THE CENTRAL BANK
OF THE
REPUBLIC OF ARMENIA

*Approved under Board of the Central Bank
Resolution No. 34 A,
dated 19.02.2013*

Inflation Report

Monetary Policy Program, Q1, 2013

*Status report on implementation
of the Monetary Policy Program
Q4, 2012*

Table of Contents

Since January 2006 the Central Bank of Armenia has moved to a fully-fledged inflation targeting strategy whereby the monetary policy was steered to minimize any deviations of potential inflation from the 4 percent target.

Each quarter, the monetary policy programs of the Bank used to present inflation forecast for the upcoming 12-month period under the assumption of unchanged interest rates as well as forecasts of the response of the policy rate. The programs included a blueprint for monetary policy directions.

The forecasting and policy analyses capacities of the Bank have considerably improved recently as the quarterly projections model became a more sophisticated one while the list of short-term models designed to forecast different suites of macroeconomic indicators expanded. Not only the Bank is now able to present inflation forecasts for upcoming 12-months but also it can provide medium-term conditional inflation forecasts.

Starting from Q2, 2012, the Bank has expanded inflation forecasts for a longer time horizon of 3 years instead of previously applied 1-year and publishes non-conditional inflation instead of conditional.

In consideration of best international experience, public surveys as well as seeking to raise public awareness the Bank approves and publishes, starting from the second quarter of 2012, Status Report on Implementation of Monetary Policy of the previous quarter and Monetary Policy Program of the next quarter in a single paper.

1. EXECUTIVE SUMMARY

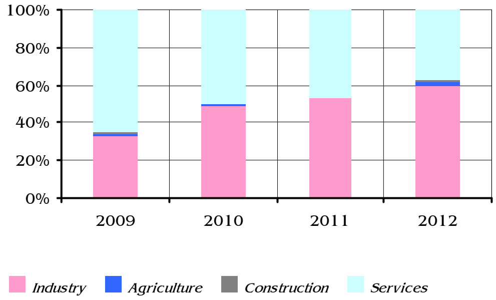
The economy saw an increased growth potential which is an estimated 5.5 percent by the Central Bank

The ***potential of economy*** further trended upward in Armenia in 2012: the sustainable growth potential is an estimated 5.5 percent versus about 4.5 percent estimation of the previous period, according to the Central Bank. Main factors that contributed to the strengthening of economy potential include the share of supply-stimulating loans in total lending volumes (in the period 2009-2012 the share of these loans has grown around 12 pp and amounted to 33.3 percent in 2012) and the share of foreign investment in industry (in the period 2009-2012 the share has almost doubled to 60 percent in 2012).

The share of loans that stimulate the supply increases in total lending volume

The results of the Central Bank surveys on investment perspectives of companies point out to an increasing readiness to invest in industry and services. Moreover, the amount of investment in machinery and equipment and other productive capital in these sectors of the economy almost reached the pre-crisis levels, which may prove an increased productivity of the economy. According to the Central Bank estimates, the productivity factor contribution in 2012 has increased relative to the previous year (see Box 2).

Structure of foreign investment, by sectors of economy



Agriculture posted unusually high output volumes in 2012 as the economy potential grew (in 2012 the growth of value added in agriculture is an estimated 9.5–10 percent), which contributed to as high as around 7.0 percent economic growth during the year, well above the potential. Strong growth in agriculture as well as low levels of food prices (fruit and vegetable prices in particular), fairly below the historic average, contributed to the ***surplus growth of real private consumption***. The Central Bank estimations show that annual growth of real private consumption in 2012 is expected to be 10.5 percent while annual inflation makes up 3.2 percent, staying within the lower bound of the confidence band (with average inflation of 2.6 percent in 2012). Strong growth in real private consumption is considered by the Central Bank as an ***effect of supply shock*** which, however, is temporary since large volumes of agricultural output were mainly attributable to favorable weather conditions which may not be the same in the years ahead.

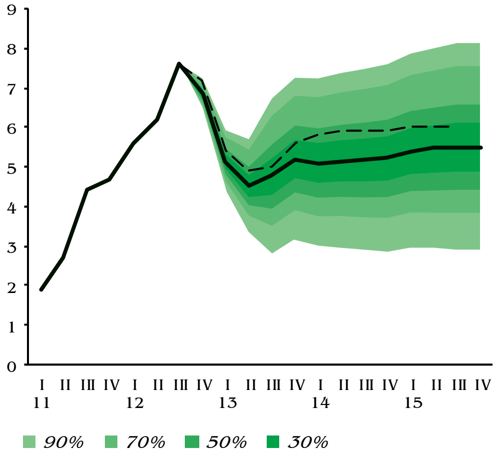
Real consumption surplus growth, which is a result of temporary supply shock, was seen due to strong agricultural output and a low inflation environment

In ***external sector*** in 2012 world demand remained sluggish while no inflationary trends were discernible in the main raw materials and food products in international markets.

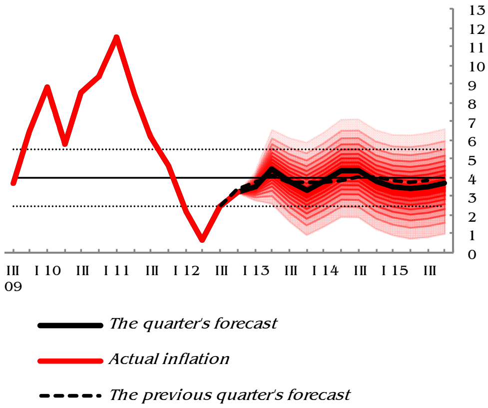
In 2012, in view of the dominating effect of the supply shock over the low level of inflation, the Central Bank implemented ***a neutral monetary policy***, leaving the refinancing rate unchanged (see details in section Actual inflation and attainment of target).

In the forecast horizon, as the supply shock wanes out gradually, the surplus growth of real consumption will contract, leading to the stabilization of the economic growth around its equilibrium. Specifically, in 2013 real private consumption growth rates will slow down to 4.6 percent and private investment will rebound from the currently low levels to 5.1 percent growth. Under such conditions, in 2013 economic

Real GDP cumulative growth projection probability distribution for 3-year horizon



Inflation forecast probability distribution chart (12-month)



growth will be about 5.2 percent mainly due to the growth of industry and service sectors (with a total contribution of 3.4 pp).

In the forecast horizon, in expectation of sluggish private demand and an estimated neutral impact of the fiscal policy, one will see a ***non-inflationary influence*** on domestic prices from the domestic economy.

In the forecast horizon, no ***inflationary pressures*** will be expected from the external sector. Because uncertainties over political solutions to debt problems in industrialized economies are persisting, it is anticipated that world economic growth rates would slowly recover. Given small impact of external demand, international prices of major raw materials and food products will behave relatively steady whilst staying at existing high levels.

In the forecast horizon, inflation will stabilize around its 4 percent target level. Taking into consideration the aforementioned economic developments in external and domestic sectors and the impact of the temporary supply shock, it is predicted that the ***12-month inflation*** would somehow accelerate in the course of the first half of 2013, reaching 4.5 percent at end-June.

In the forecast horizon, the Central Bank plans to continue implementing ***a nuetral monetary policy*** and further leave the ***refinancing rate*** unchanged, i.e. at an 8 percent level. A neutral monetary policy involves a refinancing rate compared to an estimated nuetral interest rate under which conditions inflation is within the target and GDP at its equilibrium. The ***neutral interest rate*** is currently an estimated 8 percent.

In the forecast horizon, the existing risks are estimated as balanced, determined by development prospects for the global and domestic economies. In the event such risks materialize, the Central Bank may consider an adjustment of the policy rate as appropriate.

2. FORECAST, FORECAST CHANGES, RISKS

2.1. External environment[1]

The external sector in forecast horizon will see slowly recovering economic growth rates, concurrent with a moderate inflationary environment

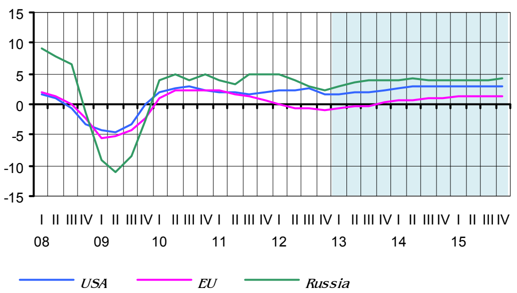
In the forecast horizon, external sector will be marked with slowly recovering economic growth rates concomitant with a moderate inflation environment.

In January 2013 the IMF readjusted world growth outlook indicator, making a forecast of 3.5 percent economic growth for 2013 (the downside adjustment was 0.1 pp).

Economic growth in developed countries in 2013 will be 1.4 percent (the downside adjustment of 0.1 pp). Such developments in these countries will have their impact on ***emerging countries*** which will see some slowing in their economies down to 5.5 percent are expected to post 5.6 percent growth in 2013 (with 0.1 pp downside revision). In 2013 average annual inflation will make up 1.6 percent in developed countries and 6.1 percent in emerging countries.

In the ***USA*** the Federal Reserve System will continue implementing quantitative easing in 2013 too. As a result, it is anticipated that growth rates will be accelerating starting the second half of 2013 and this will last up until 2015, making up 2.9 percent. However, considerable downside risks may be expected determined by the need for the fiscal consolidation.

Economic growth in partner countries

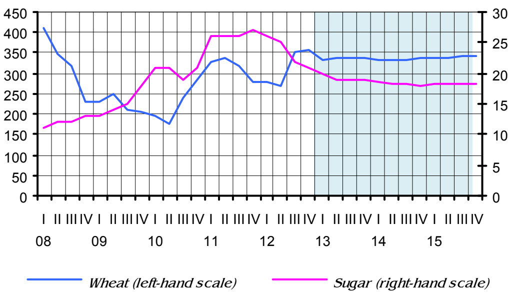


In the face of more vulnerability in economic and financial system in ***Euro-area*** the European Central Bank will continue a low-interest-rates policy. Structural reforms will carry on, which will contribute to providing effective solutions to debt problems. Yet economic recovery in Euro-area will be put off until 2014, and it will amount to 1.3 percent in 2015.

The forecasts for economic growth in ***Russia***, a principal trade partner, was adjusted slightly downside – 3.7 percent for 2013 (with 0.1 pp downside adjustment). The inflation indicator will be in the range 5–6 percent in 2013 as marked by the Russian Central Bank.

According to the IMF predictions, economic growth in ***China***, a huge booster of world demand for raw materials and food products, will somewhat recover to 8.2 percent in 2013.

