

THE CENTRAL BANK OF THE REPUBLIC OF ARMENIA

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**STATUS REPORT  
ON IMPLEMENTATION OF  
THE MONETARY POLICY  
PROGRAM**

**(Inflation Report)**

**Q4, 2010**



**YEREVAN**

**2011**

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## 1. SUMMARY

### ACTUAL INDICATORS AND DEVELOPMENTS IN 2010

High inflationary environment has been the main macroeconomic development over 2010. One factor that contributed to the creation of such an environment was sharp increase of food prices in world markets (in 2010 the World Bank Food Index rose by 25.3 percent), fuelled greatly by price increases on wheat (48.6 percent p.a.) sunflower oil (47.5 percent p.a.) and sugar (42.8 percent p.a.). The other significant factor was the downfall in agriculture, which led to severe shrinkage of supply and, hence, steep rise in prices of agricultural products. Prices in item "vegetable and potato" have grown by 30.7 percent y-o-y; prices in item "fruit" by 19.0 percent, and item "meat products" by 17.6 percent. Gas and water utility tariffs, increased since April of 2010, was another factor contributing to inflation. At the same time though, a slowly recovering domestic demand has not added to inflation.

Over 2010 inflation in Armenia has amounted to 9.4 percent, 7.5 pp of which alone fuelled by food price increases (about 5 percent driven by price rise in agricultural products and more than 2 pp by increased import prices). In the period January-December 2010 inflation has been an average 8.2 percent against the same period of the previous year.

Over 2010 economic growth has been 2.6 percent y-o-y. The services and industry branches greatly contributed to the economic growth during the fourth quarter and throughout the year. In the period January-December industry, services and construction reported, respectively, 9.5 percent, 4.6 percent and 3.7 percent y-o-y growth of value added, whereas a severe decline has been recorded in agriculture, 13.4 percent y-o-y.

Over 2010 there was some improvement observed in labor market indicators. Average quarterly unemployment reduced, reflecting the growing demand for labor. The growth of average nominal wages slightly outpaced the growth of labor productivity, pushing unit labor costs to increase to some extent. As a result, minor inflationary pressures (about 0.3 pp) were observed in the economy during the year.

Over 2010 private spending has grown by around 4 percent against the previous year. With a high public spending deflator, government expenditures have reduced by about 3 percent in real terms and the domestic demand has grown by 3 percent in relation to the same period of the previous year, as a result. Private consumption has increased by nearly 6 percent while private investment remained unchanged in relation to the previous year.

Though more private spending was recorded in 2010, it had a restrictive impact on inflation, however. According to the Central Bank estimates, during 2010 real spending by private sector has been below the equilibrium by 0.3 percent, creating 0.2-0.9 pp deflationary pressures in the consumer market.

Over 2010 the impact of fiscal policy on aggregate demand, hence inflation, has been more expansionary than forecasted, with an estimated fiscal impulse indicator reaching 4.5 pp. It was generated as a result of 3.8 percent revenues and 0.7 percent expenditures expansionary impulses.

**With the above developments in domestic demand and labor market, slight inflationary pressures were observed during the year, which were in the range of 0.5-0.8 percent, according to the Central Bank estimates.**

On the background of developments in global and domestic economies during 2010 the current account deficit has improved. Accelerating growth rates in international metals prices, which surpassed expectations, was one of such developments observed during the fourth quarter of 2010.

This was especially momentous in the dollar growth rates in exports as high growth rates in industry persisted. High growth rates in imports persisted during the first half of the year while these rates had sharply reduced since the second half as growth rates in import prices speeded up amidst budget constraints of economic agents. In the outcome, the current account deficit has reduced to amount to 14.0 percent of GDP compared to 16.2 percent in the previous year.

The above-mentioned trends determined the attainment of the inflation target and monetary policy directions over the year. In the first half of the year, the tightening of monetary conditions (the refinancing rate was lifted by 2.25 pp) and the de-dollarization measures made it possible for the Central Bank to move the 12-month inflation indicator close to the upper border of the target band. Yet the picture changed rapidly in June when inflation developments suffered the effects of the supply shock, i.e. a steep decline in supply of agricultural products and the resultant price increase as well as sharply grown prices of food products in world markets. However, considering that the supply factors are not subject to monetary regulation and that demonstration of trends and persistently high prices of agricultural products are thought to be less likely during the next year, the Central Bank conducted primarily an accommodative monetary policy in the second half of the year, withholding from tightening the monetary conditions. At the end of the year, in the light of accelerating food price growth rates in global markets and possible intensification of the inflationary environment in the future, the necessity of tightening of monetary conditions was overt in the Central Bank statements.

The monetary conditions tightened from the start of the year as well as the measures taken to fight dollarization drove the monetary indicators to show the following patterns: with monetary base stayed almost unchanged, broad money and dram broad money have increased by 11.8 percent and 15.7 percent, respectively. Dram deposits and foreign currency deposits have grown by 29.0 percent and 7.0 percent, respectively. The surpassing growth of dram deposits over foreign currency deposits pushed the level of dollarization down by 4.2 percent during the year. The tightened monetary policy notwithstanding, the year 2010 posted as high as 26.7 percent growth rates in economy lending, which more than doubled the previous year indicator and was primarily due to the use of excess funds on correspondent accounts with the Central Bank and attracted foreign loan resources.

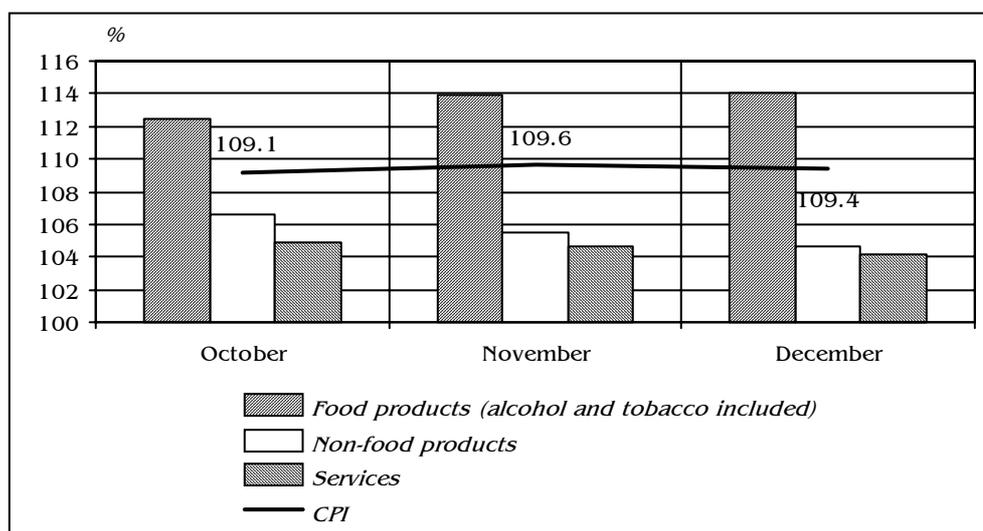
## 2. INFLATION DEVELOPMENTS

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

In December 2010, relative to December 2009, inflation was 9.4 percent. Prices have increased as follows: food products (alcohol and tobacco included) – 14.0 percent; non-food products – 4.6 percent; and service tariffs – 4.2 percent, all having contributed to inflation by 7.5, 0.7 and 1.3 pp, respectively.

Contribution to inflation, pp	Commodity groups	Price change, %
<b>Food products</b>		
2.0	Bread products	13.2
1.7	Meat products	17.6
1.4	Vegetable and potato	30.7
0.9	Dairy products	21.1
0.5	Fruit	19.0
0.5	Egg	25.7
0.4	Fats and oils	10.9
0.1	Sugar	6.5
<b>Non-food products</b>		
0.2	Footwear	12.8
0.2	Garment and knitwear	7.5
0.1	Personal car and fuel	4.4
<b>Services</b>		
0.7	Residential and public utilities	9.3
0.3	Medical services	3.5
0.2	Educational services	5.0
0.1	Other household services	13.4
-0.2	Transport services	-4.4

*CPI in Q4 2010 based on the 12-month results, by main commodities and services*



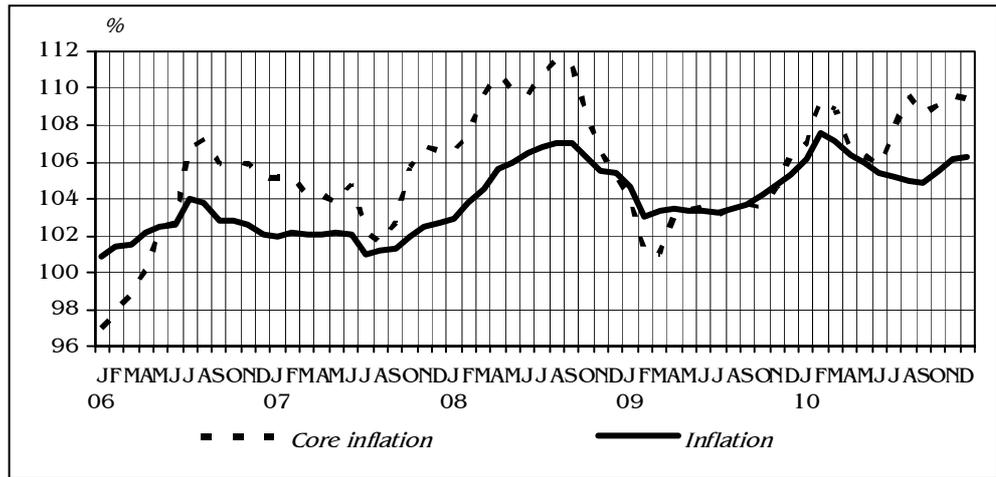
In the fourth quarter inflation was 4.5 percent compared to the end of the previous quarter. Prices of food products rose by 8.1 percent (with 4.4 pp contribution to inflation), non-food prices by 1.5 percent (with 0.2 pp contribution to inflation), while service tariffs fell by 0.2 percent (with -0.1 pp contribution to inflation).

In the period January-December of 2010, relative to January-December of 2009, inflation has been 8.2 percent (the figure was 3.4 percent and 9.0 percent in 2009 and 2008, respectively). This was due to 8.6 percent

price increase of food products, 9.6 percent price increase of non-food products and 6.8 percent rise in service tariffs, all having contributed to headline inflation by 4.7 pp, 1.6 pp and 2.0 pp, respectively.

The 12-month core inflation in the fourth quarter of 2010 increased by 1.4 pp and amounted to 6.3 percent in end-December. The largest contribution to the upside growth came from items “beef”, “homemade cheese from cow milk”, “egg”, “services at hospitals”, “Lori cheese” and “butter”, amounting to 1.7 pp, 0.6 pp, 0.6 pp, 0.3 pp, 0.2 pp and 0.2 pp, respectively. Such items as “transport fare” and “flour of prime quality” made downside contribution to inflation (-0.2 pp and -0.05 pp, respectively)<sup>1</sup>.

*Inflation and core inflation, 2006-2010 (% relative to the same month of previous 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, seasonality and irregularity components) used in Statistics theory has been identified and assessed for the time period from January 2008 to December 2010<sup>2</sup>.

Calculations show that in the period from January 2008 to December 2010 the influence of seasonality component on CPI has been 70.96 percent; the influence of irregularity component, 28.59 percent; and the influence of trend component, a mere 0.45 percent. In comparison with the period from January 2007 to December 2009, influence of seasonality component has decreased by 1.5 percent, whereas influence of trend component and irregularity component has increased by 0.4 pp and 1.1 pp, respectively.

For the time period from January 2008 to December 2010, the influence of the three components has changed as follows:

- the impact of seasonality component on **price index of food products** was 74.71 percent, although this component’s impact had decreased by 5.7 percent compared to the period from January 2007 to December 2009;

<sup>1</sup> The detailed methodology of calculation of core inflation is provided in the periodical paper “CBA Review” (Q1, 2008) and an analytical paper “Inflation in the Republic of Armenia: ‘Seasonal Exclude and External Shock Adjustment’ method.

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

- the irregularity component had a substantial impact, 63.99 percent, on *price index of non-food products*, in the period between January 2007 and December 2010; this component's impact had increased by 6.0 percent compared to the period from January 2007 to December 2009;
- the seasonality component had 56.23 percent impact on *service tariffs*; the irregularity component's impact was 32.62 percent. Relative to the period between January 2007 and December 2009, the seasonality component's impact had increased by 12.9 percent while the irregularity component's decreased by 16.2 percent.

For the time period from January 2008 to December 2010, the *seasonality component* had the strongest impact on such items as "education services" (87.7 percent), "fruit" (82.9 percent), "vegetable and potato" (79.6 percent) and "fats and oils" (68.2 percent); the *irregularity component* had the strongest impact on such items as "beauty and apparel" (78.6 percent), "meat products" (78.3 percent), "kitchen utensils" (78.0 percent), "home appliances" (75.1 percent), "public catering" (72.0 percent), "carpet" (72.0 percent), "medicament" (71.9 percent) and "jewelry items" (71.5 percent). The *trend component's* impact has been weak on all commodity groups, hence CPI. Yet it affected items such as "coffee, tea, cocoa" (26.3 percent), "medical services" (20.7 percent), "dairy products" (12.7 percent), "communication services" (11.5 percent) and "non-alcoholic beverage" (10.5 percent).

*Share of components causing fluctuations in monthly price indexes (January 2008 – December 2010), %*

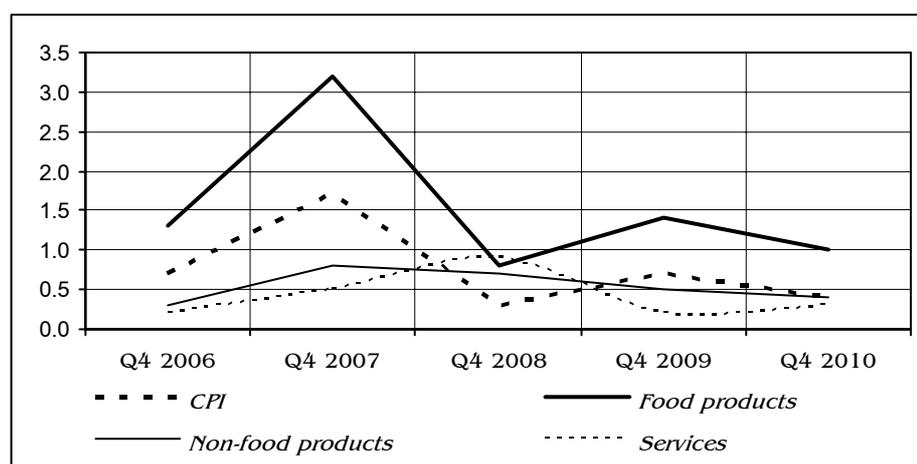
Item	Trend	Seasonality	Irregularity	Total
<b>CPI (relative to previous month)</b>	<b>0.45</b>	<b>70.96</b>	<b>28.59</b>	<b>100.0</b>
<b>Food products (alcohol and tobacco included)</b>	<b>2.27</b>	<b>74.71</b>	<b>23.02</b>	<b>100.0</b>
Bread products	0.001	40.69	59.31	100.0
Meat products	3.25	18.41	78.34	100.0
Fish products	2.28	30.66	67.05	100.0
Dairy products	12.74	33.05	54.21	100.0
Egg	8.48	52.96	38.56	100.0
Fats and oils	0.58	68.23	31.19	100.0
Fruit	0.79	82.87	16.33	100.0
Vegetable and potato	0.31	79.55	20.13	100.0
Sugar	0.41	49.78	49.82	100.0
Coffee, tea, cocoa	26.33	39.00	34.67	100.0
Confectionery	5.20	38.66	56.14	100.0
Other products	8.45	26.24	65.31	100.0
Non-alcoholic beverage	10.47	32.64	56.89	100.0
Alcohol and tobacco	1.70	49.02	49.29	100.0
<b>Non-food products</b>	<b>0.19</b>	<b>35.82</b>	<b>63.33</b>	<b>100.0</b>
Garment and knitwear	8.18	30.93	60.89	100.0
Footwear	0.20	52.76	47.04	100.0
Fuel	0.00	32.63	67.37	100.0
Furniture	2.56	43.04	54.40	100.0
Carpets	1.16	26.86	71.98	100.0
Textiles	0.60	36.12	63.29	100.0
Home appliances	1.46	23.44	75.10	100.0
Kitchen utensils	5.77	16.22	78.01	100.0
Detergents	3.94	39.86	56.20	100.0

Building materials	1.00	41.75	57.24	100.0
Items of gardening	2.09	53.12	44.79	100.0
Medicament	0.23	27.86	71.91	100.0
Personal cars and fuel	0.29	37.01	62.70	100.0
Items of culture	0.34	47.86	51.80	100.0
Stationery	0.42	29.34	70.24	100.0
Beauty and apparel	1.24	20.16	78.60	100.0
Items of jewelry	0.60	27.88	71.52	100.0
Items of personal use	0.36	35.60	64.05	100.0
<b>Services</b>	<b>11.1</b>	<b>56.23</b>	<b>32.62</b>	<b>100.0</b>
Household services	0.2	35.2	64.6	100.0
Other services for household	0.3	35.4	64.3	100.0
Residential and public utility services	0.2	52.7	47.1	100.0
Healthcare services	20.7	26.2	53.1	100.0
Transport services	3.4	43.0	53.6	100.0
Communications services	11.5	27.9	60.7	100.0
Culture services	0.4	35.2	64.4	100.0
Educational services	0.8	87.7	11.5	100.0
Leisure and rest services	2.1	38.5	59.4	100.0
Public catering	6.1	21.8	72.0	100.0
Legal and banking services	5.3	28.7	66.0	100.0

The consumer price index volatility has been reviewed also by means of monthly price index variation coefficients defined for each commodity group.

