rates of decline in import in dollar and real terms. In the second quarter of 2009, the declining rates of import have been high with respect to nearly all items[44].

In particular, there have been decreases in imports of items "Base metals and articles thereof" and "Precious and semi-precious stones, precious metals and articles thereof"[45], respectively, by 6.5 percent and 84 percent y-o-y. The y-o-y decreases in imports of the rest of items[46] that hold large weight ("Products of prepared food", "Mineral production" and "Machinery and equipment") in the second quarter of 2009 have been 37.8 percent, 27.4 percent and 11.8 percent, respectively.

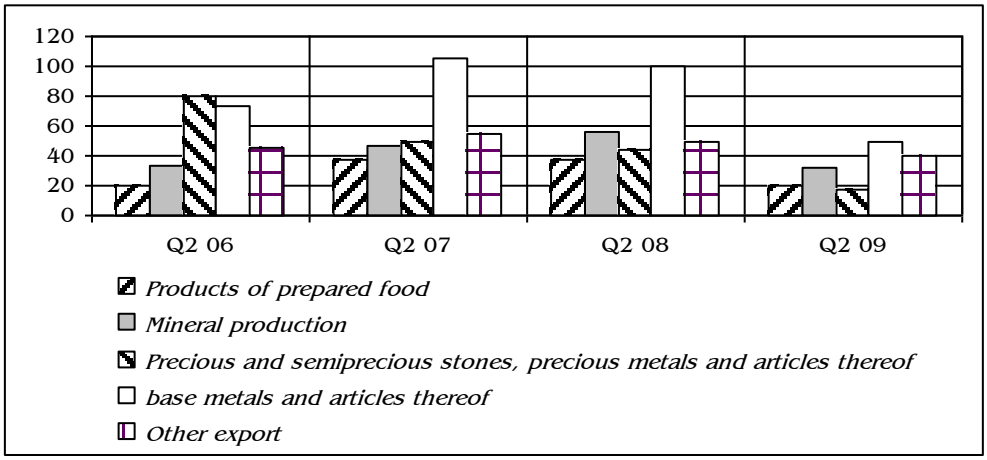
The y-o-y decrease in import of item "Transport means" has been 65.7 percent.

The y-o-y decreases of imports of items "Goods of chemical production" and "Plastic and articles thereof" have been 10.7 percent and 30.4 percent, respectively.

Without account of item "Precious and semi-precious stones, precious metals and articles thereof", exports have decreased by 42.1 percent y-o-y, while imports have decreased by 27.8 percent y-o-y. Without account of this item, the trade balance deficit has decreased by USD 171.5 million to USD 568.1 million (exports FOB and imports CIF).

There have been no essential shifts in terms of geographic distribution of external trade. 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 with EU countries has decreased by USD 44.3 million (or 24.2 percent) and the trade balance deficit with CIS countries has decreased by USD 30.2 million (or 14.3 percent). Other countries include Turkey, Iran and Japan with which the trade balance deficit has reduced, respectively, by USD 19.1 million (32.3 percent), USD 7.3 million (20.4 percent) and USD 27.1 million (64.4 percent). The deficit of trade balance with China has decreased by USD 35.6 million (or 40.5 percent).

In the second quarter of 2009 high declining rates in the main export items persisted (million USD)

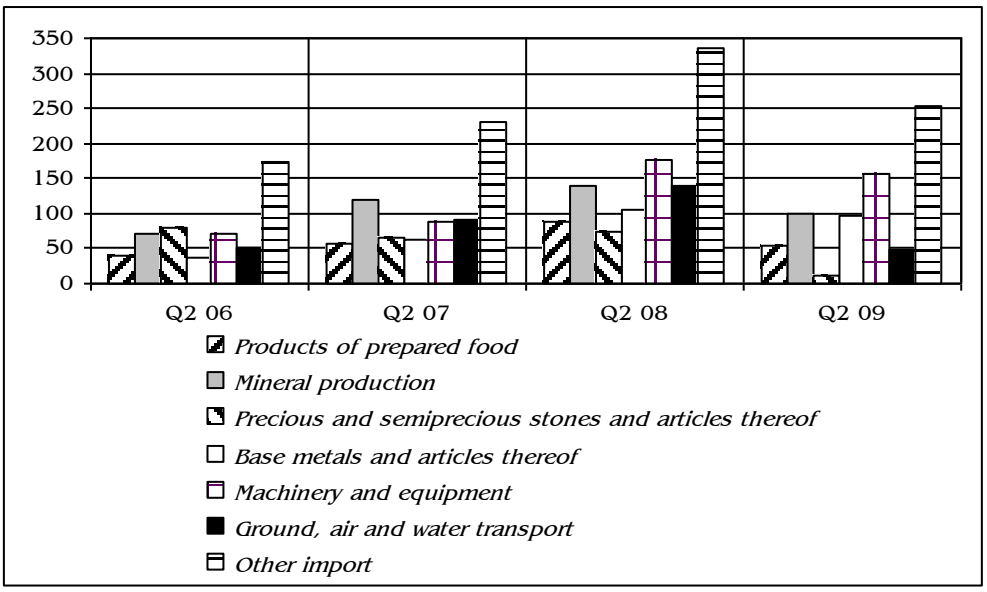


[44] *It has been reported y-o-y 2.6 percent growth of import of item "Fats and oil" which holds a tiny share.*

[45] *The import of diamond declined by 62.8 percent; the import of gold, by 77.7 percent.*

[46] *The contribution of individual items to the total decrease of imports has been as follows: "Products of prepared food" – 0.2 percentage point, "Mineral production" – 3.8 percentage points, "Transport means " – 3.9 percentage points and "Machinery and equipment" – 4.2 percentage points.*

In the second quarter of 2009 high declining rates in the main export items persisted (million USD)



The decline in the trade balance deficit has led to the reduction of the balance of services deficit: in the second quarter of 2009, it shrank by 21.2 percent to USD 60.3 million mostly due to a decrease in the balance of transport services deficit. The export and import of tourism services have remained almost the same recorded for the same quarter of the previous year. As a result, export of services decreased by 12.0 percent y-o-y and import of services decreased by 15.0 percent y-o-y.

Driven by further adverse developments in the Russian economy, private remittances kept on slowing down at fast rates[47] (In Russia, the GDP decline in the second quarter of 2009 was estimated to reach 10.9 percent). In the second quarter of 2009, the net inflow of seasonal worker income has reduced by 34.0 percent y-o-y to amount to USD 121.7 million, which offset the net outflow of USD 19 million in item "Income on investment". As a result, the net inflow of funds of item "Income" has reached USD 102.7 million. In the second quarter, high declining rates in private transfers persisted, and some 35.2 percent y-o-y decline has been recorded.

million USD

Items	2006/2	2007/2	2008/2	2009/2
	Actual	Actual	Actual	Estimate
Current account	0.7	-53.4	-219.1	-240.3
Trade balance	-199.2	-311.3	-592.1	-459.1
Services (net)	-38.9	-54.9	-76.5	-60.3
Income (net)	64.7	88.7	177.2	102.7
Private transfers(net)	148.9	189.6	258.9	167.7
Public transfers (net)	25.1	34.5	13.3	8.8

Capital and financial account

An active process of private sector-driven dollarization, observed from the previous quarter, came to an end in the second quarter of 2009. As a result of this, no outflow of foreign currency funds by the private sector (excluding commercial banks) has occurred. At the same time, there has been a large inflow of funds mostly due to the loans attracted by the public sector. As a result of such flows, net inflow of capital and financial account (which amounted to USD 662.8 million), coupled with persisting large

[47] *In the second quarter of 2009, some 35.5 percent y-o-y decrease in net non-commercial transfers was recorded. As such, inflow of non-commercial transfers have reduced by 34.8 percent y-o-y and outflow of non-commercial transfers have reduced by 30.2 percent y-o-y.*

