REPUBLIC OF ARMENIA

Monetary Policy Program

1st Quarter, 2009

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2008

Inflation was 0.9% in the fourth quarter of 2008, while 12-month inflation fell by 6.1 percentage points over the previous quarter to reach 5.2%. Starting from Q2 2007 until Q3 2008 tightening of the monetary conditions by the CBA, together with the passthrough of the external sector deflationary environment impact in Q4 2008 allowed achieving the 4±1.5% inflation target.

Given the inflation developments in Q4 2008, CBA announced about the change of the monetary policy direction, adopting the policy of gradual loosening of monetary conditions. The latter was reasonable as there arouse the need of efficient combination of price and financial stability objectives. On the whole, inflation annually was due to higher prices of foodstuffs (including alcoholic beverages and tobacco), which grew by 3.3% (contributing 1.8 percentage points to inflation), non-food products (growth of 0.2%, contributing 0.03 percentage points), and service tariffs (growth of 11.4%, contributing 3.4 percentage points). Meanwhile, core inflation[1] was only 0.43% in Q4, whereas 12-month core inflation fell by 1.6 percentage points relative to September, reaching 5.4%.

Inflation in Q4 2008 was driven by the following developments of the external world and the domestic economy.

External Environment. The 4th quarter of 2008 was marked by a sharp decline in the pace of world economic growth: for the second consecutive quarter, the main developed countries reported an economic decline. Due to the rapid deterioration in financial intermediation and the financial system, all of the private spending components of aggregate demand of developed countries shrunk considerably. By adopting an expansionary fiscal policy, developed countries are trying to boost aggregate demand, which, however, has not yielded significant results yet. The effect of the global economic crisis was significant in developing countries, as well, which were also confronted with falling domestic and external demand.

Lower word demand also had effects on the behavior of international prices, sustaining the deflationary environment in markets of both raw materials and food products. Oil and metal prices continued falling rapidly in Q4 2008, returning to their levels of 2004-2005.

Food products prices remained relatively low due to smaller world demand and the expected record wheat harvest in the 2008/2009 marketing year.

In Q4 2008, maintaining financial stability and restoring confidence in the financial system became priorities for both developed and developing countries. To this end, the central banks and governments of many countries injected large amounts of liquidity in financial markets and continued to make investments in the capital of financial organizations. At the same time, developed countries sharply lowered the interest rates on the main instruments of monetary policy, sending signals of continuing to loosen monetary conditions.

The exchange rates of the main currencies were rather volatile in international financial markets in Q4: in particular, the US dollar, after considerably appreciating against other currencies against the other main currencies, abruptly depreciated at the end of the quarter.

Aggregate Supply. Lower world demand has had a contractionary impact on Armenia's economic growth: Q4 real GDP fell by 0.2% YOY, with January-December real GDP growth of 6.8%. The industry, agriculture, and construction declined, while service growth slowed down. ***Construction*** fell by 11.3% in real terms in Q4 mainly due to the postponement of investment projects in the industry, transport, and telecommunications sectors. ***Industry*** value added value added fell by 1.9% in Q4 due to lower output of the metal and chemical industries, as well as

[1] The methodology used by the CBA to estimate core inflation is presented in detail in the "Banber" ("Bulletin") periodical of the CBA (Q1, 2008). The core inflation indicators are regularly calculated in the aforementioned periodical.

slower growth of the mining industry. Instead, the growth pace accelerated in the food industry and the energy sector. ***Agriculture*** value added shrunk by 3.6% on account of a worse harvest in 2008 relative to the previous year's abundant harvest of vegetables and grapes. Growth of ***services*** slowed down, as well, reaching 8.1% on account of slower growth of commodities trading in the last two months of the year. Meanwhile, other services sustained the high pace of growth.