Food products (US dollar)

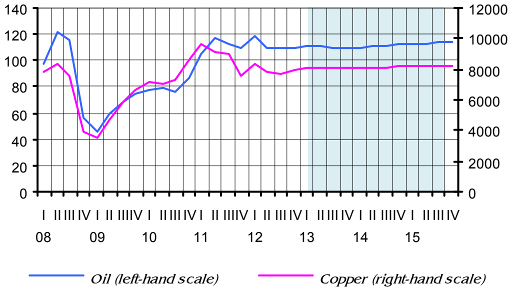


In the face of expected sluggishness in world economic recovery in 2013 no significant inflationary trends will be observed in the world's main commodity markets. Existing price levels will continue to be seen in world food markets in the light of supply-side factors.

In the forecast horizon international prices of raw materials and food products are expected to show moderate demand-driven inflationary trends. Moreover, individual commodity

[1] The forecasts of external sector have been based on the information provided from the IMF, World Bank, The Economist, Global Insight, Financial Times, US Department of Agriculture, Economist Intelligence Unit, International Grain Council, International Energy Agency, Barclays Capital, РосБизнесКонсалтинг and other sources.

Raw materials (US dollar)



markets are predicted to develop under the influence of fundamental factors inherent in any such markets.

There are serious uncertainties about the further pace of global economy, and ***risks*** are dual-sided and balanced. Specifically, downside risks to the global economic growth will be driven by escalated debt problems in Euro-area, further fiscal consolidation in the U.S.A. as well as possible rise in energy resources due to geopolitical developments. Upside risks will be mainly determined by faster economic recovery owing to increased effectiveness in implementing economic policies in the U.S.A. and EU as well as raw material and food product supply-side factors.

Box 1

Developments in commodities markets in the forecast horizon

*In 2013 roughly 60 percent of global demand for **oil** will be met by producing oil by non-OPEC countries (it is expected to increase by 1.9 percent against the previous year), under which circumstance average demand for extraction of oil by OPEC countries will reach 36.5 million b/d. In the period 2013-2015 international oil prices are expected to grow moderately as world economic activity rebounds. However, the global market of energy resources will possibly see inflation risks due to geopolitical developments.*

*More uncertainties are anticipated in **base metals markets**, whilst inflationary trends will not be seen. In the period 2014-2015, however, moderate inflationary patterns may be observed as the world economic recovery is back on track. **Prices of precious metals** are expected to show moderate inflationary patterns in 2013 in anticipation of persisted uncertainties over global economy.*

*Fundamental tightness (when any new information incoming could materially affect the level of prices) will persist in **world wheat market**, and wheat prices in 2013 will reduce in relation to those of recorded in the second half of 2012. Nevertheless, average wheat price will still be above the average reported for the second half of the previous year. According to January estimations of the U.S. Department of Agriculture, in the marketing year 2012/2013 some 654 million tons of wheat crops is expected in consideration of world consumption of 673.5 million tons. The world wheat stock will decrease by 11 percent in relation to the marketing year 2011/2012 and will reach 177 million tons.*

*In marketing year 2012/2013 world production of **rice** will again hit record levels, around 465.5 million tons. On the back of anticipated 466.3 million tons of rice, the world rice stock will decline to some extent (102.5 million tons) for the marketing year 2011/2012. Notwithstanding expected rich crops, the tightness in the rice market may persist if authorities in Thailand decide to further enforce state regulatory mechanisms and keep rice prices artificially high. Under such conditions the rice market will see price stabilization trends, along with inflation risks, however, associated with the enforcement of state regulatory mechanisms in Thailand and other major rice exporter countries.*

*International prices in **sugar** markets are mainly expected to show weak deflationary trends in anticipation of rich crops in Brazil and Thailand in the marketing year 2012/2013.*

2.2. Aggregate supply and Aggregate demand

Aggregate supply

In view of both current macroeconomic developments[2] and possible slowing of external and domestic demand, economic growth forecasts of the baseline scenario were revised slightly downside. As a result, economic growth in 2013 will be in the range 4.7–5.7 percent but in the forecast horizon it will stabilize within 5–6 percent[3], staying close to its long-term equilibrium.

Box 2

The Central Bank experts have estimated the Cobb-Douglas production function to identify the nature of factors that determine economic growth in Armenia. The labor elasticity has been calculated as a ratio of labor costs to gross value added, while the capital stock has been assessed through a perpetual inventory method (Harberger's approach).

As a result, acceleration of economic growth in post-crisis years has been driven by downsloping path for quantitative growth of labor and capital and upsloping path for their qualitative growth. In particular, in 2012 productivity as a contributor to the economic growth has nearly doubled in relation to the previous year.

Contributions to economic growth (2003-2012)*

	2003-2008	2010	2011	2012
Economic growth	12.0	2.2	4.7	7
Productivity	7.3	-2.0	2.6	6
Capital	4.6	2.9	2.5	1.9
Employment	0.1	1.4	-0.4	-0.9

** The 2009 results were not presented as these incurred negative consequences of the crisis and are not compatible to the results of other years.*

Industry and services will greatly contribute to the economic growth in 2013

The developments are expected in the sectors of the economy, as follows:

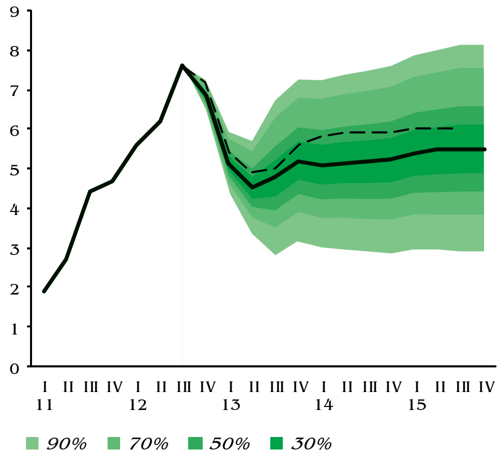
For ***Industry*** value added is expected to grow in the region 7–9 percent in 2013. The growth of industry will continue to be driven by such sub-industries as *ore mining, metallurgy, food and beverage, diamond processing, pharmaceutics* and *energy,* owing to expected increase of production capacities of companies active in these fields.

Risks deriving from industry are balanced. Moreover, upside risks to economic growth will mostly depend on how effectively the Government will take measures to identify tradable sector's potential; downside risks will be determined by possible slowing of the global economic growth rate.

For ***Construction*** forecasts of value added in 2013 were revised upside as growth in the range 2.5–4.5 percent is anticipated owing to increased volumes of construction in energy, processing industry, trade, transport and agriculture. Risks in construction are balanced, too, and are attributable to quicker implementation of road construction and infrastructure improvement projects underway and in prospect.

[2] See details in section Aggregate supply and aggregate demand of Part "Actual Developments in Q 4 of 2012".
[3] See the 30 percent interval in the Real GDP Growth (Cumulative) Projection Probability Distribution Chart in this paper.

Real GDP cumulative growth projection probability distribution for 3-year horizon



For ***Services*** continued high growth trends are further anticipated owing to provision of services in transport and communications, financial intermediation, and travel. As a result, the value added of services is forecast in the range 4.2–6.2 percent for 2013. Risks are balanced. Upside risks will be determined by growing disposable income if upside risks to the growth in other sectors materialize; downside risks can be driven by the deceleration of growth rate in domestic demand.

For **Agriculture** real growth of value added is expected within 2–4 percent for 2013. Note that in forecasting growth in agriculture, a least risky option was decided on in consideration that the product of *plant growing,* a half constituent of agriculture, is still reliant on good weather while investment in the area would only be effectively noticeable in a certain time lag.

Risks in agriculture are balanced.

Under the baseline scenario risks to economic growth are dual-sided and balanced, and are associated with exogenous and indigenous factors.

Real GDP Growth Projection Probability Distribution				
Period	90% probability interval		30% probability interval	
	Min	Max	Min	Max
January-December 2013 / January-December 2012	3.1	7.9	4.7	5.7

Labor market[4]. Forecasts of labor market indicators are revised slightly downside, according to the baseline scenario, since economic activity is expected to be lower in relation to previous forecasts. Under such conditions, somewhat a weaker growth of nominal wages and slower subsidence of the unemployment as compared to previous projections are expected. Given such economic growth developments are maintained, the trends in labor market will carry on and will persist in the medium-run, too.

In particular, average nominal wages are expected to grow in 2013 by 7.4 percent due to the increase in productivity in the private sector, contraction in unemployment, steady inflation, and a moderate growth in some budget-supported organizations. The change in the framework with which wages are to be taxed[5] will notably affect the growth of nominal wages in 2013. Given that inflation paces in accordance with the baseline scenario, the growth of real wages in 2013 will amount to 3.1 percent, somewhat below the previous projections. It is expected that growth rates of nominal wages will accelerate in the medium run, resulting in even higher growth rates of real wages.

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[4] The labor market data for 2012 are the Central Bank estimates which are based on Q3 2012 data and actual October-November of 2012 indicators. The growth indicators presented in this sub-section are relative to the same quarter of the previous year, unless otherwise specified.

[5] New income tax will replace, effective 2013, the currently applicable income tax and social security charge.

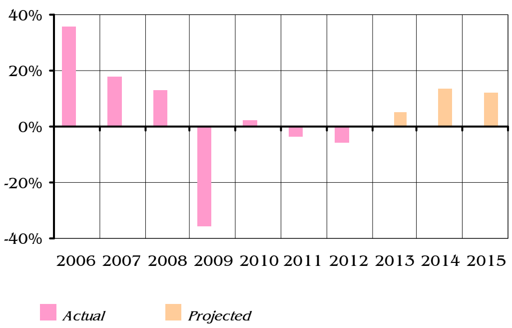
In 2013 demand for labor will further increase and the number of the unemployed is again expected to reduce. The average level of the unemployment rate in the economy will reduce against the respective indicator of the previous year by 0.6 pp to 16.5 percent. The level of unemployment will keep on subsiding in the medium run, too.

Under the aforementioned developments significant imbalances that would affect inflation in the labor market is not likely to appear over 2013 and in the medium run.

Aggregate demand[6]

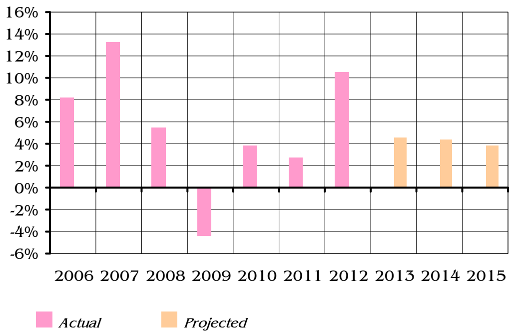
Relative to previous forecasts, the growth rate of ***private consumption*** for 2013 was revised upside and it amounts to 4.6 percent. The revision was made in consideration of private consumption which had been higher-than-expected in the period January-September of 2012. The upside revision notwithstanding, private consumption growth rates will slow down in 2013, reflecting gradually abolishing surplus growth of private consumption. In the medium run the growth rate of private consumption will grow more slowly but in concurrence with economic growth.