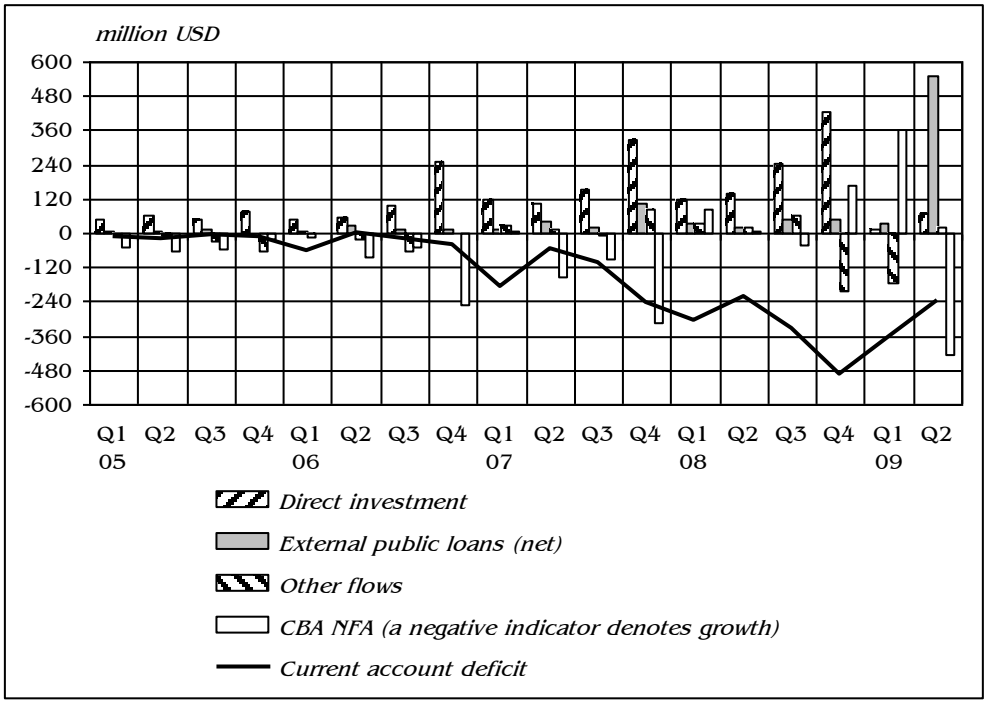
values of the current account deficit, has resulted in a USD 422.5 million increase of net foreign assets of the Central Bank (it should be noted that in the second quarter of the previous year net foreign assets of the Central Bank decreased by 7.4 million). At the same time, gross foreign exchange reserves of the Central Bank have been added as a result of an SDR 102.66 million-worth disbursement by the IMF under the Stand-By Arrangement.

In the second quarter of 2009, net inflow of capital transfers amounted to USD 23.3 million (USD 41.4 million in the same quarter of the previous year).

Following a substantial decrease in the first quarter of 2009, foreign direct investments have increased during the second quarter and amounted to USD 68.3 million, which is nonetheless low enough in relation to the FDI indicator recorded for the same period of the previous year.

Item "Other investment"[48] reported net outflow of USD 19.8 million against huge outflow of USD 157 million recorded in the first quarter of 2009. In the second quarter of 2009, net foreign assets of commercial banks have grown by USD 4.7 million in contrast to a USD 24.5 million decrease of net foreign assets of other private sector.

In the second quarter of 2009 the inflow of capital financial funds notably exceeded the current account deficit



3.3. INTEREST RATES, EXCHANGE RATE, AND MONETARY DEVELOPMENTS

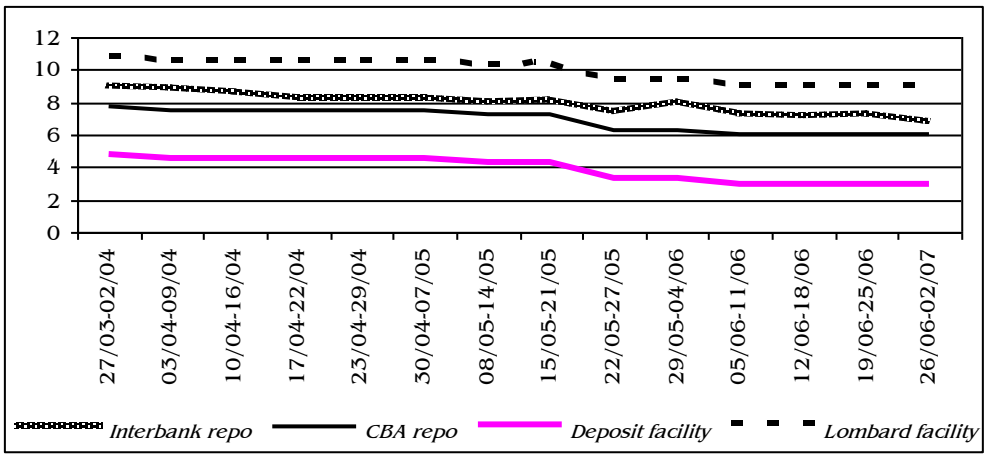
3.3.1. Interest rates

In the times of global financial and economic crisis persisting in the second quarter, too, the macroeconomic developments were reflected in further slowdown of the economy. In a situation of deeper-than forecasted economic decline the dram depreciation in early March and increased tariffs of the main public utility services since April resulted in certain acceleration of the inflation rate. However, their impact on the headline inflation was significantly weaker than forecasted. As a result, though the inflation rate was higher in relation to the previous quarter, it was below the forecast by round 1 percentage point, remaining in the lower border of the target band. This is why he Board of the Central Bank lowered the repo rate four times during the second quarter from 7.75 percent to 6 percent.

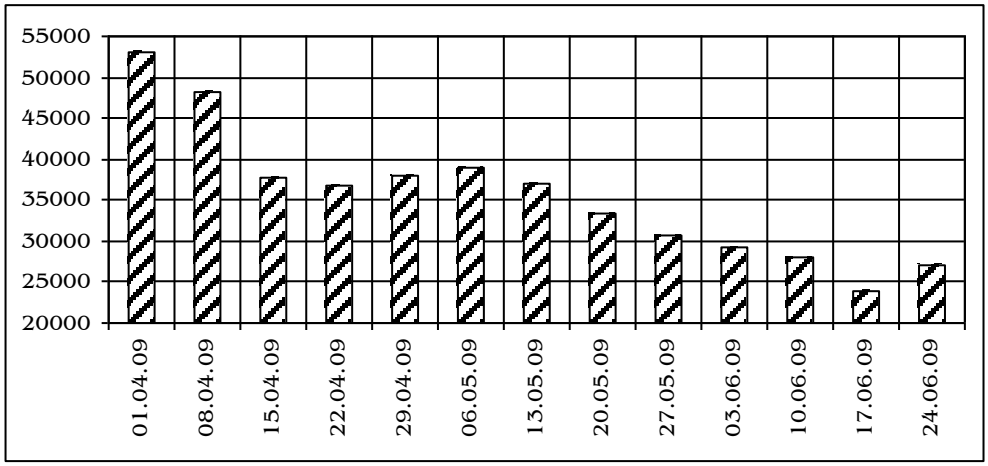
[48] *Net foreign assets of the banking system and other private sector.*

In the meantime, given the rule of even distribution of interest rates on standing facilities against the repo interest rate, the Central Bank further lowered these rates accordingly and set them at the level of 3.00 percent and 9.00 percent in June.

Interest rates of CBA operations and market repo rates



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



In the second quarter of 2009, the Central Bank continued offering commercial banks to conclude repo agreements each Wednesday thus enabling commercial banks to tackle their liquidity issues. The average weekly volumes of repo operations performed in second quarter amounted to AMD 35.5 billion (AMD 56.7 billion in the same period of the previous year).

During the second quarter, particularly in May, the Central Bank started using a new structural instrument – a long term (3-month) refinancing facility, with a total volume of AMD 4 billion at the end of the quarter.

The results of expansionary policy conducted by the Central Bank since the beginning of the year have come to show up especially during the last month of the second quarter, leading to a gradual fall in interest rates of government securities and repo operations. Interest rates of these instruments remained somewhat higher in comparison with those observed in the previous quarter.

During the second quarter the Central Bank has purchased treasury bills worth AMD 19.9 billion in the secondary market. This has been beneficial in terms of primary allocations of treasury bills as it made its positive contribution to the increase of allocation volumes and to the drop of interest rates in the primary market.

During the quarter the average daily volume of deposit invested by commercial bans with the Central Bank amounted to AMD 3.9 billion against AMD 1.8 billion in the previous year.

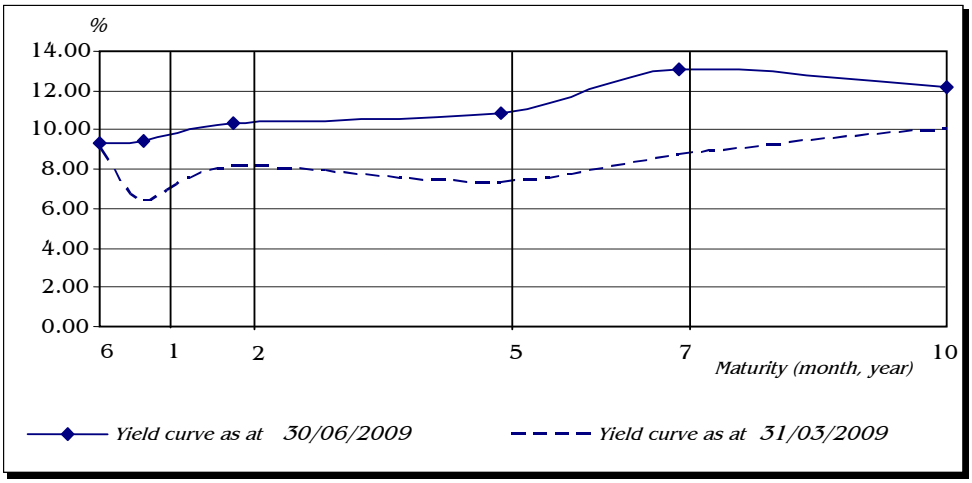
The volume of operations performed in the interbank and intrabank repo market in the second quarter made up AMD 62.7 billion, which was a 1.6-fold increase against the previous quarter. The market repo interest rate was 7.48 percent in June against 8.9 percent recorded for March of 2009.