Aggregate Demand. According to CBA estimates, real growth of private spending declined in Q4 2008 to 4.1%, which was driven by 4.6% and 3.0% real increases in private consumption and private investments, respectively.[2] According to estimates of the deviation from the private sector spending equilibrium, Q4 real spending by the private sector had a contractionary impact on inflation. The estimated levels of both private consumption and investments were about 2% lower than the equilibrium, due to which private spending mitigated inflation by about 0.6 percentage points.

In Q4 2008, the fiscal sector[3] had a 2.0% contractionary impact on aggregate demand, in contrast to a projected expansionary impact of 1.5%, mainly due to public expenditure savings. In the meantime, annual tax revenue collection was about AMD 25 billion higher than the target set in the 2008 State Budget Law.[4]

On the backdrop of the aforementioned trends in state budget revenues and expenditures and a lower-than-projected GDP, the annual impact of fiscal policy on aggregate demand was neutral, contrary to the projected expansionary impact.

Overall, in the monetary and fiscal policies coordination framework, fiscal policy has contributed to the implementation of the CBA's monetary policy programs aimed at containing inflation.

In general, during the quarter domestic demand developments eased the inflation by 1.0 percentage points.

Balance of Payments. In Q4 2008, the global economic crisis and lower world demand were also reflected in deeper deficit of the current account. In Q4, **exports** of goods and services fell by 18.1% YOY,[5] which was mainly due to the sharp decline in world metal prices. With the exception of the "Finished Food products" group, exports of all the other main commodity groups shrunk significantly. Under these developments, real exports of goods and services, according to CBA estimates, fell by 5.8% YOY in Q4 2008.

Falling world prices were also reflected in the sharp decline in **import** growth in dollar terms, even though real growth remained high. Imports of goods and services[6] grew by 18.2% YOY in Q4: virtually all the commodity groups grew. Real growth of imports of goods and services, according to CBA estimates, was 28.9% YOY in Q4.

The growth rates of the net inflow of **non-commercial transfers** declined sharply in Q4 2008. Earlier expectations that the Russian economy[7] could withstand the global crisis at minimal losses were not met, and economic growth declined sharply.[8] Due to these developments, net inflow of non-commercial transfers grew by only 3.6% YOY in Q4 2008; the annual net inflow of non-commercial transfers is estimated to have grown by 31.6%.

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[2] Private spending actual data is as of Q3 2008.
[3] The 2008 consolidated budget Q4 and annual indicators are preliminary.
[4] In Q4 2008 relative to Q4 2007, tax revenues grew by about AMD 6 billion.
[5] Q4 2008 service export indicators are projections.
[6] Q4 2008 service import indicators are projections.
[7] The bulk of non-commercial transfers is received from Russia.
[8] Preliminary estimates of the Statistics Department of the Russian Federation.

In the current macroeconomic environment, the 12-month growth pace of ***virtually all the monetary indicators***[9] slowed down in Q4 2008.

Broad money grew by 2.3%, compared to 42.9% in December 2007. Total deposits grew by about 7% in dram terms. The economy's dramization ratio[10], having grown for 4 consecutive years, fell to 14.7%, compared to 17.8% in 2007.

Despite the tightening of credit conditions, which mainly took the form of higher interest rates and tighter lending procedures and collateral requirements, growth of lending to the economy remained high: annual growth was 48.7%, while the value of lending grew by about AMD 227 billion, relative to about AMD 209 billion growth in 2007.

Thus, tightening of the monetary conditions until Q4 2008 combined with the deflationary environment in Armenia's domestic commodities market due to the price decrease in the international markets of raw materials and food products on the one hand and the deceleration of the domestic demand growth rates on the other, allowed to achieve the yearend inflation target.