Private investment growth y-o-y



Growth rates of ***private investment*** were revised slightly downside, attributable to lower-than-expected level of actual private investment in the period January-September of 2012. On the other hand, revived activity in construction at the end of 2012 as well as investment in industry and services point to an expected increase in private investment. As a result, an estimation of 5.1 percent growth of private investment for 2013 becomes most likely. In the medium-term perspective, in relation to 2013, growth rates in private investment will somehow speed up to sustain economic growth in that period.

Private consumption growth y-o-y



The forecast of growth rate of ***private spending*** did not change much in relation to the previous forecast: it is expected to reach 4.7 percent in 2013. Also, in view of 9.8 percent growth of public expenditures in real terms and expected development patterns in private spending, domestic demand in 2013 will increase by 5.4 percent. In the ***forecast horizon*** growth rates of private spending will remain consistent with the economic growth, reflecting the slowing of growth rates which were high in 2012 and rebounding of investment in the medium run.

In 2013 the positive private spending gap will narrow gradually to wane out to zero at the end of the year, eliminating mismatch between the supply and private sector demand. Under such conditions the private spending will create some 0.3–0.4 pp of weak inflationary pressures in the consumer market. Starting from the end of 2013 the impact of private spending on inflation will be neutral in the medium run to reflect the closing of the private spending gap.

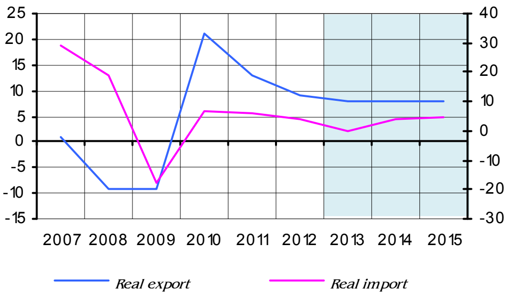
[6] The data of real growth of private consumption and investments for 2012 are the Central Bank estimates. Actual figures of these data are as of the third quarter of 2012 and published by the National Statistics Service of Armenia. The real growth indicators represented in this sub-section are relative to the same quarter of the previous year, unless otherwise specified.

Current account will keep on improving over 2013 amid slower recovery of global economy and expected falling of growth rates in domestic economy

Current account will continue improving in 2013 in the face of somewhat weaker global economic recovery (according to new IMF predictions) and expected slowdown of growth rates in domestic economy. Though real export volumes will outgrow those of import, the deterioration of terms of trade will lead to slowly adjusting the dollar value of the balance of trade deficit.

In 2013 the growth of real export of goods and services is expected to slow down and maintain within 7–9 percent, which will be mainly attributable to persisted positive developments in the domestic industry. Risks to export will remain dual-sided, conditioned by persisting downside risks to world economy, international metals prices and industry developments in Armenia.

Real export and import *(y-o-y growth)*



The import growth indicator was revised downside in consideration of further developments in global and domestic economies. In 2013 the growth of real import of goods and services is expected to be close to zero. Risks to import will remain dual-sided, too, as they will be associated with developments in the domestic economy and international price behavior.

In 2013, in view of expected developments in the Russian economy, the growth rates of net inflow of non-commercial remittances will be in the region 7–9 percent. All aforementioned adjustments suggest that the Current Account Deficit/GDP ratio will reduce and stay in the range of 8.5-9.5 percent in 2013 from around 10.0 percent in 2012. The current account deficit will carry on in the medium run to reach 6–7 percent of GDP.

The estimation of ***impact of the fiscal policy*** on aggregate demand for 2013 was based on the indicators outlined in the Republic of Armenia Law on Budget 2013 which provides for a 0.6 pp[7] increase for the Tax/GDP ratio and a 1.6 pp increase for the Expenditures/GDP ratio. Furthermore, an increase of expenditures has been planned to the expense of both surpassed growth of capital expenditures[8] and current expenditures. In 2013 the Deficit/GDP ratio is expected to be 2.6 percent.

In 2013 it is anticipated that the fiscal policy's impact on aggregate demand, hence inflation, would be slightly expansionary, 0.6, which would be driven by contractionary influence of revenues (0.5) and expansionary influence of expenditures (1.1). More to the point, expansionary impact was observed in the first quarter and contractionary impact in the second quarter; and slightly expansionary impact in the course of the next two quarters.

In 2013 net impact of the fiscal sector, private demand and labor market on domestic prices will be minor inflationary; this however will wane out to zero at yearend; in forecast horizon the impact of domestic demand and labor market on inflation is estimated as neutral

The 2013 fiscal policy can be attributed as the one that will further be steered to maintaining macroeconomic stability.

Prognoses of ***fiscal policy in forecast horizon*** are based on the main indicators as outlined in the Republic of Armenia Medium-Term Public Expenditures Program, 2013-2015, which is

[7] GDP 2012-2013 indicators are the Central Bank estimates.
[8] The growth of capital expenditures is mostly driven by the implementation of the "North-South Highway Investment Project".

aimed to effective debt management and maintaining the Debt/GDP ratio up to the 3 percent level. The impact of fiscal policy in medium run is estimated to be non-inflationary, as a result.

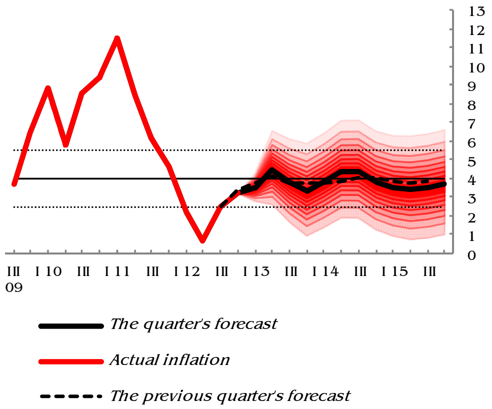
To sum-up, net impact of the fiscal sector, private demand and labor market on domestic prices during 2013 will be minor inflationary which will, however, wane out to zero at the end of the year; in forecast horizon though the domestic demand and labor market are estimated to have a neutral impact on inflation.

2.3. Inflation forecasts and monetary policy directions in 3-year forecast horizon

Forecasts suggest that in the first half of 2013 the 12-month inflation will increase somewhat and reach 4.5 percent at the end of June. This will be explained by the impact of gradually phasing out supply shock resulting from strong growth of agricultural output and the previous year's low inflation level. In the first quarter of 2013, inflation will make up 3.5 percent, a projection broadly unchanged in relation to the previous forecast, which is mainly attributable to increased food prices (items "fruit" and "vegetable and potato" in particular).

Forecasts of macroeconomic indicators and projection of monetary policy directions made through the Quarterly Projections Model were based on actual macroeconomic developments of the fourth quarter of 2012.

Inflation forecast probability distribution chart (12-month)



	Inflation Forecast Probability Distribution Chart				
	<1.0%	1-2.5%	2.5-5.5%	5.5-7.0%	>7.0%
QI 2013	0.0%	1.0%	98.0%	0.1%	0.9%
QII	0.1%	3.9%	73.9%	19.7%	2.3%
QIII	1.5%	13.7%	73.0%	10.7%	1.1%
QIV	5.3%	22.4%	63.9%	7.4%	1.0%
QI 2014	2.7%	15.3%	67.0%	12.6%	2.4%
QII	1.2%	8.9%	63.6%	20.3%	6.0%
QIII	1.3%	9.0%	63.4%	20.3%	6.0%
QIV	3.3%	15.8%	64.9%	13.1%	2.9%
QI 2015	5.4%	19.9%	62.4%	10.3%	2.0%
QII	6.7%	21.2%	60.3%	9.8%	2.0%
QIII	6.0%	20.0%	60.8%	10.8%	2.4%
QIV	4.8%	17.6%	61.7%	12.8%	3.1%

In the face of persisting uncertainties over political solution to debt problems in developed countries, in the ***forecast horizon*** the global economy will recover at a slow pace, according to the baseline scenario. Starting from mid-2013, however, economic growth rates will speed up in the U.S.A. and Russia but remain on a downslope path in the EU, dragging economic growth down until it recovers in 2014. With the global demand recovering at a slow pace, world commodity markets will see prices tending to stabilize at current high levels.

Growth rates of real private consumption are higher-than-expected in the light of low inflation environment. Strong consumption growth is a result of temporary supply shock, which is mainly explained by increased agricultural output. In the first half of 2013 inflation will rise to 4.5 percent, influenced by the waning supply shock, while surplus growth of real consumption which resulted in a positive consumption gap will stabilize at its equilibrium level. In the meantime increased investment into industrial branches of the economy and more credits will trigger faster growth rates in investment. This, in turn, will drive currently negative investment gap to near to zero at the end of 2014. As a result of the aforementioned developments, a small positive private demand gap, together with a small positive GDP gap, will wane out to zero by the end of 2013. This will prompt the GDP growth to stabilize at its long-run level. Under such conditions and in view of a neutral impact of the fiscal policy, the domestic economic developments in the ***forecast horizon*** will be non-inflationary.

In the outcome, in expectation of influences from both external and domestic sectors in the ***forecast horizon***, the current policy rate will be applied to keep the inflation at a 4.0 percent target and the GDP within its equilibrium.

Risks to inflation deviating from forecast value in short-term and long-term horizons are balanced and depend on external and domestic economic perspectives.

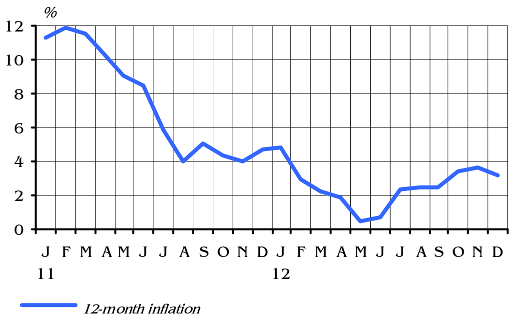
Forecasts of monetary indicators for the projected time horizon are based on the actual macroeconomic environment of the fourth quarter of 2012, macroeconomic developments projected for the next three years, the fiscal policy scenario, the balance of payments, strategy papers of commercial banks and the results of surveys conducted among banks and credit institutions. In the ***forecast horizon*** growth rates in lending will remain strong and financial intermediation upward trending yet such growth rates are expected to slow down to some extent in comparison with previous years.

3. ACTUAL DEVELOPMENTS IN Q4 2012

3.1. Inflation

3.1.1. Actual inflation and attainment of target

Staring mid-2012, the 12-month inflation rebounded, stabilizing at the 4 percent target

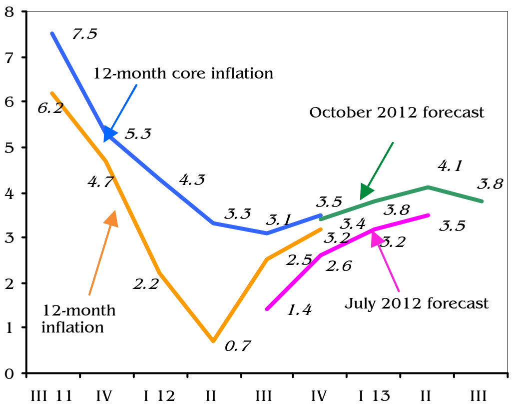


In view of persisting high wheat prices as well as agricultural product prices which rebounded from low levels recorded in the third quarter of 2012, general anticipation was that in the fourth quarter the inflation environment would expand somewhat and the 12-month inflation would rest at a 3.4 percent level at the end of the year. However, inflation reached 4.8 percent compared to 4.1 percent recorded in the same period of the previous year, and the year ended with the 12-month inflation marking a 3.2 percent level.