The issuance of short term treasury bills in the second quarter of 2009 amounted to AMD 23 billion; however AMD 22.4 billion has been allocated compared with AMD 11.4 billion allocated in the previous quarter.

Interest rates in primary market of treasury bills have increased during the second quarter of 2009. In June, the average yield on 1-year notes was 10.68 percent; that of 2-5-year notes was 13.84 percent and that of notes with more than 5-year maturity was 15.52 percent.

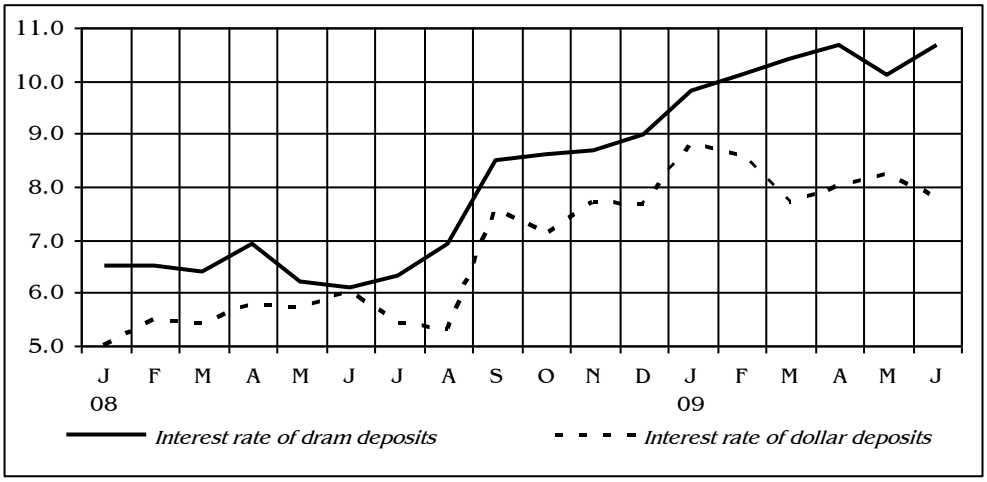
The yield curve analysis for March and June shows that in the secondary market of government securities yields have grown all along the curve, despite a downward trend observed at the end of the quarter. The prevailing part of the change in the position (92.0 percent) is attributable to a parallel move of the curve, which made up 2.62 percentage point, owing to the growth of yields. The convexity of the curve has changed by 7.42 percent, from 0.19 to 0.18. This points to the narrowed spread between interest rates of long term and short term treasury bills.

In the secondary market, interest rates have increased all along the curve



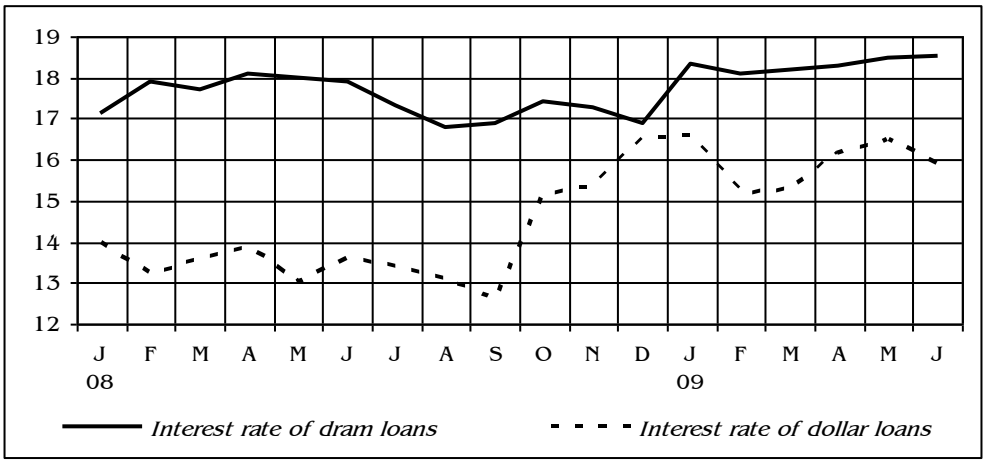
Interest rates of loans and deposits in Armenian dram and US dollar trended differently. In June of 2009, interest rates of dram and dollar deposits were 10.6 percent and 7.8 percent, respectively. While interest rates of dram deposits rose by 0.25 percentage point, interest rates of dollar deposits remained almost at the same level. As a result, the spread of interest rates of dram and dollar deposits has been 2.8 percentage points, remaining almost unchanged in relation to the previous quarter's indicator.

In the banking sector, interest rates of dram deposits increased



Interest rates of commercial bank loans showed growth trends. In June of 2009 interest rates of dram loans reached 18.5 percent, and dollar loans, 15.9 percent, up by 0.3 percent and 0.6 percent, respectively, in relation to the previous quarter. As a result, the spread of interest rates of dram and dollar loans has been 2.6 percentage points in relation to the previous quarter's indicator of 2.9 percentage points.

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



In June of 2009, the interest rate spread of loans and deposits in Armenian dram was 7.9 percentage points versus 7.8 percentage points in March of 2009, remaining almost unchanged, while the interest rate spread of loans and deposits in US dollar was 8.1 percentage points versus 7.6 percentage points in March of 2009, growing by 0.5 percentage point.

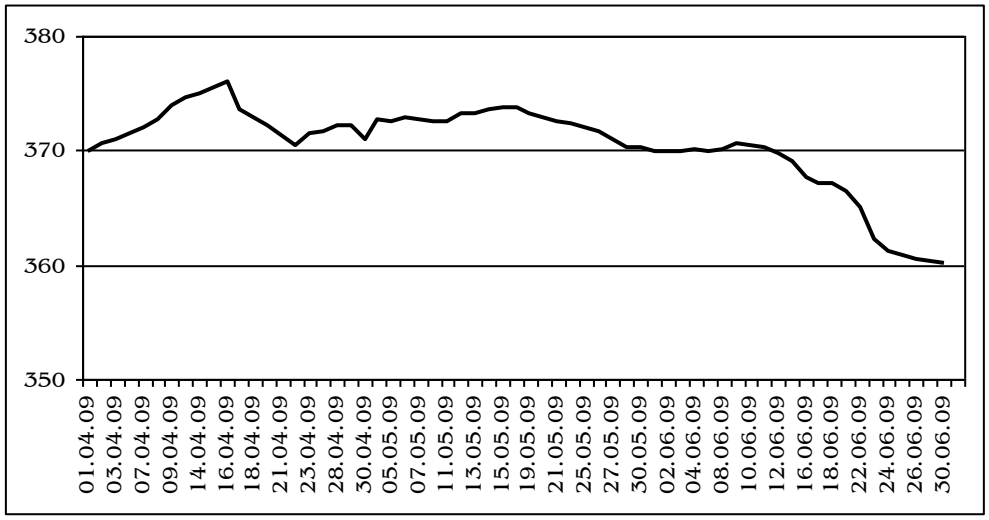
3.3.2. Exchange rate

The previous pressures in the domestic foreign exchange market associated with the deteriorated global crisis departed, and the dram's exchange rate vis-a-vis the dollar has been relatively stable.

At the end of the quarter, relative to the end of the previous quarter, the dram has appreciated versus the dollar by 2.14 percent to 360.06 from 367.77 for one dollar. In the same time at the end of June, relative to the end of June of the previous year, the dram has depreciated versus the dollar by 15.94 percent to 360.06 from 302.65 for one dollar.

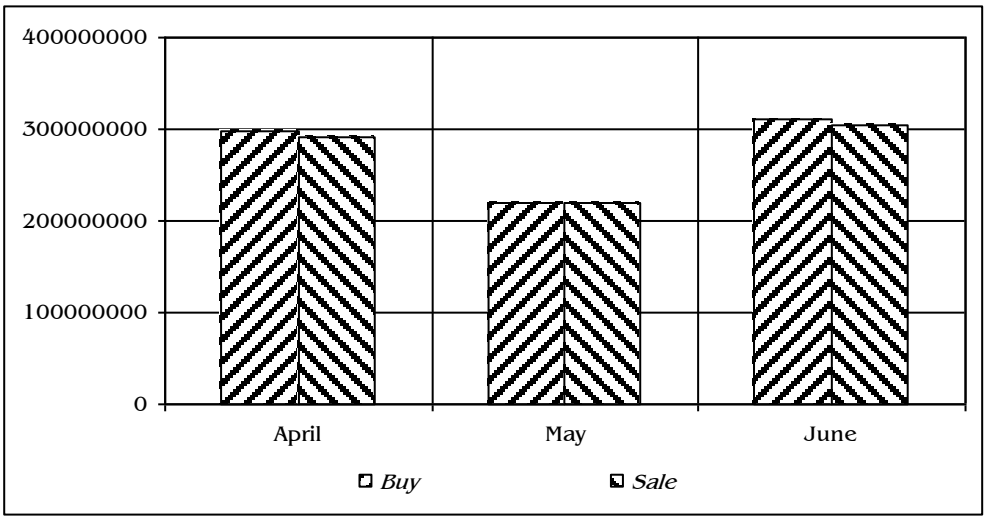
In the second quarter of 2009, relative to the same period of the previous year, the average quarterly AMD/USD exchange rate has depreciated by 17.12 percent to 370.53 from 307.11 for one dollar. However, in the same period of the previous year, there has been appreciation of the dram by 15.25 percent.