The chart below shows that the CPI and food price index volatility dynamics are very similar.

*CPI, food, non-food products and services price index variation coefficients in fourth quarters 2006 - 2010*



The table below shows that in Q4 2010, relative to Q4 2009, the CPI variation coefficient has dropped to 0.4 percent from 1.7 percent. The food products and non-food products price index variation coefficients have also fallen to 1.0 percent and 0.4 percent from 1.4 percent and 0.5 percent, respectively. The services tariff index variation coefficients have risen to 0.3 percent from 0.2 percent.

Volatility has been relatively high in such items as "dairy products", "egg", "fruit" and "vegetable and potato". In the fourth quarter, the volatility in item "dairy products" was especially higher (having risen to 5.4 percent from 0.1 percent in Q4 2009).

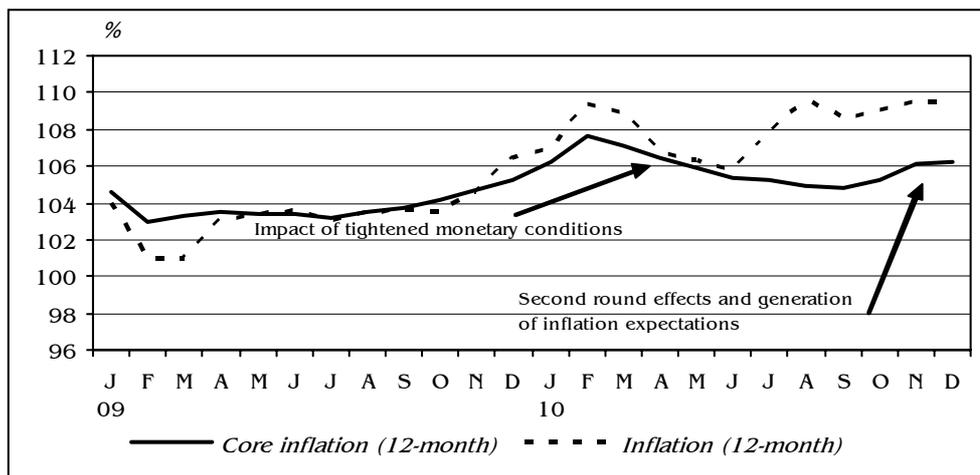
**Monthly price index variation coefficients in Q4 of 2006, 2007, 2008, 2009 and 2010, %**

Item	Q4 2006	Q4 2007	Q4 2008	Q4 2009	Q4 2010
<b>CPI (relative to previous month)</b>	<b>0.7</b>	<b>1.7</b>	<b>0.5</b>	<b>0.7</b>	<b>0.4</b>
<b>Food products (alcohol and tobacco included)</b>	<b>1.3</b>	<b>3.2</b>	<b>0.8</b>	<b>1.4</b>	<b>1.0</b>
Bread products	0.1	4.2	2.4	0.0	1.4
Meat products	0.6	0.1	0.7	0.5	1.1
Fish products	7.4	12.2	5.1	5.5	3.8
Dairy products	0.1	0.8	0.9	0.1	5.4
Egg	1.8	0.5	0.5	1.2	5.7
Fats and oils	0.3	7.8	2.1	0.8	2.3
Fruit	6.5	10.8	3.8	10.3	6.1
Vegetable and potato	10.6	4.5	4.5	10.0	14.7
Sugar	0.7	2.9	0.7	2.2	1.4
Coffee, tea, cocoa	0.4	0.1	0.4	0.1	0.2
Confectionery	0.1	1.9	0.2	0.5	0.1
Other products	0.0	0.5	0.5	0.5	0.1
Non-alcoholic beverage	0.0	1.9	0.2	0.1	0.2
Alcohol and tobacco	0.1	0.0	0.1	0.1	0.0
<b>Non-food products</b>	<b>0.3</b>	<b>0.8</b>	<b>0.7</b>	<b>0.5</b>	<b>0.4</b>
Garment and knitwear	0.5	1.9	0.4	0.8	0.5
Footwear	0.3	1.2	1.0	0.4	2.8
Fuel	1.3	0.1	0.2	0.8	0.9
Furniture	0.2	0.2	0.2	0.1	0.2
Carpets	0.0	0.0	0.1	1.9	0.2
Textiles	0.0	1.3	0.2	0.1	0.5
Home appliances	1.0	0.2	0.2	0.4	0.2
Kitchen utensils	0.3	0.0	0.6	0.1	0.0
Detergents	0.3	0.1	0.2	0.5	0.1
Building materials	0.2	0.6	0.3	0.9	0.3
Items of gardening	0.2	0.3	0.0	0.8	0.1
Medicament	0.1	0.6	0.0	0.9	0.2
Personal cars and fuel	1.0	1.8	3.7	2.2	0.9
Items of culture	1.7	1.3	0.1	1.0	2.3
Stationery	0.2	0.2	0.4	1.8	0.0
Beauty and apparel	1.2	0.1	0.2	0.3	0.2
Items of jewelry	0.1	0.2	3.2	0.4	3.4
Items of personal use	1.8	0.1	0.3	0.2	0.0
<b>Services</b>	<b>0.2</b>	<b>0.5</b>	<b>0.9</b>	<b>0.2</b>	<b>0.3</b>
Household services	0.9	1.3	0.6	0.5	0.0
Other services for household	1.1	1.6	0.7	0.4	0.0
Residential and public utility services	0.0	0.0	0.0	0.0	0.0
Healthcare services	1.1	0.0	2.8	0.5	0.4
Transport services	0.7	0.4	2.1	1.0	1.6
Communications services	0.0	0.1	0.0	0.1	0.0
Culture services	0.6	4.1	0.8	0.9	0.2
Educational services	0.4	3.5	0.5	0.1	0.0
Leisure and rest services	0.2	1.9	0.1	0.1	1.9
Public catering	0.1	0.3	0.2	0.0	0.0
Legal and banking services	0.0	0.0	0.0	0.0	0.0

**2.2. FULFILLMENT OF INFLATION TARGET**

In the fourth quarter of 2010 inflation was 4.5 percent. The 12-month inflation reached 9.4 percent, exceeding the upper border of the target by 3.9 pp. Of the inflation indicator, 7.5 pp alone was fuelled by food price increases (about 5 percent driven by price rise in agricultural products and more than 2 pp by increased import prices). The supply shock-driven inflation persisted over the second half of the year, and already in the fourth quarter that was added by increasingly intensive secondary impacts and inflationary expectations. In the fourth quarter the 12-month core inflation rose by 1.4 pp to reach 6.3 percent at the end of the year.

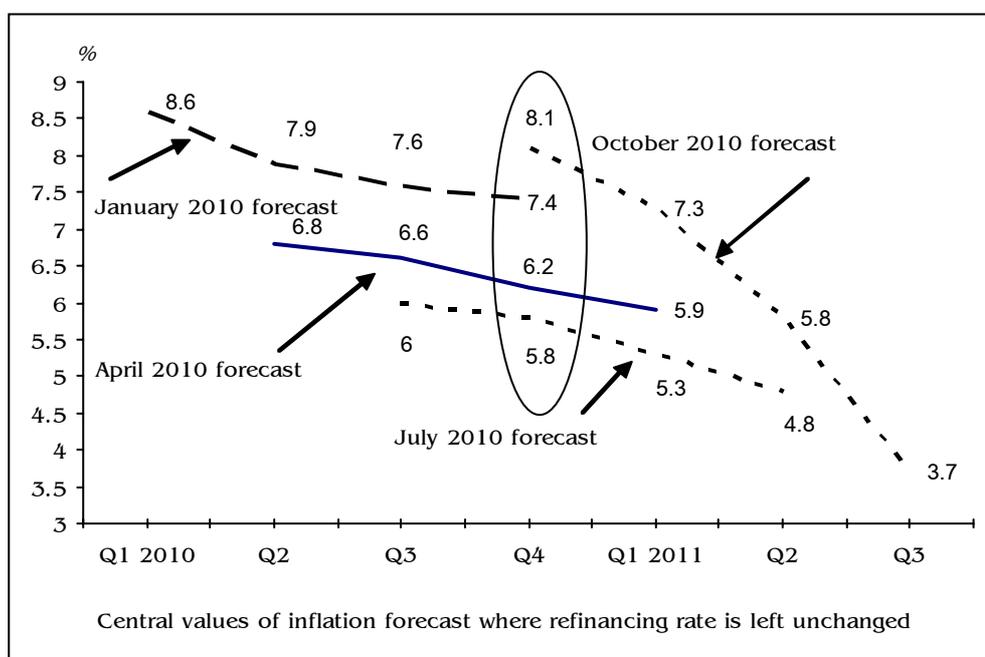
**The 12-month inflation behaviour**



The inflationary environment and monetary policy directions in the preceding 12-month period, or which is the year 2010, were characterized by the following developments. From December 2009, the 12-month inflation began accelerating rapidly, triggered by such factors as the impact transmitted from highly expansionary fiscal and monetary policies implemented by the Government and the Central Bank since the second half of 2009, the external inflationary pressures due to faster-than-forecast growth rates in international prices of primary goods and food products, and the dram depreciation pressures furnished primarily by negative expectations.

In January of 2010, in expectation of escalation of inflationary pressures in external and domestic environment, the Central Bank made an upside revision to inflation forecasts for an upcoming one-year horizon. Estimated to have a diminishing behavior, inflation were to reach a 7.4 percent level in the fourth quarter.

**12-month inflation indicator forecast**



Tasked to eliminate an accelerating potential of inflation and to bring inflation back to the target, the Central Bank had changed, since the beginning of the year, the direction of monetary policy by tightening monetary conditions. Thus, in order to minimize deviation of inflation from the target, the Central Bank had raised the refinancing rate a total 2.25 pp

over the first five months of the year while sharply restricting quantitative easing. At the same time, the Government and the Central Bank took further measures to fight dollarization of the economy (as part of these measures, in April the Central Bank changed the reserve requirement mechanism requiring that 25 percent of foreign currency funds attracted be kept in drams, and at some later point in September, it required that further 25 percent be kept in drams) and exercised other macro-prudential actions. Concurrent with this, the Government took an action to restrain inflation, which meant cutting back budget expenditures and increasing tax collection. In the outcome, the Central Bank succeeded in lowering the 12-month inflation to 5.8 percent at the end of the second quarter from the February peak of 9.4 percent.

Based on the above mentioned developments in inflation, the Central Bank again revised its forecasts in April and July, this time in a downside direction, projecting 6.2 percent and 5.8 percent levels, respectively, for the 12-month inflation for the fourth quarter of 2010. In fact, the influence of factors to ease inflation was expected to carry on over the next quarters as well, under which circumstance a diminishing behavior of inflation persisted. What happened in the third quarter, however, was the surge of the 12-month inflation affected mostly by supply shocks, i.e. global price increases on food products and domestic agricultural products. As a result, the third quarter (which is a deflationary period as a rule since in recent years the respective deflation indicator has been an average 3.0 percent) reported 0.2 percent inflation, while the 12-month inflation reached 8.6 percent in end-September.

The recent Central Bank forecasts which were made in October for the fourth quarter of 2010 have been once again revised upside, to make up 8.1 percent. These forecasts however held the fastest declining trajectory for a one-year horizon, when compared with projections of previous quarters, coming closer to the midpoint of the band at the end of the forecast horizon. Such a high forecast was grounded on the World Bank Food Index having risen to 14 percent y-o-y in September from 5.5 percent y-o-y in August. Yet, until end-December, the WB Food Index had jumped farther, to 25.3 percent y-o-y. In this situation at the end of the year, the 12-month inflation indicator exceeded the forecast by 1.3 pp to make up 9.4 percent.

Notwithstanding high inflationary environment, in the period from the third quarter until yearend, the Central Bank had found it reasonable to withhold from changing monetary conditions in the times when the inflationary environment was driven primarily by supply side factors. As well as some other factors to ease inflation (i.e. tightened monetary conditions since the start of the year, developments in the foreign exchange market, slowly recovering domestic demand still aversive to creating inflationary pressures) were considered. However, while the level of refinancing rate in the third quarter was considered appropriate to neutralize the second round impacts of inflation and inflation expectations in the forecast time horizon, in the fourth quarter the Central Bank made it clear in its statements that tightening the monetary conditions might be necessary. In the outcome, in the period June-September the refinancing rate was left unchanged, at 7.25 percent level.