12-month inflation by commodity group as main contributors		
Commodity group	**Growth**	**Contribution**
CPI	3.2	
Food products (alcohol and tobacco included)	3.1	1.7
bread products	11.5	1.2
meat products	3.3	0.3
fats and oils	3.8	0.1
coffee, tea, cocoa	4.4	0.2
Non-food products	5.7	0.9
Services	2.1	0.6

In the fourth quarter the 12-month core inflation expanded to some extent and amounted to 3.5 percent at the end of the year.

If the impact of notable decline in agricultural prices on the 12-month inflation is excluded, the inflation path in 2012 was relatively stable, which obviously reflects the behavior of core inflation



As envisaged by the 2012 monetary policy program, the 12-month inflation would behave relatively steady, by resting within the confidence band throughout the year, which was also supported by non-inflationary expectations from both external and domestic sectors. A baseline scenario like this suggested leaving monetary policy directions unchanged by further carrying out a neutral monetary policy. The program provided for dual-sided risks either.

The first half of 2012 developments showed that the 12-month inflation continued sloping down instead of a predicted steady behavior: in January-June 0.4 percent of deflation was recorded against 4.0 percent of inflation in the previous two years, under which circumstance the 12-month inflation amounted to 0.7 percent as of end-June, somewhere below the lower bound of the confidence band. A low inflationary environment as this one was driven by the reduction of food prices (-0.5 pp), along with 0.6 pp of contribution each coming from prices of non-food products and service tariffs. Stressed seasonality of food prices is also explained by the fact that back in mid-2010 a lesser seasonal drop in prices of products of domestic agriculture created high levels of 12-month inflation. However, an increased supply of domestic agricultural products in 2011 (when 13.7 percent growth was posted in agriculture) and in 2012 (around 10 percent growth as estimated by the Central Bank) pushed agricultural prices down and prompted they resting at levels below historical average.

Over the first half of 2012 the refinancing rate was left unchanged (8 percent), and the following arguments lied behind that decision: in view of a downsloping path of the 12-month inflation and generally a low inflation environment recently, in the first quarter the Board of the Central Bank estimated that the inflation environment would hardly expand again, meaning that interest rates in financial market could be used to attain the target. Also, in May-June the dram exchange rate depreciated which already meant easing of monetary conditions and, therefore, there was not a need to further relax conditions through interest rate cuts. Finally, the 12-month core inflation has been within the headline inflation target.

The Central Bank somehow adjusted the inflation forecasts of the second half of 2012 on a basis of much lower level of inflation and in anticipation of a moderately expanding inflation environment, meaning that inflation would go an upsloping path in the third quarter and stay mainly stable in the fourth.

In fact, as expected, in the second half of the year the 12-month inflation rate gradually increased from 0.7 percent at end-June to 3.2 percent at end-December. This was fuelled mainly by increased food prices which, virtually, were recovering from their low levels caused by the second quarter decline in agricultural prices, on the one hand, and influence of inflationary behavior in the world wheat market on domestic prices, on the other.

Under such conditions, in the second half of the year the Central Bank further implemented monetary policy without changing the policy rate in consideration that the impact from pronounced seasonal fall in prices of agricultural products would phased out, the 12-month inflation would gradually increase and a low inflationary environment would persist in external sector and domestic economy throughout the entire forecast horizon.

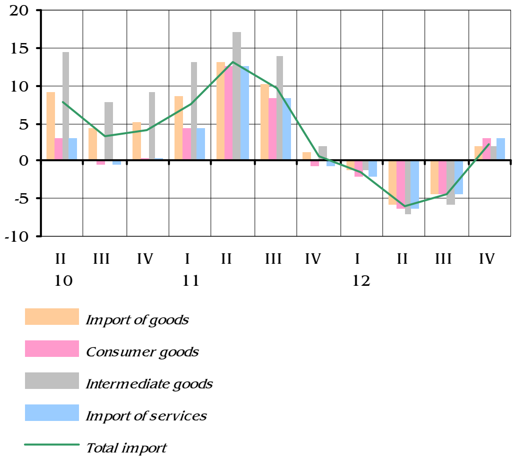
3.1.2. Import prices and producer prices

Import prices: the US dollar's depreciation in the fourth quarter pushed the dollar prices of import goods up. Under such developments, in the fourth quarter of 2012 the import prices showed moderate y-o-y growth rates. According to the Central Bank estimates, in the fourth quarter of 2012 the dollar prices of import rose by 2.2 percent y-o-y as opposed to a 4.5 percent fall recorded in the previous quarter.

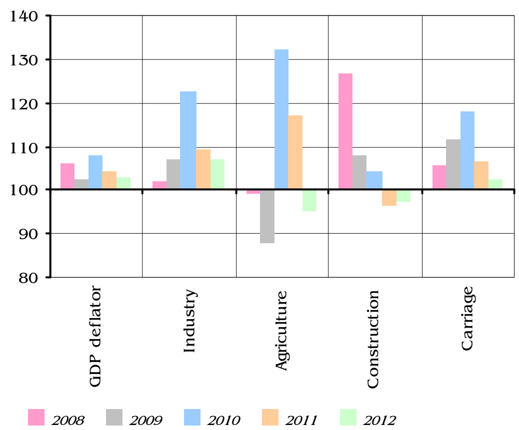
	Q4 2011	Q1 2012	Q2 2012	Q3 2012	Q4 2012
Import, total[9], y-o-y %	0.6	-1.4	-6.0	-4.5	2.2
Import, services, %	-0.7	-1.9	-6.4	-4.4	3.0
Import of goods, %, o/w:	1.0	-1.3	-5.8	-4.5	2.0
Consumer goods, %	-0.7	-1.9	-6.4	-4.4	3.0
Intermediate goods and food products, %	2.1	-1.3	-7.0	-5.6	1.9

[9] In January of 2013 the time series was revised in response to changed weights of countries and commodity groups. The revision is assessed to be neutral in a monetary policy point of view, which means that the revision leaves no impact on the policy decision.

Prices of import goods grew in the 4th quarter



In January-December 2012 highest price increases were reported in industry and carriage



The increase of import prices was driven by moderate y-o-y growth rates of prices of consumer goods, intermediate goods and food products. The increase of prices of consumer goods was determined by high y-o-y increase in dollar prices in Belarus and Russia, two trade partners. Growth of international wheat price in relation to the same period of the previous year was noteworthy, either.

The dram prices of imported goods included in consumer basket grew an average by 7.6 percent y-o-y as the dollar prices of import goods rose by 2.2 percent y-o-y and the average nominal AMD/USD exchange rate depreciated by 6.3 percent y-o-y in the fourth quarter of 2012.

Producer prices[10]: in the period January-December of 2012 the GDP deflator was an estimated 103 y-o-y, which is a result of increased index of producer prices and carriage costs.

Industry reported higher price increases, with the fourth quarter's growth of 10.9 percent y-o-y in which case the January-December growth has amounted to 7 percent y-o-y due to increased prices reported in *processing industry* (7.1 percent) and *energy and gas production and distribution* (13.3 percent).

Agriculture reported 8.4 percent y-o-y decline in prices[11] in which case the January-December decline has amounted to 5 percent y-o-y owing to rich harvest as well as increased headcount. Note that a 10.4 percent decline in plant growing was driven by prices in such items as "potato and berries", "fruit" and "melons and gourds" reduced by 12.5 percent y-o-y, 12 percent y-o-y and 4.2 percent y-o-y, respectively. Around 2 percent decline in animal breeding is attributable to milk and dairy products and egg prices, having reduced by 9 percent and 2.9 percent, respectively.

Construction reported 0.5 percent y-o-y deflation in the fourth quarter, in which case the January-December reduction has been 2.5 percent y-o-y mainly attributable to a slow pace of recovery in the branch.

Carriage reported some 1.4 percent y-o-y decrease in the fourth quarter, with January-December growth of 2.4 percent, determined mostly by increased tariffs on *railroad transport* (4.5 percent), *air transport* (7.5 percent) and *truck transport* (2.9 percent).

3.1.3. Inflation expectations

The Central Bank continued its regular surveys of inflationary expectations among organizations in the financial sector and households.

The financial sector saw increased expectations for low inflation in the fourth quarter. Based on the fourth quarter 2012 survey results, banks anchored their expectations of the 12-month inflation in the range of 2.5–5.5 percent (95 percent or

[10] The price index change as presented here is relative to the same period of the previous year unless otherwise specified.
[11] Sales prices of producers of agricultural product are presented.

20 banks). There were more credit organizations that chose the range of 2.5–5.5 percent (60 percent against 41 percent in the former survey) whereas the share of those organizations anchoring their expectations in the higher range, 5.5–8.5 percent, has reduced to 33 percent from 41 percent. The fourth quarter survey results suggest that households' inflation expectations trended somewhat down to 4.3 percent from 4.5 percent reported in the previous quarter.

According to the survey results, banks and credit organizations will further anticipate stable market interest rates for the upcoming one-year horizon.

3.2. Aggregate supply and Aggregate demand

3.2.1. Aggregate supply

Economic Activity Indicator[12]***:*** in the third quarter of 2012 ***economic growth indicator*** released by the National Statistics Service of Armenia was 9.3 percent y-o-y, with the January-September growth having amounted to 7.6 percent.

The economic growth in 2012 was mainly driven by increased output in industry, agriculture and services

Economic activity in the period January-December of 2012 remained high enough, 7.2 percent, despite some slowing of EAI growth rates in the fourth quarter. Economic growth forecasts under the baseline scenario were revised slightly downside based on a surprise contraction of food production volumes[13] as well as less-than-expected agricultural activities. So, economic growth in 2012 is predicted around 7 percent y-o-y[14].

In ***Industry*** the growth of value added is estimated in the range of 7.5–8 percent y-o-y mainly due to the increased volumes in metal ore mining (14.7 percent), metallurgy (9.1 percent), beverage production[15] (14.3 percent), and tobacco production (57.1 percent), which is a result of consistent improvement in external demand as domestic and world economies recover. High growth in electricity and gas production volumes (13.5 percent), driven by heightened economic activity as well as increased electricity exports to Iran, further contributed to the growth of value added.