AMD/USD exchange rate dynamics



The aggregate volume of interbank market transactions carried out during the second quarter has been USD 1643.3 million*, up by 23.82 percent from the second quarter indicator of the previous year (USD 2156.9 million).

Operations carried out in the foreign exchange market



The volumes of transactions in the EUR/AMD exchange market have decreased as well. The aggregate volume of these transactions has been EUR 147.88 million, down by 11.3 percent in comparison with the second quarter of the previous year.

To handle the dram supply and moderate volatilities in the dram's exchange rate, the Central Bank has purchased USD 25.4 million from and sold USD 30.43 million to commercial banks during the second quarter of 2009.

During the second quarter the dram's nominal effective exchange rate has depreciated by an average 15.6 percent in relation to the previous quarter, whereas the y-o-y depreciation has been merely 0.7 percent. The dram's y-o-y depreciation against the dollar and partner countries' weighted average exchange rate depreciation against the dollar has been almost the same, having resulted in an almost unchanged level of the dram's nominal effective exchange rate y-o-y. In a row of cross exchange rates of partners countries versus the dram, the Russian ruble, Ukrainian hryvnia and British pound sterling made upside contributions to appreciation (by 2.7, 2.0 and 0.2 percentage points, respectively), which were offset by downside contributions to depreciation of the remaining partner countries. The nominal effective exchange rate depreciated in June by 2.3 percent against June of the previous year.

The rate of inflation has notably diminished in Armenia and partner countries. In the second quarter of 2009, the average quarterly inflation has been 3.5 percent y-o-y in Armenia and 4.7 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 percentage points, respectively. As a result, in the second quarter of 2009 the real effective exchange rate has depreciated by 2.0 percent y-o-y (10.0 percent in the previous quarter), while the depreciation in June of 2009 has been 3.3 percentage point in relation to June of the previous year.

In the second quarter of 2009, the domestic real exchange rate has appreciated by 17 percent y-o-y (the appreciation in the previous quarter has been 7.6 percent), which is a result of faster growth of prices in non-tradable sector over prices in tradable sector.

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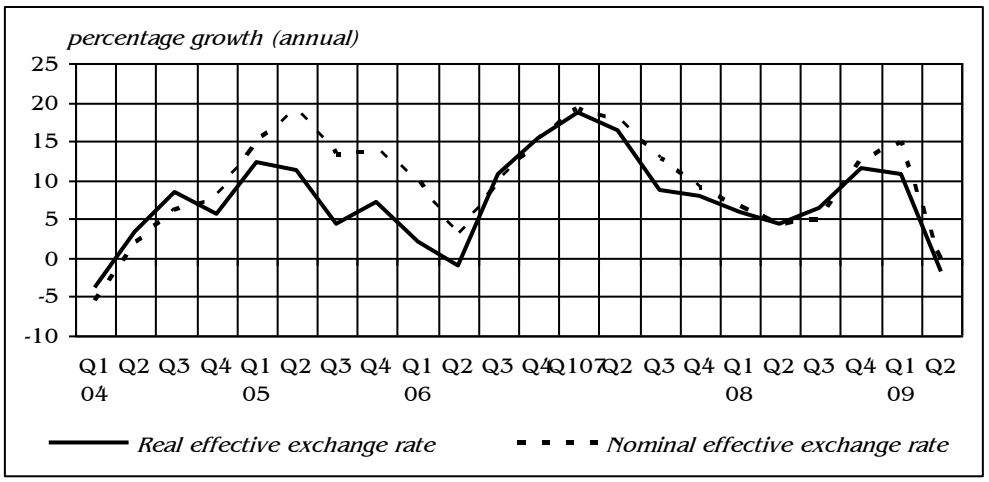
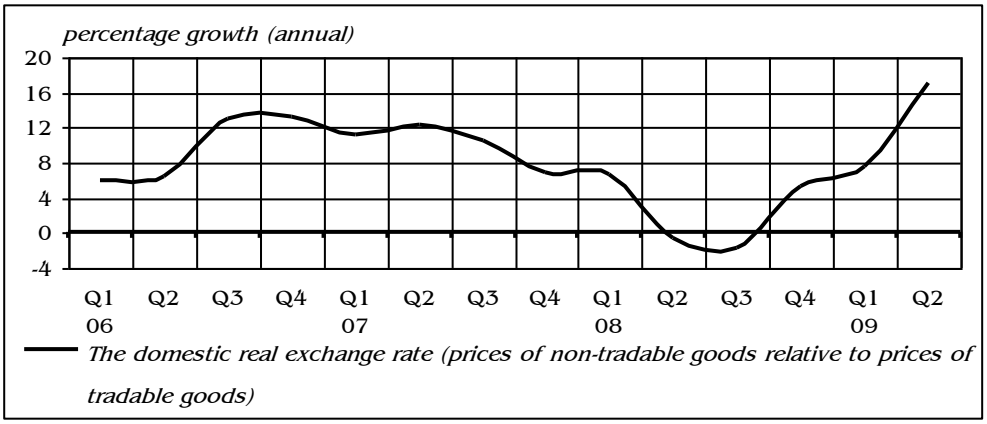
* *Including the volumes of trades on the stock-exchange to the amount of USD 124.737 million.*

In the second quarter of 2009, the appreciation of real and nominal exchange rates turned to depreciation



Prices of non-tradable goods and services have increased by 16.9 percent y-o-y, whereas prices of tradable goods have been almost unchanged, showing merely -0.02 percent change versus 10.2 percent and 2.4 percent, respectively, recorded in the previous quarter. In the second quarter of 2009, prices of tradable goods remained almost unchanged under the y-o-y depreciation of the dram's nominal exchange rate and a notable y-o-y drop in international prices. Increase of prices in non-tradable sector was determined mainly by risen gas and electric energy tariffs.

In the second quarter of 2009 too, the domestic real exchange rate kept on appreciating



3.3.3. Monetary developments[49]

In the second 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 thanks to the Central Bank's consistent policy of quantitative easing and interest rate reduction. These trends have been most pronounced in the performance of monetary indicators as they demonstrated stabilization patterns after the first quarter slackening. This has been driven by a new equilibrium of the exchange rate in the currency market, on the one hand, and the Central Bank's consistent policy of quantitative easing and interest rate reduction, on the other. Under these conditions no advancement of dollarization occurred but foreign currency components of monetary aggregates remained relatively stably.

As actual figures show dram broad money has grown by 6 percent q-o-q, due to the reduction in dram deposits by 1.6 percent and increase of currency in circulation by 11.3 percent. For comparison, in the previous quarter the indicators named above reported quarter-on-quarter decreases by 33.5 percent, 34.4 percent and 32.8 percent, respectively.

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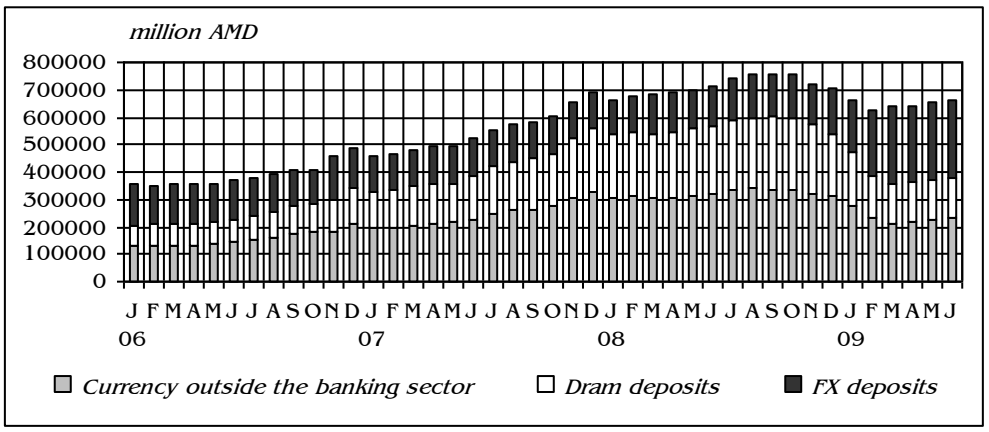
[49] *Starting from the third quarter of 2008, the Central Bank paper "Republic of Armenia Monetary Policy and Inflation Report" covers summary balance sheet indicators of depositary institutions, i.e. the Central Bank, commercial banks and credit organizations.*