### 3. INFLATION FACTORS

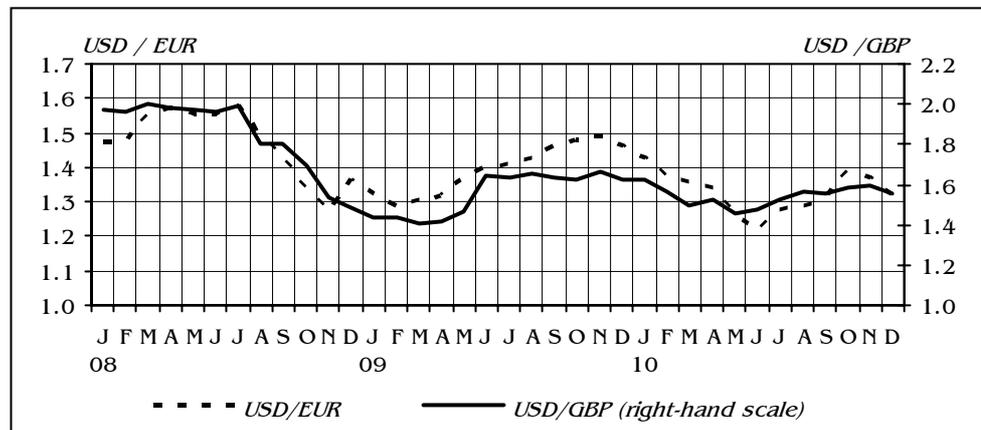
#### 3.1. EXTERNAL ENVIRONMENT

In the fourth quarter of 2010 world output growth has accelerated again after some slowdown in the previous quarter. Higher economic activeness and a new expansionary regime in the US economic policy in the second half of the year made the IMF to revise in January the projections of world output growth. According to new projections, in 2010 world output will grow at 5 percent instead of the previous forecast (in October) of 4.8 percent. This figure is about 1.5 pp higher from the previous five years' average. Based on the IMF estimates, in 2010 inflation was 6.3 percent in emerging countries and 1.5 percent in developed economies. Inflation in CIS reached an average 10.0 percent<sup>5</sup>. Nevertheless, as predicted by the IMF, the downside risks in terms of the 2011-2012 world growth outlooks persist because of further spread of debt issues in Euro-area, the lack of decisiveness in carrying out medium-term fiscal consolidation in the main developed countries, likely signs of possible escalation of demand and creation of inflationary environment in emerging countries amid huge inflow of capital and persistently high prices of primary goods in world markets.

The fourth quarter was remarkable with substantial price volatilities in global markets of primary goods and considerable inflationary pressures because of the launch of QE2 exercise by the US Federal Reserve System, further escalation of debt issues in Europe, and expectations of possible constrictive policies in China.

Amidst reemergence of debt issues in Europe and concerns over their farther spread, the EURUSD depreciated considerably especially at the end of the fourth quarter. Yet, in the light of a higher Euro exchange rate level observed in the period October-November, its exchange rate has appreciated by 5.2 percent q-o-q reaching an average USD 1.36 per Euro (Euro's y-o-y depreciation has been 8.0 percent).

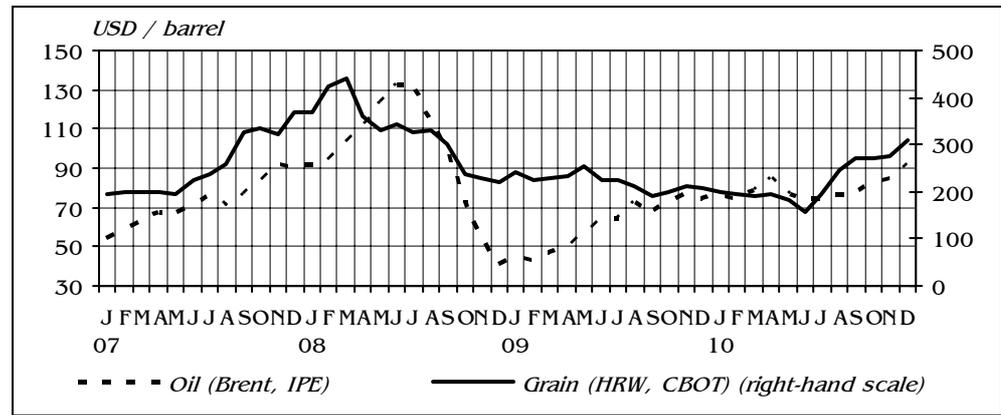
*In Q4 2010 the US dollar depreciated versus Euro*



In the fourth quarter of 2010 international oil prices climbed by 13.6 percent q-o-q, with 'Brent' averaging around USD 86.8 a barrel (y-o-y growth was 15.8 percent). Prices of both base metals and precious metals have grown. The copper price at the London Metal Exchange increased by 18.4 percent q-o-q averaging around USD 8617 per ton (y-o-y growth was 29.5 percent). Average quarterly price of gold grew by 11.6 percent against the previous quarter to reach USD 1370 per troy oz. (y-o-y growth was 24.3 percent).

<sup>5</sup> This figure is presented without Turkmenistan and Uzbekistan, the data of which are not available yet, and has been calculated using the arithmetic mean.

*The fourth quarter was prominent for an inflationary environment in world commodity markets*



In the fourth quarter, following more than 50 percent upsurge since July, prices of wheat in international markets kept on rising in the fourth quarter to record new highs. Average quarterly price of wheat at the Chicago Board of Trade amounted to USD 7.7 a bushel, up by 15.8 percent against the previous quarter's average and up by 38.2 percent compared to the same quarter's average of the previous year. According to January estimates by the US Department of Agriculture, in the 2010/2011 marketing year some 646 million tons of crops of wheat are expected against the previous year's 683 million. The world grain demand is forecast to reach around 665 million tons, so the world stock of grain is predicted to reduce, in relation to the previous year, by about 20 million tons to 178 million tons, reflecting, by and large, the reductions in Russia and the EU.

The price of rice has grown by 26.6 percent to reach USD 14.1 per short hundredweight (45.3 kg), which is below the previous year's indicator by around 4.9 percent.

The price of sugar has increased by about 34.2 percent q-o-q, with an average quarterly price of USD 35.6 per cent/pound, which is 50.4 percent higher from the fourth quarter's indicator of the previous year.

Below is the review of economic developments in the USA, Euro-area 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.

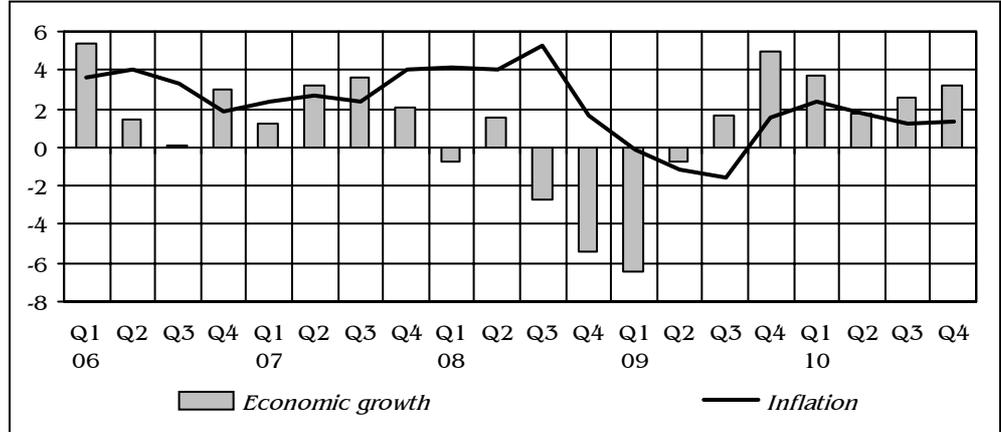
In the *United States of America* in the fourth quarter of 2010 economic growth rates speeded up. Preliminary estimates by Economic Analyses Bureau of the US Department of Commerce show that in the fourth quarter the US economy posted an annualized 2.8 percent growth q-o-q against 2.6 percent growth recorded in the previous quarter. The growth has been fuelled primarily by consumer spending (with 2.9 pp contribution) and net exports (with 3.4 pp contribution, a positive value for the first time in 2010). However, private investments have declined for the first time since H1, 2009, and made a negative contribution of -3.1 pp. The public sector's contribution has been -0.3 pp.

In the fourth quarter the deficit of net exports in GDP improved noticeably, amounting to 3.3 percent compared to 3.7 percent recorded for the previous quarter. This indicator is still higher from the 3.0 percent value recorded for the same period of the previous year. The improvement was determined largely by narrowed import volumes in spite of a small growth (in terms of value) as a result of a considerable increase in import prices.

In the fourth quarter average quarterly inflation in the USA was 1.3 percent y-o-y (1.2 percent in the previous quarter). At the end of the year the 12-month inflation indicator reached 1.5 percent. The inflationary environment has been driven by price increases on fuel, energy, food products and services.

In the fourth quarter the US Federal Reserve System further maintained its prime lending rate in the corridor of 0 - 0.25 percent. In the meantime in November, the Fed had announced a new launch of the quantitative easing exercise (to the amount of USD 600 billion) in the face of slow rates of recovery in economy and employment as well as lasted concerns over economic development outlook.

***In Q4 2010 economic growth rates speeded up in USA***

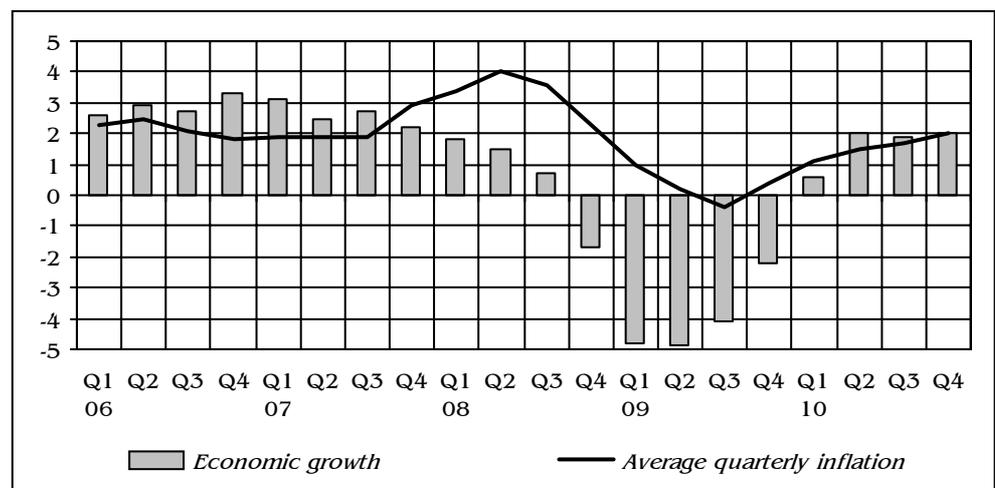


According to preliminary estimates of the EuroStat, a 0.3 percent economic growth was posted in **Euro-area** in the fourth quarter of 2010. In the meantime, a relatively stable y-o-y recovery rate persisted, making up 2.0 percent (against 0.3 percent and 1.9 percent q-o-q and y-o-y, respectively, in the previous quarter).

In the fourth quarter the consumer price index rose by an average 2.0 percent y-o-y against 1.7 percent inflation recorded in the previous quarter. During the quarter the European Central Bank kept interest rates at the same level, 1.0 percent, in the light of slow recovery rate of the economy.

In the fourth quarter debt problems again escalated in Euro-area. Though in end-November the EU finance ministers approved, in collaboration with the IMF, a EUR 85 billion support package to Ireland in order to prevent these problems from spreading further, concerns over possible tension in other vulnerable countries of the Europe still persisted.

***Inflation accelerated in Euro-area***



In the fourth quarter of 2010 **Russia** posted 4.9 percent real economic growth y-o-y, after a slowdown recorded in the previous quarter (2.7 percent growth y-o-y) and ended the year with 4.0 percent real economic growth y-o-y.

Growth in industry in the fourth quarter was 6.5 percent y-o-y, and 8.2 percent in entire year. Construction reported as low as 0.9 percent growth y-o-y, while in 2010 it posted 0.6 percent decline.

In the fourth quarter, in view of the external and domestic developments, current account surplus has decreased by USD 1.8 billion y-o-y to amount to USD 14.3 billion. This was driven by reduced trade balance surplus and increased balance of services deficit. Net outflow of capital began to widen starting from the third quarter, which reached a dramatic figure of USD 21.4 billion in the fourth quarter (in the fourth quarter of the previous year net outflow was USD 12.0 billion). Net outflow by banks amounted to USD 6.3 billion and net outflow by other private sector reached USD 15.1 billion. As a result of balance of payments flows, in the fourth quarter foreign currency reserves of the Central Bank of Russia have decreased by USD 8.6 billion to USD 479.38 billion, as of January 1, 2011.

In the face of balance of payment flows as well as developments in international financial markets, the Russian Central Bank acted as a net seller of foreign currency in order to curb the ruble exchange rate depreciation pressures. As a result, the average RURUSD remained almost at the previous quarter's average level. In the fourth quarter the ruble's y-o-y depreciation versus the US dollar was 4.2 percent, whereas average nominal exchange rate appreciation over 2010 has been 4.3 percent.

The rate of inflation kept on accelerating: an average 8.3 percent y-o-y inflation was recorded in the fourth quarter (6.3 percent in the third quarter). The utmost acceleration was in December when some 1.1 percent inflation was recorded (0.4 percent in December of the previous year). Inflation in the fourth quarter was driven by faster growing prices of food products. Non-food price increases had accelerated as well. Inflation in 2010 reached 8.8 percent (8.9 percent in 2009).

In the fourth quarter the Russian Central Bank continued withholding from lifting the policy rate, thus keeping the refinancing rate at a 7.75 percent level which it set back on the 1st of June.

#### ***Macroeconomic Situation in Neighboring Countries <sup>4</sup>***

***Turkey:*** in the third quarter of 2010 the Turkish economy posted 5.5 percent growth, following high economic growth rates<sup>5</sup> over the previous quarters (in part due to the impact of recession recorded in the first half of the previous year). Growth rates of domestic demand (free of stocks) have accelerated which resulted in 10.6 pp positive contribution to the economic growth, whereas weak net external demand made 4.6 pp negative contribution. In the third quarter the growth of private consumption was 7.6 percent y-o-y, while the growth of investment was rather high – 31.3 percent y-o-y.

Positive developments in construction remained the main driver to economic growth. In the third quarter construction posted as high as 24.6 percent growth y-o-y (21.9 percent in the second quarter). In wholesale and retail trade, however, growth rates slowed down, to 7.5 percent y-o-y; nearly zero growth was reported

<sup>4</sup> Review of the macroeconomic situation in neighboring countries is important in a sense that, being under the influence of similar economic turbulences, developments in these countries may indirectly influence the Armenian economy. Crises of 1990s showed that indirect influence channels, including common export markets, lending organizations or countries, investors, etc, from the regional standpoint are becoming increasingly influential on economic developments of countries. Therefore countries periodically monitor macroeconomic developments not only in neighboring countries but also partner countries in the Region. Note that Iran is not included in the selection because numerical data of this country are not complete and are issued in such delays when they lose relevance.

<sup>5</sup> Official GDP figures for Q4 2010 are lacking.

in processing industry, while 0.8 percent y-o-y decline was observed in agriculture.

In the fourth quarter of 2010 the rate of inflation slowed to some extent to make up 7.4 percent y-o-y. Price increases on food products and non-alcohol beverage amounted to 12.1 percent y-o-y. Prices of alcohol beverage rose by 24.3 percent y-o-y and transport service fare increased by 6.8 percent y-o-y. So, at the end of the year the inflation indicator reached 6.4 percent, slightly below the target.

Low interest rates in world markets, high growth of imports due to dramatic growth of domestic lending, increase of short-term capital inflow, coupled with weak external demand, have all resulted in deterioration of current account deficit, which had been one of the primary risks throughout the year. Thus, in the period January-November of 2010 current account deficit has deteriorated by USD 30.6 billion to USD 41.6 billion. This has been largely due to the increase of trade balance deficit. In the period January-November growth rates of export have declined substantially, to 9.7 percent, whereas as much as 30.8 percent growth has been reported for imports. Net inflow of capital amounted to USD 51.3 billion compared to USD 6.8 billion recorded for the same period of the previous year. In the banking sector in the period January-November, net inflow of capital has been USD 32.9 billion, whereas other private sector reported USD 5.2 billion worth net outflow of capital. In January-November net inflow of 'hot money' has amounted to USD 16.5 billion (against USD 0.9 billion in the same period of the previous year). At the same time, inflow of foreign direct investment has reduced to USD 6.3 billion. As a result of the balance of payments flows in the period January-November 2010, official reserves of the Central Bank of Turkey have increased by USD 11.4 billion.