In ***Construction*** value added is estimated within 2.8–3.3 percent y-o-y. Note that the decline in construction volumes financed by humanitarian aid (-75.5 percent) and organizations (-1.7 percent) was completely offset by construction financed from such items as households (26.7 percent growth), international loans (16 percent growth), local budgets (12.2 percent growth) and state budget (0.2 percent growth).

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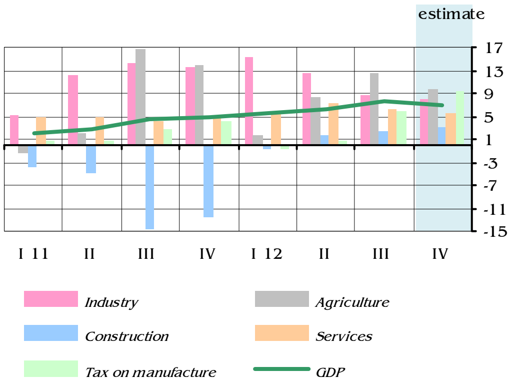
[12] Indicators of branches of the economy represent the Central Bank estimates for the period January-December while indicators of sub-branches represent y-o-y growth rates in output volumes for January-December, unless otherwise specified.
[13] The contraction was mostly due to introduction of somewhat stricter quality requirements to dairy and meat producers.
[14] See the 30 percent interval in the Real GDP Growth (Cumulative) Projection Probability Distribution Chart in this paper.
[15] Growth in beverage production was mainly owing to increased production volumes of brandy (20.2 percent), vodka (10 percent), spring water (17.4 percent), mineral water (12 percent) and natural juice (14.6 percent).

Actual real GDP growth and economic sector growth rates y-o-y



Increased volumes of construction in *energy*, processing industry, trade, housing construction and *financial and insurance activities* largely contributed to the overall growth posted in construction.

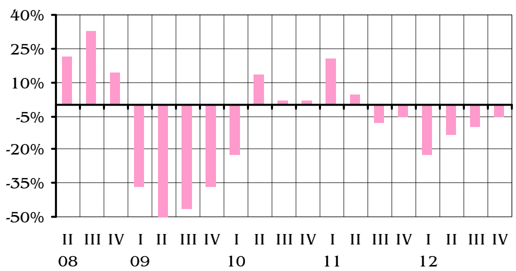
In ***Services*** the growth of value added is estimated in the region 5.5–5.8 percent y-o-y as a result of increased volume of services rendered and trade turnover by 10.8 percent and 3.6 percent, respectively. The increase in the volume of services rendered was driven by growth recorded in financial and insurance activities (20.7 percent), information & communication (3.9 percent), transport (6.9 percent), travel agency services (35.1 percent), and events, leisure and rest (63.3 percent). The growth of trade was totally due to retail trade, wholesale trade and car sales, having increased by 2.3 percent, 5.4 percent and 11.2 percent, respectively.

In ***Agriculture*** the growth of value added is estimated in the range of 9.5–10 percent y-o-y, owing to 3.2 percent growth in plant growing and 14 percent increase in animal breeding. Reported increases in slaughtered animal and poultry (1.9 percent), milk production (2.8 percent) and egg production (3.9 percent) largely contributed to the overall growth in animal breeding sub-branch. Reported increases in plant growing were driven by increased output in grains (3.5 percent), potato (16.1 percent), vegetable (7.9 percent), gourds and melons (13.4 percent), berries (38.6 percent) and grapes (5.2 percent). The growth in plant growing was owing to both improved climate conditions and government programs[16] which are implemented in this area.

3.2.2. Aggregate demand[17]

In the period January-September of 2012 private consumption has grown by 10.7 percent, with an estimated private consumption growth indicator having reached 10.5 percent for the year. High growth of private consumption was fuelled by robust economic activity, particularly thanks to reported growth in agriculture and services, persistently strong lending volumes, a steady level of monetary remittances inflowing from abroad as well as a low inflationary environment in the economy.

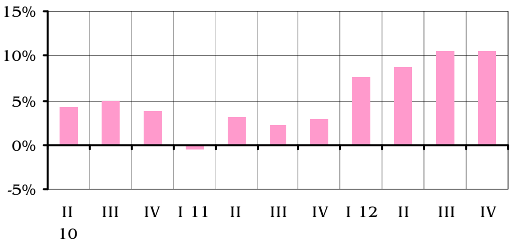
Private investment growth y-o-y



In January-September 2012 private investment has declined by 11.1 percent, reflecting negative developments in construction over the course of the first six months. However, in the second half of the year private investment declined at somewhat a slower pace, making up 6.9 percent in the third quarter while 2.3 percent is expected in the fourth quarter. Under such conditions, annual decline in private investment in 2012 will be 5.5 percent.

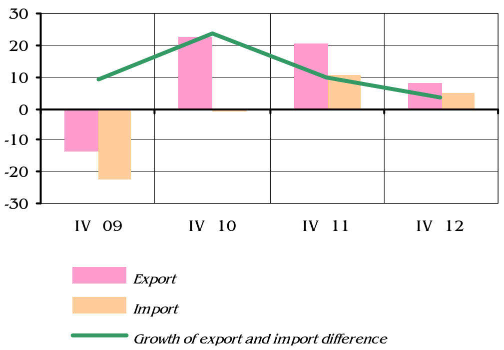
[16] These include programs for agricultural lending, agro-product supply chain, wheat and barley seed growing and production, development of organic agriculture and domestic production of bio-fertilizers.
[17] The private spending data for 2012 are the Central Bank estimates based on actual second half 2012 data. Growth estimates in this sub-section are relative to the same quarter of the previous year, unless otherwise specified.

Private consumption growth y-o-y



Net export position deteriorated in the 4th quarter
(net real export, y-o-y %, positive sign denotes improvement)

Real growth of export of goods and services outpaced real growth of import of goods and services *(y-o-y %)*



The impact of decline in construction on private investment was somewhat mitigated by resources invested to acquire machinery and equipment in industry and services. This has been financed by both loan funds and company profit.

Composite economic indices[18] as calculated and published by the Central Bank point out to the above developments with private spending. Aggregated results of respondents to the surveys on major purchases by households denote increased values – 53.8 and 50.2 for the third and fourth quarters, respectively. In the fourth quarter of 2012 business climate index rose by 6.6 percent to 59.3.

In the first half of 2012, after a negative value reported in 2011, the private spending gap reached zero as private consumption reported high growth and private investment posted a decline. The private spending gap in the second half of the year is estimated as positive and has some 0.5–0.6 pp of impact on inflation as a result of persistently strong private spending and recovering private investment.

In the fourth quarter of 2012 y-o-y growth rates of export of goods and services in real terms outpaced y-o-y growth rates of import of goods and services in real terms[19]. In the fourth quarter real growth rates of export of goods and services remained relatively strong (8.2 percent y-o-y, estimated by the Central Bank), mainly conditioned by persisting high growth rates in industry.

Despite a rise in import dollar prices, growth rates in real import of goods and services remained strong (4.8 percent y-o-y, estimated by the Central Bank) during the fourth quarter thanks to persistently high growth rates in the domestic economy.

In the fourth quarter of 2012 the inflow of non-commercial remittances of individuals grew by 10.1 percent y-o-y compared to 19.6 percent y-o-y growth of outflow. As a result, the growth rate in net inflow amounted to 8.3 percent y-o-y, which incurred influences of the developments in the Russian economy in the fourth quarter of 2012.

3.2.3. Labor market[20]

In the period January-December of 2012 there has been an estimated 5.1 percent increase in average nominal wages, according to the Central Bank estimates, reflecting an increase in productivity in the private sector and moderate growth in some budget-supported organizations. Under such conditions, there has been 2.5 percent real increase in wages. The growth of nominal wages in private sector was boosted up by increased productivity reported for industry and services, and an increased demand for labor concurrent with the economic growth.

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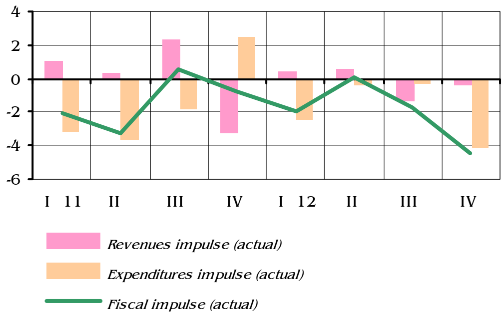
[18] *See http://www.cba.am/am/SitePages/statsscci.aspx.*
[19] *The real export and import growth indicators are the Central Bank's estimates.*
[20] *The labor market data for 2012 are the Central Bank estimates which are based on the third quarter data and actual October and November 2012 figures. The growth indicators represented in this sub-section are relative to the same quarter of the previous year, unless otherwise specified.*

In the period January-December of 2012, relative to the previous reference period, average unemployment rate has reduced by 1.2 pp, as demand for labor increased, and it reached 17.8 percent. The unemployment will keep on reducing during the fourth quarter down to 17.1 percent for the year, representing a 1.1 pp reduction in relation to the previous year.

Material imbalances in the economy have not been observed in the period January-December. In particular, the growth of real wages has been consistent with the growth of productivity. The impact of the labor market on inflation in 2012 has been neutral, as a result.

3.2.4. Fiscal policy[21]

The fiscal policy in the 4th quarter was considerably contractionary in its impact

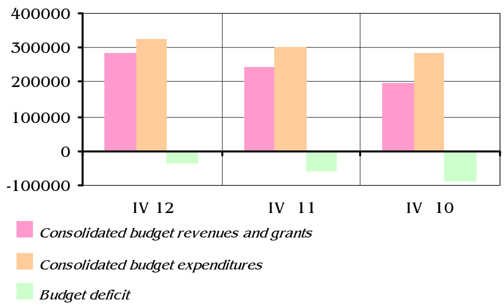


The fiscal policy's impact on aggregate demand was notably higher, 4.4 contractionary instead of 1.6 contractionary

In the fourth quarter of 2012 the state budget performance has been in line with the trends known in the previous quarters, i.e. revenues collected under quarterly projections and savings on some expenditures items. The fiscal sector's impact on aggregate demand has been 4.4 contractionary instead of a projected 1.6, explained by deviance reported with regard to expenditures performance.

It is noteworthy that high economic activity in the fourth quarter of 2012 again positively affected collection of revenues in line with program proportions.

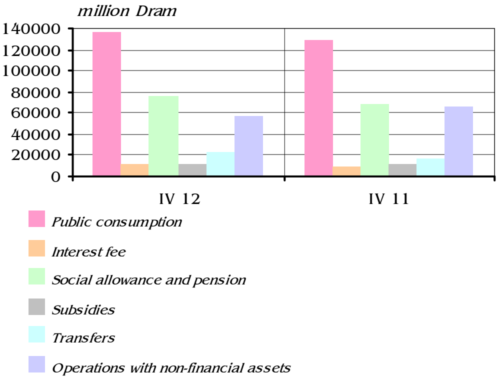
In the 4th quarter the budget deficit contracted relative to the same period of previous years



Revenues and grants of the consolidated budget have grown by 17.6 percent or AMD 51.0 billion in relation to the fourth quarter of the previous year, mostly owing to 23.2 percent increase of tax revenues and 43.0 percent decrease in grant funds. The growth of indirect taxes was 26.3 percent y-o-y and that of direct taxes, 27 percent y-o-y. Direct taxes posted growth on all taxes, with profit tax and income tax having grown by 46.1 percent and 17.1 percent, respectively.