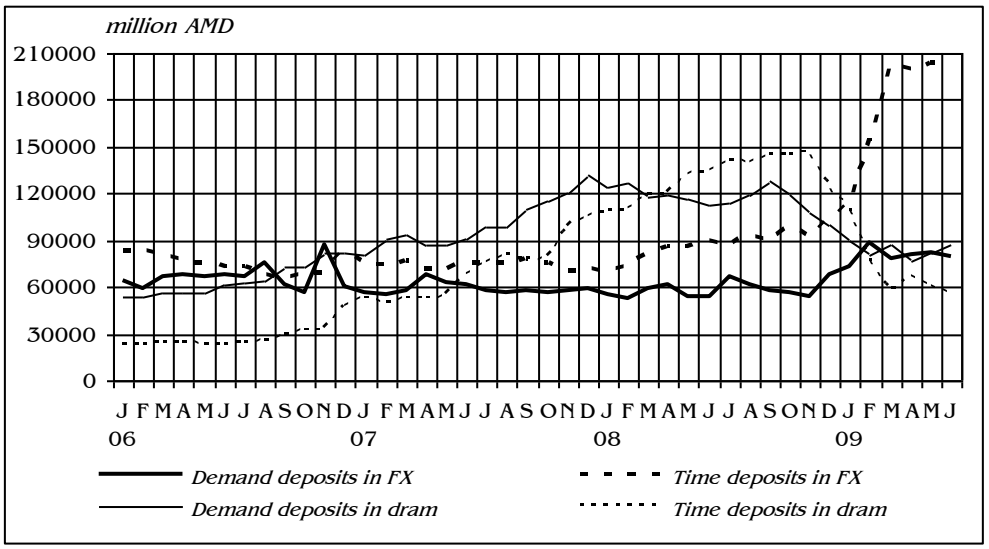
The dramization decelerated as the dram components reduced



In the reporting period, the slowing of dollarization has been seen in the performance of foreign currency deposits in dram terms, generating just 1.2 percent growth q-o-q, whereas the same indicator's growth in the previous quarter was 64.9 percent.

Some growth was recorded in the structure of time deposits and demand deposits in foreign currency, by 1.1 percent and 1.2 percent q-o-q (with growth in dollar terms by 3.3 percent and 3.4 percent), respectively. Time deposits and demand deposits in dram have decreased by 3.9 percent and 0.1 percent q-o-q, respectively.

Dram and foreign currency deposits by maturity



As a result of flows of the above components, broad money has grown by 3.9 percent q-o-q.

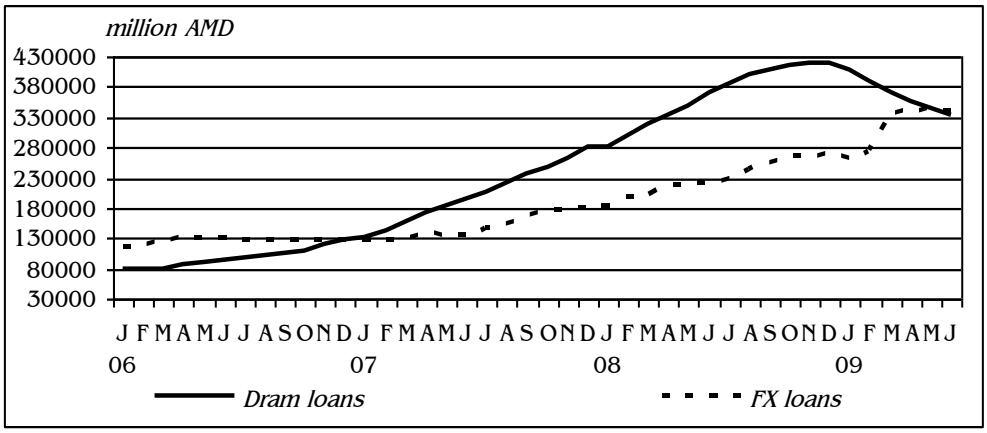
By supply-side factors, monetary aggregates have grown totally owing to net foreign assets of the depositary institutions, with some 2.7-fold growth or AMD 225.5 billion (in the pervious quarter this indicator has reduced by 55.8 percent), while net domestic assets have decreased in this period of time by 39.4 percent q-o-q (22.3 percent growth in the previous quarter).

The growth of NFA has been due to a nearly AMD 164 billion increase of the Central Bank NFA, while the decrease of NDA due to reduction in net government liabilities (round AMD 156.6 billion), economy lending (round AMD 32.1 billion) and the sector's other assets net (about AMD 12 billion). These trends were determined mainly by the movement of the same indicators of the Central Bank (see details in section Monetary Base).

Despite some 4.5 percent q-o-q decrease in economy lending during the quarter, the loan market has seen certain activation at the end of the quarter, which was reflected in both the trends of reduced interest rates of loans and increased volumes of new loans.

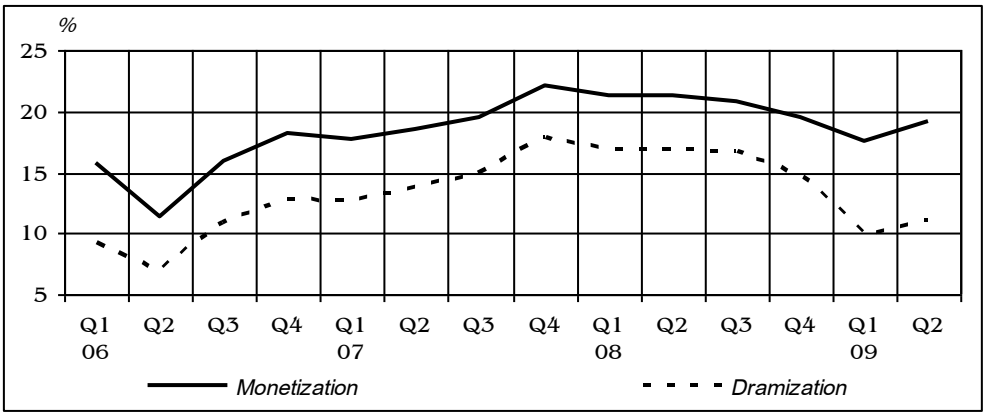
The economy lending indicator also reflected the tendency of deceleration of dollarization. Though lending in dram has reduced by round 9.9 percent or AMD 36.8 billion in relation to the previous quarter, the growth rates of FX loans in dram terms have reduced abruptly, too, by 1.2 percent or AMD 4 billion (the growth in dollar terms has been 3.4 percent) compared with 26.2 percent growth recorded in the previous quarter (the growth in dollar terms has been 5.3 percent). As a result, the dram to foreign currency ratio of funds made available for lending has been 49/51 against the previous quarter's ratio of 52/48.

Starting May 2009, loans in dram have reduced. Growth rates of FX loans have declined, too.



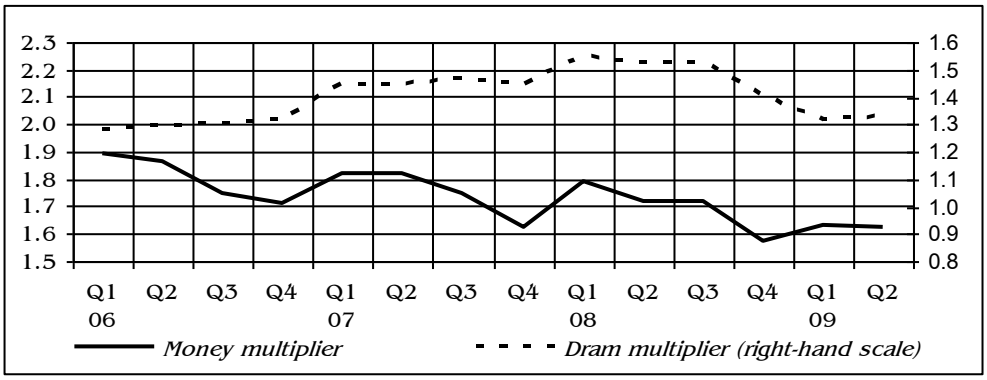
In the second quarter of 2009, the dollarization of the economy (measured as a ratio of foreign currency deposits to broad money) has slightly reduced to 42.7 percent from the previous quarter's 43.9 percent, which more than doubled the respective indicator of the previous year.

In the second quarter of 2009, the dramization and dramization ratios have somewhat grown



The monetization and dramization ratios, described as indicators of financial intermediation, have trended upward during the second quarter of 2009, by 9 percent and 11.2 percent q-o-q, respectively (the latter indicator is higher due to a large demand for the dram observed during the quarter).