In the fourth quarter the Turkish lira's average nominal exchange rate appreciated versus the US dollar by 3.8 percent q-o-q, although in November and December the appreciation trend grew into depreciation. In the fourth quarter of 2010 the exchange rate y-o-y appreciation was 1.8 percent.

In the fourth quarter, in the face of huge capital inflow, the Central Bank of Turkey looked to implementing its monetary policy by using multiple tools. The fact that core inflation was in line with the medium-term target, the monetary policy could be focused on financial stability issues. Therefore, early in December the Central Bank lowered one-week repo rates by 50 basis points to set them at a 6.5 percent level. At the same time though the reserve requirement has been raised by 100-200 basis points, based on the maturity of the funds attracted.

**Azerbaijan:** real GDP growth rates were maintained during 2010, making up 5.0 percent, and 7.9 percent in the non-oil sector<sup>6</sup>. Nominal GDP has grown by 16.8 percent compared to the previous year, and GDP deflator amounted to 11.3 percent (against -18.8 percent in the same period of the previous year). Industry's contribution to the GDP growth was 52.6 percent; agriculture – 5.4 percent; construction – 7.5 percent; transport and telecommunications – 7.9 percent; wholesale and retail trade – 6.6 percent; social services – 8.1 percent; and net production and import taxes – 8.1 percent<sup>7</sup>.

In 2010, relative to December of the previous year, inflation in Azerbaijan was 7.6 percent. Average inflation was 5.7 percent relative to the previous year. Average annual inflation was fuelled by price increases on food products (7.2 percent), non-food products (2.3 percent), and service tariffs (4.3 percent)<sup>8</sup>.

Over 2010 trade balance of Azerbaijan has run with surplus, reaching USD 14.7 billion. Export has increased by 45.1 percent in relation to the same period of the previous year and totaled USD 21.3 billion; import has increased by 7.8 percent and reached USD 6.6 billion<sup>9</sup>. Crude oil accounted for 86.5 percent of value of Azerbaijani exports in 2010 (it accounted for 81.6 percent in 2009)<sup>10</sup>.

<sup>6</sup> Source: Azerbaijan Central Bank Statistics Bulletin, January-December, 2010, Table 1.1.

<sup>7</sup> Source: [http://www.abc.az/rus/news\\_18\\_01\\_2011\\_50971.html](http://www.abc.az/rus/news_18_01_2011_50971.html).

<sup>8</sup> Source: Azerbaijan Central Bank Statistics Bulletin, January-December, 2010, Table 1.2.

<sup>9</sup> Source: <http://abc.az/rus/news/50929.html>.

<sup>10</sup> Source: <http://abc.az/rus/news/50908.html>.

*In 2010, relative to 2009, gross inflow of foreign direct investment has increased by around 40.9 percent to reach USD 3.1 billion, with Great Britain as the largest investor (51.9 percent), followed by USA (14.9 percent), Czech Republic (9.0 percent), Japan (7.5 percent), Norway (4.7 percent), Turkey (3.9 percent)<sup>11</sup>.*

*In 2010 too, the Central Bank of Azerbaijan implemented a policy to maintain stability of the Manat exchange rate. As a result, in the period January-December Manat appreciated vis-a-vis US dollar by a mere 0.65 percent, while the January-December average exchange rate appreciation has been 0.15 percent y-o-y<sup>12</sup>.*

*Over 2010 the volumes of loans provided to the economy by banks have increased by 9.0 percent; the volumes of loans in local currency have grown by 20.0 percent<sup>13</sup>. In the resident business loan portfolio structure trade & services hold the largest share (34.2 percent), followed by energy, chemical & natural resources (15.2 percent), industry (10.6 percent), and construction (10.2 percent). On the back of this, the volumes of bad loans have grown by around 62.4 percent (USD 237 million) against end-December 2009. As of end-December 2010, bad loans constituted 5.4 percent of total economy lending (3.6 percent in the previous yearend)<sup>14</sup>.*

*The volumes of deposits have increased notably, by 24.3 percent, with deposits in local currency grown by 34.5 percent alone. The share of deposits in foreign currency has reduced to make up 21.1 percent in total<sup>15</sup>.*

*In the period January-December of 2010 foreign exchange reserves of the Central Bank of Azerbaijan have increased by 24.1 percent and reached USD 6.4 billion, as of December 31, 2010<sup>16</sup>.*

**Georgia:** *in the period January-September 2010 real GDP growth has been 6.7 percent. The nominal GDP has grown by 17.5 percent relative to the previous year. The GDP deflator amounted to 10.2 percent (-1.9 percent was in the same period of the previous year). In the period January-September the largest contribution to GDP growth came from industry (18.0 percent), trade (16.0 percent), public administration (12.0 percent), transport and telecommunications (12.0 percent), agriculture (8.0 percent), construction (7.0 percent), and transport (7.5 percent). Net taxes on manufacture and import amounted to 13.6 percent of GDP<sup>17</sup>.*

*In 2010 average inflation in Georgia was 7.1 percent in relation to the same period of the previous year, and 11.2 percent in relation to December of the previous year. Moreover, compared to the previous December, inflation was reported for non-durable goods, semi-durable goods and durable goods, amounting to 15.6 percent, 0.9 percent and 4.3 percent, respectively, and the service fees have increased by 0.6 percent<sup>18</sup>. For the period 2011-2013 the National Bank of Georgia has set an inflation target of 6 percent.*

*Over 2010 export volumes (FOB) have increased by 39.7 percent or USD 449.8 million, and import volumes (CIF) have increased by 16.7 percent or USD 729.0 million. As a result of export-import transactions Georgia's trade balance deficit has deteriorated by 8.6 percent in relation to the same period of the previous year and reached USD 3512 million.*

*Notwithstanding signs of recovery of the Georgian economy, gross inflow of foreign direct investment is further narrowing. In the period January-September of 2010 inflow of FDI reached USD 433.0 million, a 6.8 percent y-o-y decline. Unlike direct investment inflows, there has been about 11.7 percent growth of inflow of money transfers from abroad in relation to 2009: this figure in 2010 was USD 939.7 million.*

<sup>11</sup> Source: <http://abc.az/rus/news/main/50985.html>.

<sup>12</sup> Source: <http://www.cbar.az/other/azn-rates>.

<sup>13</sup> Source: Azerbaijan Central Bank Statistics Bulletin, January-December, 2010, Table 2.6.

<sup>14</sup> Source: Azerbaijan Central Bank Statistics Bulletin, January-December, 2010, Table 2.8.

<sup>15</sup> Azerbaijan Central Bank Statistics Bulletin, January-September, 2010, Table 2.4.

<sup>16</sup> Source: [http://www.cbar.az/infoblocks/money\\_reserve\\_usd](http://www.cbar.az/infoblocks/money_reserve_usd).

<sup>17</sup> Source: [http://www.nbg.gov.ge/uploads/gdpinglisurad/nominal\\_gdpqcurrenteng.xls](http://www.nbg.gov.ge/uploads/gdpinglisurad/nominal_gdpqcurrenteng.xls).

<sup>18</sup> Source (here and henceforth): National Bank of Georgia's Monetary and Banking Statistics Bulletin, January-December, 2010.

*With foreign currency inflow reducing, in 2010 the average exchange rate of Lari depreciated vis-a-vis the US dollar by 6.4 percent y-o-y. Relative to end-December of 2009, depreciation of Lari was 4.8 percent. To restrain pressures from depreciation of the Lari exchange rate, the National Bank sold (net) USD 153.2 million in the domestic foreign exchange market in January-December.*

*As of September 30, 2010, foreign exchange reserves of the National Bank of Georgia amounted to USD 2.11 billion, which was in line with the end-2009 levels. In the same period of time, Georgia's foreign debt (excluding government guaranty) has increased by around USD 375.0 million to reach USD 3.75 billion, as of September 30, 2010, compared to USD 3.375 billion recorded as of December 30, 2009.*

*Over 2010 bank lending has grown. The volumes of loans in local currency have increased by 35.1 percent and loans in foreign currency, by 16.0 percent. The largest share in lending to resident economy belonged to trade (51.3 percent), industry (21.5 percent) and construction (10.7 percent). The amount of bad loans has increased by about Lari 14.2 million (USD 7.1 million), constituting 2.7 percent of total lending volumes. The share of deposits attracted by banks has increased, with deposits in local currency, by 50.1 percent and deposits in foreign currency, by 43.0 percent. Dollarization in the Georgian economy has declined by 1.3 percent in relation to the previous year; as of December 30, 2010 foreign currency deposits constituted 72.1 percent in total.*

*As of December 30, 2010 foreign exchange reserves of the National Bank of Georgia have amounted to USD 2.26 billion, which is a USD 153.5 million increase in relation to the previous end-year. In the period January-December 2010 Georgia's public debt (less state guaranty) has increased to reach USD 3.933 billion. As of December 30, 2009, it has been USD 3.375 billion.*

## **3.2. BALANCE OF PAYMENTS** <sup>19</sup>

### **3.2.1. Current account**

On the back of developments in world and domestic economies, in the fourth quarter of 2010 current account further tended to improve y-o-y. Faster growing metals prices, which exceeded expectations, was a noteworthy development during the quarter. These were reflected in acceleration of export in dollar terms under high growth rates in industry. Growth rates in import have slowed down sharply since the second half of the year, which was driven mainly by faster growing import prices amid budget constraints of economic agents. Growth rates of transfers speeded up during the quarter. As a result, the deficit of current account has reduced by USD 189.4 million y-o-y to USD 359.3 million. Over 2010 the current account has improved and made up around 14.0 percent of GDP compared to 16.2 percent in the previous year.

In the fourth quarter export and import values have increased by USD 97.4 million (41.9 percent) and USD 22.1 million (2.4 percent) y-o-y, respectively. As a result, the deficit of trade balance has reduced by USD 75.4 million y-o-y to amount to USD 613.8 million. Over 2010 the growth of export and import values has been 48.8 percent and 15.0 percent, respectively.

Faster rates of growth of export were attributable to the acceleration of growth rates of metals prices and persistently high growth rates in industry as global economy develops. Export of goods and services in real terms<sup>20</sup> has increased by 8.9 percent y-o-y during the fourth quarter and by 12.0 percent over 2010. Growth of export value<sup>21</sup> was driven mainly by positive contributions from such items as "base metals and articles

<sup>19</sup> Q4 2010 indicators are the Central Bank estimations.

<sup>20</sup> Export and import of goods in real terms are the Central Bank estimates.

<sup>21</sup> Decreases were reported for export of some items (three, in total), which are negligible by weight.

thereof”, “mineral production” and “products of prepared food” by 12.1 pp, 10.4 pp and 5.5 pp, respectively<sup>22</sup>.

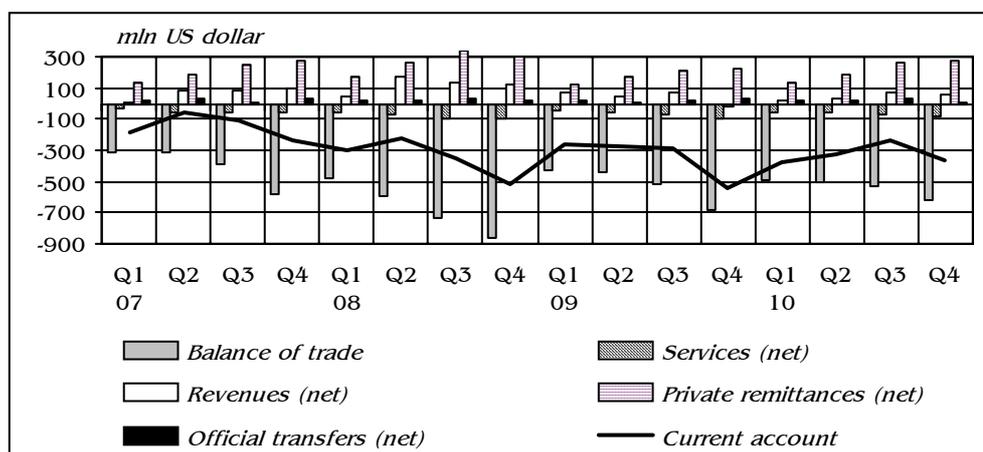
In the fourth quarter growth rates of import in dollar terms were just 2.4 percent y-o-y as domestic demand continued increasing and growth rates in import prices speeded up. This was largely due to huge volumes of import of machinery and equipment in the fourth quarter of the previous year. There has been as much as 15.0 percent y-o-y decline in real volumes of goods and services in the fourth quarter, which was driven mainly by faster growing import prices amid budget constraints of economic agents.

Slow growth of import value was driven mainly by negative contributions from such items<sup>23</sup> as “machinery and equipment” and “vegetable produce” by 2.9 pp and 1.5 pp, respectively. Note that the growth of import of items “mineral production” and “products of prepared food” (with positive contributions of 3.4 pp and 1.4 pp, respectively) outweighed the declined import of the above said items.

For geographic distribution of external trade, the main development was the deficit of trade balance with the CIS and EU states reduced by USD 27.5 million and USD 13.0 million, respectively. Other significant shifts in the structure of EU states were as follows: trade balance deficit with Germany has increased by USD 20.1 million, while trade balance surpluses were generated with Bulgaria and the Netherlands, amounting to USD 18.9 million and USD 27.9 million, respectively. Trade balance deficits with such countries as Iran, Turkey and China have increased by USD 14.0 million, USD 10.9 million and USD 4.9 million, respectively. Trade balance deficit with Switzerland has shrunk by as much as USD 43.9 million<sup>24</sup>.

In the fourth quarter the balance of services deficit has narrowed by USD 15.2 million y-o-y to amount to USD 79.1 million. This has been determined mainly by reduced deficit of balance of transport services and increased y-o-y surplus of balance of travel. Over the fourth quarter the y-o-y growth of export and import of services has been 15.1 percent and 3.2 percent, respectively.

*In Q4 2010 current account deficit has improved y-o-y*



In the fourth quarter the y-o-y growth rates of private remittances have accelerated<sup>25</sup>. This was largely explained by the developments in the Russian economy (in the fourth quarter of 2010 economic growth in Russia was 5.6 percent y-o-y compared to 2.2 percent recorded in the previous

<sup>22</sup> Export and import breakdown by sector and geography is presented, respectively, in FOB and CIF prices.

<sup>23</sup> Decrease has been reported also on import of some items.

<sup>24</sup> This has been attributable to huge volumes of machinery and equipment imported in the fourth quarter of the previous year.

<sup>25</sup> Net inflow of non-commercial transfers via the banking system has grown by 23.5 percent y-o-y in the fourth quarter of 2010 and by 15.4 percent over 2010.

quarter). In the fourth quarter of 2010 net inflow of seasonal worker income has grown by 18.0 percent y-o-y and amounted to USD 188.0 million. This offset net outflow in item "income on investment". As a result, item "Income" posted net inflow of USD 52.7 million, and net inflow of USD 173.1 million throughout 2010. Net inflow of private transfers has increased by 21.7 percent y-o-y to amount to USD 272.0 million in the fourth quarter, and has increased by 15.7 percent to total USD 848.2 million over 2010.