PROJECTIONS FOR 2009

External Environment[7]

Developments in various sectors of the economy were projected on the basis of the approved 2009 state budget, US $150 million external donor financed programs for Armenian SME development in 2009, and additional economic projects, estimated to reach at least 10% of the budget expenditures, including infrastructure development, road construction, earthquake zone housing construction and the government-support to the export-oriented industries

According to IMF estimates, 2009 world economic growth will be only 0.5% given the global economic crisis: this would be the lowest growth since World War II.[11] Its impact on Armenia will be felt mainly in terms of much smaller external demand, low prices of raw materials and food products, and lower financial inflows. All of this contributes to the formation of an external deflationary environment, which will sustain throughout 2009. However, there is rather high uncertainty concerning the external developments, which is due to the magnitude of the global crisis and the pace at which the economy will rebound.

On the whole, international oil prices are expected to remain low (below US $50) in the period ahead due to week global demand. Besides, domestic prices in Armenia will be affected by the natural gas price increase expected in early 2009, which will have a certain impact on virtually all the industrial commodities.

Due to low global demand, wheat prices are expected to remain low. However, future developments will mainly depend on the preliminary estimates of the 2009/2010 marketing year harvest.

Wheat prices can also affect prices of other food products, such as rice, meat, dairy products, animal and vegetable oil, and the like, the trends of which will also be influenced by the situation in the respective commodity markets.

On the whole, despite the high degree of uncertainty over the projections, a moderately deflationary external environment is expected to sustain during 2009. At the same time, due to the increase in the natural gas tariff in 2009, new inflationary risks and pressures are expected, which can affect prices of other commodities by increasing their cost.

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[9] Summary balance sheet indicators of the CBA, commercial banks, and credit organizations are presented.
[10] Dramization is measured as the ratio of dram broad money to GDP.
[11] External environment projections are based on information from the IMF, the World Bank, The Economist, Global Insight, Financial Times, US Department of Agriculture, RosBusinessConsulting, and other sources.

Aggregate Supply

The 2009 sector projections were revised downwards due to lower global demand and a slowdown in the pace of capital inflows in Q4 2008. Growth is expected to accelerate in the second half of 2009 mainly on account of the implementation of additional economic programs by the Armenian government and various projects to promote SMEs. As a result, 2009 first half economic growth is estimated around 1.5-3.5%, while second half growth is estimated around 6-9%, with annual growth projected around 4.5-7.5%.[12]

Downside risks of lower economic growth rates will prevail, related with the lasting decline in global demand and possible slowdown of implementation of the Government's additional projects.

In the ***construction*** sector, the decline trends reported in Q4 2008 will sustain due to the continuing postponement of industry and service sector investment projects, as well as the expected slowdown in the pace of housing construction growth. The decline in construction volumes will turn into small growth starting from the second half of the year on account of additional economic programs of the Government, large-scale projects to promote SMEs, and the investments to be made by the third mobile operator, which will result in 1.5-3% real growth of construction value added in 2009.

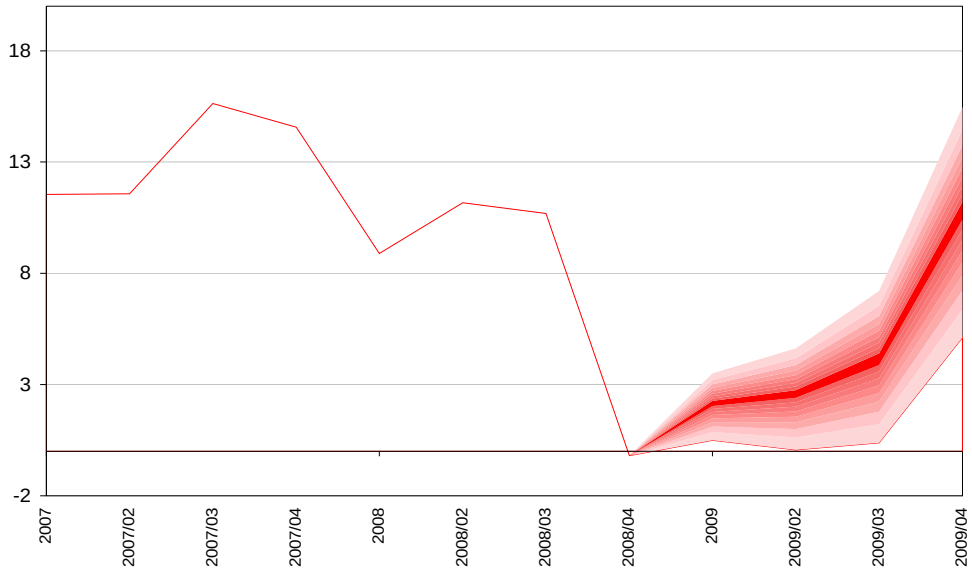
In the ***industry*** sector, the 2009 projections were revised down slightly, as a result of which value added is expected to grow by 2-5%. The reduction of forecasts was due to lower world demand slowing down growth in the mining sector and a slump in the chemical and metal industries output starting from Q4 2008. Industry growth will be achieved mainly on account of energy, the food industry, and the production of construction materials to some extent.