The money and dram multipliers



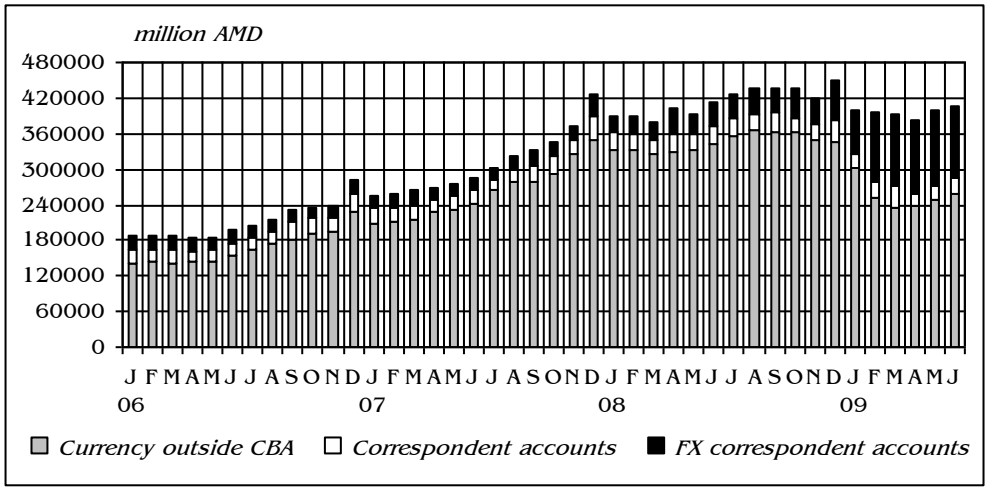
Some 1.7 percent increase of the dram multiplier relative to the previous quarter points to the stabilization of financial intermediation in dram, in concurrence with nearly an invariable level of money multiplier.

The performance of the aforementioned ratios point to the fact that the level of financial intermediation and the dram intermediation in particular has grown to some extent in the second quarter of 2009.

Monetary base

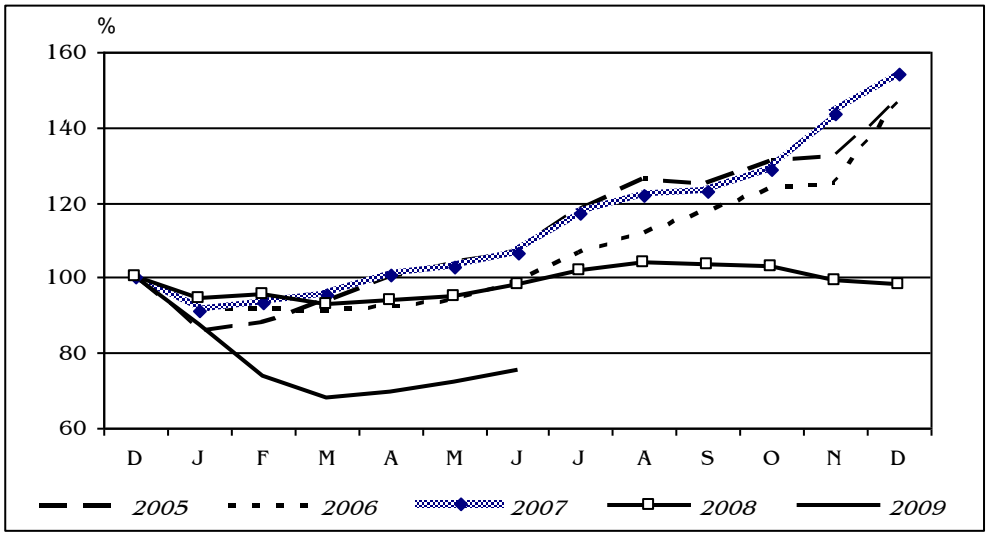
With some stabilization back on track after the slowdown of the dramization rates since the beginning of the year, the Central Bank has made it sure during the second quarter of 2009 that money supply was consistent with the economy's demand for the dram. As a result, at the end of June, the q-o-q growth of monetary base has been 4.1 percent (versus some 12.9 percent reduction in the previous quarter), which was totally reflected in the performance of currency outside the Central Bank (showing 10.6 percent growth q-o-q). For comparison, this indicator has reduced in the previous quarter by 32.1 percent.

FX correspondent accounts remain holding a large share in the liability side of monetary base



A slight improvement of the dramization has reflected in the performance of currency in circulation, hence in the currency outside the Central Bank. Based on the behavior of the currency outside the Central Bank in recent years, one may see that currency outside the Central Bank has recurred in the performance typical to the second quarter of 2006 and of 2008 following an abrupt reduction recorded in the first quarter of this year.

The behavior of currency outside the CBA was the same as in Q2 2006 and Q2 2008



During the quarter, monetary base has increased totally due to 45.6 percent increase of the Central Bank NFA, which was accompanied by 3.6-fold decrease (AMD 147.9 billion) of the Central Bank NDA. The said development has been completely driven by AMD 141.7 billion decrease of net government liabilities to the Central Bank and by AMD 25.2 billion decrease of net banking sector liabilities to the Central Bank. The disbursement of USD 500 million-worth loan (AMD 185.1 billion) from Russia under an interstate agreement in June served a key factor causing the growth of the former indicator and causing the decrease of net government liabilities.

3.4. AGGREGATE DEMAND AND AGGREGATE SUPPLY

3.4.1. Aggregate demand

Domestic demand

Private consumption and investments[50]**.** In the second quarter of 2009, the domestic demand declined further determined totally by a considerable reduction in private spending. This has been due to contraction of private sector incomes in the main, which is a consequence of narrowed financial inflow and reduced remittances, in particular.

In the second quarter of 2009, the domestic demand has decreased nearly by 17.0 percent in real terms in contrast to 13.1 percent growth recorded for the same period of the previous year. The decrease of the domestic demand was principally determined by contracted private expenditures, since public expenditures were similar to those recorded in the previous year.

In the second quarter of 2009, private spending has decreased nearly by 19.2 percent in real terms in contrast to 12.0 percent growth recorded for the same period of the previous year. In the structure of private spending, both investments and consumption have reduced. Investments have declined at a faster rate, nearly by 47.9 percent, reflecting more than a 60 percent reduction in construction financed by the households and organizations. The reduction in private consumption has been 8.0 percent against 9.9 percent growth of the respective indicator recorded in the previous year. The decrease was determined mainly by contracted household incomes, especially external transfers.

In the second quarter of 2009, the real private sector expenditures had a restrictive impact on inflation. Based on the Central Bank estimations, the estimated actual level of real private expenditures has been below its potential by 9 percent. This has created deflationary pressures in the consumer market pushing inflation down by nearly 2.7 percentage points.

Public consumption and investments[51]**.** According to the calculated fiscal impulse in the second quarter of 2009 the fiscal policy's impact on the aggregate demand had been 3.9 percent expansionary, which was attributable to restrictive influence by revenues and expansionary influence by expenditures.

Further decline in economic activity in Armenia had its continuous effect on the state budget as well, especially with regard to the level of tax revenue collections. In the second 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 the Central Bank forecasts made for the quarter. Overall, based on the quarterly

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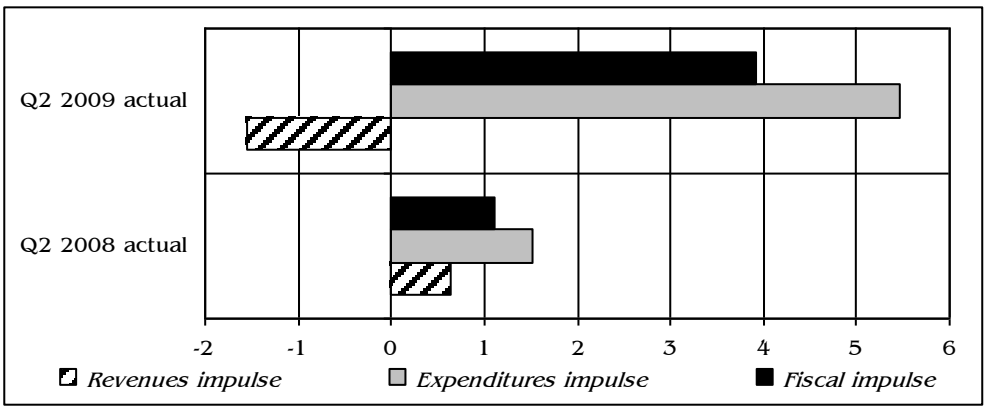
[50] *The real growth indicators of private consumption and investments for the second quarter are the Central Bank estimations. The actual figures of these indicators are available as of the first quarter of 2009. Estimations of real growth presented in this section are relative to the same quarter of the previous year, unless otherwise stated.*

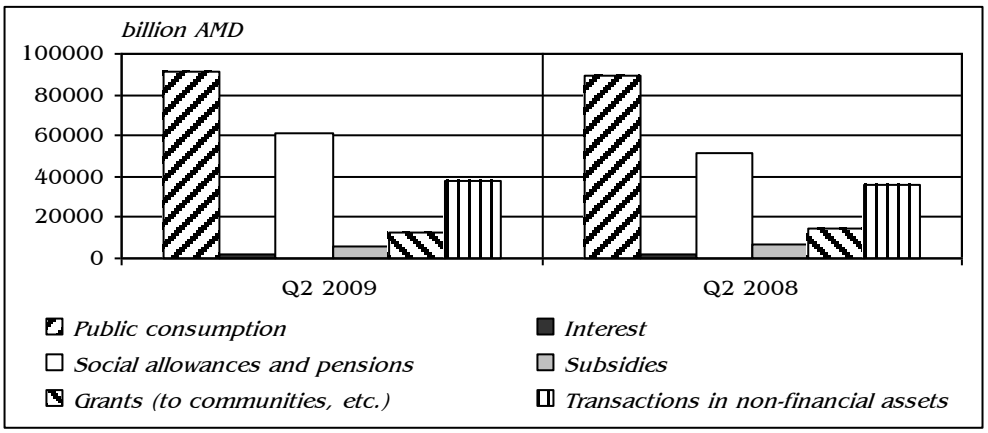
[51] *Preliminary actual data on consolidated budget were used in the analysis of the fiscal sector for the second quarter of 2009. The classification was done in compliance with classification outlined in the Manual "Government Finances Statistics - 2001". The calculation of impulses was also based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

results, the state budget revenues had some 1.5 percent restrictive impact on the aggregate demand, which was determined by faster declining rates of GDP.