### 3.2.2. Capital and financial account<sup>26</sup>

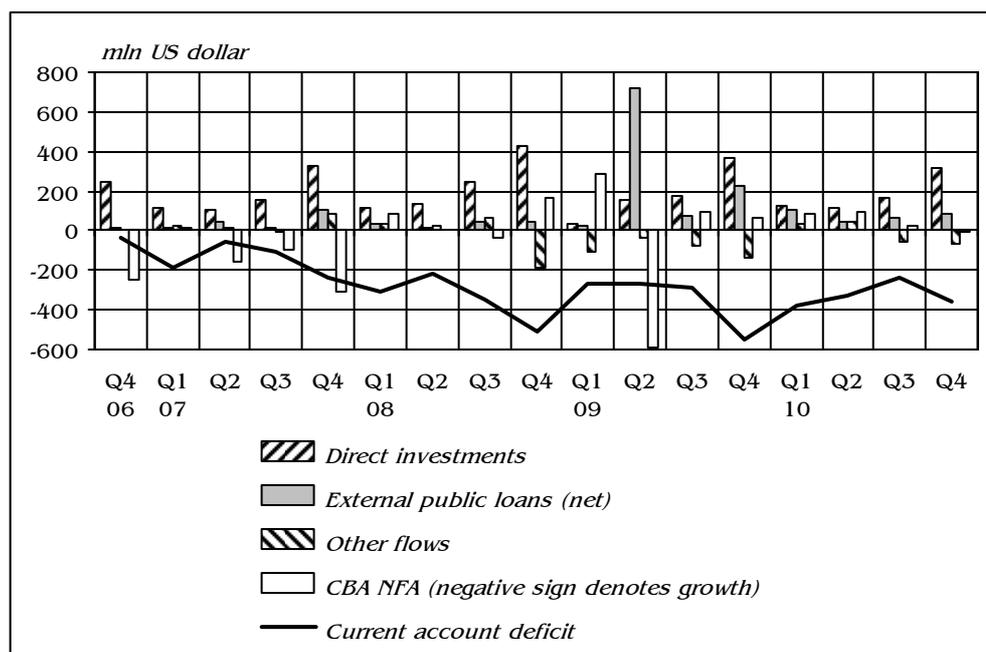
In the fourth quarter of 2010 the capital and financial account reported net inflow of USD 369.4 million, which was a slight excess over current account deficit. All items, except item "Other investment", posted net inflow of funds. As a result, net foreign assets of the Central Bank have increased by USD 10.2 million. Based on 2010 results, the capital and financial account reported net inflow of USD 1.09 billion, while reduction of NFA of the Central Bank has been due to the decrease in excess liquidity on foreign currency accounts of commercial banks with the Central Bank, which went to the use of domestic lending.

In the fourth quarter the inflow of capital transfers amounted to USD 38.8 million (USD 28.6 million in the fourth quarter of the previous year).

Net inflow of foreign direct investment reached USD 320.0 million compared to USD 370.0 million recorded in the fourth quarter of the previous year. Based on 2010 results, net inflow of FDI has been USD 723.6 million. Net inflow of public loans amounted to USD 80.4 million against USD 228.8 million recorded in the fourth quarter of the previous year.

Net foreign assets of private sector have grown by USD 69.7 million. Net foreign assets of private sector (commercial banks excluded) have grown by USD 231.9 million in contrast to USD 162.2 million of decrease in NFA of the banking sector.

*In Q4 2010 net inflow on capital and financial account slightly outweighed current account deficit*



<sup>26</sup> All indicators pertaining to the Q4 2010 capital and financial account are the Central Bank estimates.

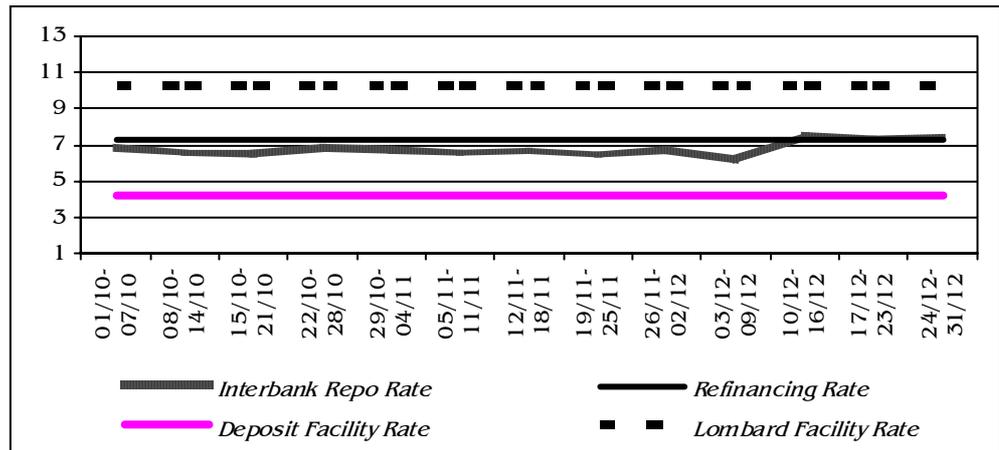
**3.3. INTEREST RATES, EXCHANGE RATE, AND MONETARY DEVELOPMENTS**

**3.3.1. Interest rates**

In the fourth quarter of 2010 the Central Bank left Refinancing Rate of repo agreement unchanged, at 7.25 percent, under which condition Lombard Repo rate was maintained at the level of 10.25 percent and the Deposit Facility Rate, 4.25 percent. This, naturally, affected interest rates on the Central Bank operations and on funds attracted and allocated by commercial banks.

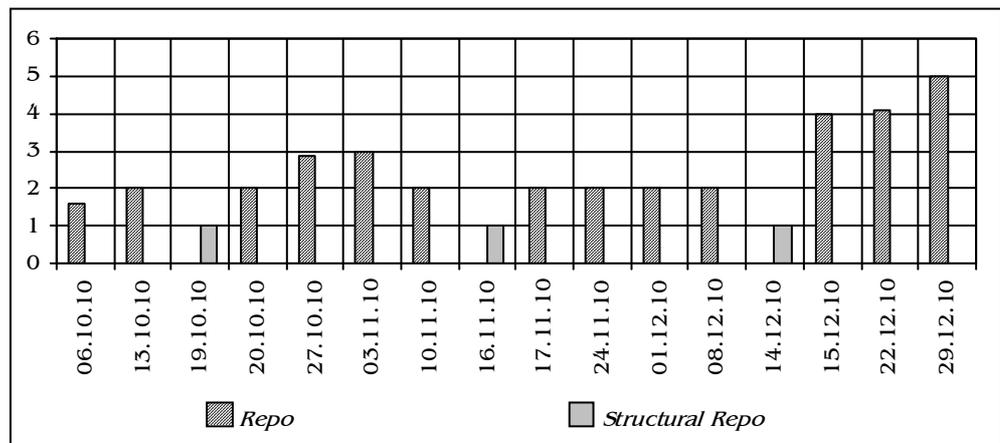
In the fourth quarter the Central Bank continued offering, each Wednesday, repo transactions to commercial banks. Average reported weekly volumes of repo operations performed reached AMD 2.7 billion, with an average interest rate of 7.44 percent. In the meantime, the Central Bank further applied an instrument of long-term repo, with a total volume of around AMD 3.0 billion, with an average interest rate of 8.19 percent.

*CBA Refinancing Rate, Standing Facility Rate and Interbank Repo Rate*



Operations in the interbank loan market, i.e. the Overnight Bourse, have become brisker. During the quarter the volume of interbank loans reached AMD 347.1 billion against AMD 127.5 billion recorded in the third quarter, with an average interest rate having risen by 0.64 pp to 4.88 percent. This was the reason why no lombard repo operations were executed between commercial banks and the Central Bank, whereas the average daily volume of commercial bank deposit with the Central Bank amounted to AMD 9.5 billion compared to AMD 12.0 billion in the previous quarter.

*CBA repo operations (bln AMD)*



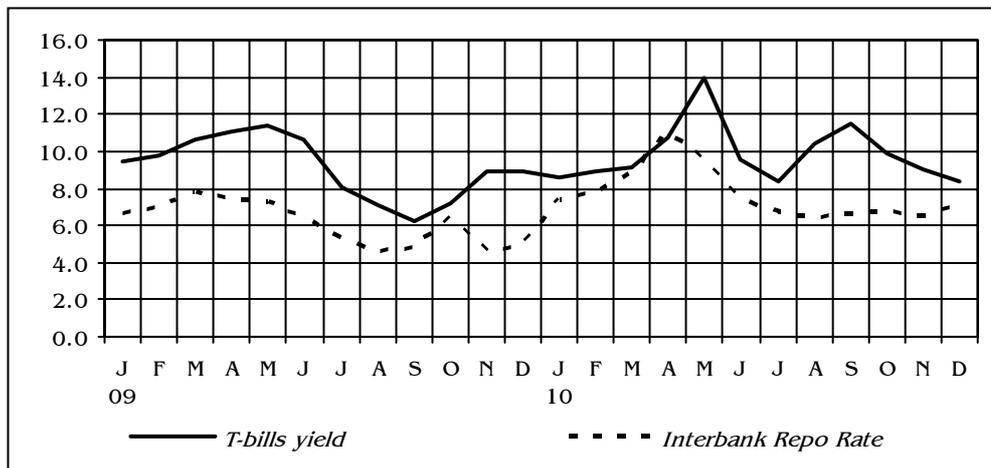
In the fourth quarter the volume of operations performed in the interbank and intrabank repo markets amounted to AMD 208.8 billion, reduced by just AMD 1.4 billion against the previous quarter. Over 2010 the total amount of funds floated on repo market has doubled in relation to 2009 to make up AMD 776 billion. In December the interbank repo rate

was 7.84 percent against 7.33 percent recorded in September and 5.79 percent recorded in December of 2009. The share of operations executed between commercial banks in total constituted 35 percent against 40 percent recorded in the previous quarter. In December average interbank repo rate was 7.16 percent, up by 0.53 pp against September.

In the fourth quarter total issue volume of short-term treasury bills amounted to AMD 24.5 billion compared to AMD 21.0 billion recorded in the third quarter. Total amount of short-term treasury bills allocated reached AMD 24.4 billion compared to AMD 18.2 billion recorded in the previous quarter. Based on 2010 results, total amount of short-term treasury bills allocated has increased by AMD 4.4 billion against the previous year to have reached AMD 62.1 billion.

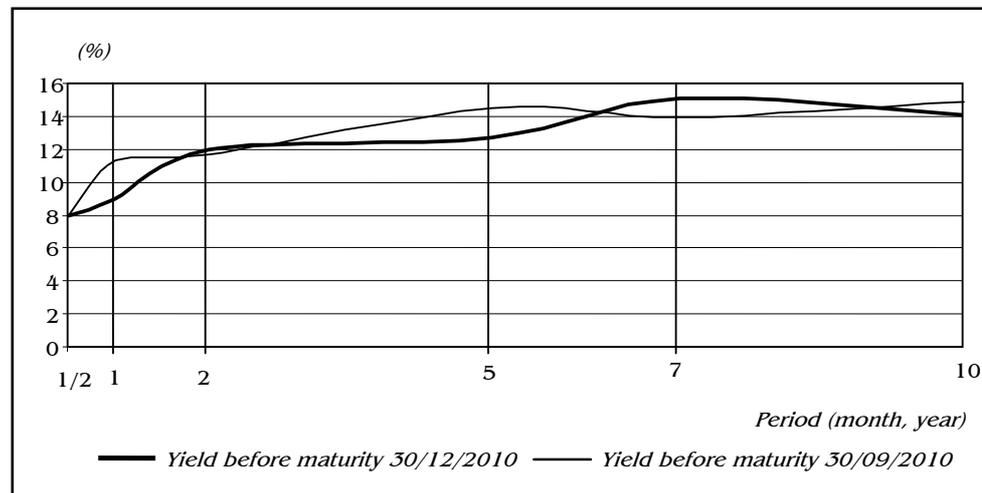
In the fourth quarter, in the primary market of short-term treasury bills interest rates tended to fall, mostly observed in the short-term segment, while in October-November interest rates of medium-term notes trended somewhat up and, at some point later, down. As a result, in December average yield on treasury bills reached 8.35 percent, falling by 3.14 pp against September, whereas yield on medium-term notes remained unchanged, 14.08 percent.

**T-bills and Interbank Repo rates**



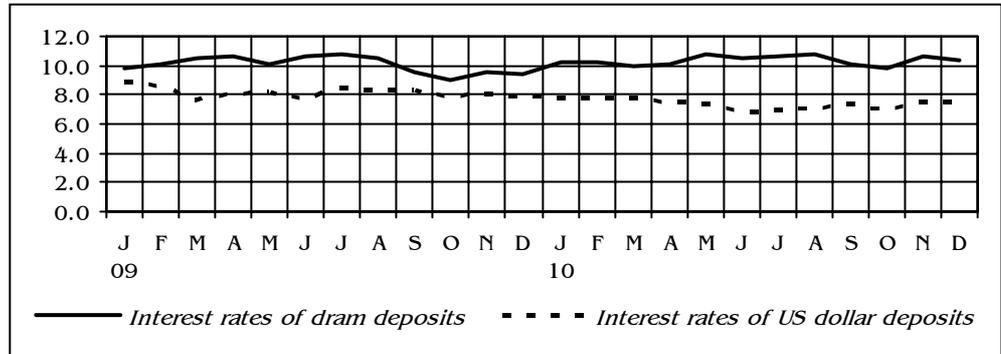
The yield curve analysis shows that in the secondary market of government securities yields have declined mainly in the short-term (6 months to 1 year) segment. Most transposition of the curve (93 percent) is driven by a parallel shift in the curve line, which made up 0.45 pp, owing to declined yields. Convexity of the curve has not changed virtually, from 0.31 just to 0.32.

**Secondary market posted an interest rate decline in short-term segment**



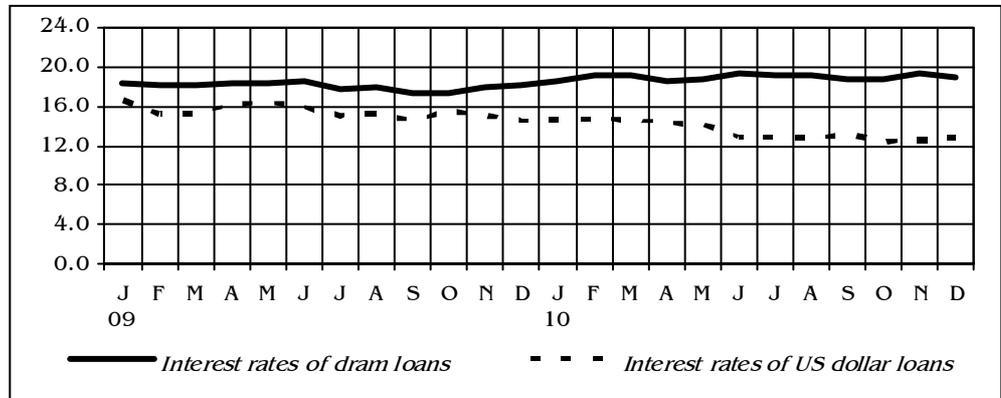
In the fourth quarter interest rates of loans and deposits in Armenian dram and US dollar trended as follows: average interest rates of dram and dollar deposits were 10.23 percent and 7.31 percent, respectively. Relative to the third quarter, average interest rate of dram deposits has fallen by 0.26 pp, while interest rates of dollar deposits has risen by 0.17 pp. As a result, in the fourth quarter the spread of interest rates of dram and dollar deposits amounted to 2.92 pp against 3.35 pp recorded in the third quarter.

*Interest rates of deposits attracted by banking sector*



In the fourth quarter average interest rates of dram loans and dollar loans were 19.04 percent and 12.62 percent, respectively. Relative to the third quarter, average interest rate of dram loans has not changed virtually, whereas interest rate of dollar loans has dropped by 0.31 pp. As a result, in the fourth quarter the spread of interest rates of dram and dollar loans amounted to 6.42 pp compared to 6.10 pp recorded in the third quarter.