In the fourth quarter of 2012 expenditures of the consolidated budget have grown by about 6.8 percent in comparison with the same period of the previous year. In the meantime, current expenditures have increased by 12.6 percent y-o-y, with ***public consumption*** having grown by 5.0 percent y-o-y. Expenditures on item *transactions with non-financial assets* have reduced by 14.2 percent, due to programs incurring shortfalls of external financing by PIU projects.

In the 4th quarter, in budget expenditures subsidies and capital expenditures reported reduction



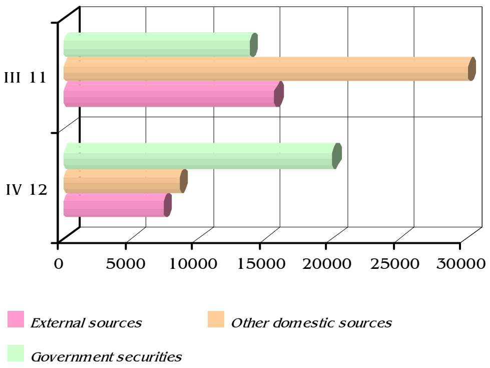
With revenues and expenditures figures shown above, the budget deficit in the fourth quarter of 2012 reached AMD 34.0 billion or 55.6 percent of the annual projection.

According to the year's results, state budget revenues were over-performed against the annual projection by nearly 100.5 percent. The growth of tax revenues, state duties and social

[21] Consolidated budget indicators which were prepared on the basis of preliminary actual data of the fourth quarter of 2012 (PIU funds included) were used for the review of the fiscal sector. The impact of revenues was calculated in respect of the nominal GDP indicator while the impact of expenditures in respect of the estimated potential GDP indicator.

security charges has been 13 percent or AMD 101 billion. The amount of public expenditures (PIUs included) has grown by nearly 2 percent against the previous reference period. There has been growth reported for current expenditures but reduction for capital expenditures. Savings on expenditures constituted about 6 percent of the annual projection and involved savings on some items of expenditures financed by domestic sources and shortfalls on funds due from external sources.

Budget deficit was financed at the expense of domestic sources



Based on the year's results, the state budget deficit has reached AMD 61.5 billion or about 46.4 percent of the annual projection. The fiscal policy implemented in 2012 can be seen as continuation of the fiscal consolidation steered to maintaining macroeconomic stability. In general, thanks to aforementioned savings on expenditures, the fiscal policy implemented in the course of the year had an estimated 2.2 pp of contractionary impact on aggregate demand.

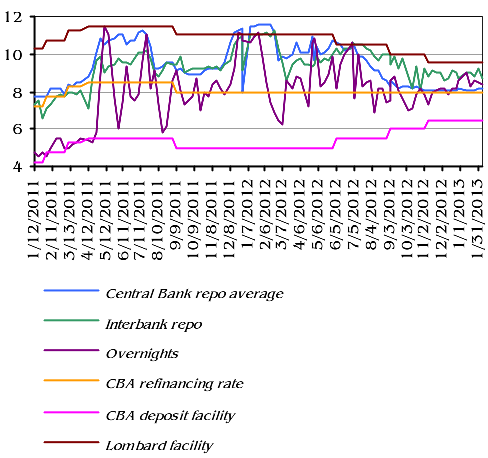
3.3. Money and financial market developments

3.3.1. Financial market, money and credit

In view of a minor and balanced inflation environment, the Central Bank decided to continue implementing a neutral monetary policy in the 4th quarter

In view of a weak and mainly balanced inflationary environment, the Central Bank further conducted a neutral monetary policy in the fourth quarter of 2012 by leaving Refinancing Rate unchanged, at 8.0 percent. The last phase was completed to narrow the spread between the Deposit Facility rate and Lombard Facility rate down to 3 pp from 4 pp, setting these at 6.5 percent and 9.5 percent, respectively, in order to reduce interest rate volatility in the financial market.

During the quarter short-term interest rates trended down



In the fourth quarter of 2012 interest rate of repo agreements, a principal instrument of the Central Bank, fell by 0.94 pp and reached 8.09 percent. Note that increased volumes of repurchase operations made around 50 percent contribution to such dropping. The change in interest rate of standing facilities did not result in increased volumes of operations but rather made it possible to report some contraction in such volumes.

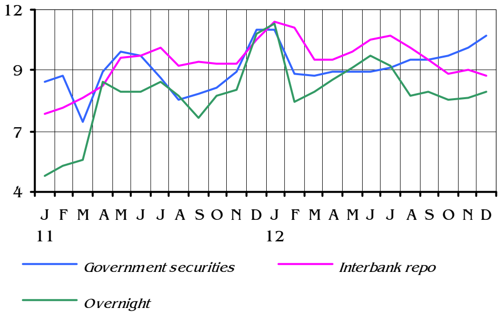
Central Bank's operations in 2012

	Repo (up to 7 days)		Funds attracted		Lombard repo	
	Value (million Dram)	%	Value (million Dram)	%	Value (million Dram)	%
Q I	151,932.32	11.15	380,600	5.00	59,093.88	11.00
Q II	185,000.00	10.29	317,950	5.05	179,437.37	10.77
Q III	488,921.68	9.03	158,200	5.51	32,524.98	10.50
Q IV	741,880.51	8.09	140,150	6.22	5,631.79	9.50

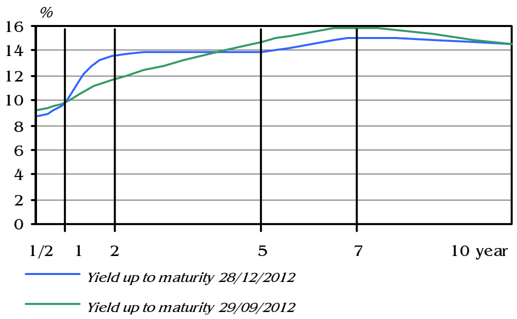
The decline in repo rates provoked the falling of an average quarterly interest rate of market repo

The drop of interest rates of repo agreements prompted reduction in average quarterly market repo rate (by 0.8 pp down to 9.61 percent) and in interbank overnight loan market rate (by 0.46 pp down to 7.93 percent).

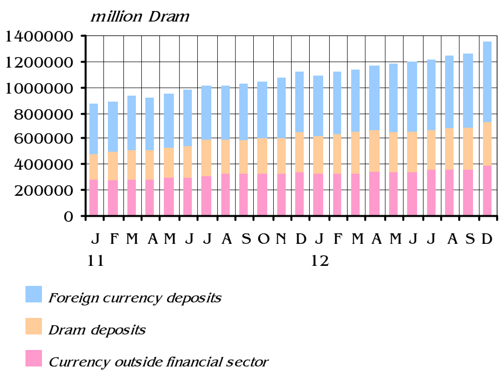
Interest rates of government securities rose, and interbank repo and overnight loan rates neared the Central Bank refinancing rate



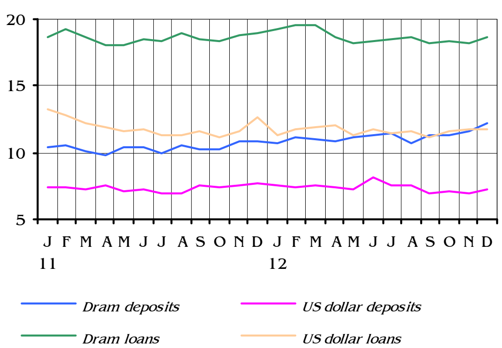
In secondary market interest rates of government securities tended to fall



Foreign currency deposits outpaced dram deposits during the 4th quarter



Interest rate spread between dram loans and dram deposits narrowed in the 4th quarter



Box 3

Government securities

In the fourth quarter of 2012 the seasonal decline in demand for short-term treasury bills in the primary market did not allow the interest rate drop to be reflected in the yield indicator of these securities. On the contrary, it grew by 0.6 pp against the previous quarter and amounted to 9.95 percent.

The yield curve analysis shows that, save for 1-2-year treasury bills, the yield of treasury bills in the secondary market has dropped an average by 0.5 pp. The convexity of the curve has changed just a little, from 0.32 to 0.28.

In the banking sector in the fourth quarter of 2012, average interest rates of deposits in Armenian dram rose by 0.53 pp to 11.7 percent. This does not reflect the trend of continued interest rate drop observable previously, but explains the improved conditions for attracting deposits by commercial banks, concurrent with credit growth. The volumes of dram deposits have increased by 6.1 percent, owing almost totally to the growth of term deposits in Armenian dram. Interest rates of foreign deposits remained roughly unchanged, 7.10 percent, while volumes have increased by 5.2 percent (5.9 percent, when impact of change in foreign exchange rate is excluded), mainly due to term deposits in foreign currency attracted from households and companies almost equally.

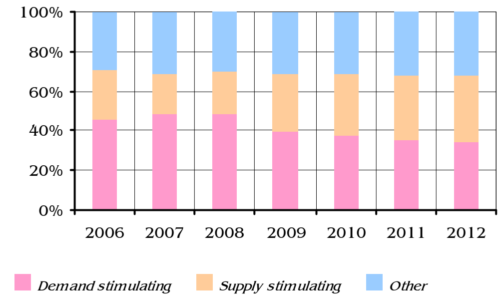
Average monthly interest rates of dram loans have trended downward since the start of the year, reflecting relaxed lending conditions and rising competition among banks and credit organizations. This facilitates the narrowing of interest rate spread between loans and deposits in Armenian dram. Average quarterly interest rate of dram loans with over 1 year of maturity has fallen by roughly 0.5 pp against the previous quarter and amounted to 17.18 percent in the fourth quarter.

The easing of lending conditions and procedures by commercial banks and credit organizations in Armenia somewhat speeded up lending growth rates during the third and fourth quarters – in the fourth quarter of 2012 the lending growth rate reached 5.6 percent (27.6 percent for the year). Total loan portfolio has started to increasingly embrace more loans to industry, agriculture, transport and communications and lesser loans to consumer, mortgage and trade segments. This new portfolio proportion points out to the fact that more investment into production sub-industries has added to the GDP potential.