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



In the consolidated budget expenditures in the second quarter of 2009 only subsidies reduced



On the part of expenditures, a 5.5 percent[52] expansionary impulse has been recorded in the second quarter of 2009 which, in a situation of notably slackened GDP, was determined by the increase of expenditures in relation to the same period of the previous year. In the second quarter, public expenditures have grown by about 10 percent in relation to the same period of the previous year. Current expenditures have increased by 5 percent; expenditures in Item 'Transactions with non-financial assets', by 31.6 percent. In current expenditures, public consumption has grown by nearly 2.0 percent y-o-y and social charges and pensions, by 19.2 percent y-o-y. Conversely, subsidies have reduced by 20 percent. Based on the six-month results, expenditures have grown by 10.7 percent in relation to the first half of the previous year, which is generally consistent with the Government's anti-crisis to cushion downfall of economic activity.

In the second quarter of 2009, the state budget revenues have reduced by 16.0 percent; in the revenues structure, only tax revenues[53] have reduced (by 19.2 percent y-o-y), while social security charges and other revenues have reported y-o-y growth of 4 percent and 11.0 percent, respectively.

Certain structural shifts have taken place in the structure of taxes due to 29.3 percent decrease of indirect taxes and 12 percent increase of direct taxes. The increase of direct taxes has been determined mostly due to the

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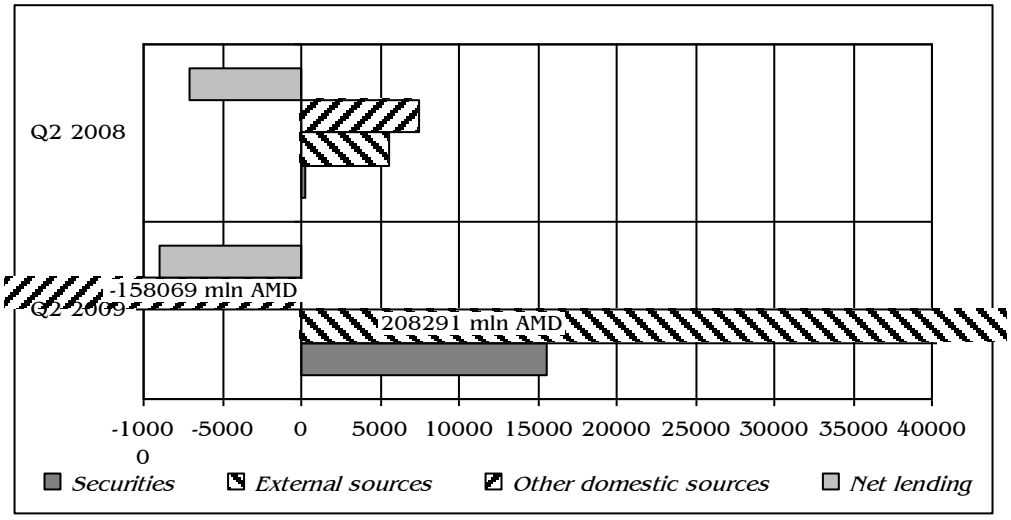
[52] *The GDP used in the calculation of the revenues impulse represents actual nominal GDP and the GDP used in the calculation of the expenditures impulse represents estimated level of potential GDP.*

[53] *The tax revenues also include state duty.*

growth of profit tax, which derives from the last year's economic results. The decrease of indirect taxes has been attributable to reduced import volumes. The y-o-y share of indirect taxes has reduced by 7.6 percentage points and constituted 54.0 percent of tax revenues while the y-o-y share of direct taxes has grown by 10 percentage points and constituted 35 percent of tax revenues.

In the second quarter of 2009, domestic sources for deficit financing were added



With such revenues and expenditures indicators, the budget deficit in the second quarter of 2009 has amounted to AMD 56.8 billion[54] and to AMD 82.9 billion based on the six- month results. Net proceeds from allocated government securities financed 27.4 percent or AMD 15.6 billion of the deficit for the quarter, while funds disbursed from external sources financed the remaining portion of the deficit. Part of the AMD 185.1 billion-worth disbursement has been used to lend for the stabilization of the economy under the Government-launched anti-crisis measures, as well as for the SME development, rehabilitation zone and financing other programs. The remaining part of the disbursement will be used to finance anti-crisis programs in the second half of the year, under which condition there will be a high level of budget deficit, based on the yearly results.

Net foreign demand. In the second quarter of 2009, real export of goods and services as well as real import of goods and service has declined, respectively, by 6.4 percent and 20.8 percent y-o-y.

The main macroeconomic indicators in Q2 2008 and Q2 2009, in real terms

Item	Q2 2008 / Q2 2007	Q2 2009 / Q2 2008
Real GDP	10.9	-23.1
Domestic demand	13.1	-17.0
Consumption	11.9	-7.2
Public	27.5	-2.1
Private	9.9	-8.0
Capital investment	16.3	-43.8
Public	0.9	9.6
Private	17.7	-47.9
Export [55]	-8.8	-6.4
Import [55]	7.3	-20.8

[54] *The indicator is preliminary and is taken from preliminary report of the state budget as prepared by the Ministry of Finance.*
[55] *This relates to the export and import of goods and services.*

3.4.2. Aggregate supply[56]

In the second quarter of 2009 the global financial and economic crisis continued influencing the developments in the branches of the economy. This has reflected some 23.1 percent shrinkage of real GDP volumes. Under this condition, value added has declined by 16.3 percent in the first half of the year. Unprecedented high rates of decline in construction and industry branches have been the main cause for the decline in value added.

In ***Construction*** the influence of external developments has been notable, reflecting reduced capital inflow and household income. As a result, the value added of construction has declined by 58.6 percent in the second quarter, whereas the decline in the six-month period has been 51.9 percent with 11.9 percentage point contribution to the GDP decline. The decline in construction volumes has been attributable mostly to reduced volumes of residential housing (55.8 percent in January-June) and reduced volumes of construction in trade (78.5 percent in January-June). Increased construction volumes (74.8 percent) in energy sub branch have somewhat offset further decline in the construction branch.

Industry reported 12.6 percent y-o-y decline in value added in the second quarter, whereas the decline in the six-month period has been 11.2 percent. Growth has been posted with the following sub branches: metallurgy (10.1 percent in January-June); production of tobacco items (30.4 percent); production of rubber and plastic items (31.0 percent) and printing business (1.6 percent). The volumes of production of building materials kept on shrinking (by 31.8 percent) due to reduced construction volumes. The production output in food industry in January-June has declined by 5.7 percent attributable to 51.4 percent reduction in volumes of production of brandy. A slight growth in production volumes of some items in chemical industry has slowed the declining rates (-50.4 percent). The declining rates have decelerated also in energy (-8.9 percent) and mineral production (-9.3 percent).

Services reported some 1.6 percent growth of value added, making the branch's growth up to 1.9 percent for the six-month period. The main contribution to the growth o value added came from communications (4.7 percent in January-June); hotel and restaurant business (15.1 percent); education (8.7 percent) and healthcare (4.5 percent). At the same time, decline has been posted with services in trade (4.9 percent in January-June); transport (7.5 percent) and financial activities (8.4 percent).

Agriculture reported 1.0 percent y-o-y decline in value added in the second quarter due to reduced output in animal breeding. The decline in agriculture for the period of six months has been 2.4 percent, with plant-growing having reported 1.9 percent and animal breeding having reported 2.8 percent decline. In animal breeding in particular, production of meat and milk has reduced, respectively, by 5.5 percent and 9.6 percent in January-June. However, the production of egg has increased by 17.8 percent. During the second quarter some growth has been recorded in plant growing.

3.5. LABOR MARKET

In the second quarter of 2009, some growth in nominal wages was observable in the economy despite high declining rates of the economy. This has been attributable to a certain increase in both wages in budgetary organizations and rigidities of adjustment of existing wages in the labor market. The unemployment rate, too, has responded to the economic slowdown at a certain time-lag. As a result, the labor productivity slowed down at a fast rate, which has led to increased unit labor costs amid rising wages. 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 second quarter of 2009 has been round 7 percent. Wages have notably increased in areas such as healthcare,

[56] *This section provides y-o-y growths, unless otherwise indicated.*

social security service and education but declined in mineral production and financial and economic activity sphere.

The average quarterly unemployment rate has been 6.8 percent, up by 0.6 percentage point. In the period of six months, the number of officially unemployed has risen by round 6 percent and the number of employed reduced by 1.06 percent.