*Interest rates of loans provided by banking sector*

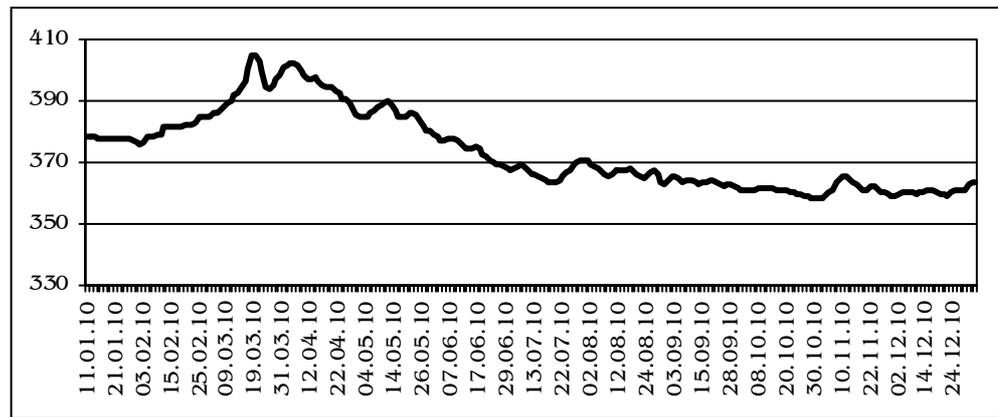


The interest rate spread of loans and deposits in Armenian dram made up 8.81 pp, (8.54 pp in the third quarter) and the interest rate spread of loans and deposits in US dollar reached 5.31 pp (5.79 pp in the third quarter).

### 3.3.2. Exchange rate

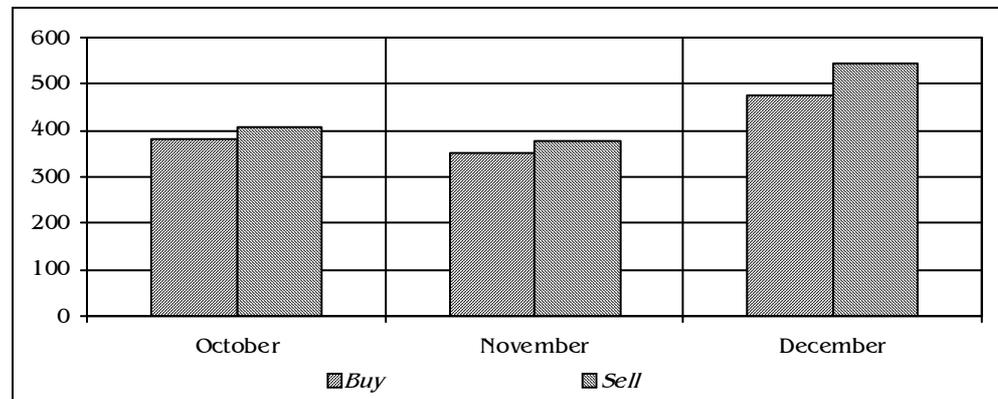
At the end of the fourth quarter of 2010, relative to the end of the previous quarter, the average AMDUSD exchange rate has depreciated by 0.59 percent to dram 363.44 from 361.31 for one dollar. Relative to the fourth quarter of the previous year, average appreciation has been 6.56 percent to dram 360.73 from 384.40 for one dollar. At the end of 2010, relative to the yearend 2009, the average AMDUSD exchange rate has appreciated by 3.98 percent.

**AMD / USD exchange rate**



The aggregate volume of interbank market transactions executed during the fourth quarter amounted to USD 2.537 million, which represents 7.23 percent increase in relation to the respective indicator of USD 2.366 million recorded in the fourth quarter of the previous year. Based on annual results, however, the volumes have reduced by 3.59 percent, down to USD 8.373 million from USD 8.585 million.

**Gross volumes of foreign exchange operations (mln USD)**



In the fourth quarter of 2010 the aggregate volume of Euro/Dram exchange transactions amounted to EUR 217.50 million, up by 2.84 percent in relation to the fourth quarter of the previous year. Based on annual results, the volume of such transactions has reduced by 15.9 percent to reach EUR 809.2 million.

To handle the dram supply and prevent the dram exchange rate from sharp fluctuations, the Central Bank purchased a total of USD 26.9 million from and sold a total of USD 38.28 million to commercial banks. Based on annual results, the purchase and sale volumes have been USD 122.7 million and USD 192.65 million, respectively.

In the fourth quarter nominal effective exchange rate of the dram has depreciated by 1.2 percent q-o-q. This has been primarily due to above-average appreciation of partner countries' currencies versus the US dollar (about 2.5 percent) in comparison with nearly 1.3 percent q-o-q appreciation of average quarterly AMDUSD exchange rate. Relative to the same period of the previous year, nominal effective exchange rate of the dram has appreciated by around 11.0 percent, mostly driven by both around 6.6 percent appreciation of the dram exchange rate and average weighted 4.1 percent y-o-y depreciation of exchange rates in partner countries. The Euro and ruble exchange rate depreciation played the main part of the game with their contributions of 3.2 pp and 0.9 pp, respectively.

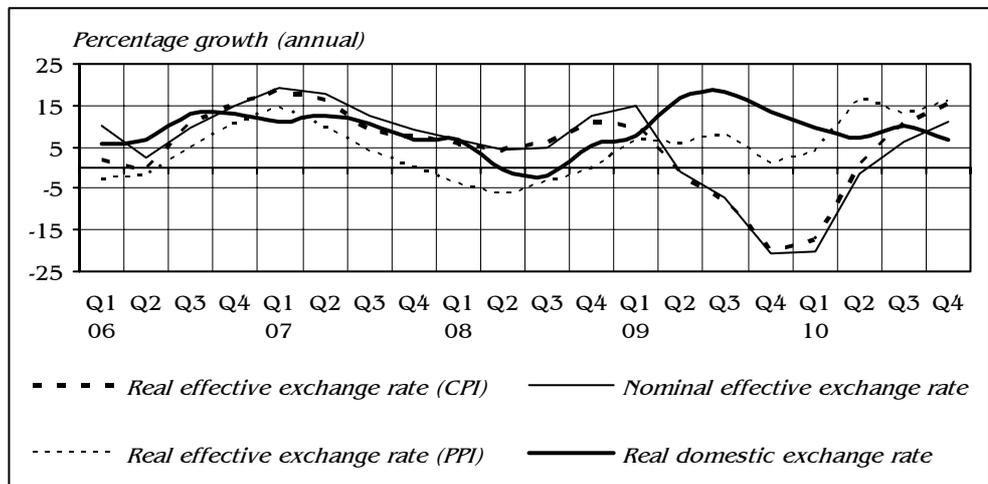
During the fourth quarter of 2010 real external exchange rates calculated by CPI (consumer price index) and PPI (producer price index) as

well as the domestic real exchange rate were stable in the main, albeit y-o-y appreciations had been recorded. This was explained by reported high inflation in Armenia as a result of price increases in international markets.

In the fourth quarter of 2010 average quarterly inflation reached 9.4 percent y-o-y in Armenia whereas average weighted inflation was 4.1 percent y-o-y in partner countries. Weighted average inflation in partner countries was most influenced by inflation in Russia (8.1 percent y-o-y), Ukraine (9.5 percent y-o-y) and Iran (12.4 percent y-o-y), with contributions of 1.7 pp, 0.7 pp and 0.7 pp, respectively, as well as by 0.7 pp contribution from Euro-area, which is determined by a large weight of the latter. In the outcome, over the fourth quarter the CPI-calculated real effective exchange rate has appreciated notably, 15.4 percent y-o-y, against 10.4 percent y-o-y appreciation in the previous quarter.

At the same time, the PPI-calculated real effective exchange rate has appreciated by 16.0 percent against about 13.2 percent appreciation in the previous quarter. This was mainly driven by considerable y-o-y increase of producer prices in dram in Armenia.

**Real and nominal exchange rate in Q4 2010**



Over the fourth quarter the domestic real exchange rate<sup>27</sup> has appreciated by 6.5 percent y-o-y, against the previous quarter's 9.9 percent appreciation, as prices of non-tradable goods have grown faster than prices of tradable goods<sup>28</sup>. Prices of non-tradable goods and services have increased by 17.3 percent and prices of tradable goods, by 10.1 percent y-o-y, compared to 18.6 percent and 8.0 percent, respectively, recorded in the previous quarter. The y-o-y growth of prices of tradable goods was attributable to a notable growth of international prices. The y-o-y growth of prices in non-tradable sector was mainly determined by increase in gas and water supply fees in the second quarter of 2010.

### 3.3.3. Monetary developments

There was somewhat a different picture in the third quarter after relatively a stable macroeconomic environment of the first half of 2010 as recession in agriculture, caused by unfavorable weather, had dragged economic growth rates down and accelerated inflation. Somewhat a subdued dollarization was observable as well, largely thanks to the change

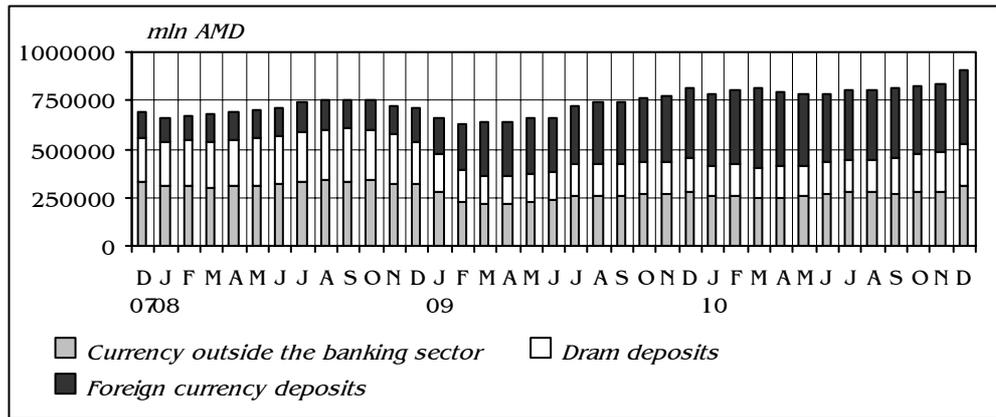
<sup>27</sup> Domestic real exchange rate has been calculated as a ratio of prices of non-tradable goods to prices of tradable goods.

<sup>28</sup> Prices of non-tradable and tradable goods have been calculated based on expert judgment over prices of a consumer basket, taking goods and services into relevant categories.

in reserve requirement mechanism (whereby reserve requirement against 50 percent of foreign currency funds attracted shall be kept in dram). In view of these tendencies, the Q4 2010 monetary policy program envisaged a downside growth of monetary aggregates and faster growth rates in dram deposits over foreign currency deposits.

In the fourth quarter, growth rates of monetary indicators well exceeded expectations due to vast expenditures executed by the Government at the end of the year and more-than-expected growth in economy lending. During the quarter broad money has increased by 12.5 percent and dram broad money, by 14.0 percent.

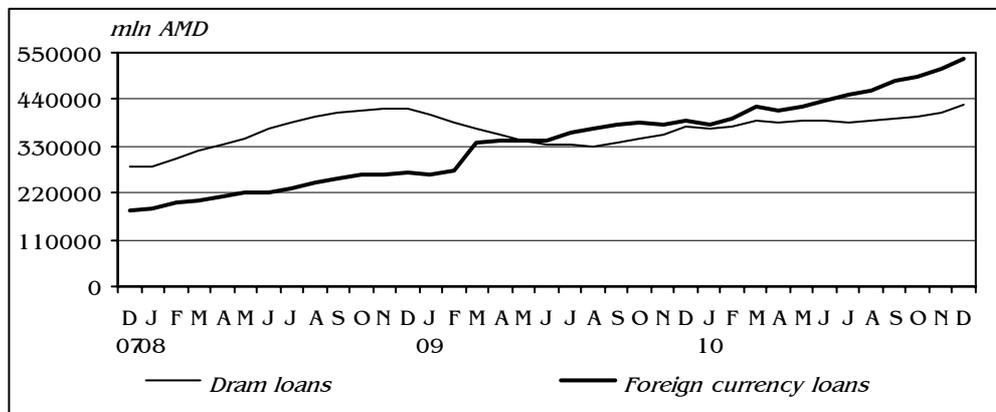
*In 2010 dram components of broad money have grown at a faster rate*



In the meantime, owing to the de-dollarization measures of the Central Bank, the level of dollarization has declined by 1.7 percent, reflecting the 17.0 percent increase in dram deposits over foreign currency deposits which have increased by 10.6 percent. Currency in circulation has grown by 11.9 percent, more than double the average 5.0 percent indicator of the last two quarters.

In the fourth quarter the financial sector further made large-scale foreign currency loans to the economy (representing a growth of 11.0 percent or more than AMD 53.0 billion) as compared to relatively a small growth of foreign currency deposits (representing a growth of AMD 37.3 billion). Excess funds on correspondent accounts in foreign currency and loan resources attracted from abroad were the main source for lending in foreign currency. During the quarter the dram lending has increased by 8.5 percent or AMD 33.7 billion, so the economy lending has grown by 10.1 percent or around AMD 90.0 billion, as a result.

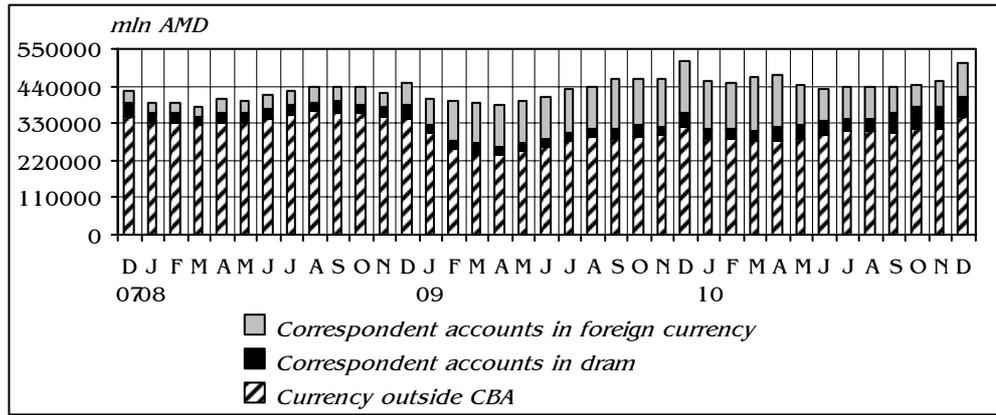
*In 2010 high growth of foreign currency lending persisted*



Following substantial declines in previous quarters, in the fourth quarter monetary base has grown by 15.8 percent, mostly due to the end-year's huge budget spending. This reflected also the higher growth rates in

currency outside the Central Bank (as much as 14.5 percent), pushing the dram component of monetary base to grow by more than 14.0 percent.