Growth expected in the ***service*** sector has also been revised down by a small extent due to the continuing decline in the growth pace of retail trade in the last two months of 2008. As a result, real growth of value added in services is projected around 8-11% in 2009. In the second half of the year, services are expected to grow faster on account of a number of economic programs to be implemented by the Government.

The ***agriculture*** sector growth projection has been revised upwards due to an increase in the base (orchards, planted areas, and livestock). As a result, the sector is expected to grow by 3-5% in real terms, while there are both downside and upside growth rate risks.

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

[12] *The central projection of the annual GDP growth in 2009 is 5.8%.*



2009 Economic Growth Projection Probability Distribution

Economic Growth Range	Probability of Being within the Given Range			
	Q1 2009	Q2 2008	Q3 2008	Q4 2008
-3 - -1%	0.02%	0.06%	0.09%	0.04%
-1 - 1%	11.20%	8.18%	2.87%	0.23%
1 - 3%	84.62%	62.39%	23.31%	1.13%
3 - 5%	5.53%	30.56%	49.42%	3.93%
5 - 7%	0.00%	0.51%	23.86%	9.99%
7 - 9%	0.00%	0.00%	2.09%	18.43%
9 - 11%	0.00%	0.00%	0.03%	24.71%
11 - 13%	0.00%	0.00%	0.00%	22.92%
13 - 15%	0.00%	0.00%	0.00%	13.59%
15 - 20%	0.00%	0.00%	0.00%	6.16%

Aggregate Demand

In 2009, aggregate demand growth will be mainly fueled by domestic demand, which in turn will be largely driven by public sector spending aimed at developing the economic infrastructure, implementing economic projects in export oriented sectors, and supporting SMEs. It is projected, in particular, that real growth of domestic demand will be around 6% due to over 40% and 1.8% real growth in public and private sector spending, respectively.

Earlier estimates of 2009 real growth of ***private sector spending*** have been revised downwards in terms of both private consumption and private investments. This revision is based on the expected deterioration of a number of indicators due to the global financial and economic crisis, including household income (wages and current transfers), capital transfers, and other external financial flows, as well as remaining uncertainty in the investment environment.

Under the revised estimates, real growth of private consumption is expected around 2.3% in 2009, while private investments will grow by about 0.6% in real terms.

According to estimates of the deviation from the private sector spending equilibrium, a large negative gap (of around 3-4%) of private spending will emerge in the first half of 2009 due to the expected negative gaps of both consumption and investments. In the meantime, private spending will create deflationary pressures in the consumer market, contributing about -1% to inflation. However, starting from the second half of 2009, private sector activity will somewhat rebound on account of a number of Government-led economic projects, and the private spending deviation from the equilibrium will become much smaller.