During the quarter the growth of labor productivity has dropped notably, by round 17 percent due to the slowdown of economic activity.

As a result of these developments, the unit labor costs have increased, bringing up to 1.2 percent inflationary pressures in the consumer market.

3.6. IMPORT PRICES AND PRODUCER PRICES

3.6.1. Import prices

Although prices of raw materials and food products have increased in the second quarter, relative the period preceding it, driven by optimistic expectations for the world economic recovery, one may however see that prices of almost all goods have been at their low, according to yearly results.

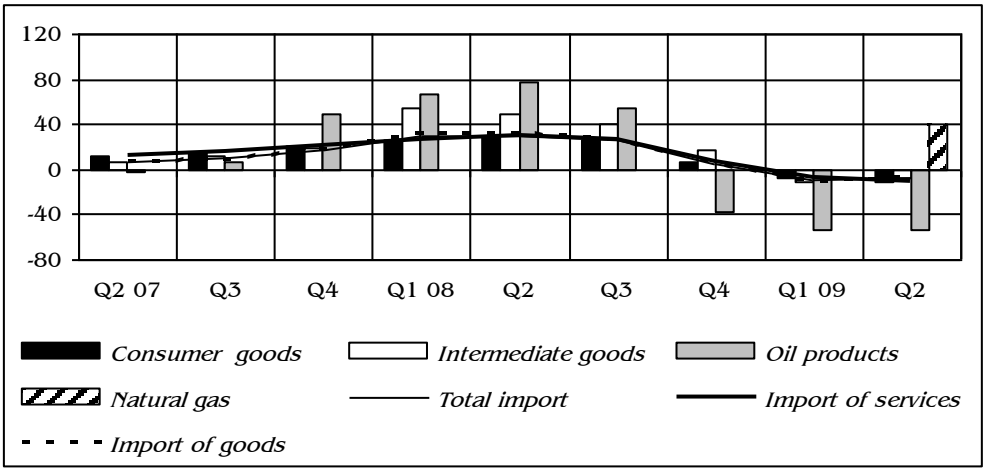
According to the Central Bank estimations, in the second quarter of 2009 the dollar prices of imports have dropped by 8.1 percent y-o-y, compared with about 10 percent y-o-y reduction recorded in the previous quarter.

Item	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09
Import (total)	30.5	25.5	5.6	-9.9	-8.1
Import (services)	29.5	25.7	6.4	-7.3	-10.2
Import (goods)	31.0	25.4	5.2	-10.8	-7.4
Capital Goods [57]	0.0	0.0	0.0	0.0	0.0
Consumption Goods	29.5	25.7	6.4	-7.3	-10.2
Intermediate Goods	49.3	39.8	18.2	-11.1	-7.4
Diamond [57]	0.0	0.0	0.0	0.0	0.0
Oil Products	78.2	54.0	-37.2	-53.5	-53.0
Natural Gas	0.0	0.0	0.0	0.0	40.0

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

Prices of intermediate goods have decreased by 7.4 percent y-o-y (against 11.1 percent y-o-y decrease in the previous quarter), which was attributable to slowing declining rates of grain prices (31.1 percent y-o-y decrease versus 43.7 percent decrease in the previous quarter). The impact of prices of intermediate goods on total prices has been -2.0 percent.

In the second quarter of 2009, low prices of imported goods persisted



[57] *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.*

Though the dollar prices of oil products have risen in the second 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 53.0 percent y-o-y (against 53.5 percent drop in the previous quarter), making -3.4 percentage point contribution to total import prices.

In the second quarter of 2009, the price decrease of consumption goods has been 10.2 percent y-o-y, making -2.0 percentage point contribution to the total import prices. On the whole, the impact of exchange rate depreciation in partner countries has been more remarkable (17.8 percentage points) than that of the inflation (8.0 percentage points). As European currencies depreciated, the impact of Euro-zone on total import prices has been -0.6 percentage point, China's impact, 0.6 percentage point and Russia's impact -0.8 percentage point.

Given the y-o-y drop in international prices and the nominal AMD/USD exchange rate deprecation (as much as 17.12 percent y-o-y, the dram prices of imported goods included in the consumer basket have decreased in the second quarter by a mere 0.5 percent y-o-y.

3.6.2. Producer prices [58]

The GDP deflator in the second quarter of 2009 has been 102.1 percent, lagging behind the respective indicator of the previous year by 5.5 percentage points. With the exception of agriculture, where prices kept on falling as has been observable since the first quarter of 2009, producer prices have risen in the rest of the sectors of the economy.

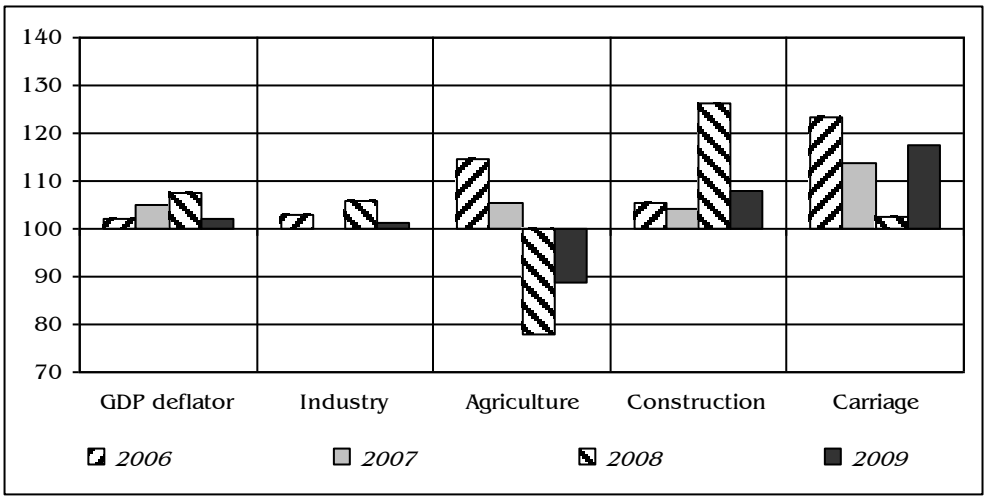
In ***Agriculture*** in the second quarter of 2009 prices have dropped by 11.4 percent attributable to rich crops of *potato* and *wheat*, resulting in 32 percent and 35.8 percent drop in their prices, respectively. Some price drops have been recorded in *animal breeding* although the output volumes have reduced in the same period of time.

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

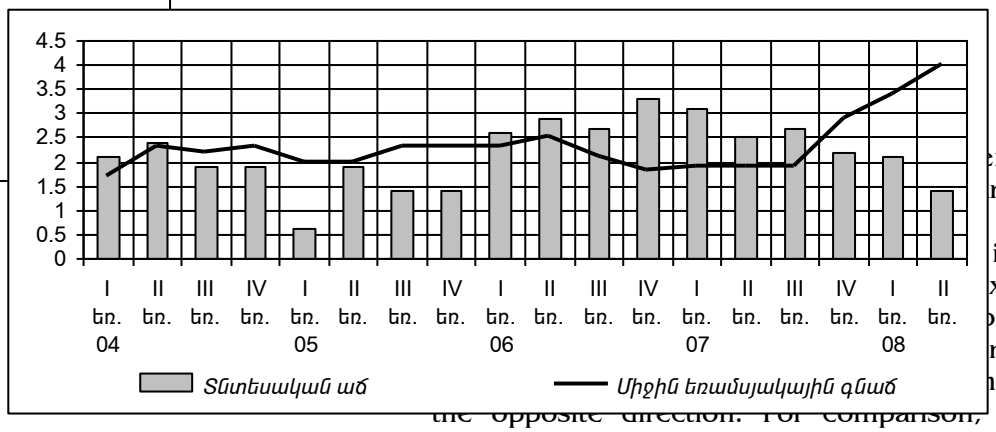
In ***Industry*** the producer prices have slightly increased, by 1.1 percent, determined by 30.7 percent rise in electric energy, gas and water supply tariffs as observed in the period January-June.

In the second quarter of 2009, ***Carriage*** costs have increased by 17.5 percent due to 26.5 percent rise in *railway carriage* costs (as new tariffs of railway service were set starting January) and 9.4 percent rise in *air transportation* fares.

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



[58] *This section provides producer prices and their q-o-q changes, unless otherwise indicated. Price indexes of the sectors of the economy are output price indexes.*



ntral Bank carried on its surveys nizations, households, and non-

in the second quarter of 2009, xpectation of high inflation have r, as many banks pointed to the nth inflation, credit organization hile the other major group was in the opposite direction. For comparison, in the previous quarter those pointing to expectation of inflation over 8.5 percent were prevailing along with those pointing to the range of 5.5-8.5 percent. So, such expectations of the financial sector somewhat deviated from the Central Bank forecast of the 12-month horizon but these have notably moderated in relation to the previous period.

Expectations of future prices have been mainly at a steady level among households and non-financial organizations of real sector. Expectation of stable prices is with 62.3 percent of respondents versus 51.6 percent in the previous quarter, and those expecting price increases constituted 32.8 percent versus 36.7 percent in the previous quarter.

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