**Monetary base by components**

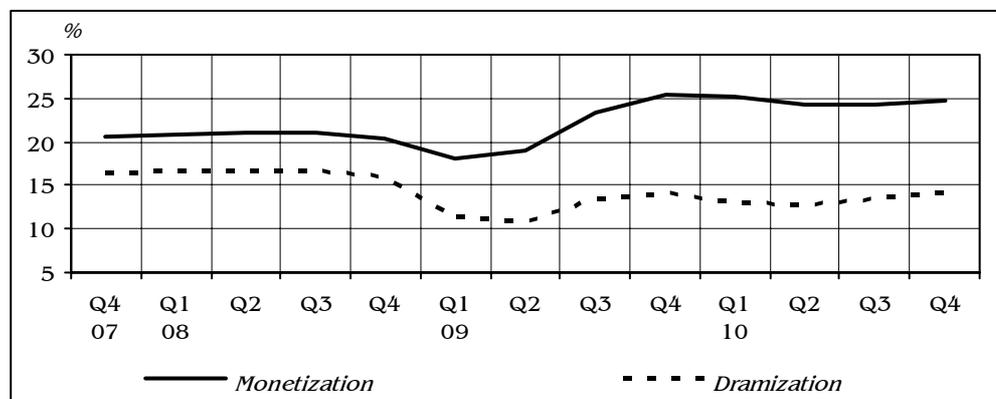


The tightening of monetary conditions and further measures to fight dollarization drove the monetary indicators to demonstrate the following behavior over the quarter, based on the 12-month period: broad money and dram broad money have grown by 11.8 percent and 15.7 percent, respectively; currency in circulation has increased by 7.7 percent; dram deposits and foreign currency deposits have grown by 29.0 percent and 7.0 percent, respectively. Instead, monetary base has stayed much the same, decreasing merely by 0.8 percent. Notwithstanding the tightened monetary conditions as high as 26.7 percent growth rates in economy lending has been recorded over 2010, which more than doubled the previous year indicator and was primarily due to the use of excess funds on correspondent accounts and attracted foreign loan resources.

At the end of the fourth quarter dollarization of the economy (measured as a ratio of foreign currency deposits to broad money) dropped by 0.7 percent in relation to the previous quarter to 42.8 percent. Relative to the same period of the previous year, the dollarization indicator has fallen by around 2 pp.

The monetization and dramization ratios, which are measures of financial intermediation, amounted to 24.8 percent and 14.2 percent, respectively, according to annual results. Under high inflation recorded in 2010 the monetization ratio has decreased by 1.8 percent or 0.5 pp in relation to the previous year while the dramization ratio has increased though as little as 0.4 percent or 0.1 pp.

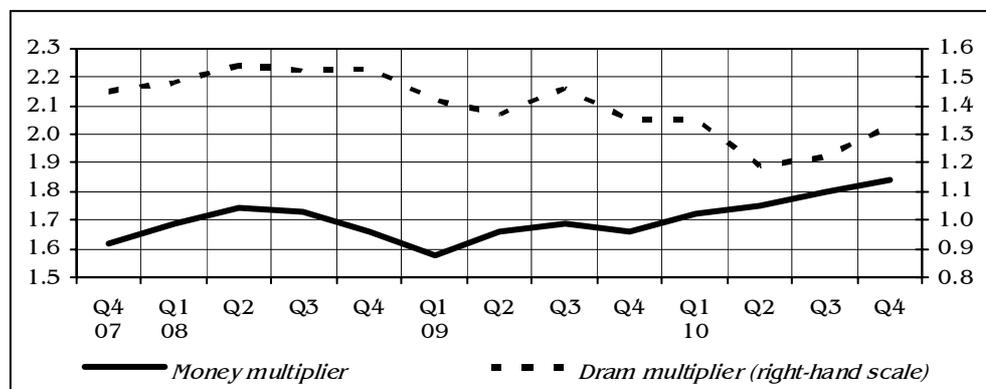
**Monetization and dramization ratios**



Other indicators of financial intermediation, i.e. money multiplier and dram multiplier performed as follows: money multiplier has stayed almost unchanged, at the 1.8 percent level, with y-o-y growth making up 11.2

percent; and dram multiplier has risen by 9.1 percent q-o-q but decreased by 1.3 percent y-o-y. The annual decrease of dram multiplier was associated with the change to the reserve requirement mechanism as part of Central Bank action to reduce the level of dollarization in the economy. As a result, foreign currency funds on correspondent accounts of commercial banks with the Central Bank have decreased and dram funds have increased.

*Money multiplier and dram multiplier*



### 3.4. AGGREGATE DEMAND AND AGGREGATE SUPPLY

#### 3.4.1. Aggregate demand

##### Domestic demand

**Private consumption and investments**<sup>29</sup>: In the fourth quarter of 2010 private spending has grown by around 2 percent in real terms. Growth rates in private spending have slowed down as economic growth rates did as compared to the performance in first half of the year. The increase in private sector expenditures has been offset by about 11 percent reduction in public expenditures (in real terms)<sup>30</sup> so the domestic demand has not changed much in relation to the same period of the previous year, as a result.

Over the fourth quarter private consumption has grown by nearly 3 percent in real terms, reflecting the small increase of real private sector income and rebounding consumer confidence.

There have been more reported purchases of machinery and equipment and increased corporate construction volumes as economy lending grew and companies owned more private resources. The volumes of private investment have not changed much either in relation to the previous year due to weak construction on the whole.

Composite economic indexes calculated by the Central Bank for the fourth quarter of 2010 point to the aforementioned developments<sup>31</sup>. In the fourth quarter, consumer confidence index, CCI, rose by 8 percent; present conditions index, PCI, by 6.8 percent; and future conditions index, FCI, by 8.7 percent. Economic activity and business activity indexes have risen by 14.5 percent and 7.7 percent, respectively.

With a reported increase in the fourth quarter, private spending, however, had a restrictive impact on inflation. According to the Central Bank, the estimated level of real private expenditures has been below its

<sup>29</sup> The real growth indicators of private consumption and investments for the fourth quarter are the Central Bank estimates. The actual figures of these indicators are as of the third quarter of 2010. Estimations of real growth presented in this section are relative to the same quarter of the previous year, unless otherwise stated.

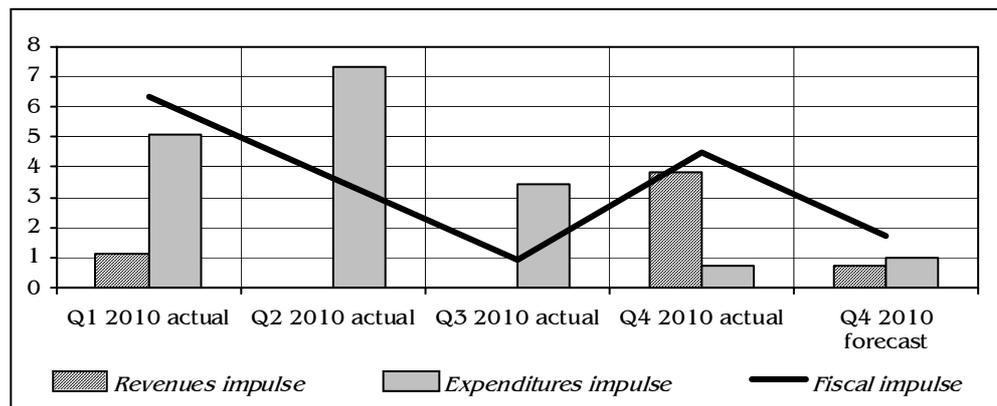
<sup>30</sup> Substantial decline in public expenditures in real terms has been observed under a high level of public expenditures deflator.

<sup>31</sup> See [http://www.cba.am/CBA\\_SITE/statistics/complex\\_index.html?\\_\\_locale=hy](http://www.cba.am/CBA_SITE/statistics/complex_index.html?__locale=hy).

equilibrium by 0-1 percent, which exerted deflationary pressures in the consumer market reducing inflation by 0.2 - 0.4 pp.

**Public consumption and investments**<sup>32</sup>: In the fourth quarter of 2010 the fiscal policy had an expansionary impact on aggregate demand, hence, on inflation. According to the estimated fiscal impulse, the fiscal policy's impact on aggregate demand and inflation has been much stronger, 4.5 pp expansionary, than it was forecast, which was generated under a 3.8 pp expansionary impact of the revenues impulse and a 0.7 pp expansionary impact of the expenditures impulse. The impulse deviated from the forecast largely because of the revenues since these reported shrinkage relative to the base quarter while the GDP growth indicator came at a higher level than it was projected for.

*In Q4 2010 the fiscal impulse was more expansionary than had been forecast*



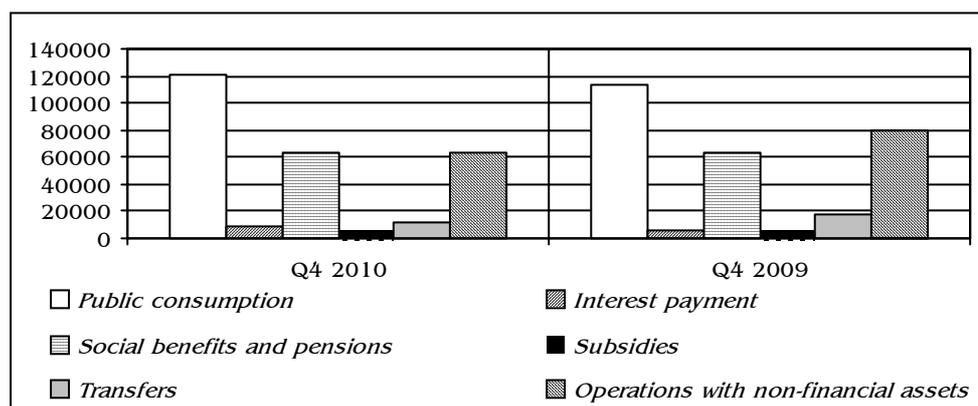
Positive developments with a fast pace of economic recovery observed since the start of the year affected the process of collection of budget revenues, which resulted in overperformance on the part of revenues. In the second half, however, in the face of the slowing of economic activity, some sluggishness in collection of revenues was observed.

There has been some slowing with regard to tax revenues of the consolidated budget and social security charges during the quarter, which dropped to 3.1 percent compared to the fourth quarter of the previous year. In the structure of tax revenues, growth of indirect taxes was about 1 percent, largely due to elevated excise duty; direct taxes have grown by 6.1 percent y-o-y. In the structure of direct taxes, there has been an increase in respect of all taxes, with profit tax having grown by 2.5 percent and income tax having grown by 8.8 percent. There has been a decrease, down to 9.3 percent, reported for other revenues.

Over the fourth quarter the state budget expenditures have decreased by around 4 percent compared to the same period of the previous year. Current expenditures have grown by 2.2 percent y-o-y, in which public consumption has increased by 7.3 percent y-o-y. Expenditures on item *transactions with non-financial assets* have reduced by 20.2 percent. This was attributable to the Government having implemented an expansionary fiscal policy since the second half of the previous year, which led to a notable increase especially on the part of capital expenditures.

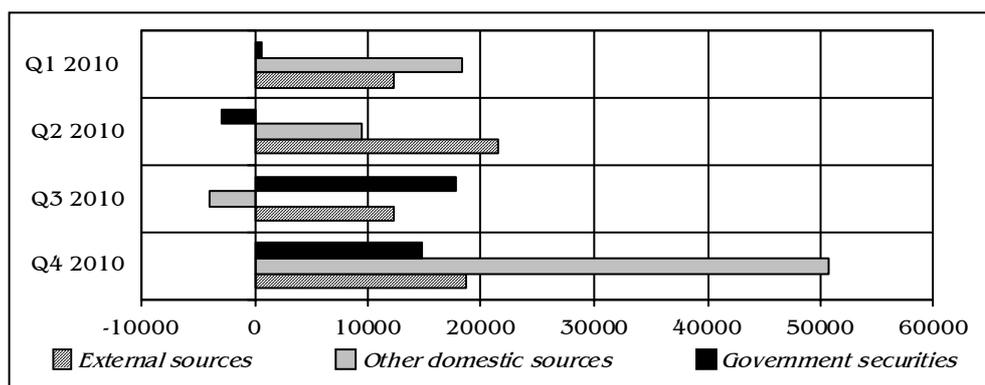
<sup>32</sup> Consolidated budget indicators which were prepared on the basis of preliminary actual data of the fourth quarter of 2010 (including PIU funds) were used for the review of the fiscal sector. The 2010 fiscal impulse indicators have been estimated against 2008 consolidated budget indicators (with 2008 treated as a base year), since the fiscal policy in 2009 has been prominent as anti-crisis measures were taken up that year. The impact of revenues has been calculated against an actual nominal GDP indicator and the impact of expenditures has been calculated against an estimated potential GDP indicator.

*In Q4 2010 budget expenditures posted cutbacks on capital expenditures*



It is noteworthy that in the structure of expenditures on item *transactions with non-financial assets* the share of domestic sources of financing has grown while the share of external sources has shrunk, amounting to 73 percent and 27 percent, compared to the previous year's figures of 68 percent and 32 percent, respectively. With revenues and expenditures indicators shown above, in the fourth quarter the budget deficit reached AMD 84.2 billion (amounting to AMD 49.6 percent of the annual deficit), 22 percent of which was financed from external sources and 78 percent, from domestic sources. In the structure of external sources, the IMF loan tranche equivalent to AMD 10.2 billion was disbursed for budget support and AMD 14.7 billion (or 22.5 percent of domestic sources) was financed from net proceeds on government securities.

*In Q4 2010 financing from other domestic sources prevailed in the structure of budget deficit financing*



To sum up the annual results, a considerable increase has been reported for state budget revenues in relation to the same period of the previous year. In particular, tax revenues and social security charges have grown by 11.8 percent and public expenditures (including PIU funds) have grown by 0.1 percent. Based on the results of the year 2010, the state budget deficit has amounted to AMD 173.2 billion or about 89.6 percent of the annual projection.

#### Main macroeconomic indicators in Q4, 2009 and Q4, 2010 (in real terms)

Indicator	Q4 2009 - Q4 2008	Q4 2010 - Q4 2009
Real GDP	-8.4	4.4
Domestic demand	-5.4	-0.2
Consumption	-1	2.4
Public	1.9	0.7
Private	-1.4	2.7
Capital investment	-13.8	-5.9
Public	30.0	-32.2
Private	-19	-0.9
Export <sup>33</sup>	-9.8	8.9
Import	-19.4	-15.0

<sup>33</sup> This is to mean export/import of goods and services.

### 3.4.2. Aggregate supply<sup>34</sup>

The economic growth indicator recorded in the period January-December has been 2.6 percent y-o-y, which was an expected development<sup>35</sup> on the back of faster growth rates of economic growth in the fourth quarter of 2010. At the same period of time nominal GDP has grown by 13.1 percent y-o-y, with the GDP deflator having increased by 10.2 percent y-o-y. Note that faster growth rates in relation to the third quarter<sup>36</sup> was largely a result of slower declining rates in agriculture and accelerated growth rates in construction.

Both in the fourth quarter and throughout the year the services and industry branches have made the largest contribution to the economic growth.

**Industry** reported about 9.1 percent y-o-y growth in value added during the fourth quarter, whereas growth in the period January-December has been 9.5 percent y-o-y.

While reported growth results in *mining, processing, and water supply* sub-industries were, respectively, 24.3 percent, 11.5 percent and 6.7 percent, *electricity and gas production and supply* sub-industry reported 10.3 percent decline, however. In the latter's structure, when expressed in kind, about 14.5 percent y-o-y growth was recorded for electricity production, largely attributable to a considerable increase of export of electricity to Iran based on a 'Gas for Electricity' arrangement. The production of gas has shrunk, however, by around 15.2 percent y-o-y<sup>37</sup>, mainly explained by shrinkage in gas consumption by households and heat stations due, in turn, to reduced electricity production volumes at Hrazdan State Regional Electric Power Station and less intermediate gas consumption as new technologies are expected to be input in Yerevan Heat Station.

Contribution to the growth in industry came mainly from *metal ore mining* (24.7 percent), *food production*<sup>38</sup> (9.7 percent), *beverage production*<sup>39</sup> (31.6 percent), *tobacco production* (11.9 percent), *items of rubber and plastics* (2 percent), *building materials production* (12 percent), *metals production* (6.4 percent), driven by gradually recovering world economy and domestic economy.