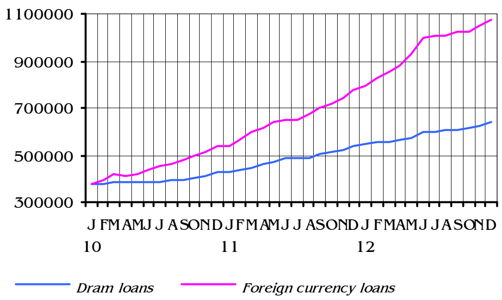
In the fourth quarter of 2012 the nominal exchange rate pressures driven by economic fundamentals were somehow reflected in the dollarization indicator. The level of dollarization of the economy (measured as a ratio of foreign currency deposits to broad money) subdued by 0.4 pp.

In the fourth quarter of 2012, foreign currency loan prevailed by share in the total loan portfolio. The growth of foreign currency loans reached 5.5 percent (6.2 percent, when impact of change in foreign exchange rate is excluded). Foreign

The share of loans that stimulate supply is increasing in total loan portfolio[22]



Foreign currency loans again prevailed in total lending in the 4th quarter



currency loans were provided mostly to private companies whereas dram loans, which posted a quarterly growth of 5.6 percent, were made predominantly to households.

> ***Box 4***
>
> *The assessment of loan supply and demand, loan accessibility and borrower credibility indexes suggest that growth rates in demand and supply for business and consumer loans have accelerated in the fourth quarter of 2012; as for the business loans, growth rates in their supply have speeded up as opposed to the slowed down growth rates in their demand. A similar dynamics is expected over the next quarter. As well as the terms of lending eased during the fourth quarter will persist over the next quarter.*
>
> *Broad money increased during the quarter by 6.2 percent and reached AMD 1.346 trillion and dram broad money grew by 7.1 percent, amounting to AMD 738.0 billion.*
>
> *The 12-month monetary indicators performed as follows: dram deposits grew by 14.2 percent and foreign currency deposits, by 30.1 percent (or 24.4 percent, when the impact of change in foreign exchange rate is excluded); currency grew by 9.9 percent. This resulted in the growth rate of broad money outpacing dram broad money (19.5 percent versus 11.9 percent). In the meantime, base money has increased by 1.9 percent and dram base money, by 5.1 percent. The money and dram multipliers in the fourth quarter were 1.97 and 1.23 compared to 1.68 and 1.16 reported in the fourth quarter of the previous year, respectively.*

3.3.2. Exchange rate

Consistent with the economic fundamentals and macroeconomic policy path, the real effective exchange rate of the dram[23] depreciated by 4.1 percent during 2012 and by 5.4 percent y-o-y in the fourth quarter of that year. Depreciation of partner countries' currencies versus the U.S. dollar during the second quarter created expectations for dram depreciation in the domestic currency market thus prompting participants of the financial market to change currency structure of their assets. The nominal exchange rate of the dram depreciated versus the U.S. dollar by more than 6 percent, as a result. Following the principles of a floating exchange rate policy, the Central Bank somewhat smoothed out the process of depreciation of the nominal exchange rate for the sake of macroeconomic and financial stability. Then, the deflation resulted from a positive agricultural supply shock and eliminated inflation expectations contributed to the depreciation of the real exchange rate which, already in the third quarter, was considered as over-depreciated. This is why the second half of the year was marked with the dram's nominal exchange rate appreciation pressures. Such pressures intensified in the fourth quarter when currencies of partner countries appreciated notably versus the U.S. dollar.

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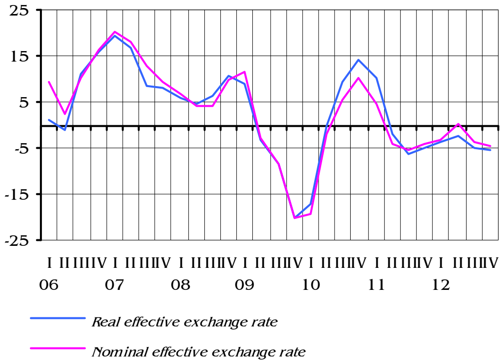
[22] Loans provided to industry, agriculture, transport and communications tentatively admitted as the loans that stimulated the supply.
[23] In January of 2013 the entire time series was revised to include data of 12 trade partner countries, out of formerly recorded 11 countries, by weights for the years 2007-2011 versus 2003-2007 recorded previously. The revision is assessed to be neutral in a monetary policy point of view, which means that the revision leaves no impact on the policy decision.

Under such circumstances, for stability considerations, the Central Bank acted as a net buyer of foreign currency to handle exchange rate volatility especially during the closing quarter of the year. In the fourth quarter the real exchange rate appreciated by an average 1.3 percent q-o-q, with the nominal exchange rate having appreciated by an average 1.0 percent q-o-q.

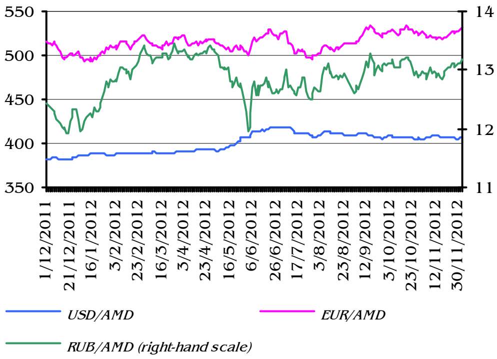
In 2012 real exchange rate further depreciated, y-o-y



Growth, year-on-year	Q4, 2011	2011	Q1, 2012	Q2, 2012	Q3, 2012	Q4, 2012	2012
Real effective exchange rate (+ means appreciation)	-4.9	-1.0	-3.7	-2.3	-5.2	-5.4	-4.1
Average inflation in Armenia	4.4	7.5	3.4	1.0	2.3	3.3	2.5
AMD nominal exchange rate(+ means appreciation)	-4.2	0.2	-3.1	0.1	-3.6	-4.5	-7.3
Average weighted inflation in partner countries	4.9	5.6	4.0	3.7	4.1	4.0	3.9
Partner countries' average weighted nominal exchange rate(+ means appreciation)	-1.2	2.8	-2.9	-7.7	-7.6	-1.7	-4.9

Armenia real exchange rate appreciation = Armenia inflation + Armenia nominal exchange rate appreciation - Trade partners' average weighted inflation - Trade partners' average weighted nominal exchange rate appreciation.

Dram exchange rate versus U.S. dollar, Euro and Russian ruble



Box 5

Exchange rate

At the end of the fourth quarter of 2012, relative to the end of the previous quarter, the average market exchange rate of the Armenian dram versus the U.S. dollar has appreciated by 0.66 percent to 403.58 for one U.S. dollar. In 2012 the average dram exchange rate was 401.77, and annual depreciation relative to the previous year reached 7.30 percent.

Dram exchange rate dynamics in Q4, 2012			
Curreny pair	Exchange rate as of 30.09.2012 (AMD)	Exchange rate as of 31.12.2012 (AMD)	% (appreciation +, depreciation -)
USD/AMD	406.25	403.58	+0.66
EUR/AMD	525.73	532.24	-1.22
RUB/AMD	13.12	13.27	-1.13
Average dram exchange rate dynamics relative to Q4, 2011			
Curreny pair	Average quarterly exchange rate in Q4, 2011	Average quarterly exchange rate in Q4, 2012	% (appreciation +, depreciation -)
USD/AMD	380.90	406.45	-6.29
EUR/AMD	513.65	527.37	-2.60
RUB/AMD	12.21	13.09	-6.72

The aggregate volume of U.S. dollar/Armenian dram transactions in the foreign exchange market during the fourth quarter amounted to USD 3112 million, which represents 14.2 percent increase in relation to the previous quarter (USD 2724 million).

The aggregate volume of Euro/Armenian dram exchange transactions reached EUR 273.3 million against 252.3 million recorded in the previous quarter.

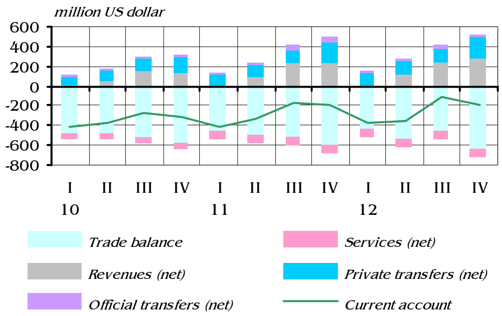
To tackle the dram exchange rate excess volatility against the U.S. dollar, the Central Bank purchased USD 29.87 million from commercial banks during the fourth quarter. Net sale of dollar by the Central Bank during 2012 amounted to USD 65.5 million.

3.4. Balance of payments[24]

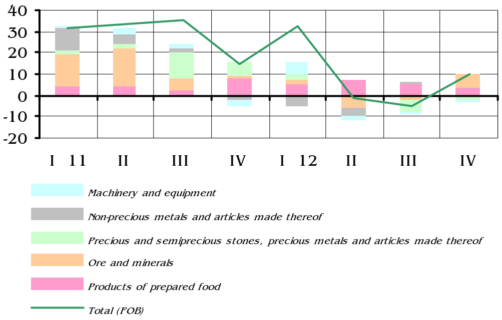
The current account deficit did not change much relative to the 4th quarter of the previous year, under the persisting strong growth rates in domestic economy, deteriorated terms of trade and slower global economy

In the fourth quarter of 2012, relative to the fourth quarter of the previous year, the deficit of current account has not changed much amidst persistently strong growth rates in domestic economy, deteriorated terms of trade and sluggish global economy. Net inflow through capital and financial account has widened y-o-y and thus outstripped the current account deficit. This urged the Central Bank to add to its reserves.

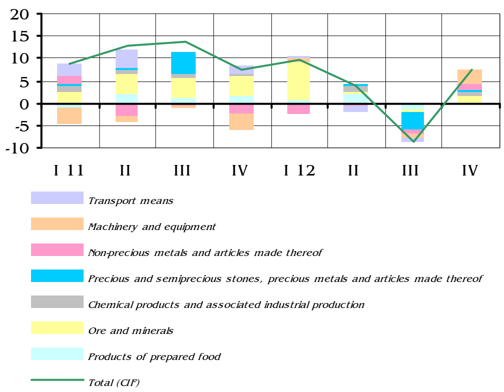
Current account deficit did not change much relative to the 4th quarter of the previous year



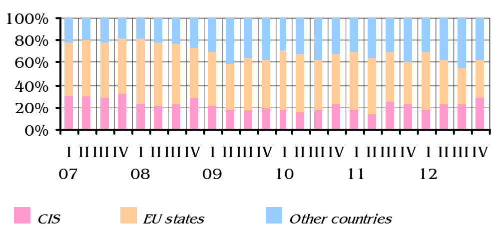
Y-o-y growth of dollar value of export, and contribution by main commodity group



Y-o-y growth of dollar value of import, and contribution by main commodity group



Structure of export, by country group



3.4.1. Current account

The Current Account Deficit/GDP ratio is estimated roughly 10.0 percent in 2012 against 10.9 percent recorded in the previous year. Given a sluggish pace of global economy and strong growth rates in domestic economy, in the fourth quarter of 2012 the deficit of current account remained broadly unchanged in relation to the same period of the previous year and reached USD 196.7 million.