According to the consolidated budget indicators estimated under the 2009 State Budget Law indicators and the additional economic projects, fiscal policy will have an expansionary impact on aggregate demand in 2009: revenues will have a contractionary impact, while expenditures will have an expansionary impact.

The expansionary impact of the Government's additional projects will materialize mainly in the second half of 2009: consequently, a 1.9% expansionary impact of fiscal policy on aggregate demand and inflation is expected. If the economic growth slowdown risks materialize, under-collection of taxes is possible, which, provided that expenditures are fully executed, will generate a larger expansionary fiscal impulse.

To sum up the developments expected in the real and fiscal sector, domestic demand will be below equilibrium in the first half of 2009, creating some deflationary pressures in the economy. However, in the second half, on account of a number of Government-led economic projects, domestic demand will grow faster, easing the deflationary pressures.

In the inflation management process, to avoid underestimation of external risks given high uncertainty over developments in the external environment, the **balance of payments** was projected on the basis of the possible pessimistic scenario.[13] In the global economic crisis, falling external demand, through lower international prices of metals, will have a decisive impact on **exports**, which will fall by about 35-40%. However, the measures planned by the Government are expected to contribute somewhat to exports, which will mainly materialize in the second half of 2009. As a result, the real decline[14] in exports of goods and services will be around 7-11% in 2009.

Imports of goods and services, too, will somewhat decline in 2009, mainly due to lower international prices relative to 2008. Besides, the decline in the inflow of external finance caused by the global economic crisis will lower domestic demand. As a consequence, imports of goods will decline by 12-16% in 2009, while real imports of goods and services will shrink by about 4-8%.

As for the future behavior of **non-commercial transfers**, they are projected to fall by 20-25% in 2009 under the pessimistic scenario of the balance of payments. The decline is mainly due to the state of the Russian economy, which, according to the IMF's recent estimates, will decline by 0.7 in 2009.

As a result, the current account deficit to GDP ratio can reach to around 13-15% in 2009 under the aforementioned scenario.

Labor Market Earlier estimates of labor market indicators for 2009 have been revised downwards. The main reason for the revision is the expected slowdown in the growth pace of aggregate demand due to the global financial and economic crisis, including lower demand for labor force.

According to the revised estimates, average nominal wages will grow by about 8% in 2009, mainly due to higher wages in budget financed organizations. In the private sector, though, the average increase in wages will not exceed 3%.

[13] Other scenarios are considered, too, which are based on assumptions of no decline in non-commercial transfers, below-25% decline in dollar exports, and above-20% decline in dollar imports.
[14] Real volume indicators are CBA estimates.

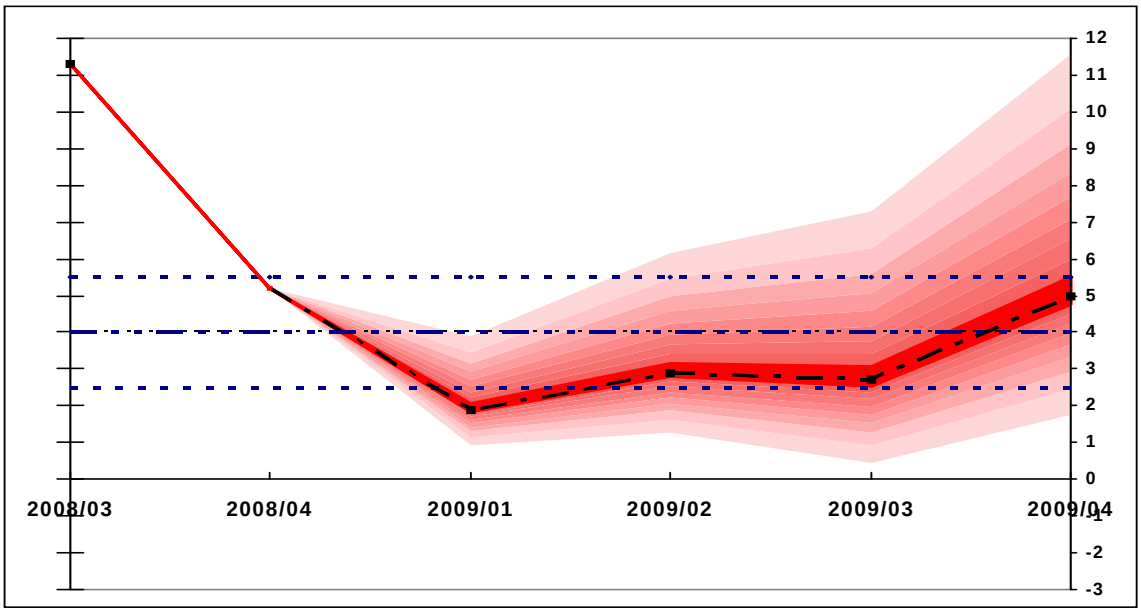
According to preliminary estimates, the labor market will not create any inflationary pressures in 2009, because unit labor cost in the private sector will somewhat decline, which will neutralize the inflationary pressures caused by higher unit labor cost in the public sector.