**Construction** reported about 9 percent y-o-y growth in value added during the quarter, whereas in the period January-December growth has been 3.7 percent y-o-y. The growth was fuelled mainly by increased volumes of construction in *agriculture* (4.4-fold), *processing industry* (88.9 percent), *transport* (24.7 percent), *water supply* (40 percent), and *public administration* (82.8 percent). *Residential housing* with reported slowing in decline rates, however, continued decreasing, (11.4 percent).

Further, increased volumes of construction financed by *local budgets* (4-fold), *humanitarian aid* (3.4-fold), and *private organizations* (35.3 percent) have totally neutralized reduced volumes of construction to the expense of *state budget* (-1.7 percent), *international loans* (-43.1 percent), and *household funds* (-38.5 percent).

In the period January-December, funds available from organizations have financed about half of construction volumes.

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<sup>34</sup> Indicators of the branches of the economy are for the period January-December of 2010 in relation to the same period of the previous year.

<sup>35</sup> See the Monetary Policy Program of the Republic of Armenia, Q4, 2010.

<sup>36</sup> In the period January-September 2010, the economic growth has been 1.9 percent y-o-y, according to adjusted estimations by the National Statistics Service of the Republic of Armenia.

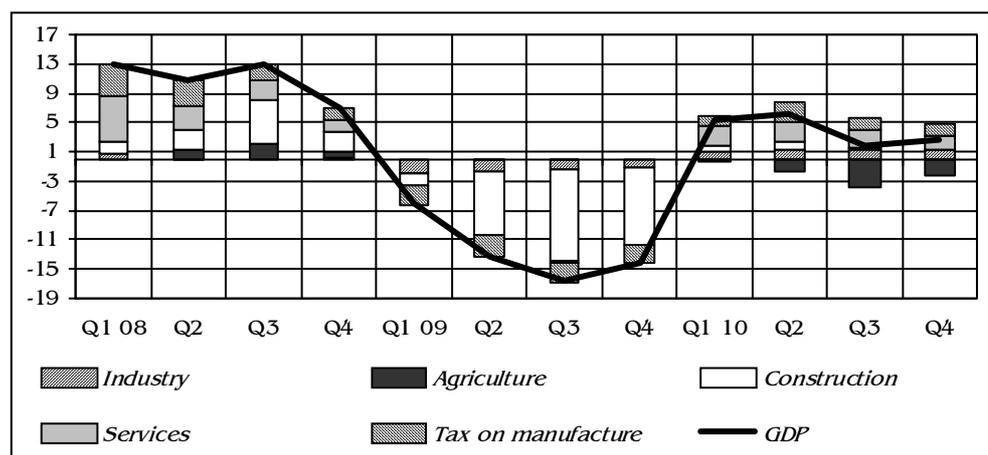
<sup>37</sup> Source: ArmRosGazProm CJSC.

<sup>38</sup> Growth in this sub-branch has been fuelled by increased production volumes of sugar (37.4 percent), grains (2.1-fold), flour (14.8 percent), confectionery (14.1 percent), macaroni (5.6 percent), ice-cream (15.7 percent), sour-cream (3.2 percent), mountain yoghurt (8.1 percent) and vegetable oil (8.4 percent).

<sup>39</sup> Growth in this sub-branch has been fuelled by increased production volumes of brandy (27.9 percent), wine (14.9 percent), beer (41.7 percent), champagne (35.5 percent), mineral water (17.9 percent), spring water (35.1 percent), and natural juice (56.3 percent).

**Agriculture** reported around 6 percent y-o-y increase in value added in the fourth quarter, whereas in the period January-December there has been somewhat a slower decline, 13.4 percent y-o-y, which was determined by 20.3 percent reduction in *plant growing*. The decline in this sub-branch was consequence of reduced spring and autumn sowing, a smaller amount of harvests and less arable land due to adverse weather conditions. In particular, reductions in sowing areas for wheat, potato, melons and gourds, and vegetables by 7.2 percent, 11.4 percent, 27.4 percent and 1.7 percent shoved the collective amount of harvest down by 12.9 percent, 18.9 percent, 38.6 percent and 13.7 percent, respectively.

*Real GDP growth rate and sector contributions (cumulative)*



**Services** reported nearly 2.5 percent y-o-y growth in value added during the quarter, whereas in the period January-December the growth has been 4.6 percent y-o-y. This was driven by increased volumes in *retail trade* (entirely as a result of increased turnover of shops, agro-product markets and trade stalls) and *wholesale trade* by 0.6 percent and 12.4 percent, respectively. In the meantime the volume of services rendered has increased by 3.8 percent. Growth has been reported for services rendered in all other areas. Areas such as *information and communications*, *transport* and *financial and insurance activities* made the largest contribution to the overall service growth by 1.1 percent, 1.7 percent and 3 percent, respectively.

### 3.5. LABOR MARKET <sup>40</sup>

In the fourth quarter of 2010 there has been some growth in nominal wages observed in the labor market, which was fostered by wage increases in the private sector and a number of budget-supported organizations, as a result of recovering economic activity. The rate of unemployment has reduced considerably in relation to the respective indicator reported for previous periods. The economy further reviving has raised the labor productivity.

According to the Central Bank estimates, average growth of nominal wages in the economy over the fourth quarter has been about 6 percent. The highest increase was reported in industry, construction and services.

<sup>40</sup> Labor market indicators of the fourth quarter are the Central Bank estimates based on actual figures of October and November and estimated figures of December of 2010. Growth estimations presented in this section are relative to the same quarter of the previous year, unless otherwise specified.

As of December 2010 the growth rate of demand for labor has been 27.9 percent as the economy kept on recovering during the fourth quarter. In the light of this development, the number of the employed has increased by 0.8 percent on average whereas the average quarterly level of unemployment has dropped by 0.3 pp in relation to the respective figure of the previous year and amounted to 6.8 percent.

The economic growth pushed the labor productivity up by about 2 percent. As a result, unit labor costs have increased by around 4 percent which created minor inflationary pressures of 0.3 pp in the economy.

### 3.6. IMPORT PRICES AND PRODUCER PRICES

#### 3.6.1. Import prices

In the fourth quarter prices in world commodities markets further trended up, and this was pertinent to both food products and intermediate goods. According to the Central Bank estimates, the dollar prices of imports have increased by 20.0 percent y-o-y (about 19.6 percent y-o-y increase was recorded in the third quarter).

Indicator	Q4, 2009	Q1, 2010	Q2, 2010*	Q3, 2010*	Q4, 2010
Import (total)	5.2	13.9	16.4	19.6	20.0
Import (services)	3.1	10.8	4.9	4.7	6.3
Import (goods)	5.7	14.8	19.3	23.6	23.6
Capital goods <sup>41</sup>	0.0	0.0	0.0	0.0	0.0
Consumption goods	3.1	10.8	4.9	4.7	6.3
Intermediate goods	-3.7	8.4	35.6	55.2	52.1
Diamond <sup>41</sup>	0.0	0.0	0.0	0.0	0.0
Oil products	34.2	70.4	33.1	11.8	15.6
Natural gas	40.0	40.0	16.9	16.9	16.9

\* The Q2 and Q3 of 2010 indicators have been adjusted.

The y-o-y growth in dollar prices has been attributable to a notable growth of prices of intermediate goods and food products as well as oil products. The price increase of oil alone has been 13.4 percent q-o-q against the previous quarter's 2.9 percent falling.

The dollar prices of intermediate goods and food products have increased by 52.1 percent y-o-y compared to 55.2 percent y-o-y increase recorded in the third quarter. While in the period under review price rise has been reported for all intermediate goods, the most prominent were the increased prices of wheat and sugar which determined the q-o-q growth of prices of intermediate goods. It should be noted that the considerable y-o-y increase was driven by steeply risen iron ore prices back in the second and third quarters. So, even though the iron ore prices reported some falling in the last quarter of the year under review, the persistently high level of prices fuelled impressive y-o-y growth rates. The impact of prices of intermediate goods on total import prices was 16.0 pp.

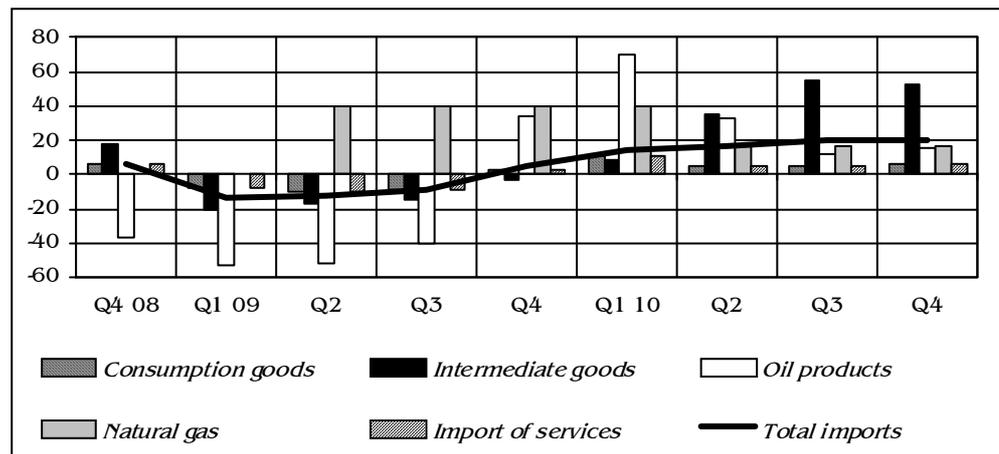
Over the fourth quarter the dollar prices of oil products have increased by 13.4 percent, whereas their y-o-y growth has been 15.6 percent (11.8 percent in the previous quarter). As a result, prices of oil products have had 1.1 pp of impact on total import prices.

The increase of dollar prices of imported consumption goods has been driven by high inflation recorded in partner countries contribution of (8.9 pp). Over the fourth quarter of 2010, in the face of around 2.6 percent

<sup>41</sup> The lack of estimates on prices of capital goods and diamond is due to their sharp volatility. Therefore a change in these prices is estimated to be zero.

depreciation of the partner countries' exchange rates on average, the dollar prices of imported consumption goods have risen by 6.3 percent y-o-y, which had 1.5 pp of impact on total import prices. High inflation recorded in China and the Yuan appreciation was the strongest contribution, among main partner countries, to total import prices, making up 1.0 pp. Second strongest contribution came from Russia and Ukraine, 0.2 pp and 0.3 pp, respectively. The impact of overall positive contributions from mentioned countries and other partner countries has been in part neutralized by around -0.4 pp contribution from Euro-area due to high y-o-y depreciation of the Euro exchange rate.

*In Q4 2010 prices of import goods were fuelled by prices of intermediate goods and food products*



Given the 20.0 percent y-o-y increase of international prices (dollar import prices) and the 6.6 percent y-o-y appreciation of the average nominal AMDUSD exchange rate, the dram prices of imported goods included in the consumer basket have risen by 7.8 percent y-o-y during the fourth quarter.

### 3.6.2. Producer prices <sup>42</sup>

In the fourth quarter of 2010 all branches of the economy reported an increase of price indexes, and in the period January-December the GDP deflator amounted to 110.2 percent y-o-y, outstripping the previous year's respective indicator by 8.9 pp.

**Agriculture** posted the highest price increase. Over the fourth quarter prices have risen by 43.8 percent y-o-y<sup>45</sup>, whereas the growth in the period January-December has been 32 percent y-o-y. Plant growing suffered by short supply of crops and reduced sowing because of unfavorable weather conditions reported as much as 46.4 percent price increase which was fuelled by price increases in grains (29.3 percent), potato and gourd plants (42.4 percent), and fruit and berries (54.9 percent). Price increase of 23.5 percent in animal growing was fuelled mainly by reduced output as well as price increases in meat (32.8 percent) and milk and dairy products (9.4 percent).

**Industry** reported an increase of prices by 14.1 percent y-o-y, whereas the January-December growth has been 22.6 percent y-o-y due to growths in *mineral production* (27.9 percent), *processing industry* (19.2 percent), and *electricity, gas and water production and supply* (21.8 percent). In the period January-December of 2010, relative to January-December of 2009,

<sup>42</sup> Price index change in the period January-December of 2010 is relative to the same period of the previous year, unless otherwise specified. Price indexes in branches of the economy represent output price indexes.

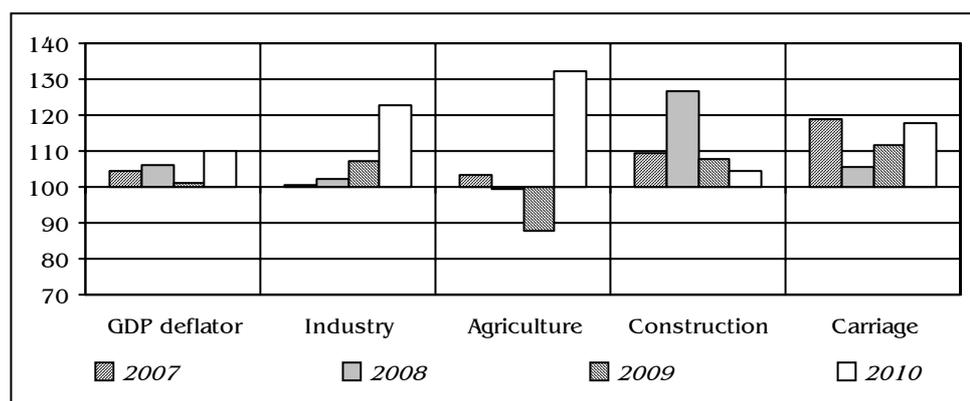
<sup>45</sup> Sales prices of producers of agricultural product are presented.

these increases were associated with high prices of nonferrous metals, gradual recovery of world and domestic demand and gas tariffs which have risen since April of 2010.

**Construction** reported 7.3 percent y-o-y growth of prices in the fourth quarter, whereas in the period January-December there has been 17.8 percent y-o-y growth, mostly driven by increased prices of building materials.

**Carriage** costs have risen by 18.1 percent y-o-y, whereas the growth in January-December has been 17.8 percent y-o-y, which was determined by increases in *railway carriage costs* (9 percent), *auto carriage costs* (2.7 percent), *air transportation fare* (5.2 percent), and *pipeline transportation fare* (32.5 percent). The pipeline transportation fare has increased as a result of gas tariffs increased from USD 154 to USD 180 per cubic meter.

*In January-December 2010 the highest price increases were recorded in agriculture and industry*



### 3.7. INFLATION EXPECTATIONS

The Central Bank conducted the fourth quarter of 2010 survey of inflation expectations among financial organizations, households, and non-financial organizations of real sector.

Based on the results of survey in the financial sector, expectations of high inflation for the upcoming 12-month horizon persisted. The choice of the 5.5-8.5 percent range for the 12-month inflation still prevailed at banks, making up 66.7 percent; at credit organizations inflation expectations were again somewhat moderated and stretched between the 5.5-8.5 percent and 2.5-5.5 percent ranges, reaching a ratio of 39/43 percent. These figures point to the following consideration: despite a diminishing behavior of the 12-month inflation in the previous period as a result of tightened monetary conditions (save for an episode of abrupt rise in the third quarter, affected by supply shocks) and expected downward trends in the upcoming one-year period, the secondary impacts and inflation expectations in the fourth quarter are reflected in the expectations among financial sector participants.

Based on the survey results, high inflation on food products recorded since the second half of the year heavily affected expectations of households in the fourth quarter, while 69.6 percent of respondents expect price increases on consumer goods against 45.4 percent recorded in the previous quarter.

Further, according to the results, banks and credit organizations stick to expectations of stable market interest rates for the upcoming one-year horizon. Banks, however, expect a slight fall in interest rates of deposits and loans in foreign currency.

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