Money and Credit. Under the expected macroeconomic developments and the implementation of the Government's additional economic projects, the 2008 growth trends in monetary indicators will be mostly sustained in 2009. Broad money is expected to grow by 8-11% and total assets by 14% by end-December 2009. As for the projections of lending, if large-scale projects of SME development lending are implemented, the relatively high pace of lending growth will sustain in 2009, reaching 2projection annum by yearend.

Inflation projection. According to the results of the "Inflation Model by the Commodity Groups," under the assumption of unchanged interest rates, the central forecast of inflation will be 2.7% at the end of Q2 and 5.0% at yearend 2009. **Risks.** Given the possible economic developments in 2009, there are both downside and upside inflationary risks . In particular, below-expected international prices of goods due to further exacerbation of the consequences of the global economic crisis, and the less-than-complete implementation of the Government's projects for SME development and additional economic projects are the main deflationary risks. At the same time additional inflationary risks may become apparent as a result of the direct and indirect influences of gas tariff increase in April 2009 for domestic consumers,.

Inflation Projection Probability Distribution Fan Chart

2009



Probability Distribution of Inflation Projection for 2009

Inflation range	Probability of falling within the given range	
	Q2 2009	Q4 2009
<1.0%	1.8%	1.3%
1.0-2.5%	20.9%	5.4%
2.5-4.5%	49.1%	19.7%
4.5-6.5%	23.5%	28.5%
6.5-8.5%	4.4%	21.9%
8.5-10.5%	0.3%	14.2%
> 10.5%	0.0%	9.0%

MONETARY POLICY DIRECTIONS FOR THE PROJECTED 12-MONTH PERIOD

The CBA's estimates of the macroeconomic environment in Q4 2008 and the projections for 2009, as well as the CBA's quarterly projections and commodity group inflation projection model show that, in the projected 12-month period, inflation will continue to slow down, which will be expressed mostly in the first half of 2009, when inflation will form near the lower end of the target band.

According to the CBA's main model (Quarterly Projection Model), it is projected that the positive gap of the real interest rate formed under the growing negative gap of GDP and the subsequent response of domestic prices to international price changes will be neutralized by more actively loosening the monetary conditions. On the other hand, the situation caused by the global financial and economic crisis requires a monetary policy that will favorably contribute to price stability and financial stability objectives. In this sense, the current interest rates remain attractive for inflows of capital. It remains important to take measures to increase lending volumes and to improve the credit availability. In the current and projected macro-environment, a sharp reduction of interest rates will not necessarily have the desired influence on inter-bank interest rates and, therefore, on the monetary transmission channel.

Based on the foregoing, the monetary policy adopted by the CBA will be one of gradually loosening the monetary conditions, which is in line with the inflation target fulfillment and the financial stability objectives.