Real export of goods kept on increasing in spite of a sluggish external demand, as such increment was fuelled by persisted high growth rates in domestic industry and high prices of base metals. In the fourth quarter the dollar value of export of goods has grown by 9.5 percent y-o-y. Based on the 2012 results, the dollar value of goods has grown by 6.3 percent.

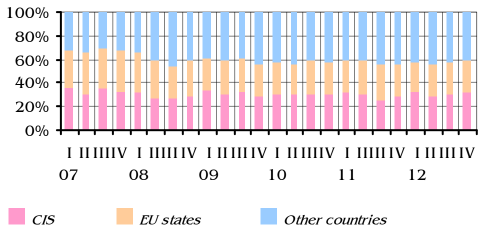
The fourth quarter of 2012 saw real growth rates in import of goods amidst high growth rates in domestic economic activity and increased dollar prices on import. The dollar value grew by 8.0 percent y-o-y in the fourth quarter of 2012, while the growth rates of dollar value of import are an estimated 2.4 percent in 2012.

The deficit of balance of transport services has grown as a result of deficit of balance of trade widened y-o-y. The deficit of balance of travel however is expected to abolish during the fourth quarter. The y-o-y growth indicators of export and import of services were, respectively, 6.2 percent and 4.5 percent in the fourth quarter but 1.3 percent and 0.3 percent for 2012.

In the fourth quarter of 2012 the y-o-y growth rates in remittances[25] of individuals persisted, which is determined by the developments in the Russian economy. During the quarter net inflow of seasonal worker income has grown by 7.0 percent y-o-y and amounted to USD 418.0 million, which outstripped net outflow in item "income on investment". Net inflow of private

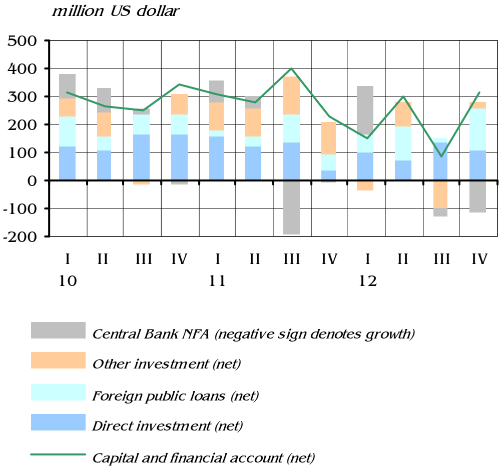
[24] The Q4 2012 indicators are the Central Bank forecasts and estimates.
[25] The fourth quarter of 2012 posted an 8.3 percent y-o-y growth of net inflow of non-commercial remittances by individuals via the banking system.

Structure of import, by country group



Net inflow of capital and financial account increased y-o-y and exceeded current account deficit, allowing the Central Bank to accumulate reserves

In the 4th quarter net inflow through item 'capital and financial account' widened y-o-y, outstripping current account deficit



transfers has grown by 7.2 percent y-o-y and reached USD 206.5 million. The growth indicators of net inflow of seasonal worker income and net inflow of private transfers for 2012 are estimated 6.8 percent and 8.5 percent, respectively.

3.4.2. Capital and financial account[26]

Based on the 2012 results, net inflow of the funds through the capital and financial account has reduced by 30.1 percent y-o-y and reached USD 847 million. The fourth quarter of 2012 saw 37.3 percent y-o-y increase (USD 311.8 million) of net inflow the funds through the capital and financial account. This exceeded the current account deficit, while net foreign assets of the Central Bank of Armenia have increased by USD 115.0 million as a result.

In the fourth quarter of 2012, net inflow of foreign direct investment has increased by USD 67.7 million, net inflow of public loans, by USD 93.5 million, whereas inflow to the private sector contracted by USD 84.8 million.

3.5. External environment

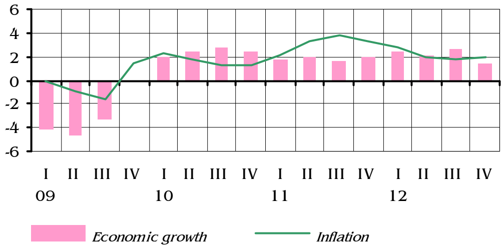
According to the IMF estimation, world economic growth in 2012 was 3.2 percent against 3.9 percent recorded in 2011. The slowdown was primarily due to 1.3 percent slowing of ***economic growth in developed countries*** which affected the economic growth in emerging countries as well (it is an estimated 5.1 percent for 2012 instead of 6.3 percent recorded in 2011).

In the ***United States of America*** in the fourth quarter there was an annualized 0.1 percent of economic decline q-o-q, according to preliminary estimates by Economic Analyses Bureau of the U.S. Department of Commerce (there has been 1.5 percent of economic growth y-o-y in the fourth quarter), due to considerable devastation the storm Cindy brought to the U.S. east coast. Positive contribution to the growth came largely from private spending and investment, whereas public expenditures and net exports made a negative contribution. In the fourth quarter average quarterly inflation reached 1.9 percent compared to 1.7 percent reported in the previous quarter. Economic growth in the U.S.A. in 2012 is estimated roughly 2.2 percent but inflation is expected to amount to approximately 2.1 percent.

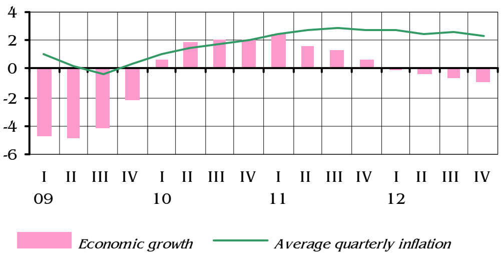
The U.S. Federal Reserve System remained committed to conducting a low interest rates policy as well as a policy steered to cut long-term interest rates, in consideration of humble pace of economic development.

[26] *Q4, 2012 capital and financial account figures are the Central Bank forecasts and estimates.*

Economic activity in the U.S.A. slowed down in the 4th quarter



Economic decline in Euro-area continued



The economic decline in ***Euro-area*** in the fourth quarter of 2012 was 0.9 percent y-o-y, according to preliminary figures of Eurostat. The economic decline in 2012 is an estimated 0.4 percent.

In the fourth quarter consumer price index in Euro-area rose an average 2.3 percent y-o-y, which represents some 0.2 pp drop in relation to the previous quarter. The slowing of the price level during the fourth quarter is due to a reduced growth rate of energy prices. Average inflation in the EU is estimated 2.5 percent which is above the 2 percent target, however.

All the aforementioned developments notwithstanding, the European Central Bank left the policy rate unchanged in the fourth quarter.

In the fourth quarter the U.S. dollar kept on depreciating versus Euro in the light of uncertainties associated with rethinking of the U.S. fiscal policy and the public debt ceiling. During the quarter Euro appreciated versus the U.S. dollar by 3.7 percent, with the dollar exchange rate making up 1.29 for one Euro. However average dollar exchange rate is still above the exchange rate reported for the fourth quarter of the previous year (with y-o-y appreciation of 3.8 percent).

In the fourth quarter of 2012 economic growth in ***Russia*** slowed down amid accelerated inflation. Economic growth in 2012 reached 3.4 percent, according to the preliminary estimates of the Russia State Statistics Service. Specifically, growth rates in industry slowed down to 1.7 percent y-o-y from 2.5 percent recorded in the third quarter. Growth rates in retail trade and construction sectors were 4.5 percent y-o-y and 2.9 percent y-o-y, respectively. In the meantime, agricultural sector posted some 10.6 percent decline.

The rate of inflation accelerated as economic growth rates trended down. The consumer price increase in December reached 6.6 percent y-o-y, mainly due to reported increment in food prices and service tariffs. The target inflation indicator for 2012 is within 5–6 percent.

The Russian Central Bank decided to leave the refinancing rate unchanged, at 8.25 percent in the yearend, following its raising in September.

Economic growth in ***China*** was an estimated 7.8 percent in the fourth quarter of 2012. Average quarterly inflation somewhat accelerated against the previous quarter, making up 2 percent y-o-y. Economic growth in China for 2012 is estimated 7.8 percent compared to 9.3 percent for 2011.

In the light of the aforementioned developments in global economy as well as depreciation of the U.S. dollar, the ***gold price*** rose by 3.6 percent in the fourth quarter and averaged USD 1717 per oz. (with 2.1 percent y-o-y growth). The y-o-y increment of the gold price in 2012 is estimated to amount to 6.4 percent.

Oil price in global markets trended mostly stably during the fourth quarter, growing merely by 0.4 percent in relation to the previous quarter, to an average USD 110.4 a barrel (with 1.3

percent y-o-y growth). In 2012 oil price decrease compared to the previous year is estimated only 0.9 percent.

In the fourth quarter ***copper price*** grew by 2.0 percent to USD 7925 per ton (with 6.0 percent y-o-y growth). Average copper price decrement in 2012 against 2011 was 10.0 percent.

Selected food markets in the globe saw minor inflationary trends during the fourth quarter, driven by supply-side factors. The food price index, as released by the Food and Agricultural Organization, fell by 0.9 percent in the fourth quarter against the third quarter's index. This figure however is 1.2 percent lower from the respective figure recorded in the same quarter of the previous year.

In the fourth quarter international ***wheat price*** grew by 2.0 percent q-o-q to USD 9.7 a bushel (with 27.0 percent y-o-y growth), due to reduced supply because of reported drought in Russia, Kazakhstan and the U.S.A. In 2012 average wheat price decrement in relation to 2011 has been 1.0 percent.

In the fourth quarter of 2012 international ***sugar price*** index dropped by 5.0 percent, with its y-o-y decrement having amounted to 23.0 percent against the same quarter of the previous year. Average sugar price in 2012 was roughly 10 percent lower from its average recorded in 2011.

During the fourth quarter, international ***rice price*** dropped by 0.6 percent to USD 15.4 per U.S. hundredweight (45.4 kg). This represented 1 percent y-o-y decrement, whereas the y-o-y decrement was around 3.0 percent.

The global demand remains sluggish; no considerable inflationary trends are observable in basic commodities markets, either. Whereas main world food markets are seeing trends neutralize each other – fundamental tightness is persisting in the wheat market but deflationary trends are shown in sugar and rice markets.

4. CONCLUSION

The year 2012 was marked with an unexpectedly high ***real private consumption*** which was greatly contributed by unusually strong output volumes in agriculture and a low inflation environment resulting from this. The surplus growth of real private consumption is estimated by the Central Bank as a result of supply shock. This is a temporary event however, since large volumes of agricultural output have been largely due to favorable weather conditions, which may not be the same in the next few years. In the ***forecast horizon*** therefore the surplus growth is expected to reduce while private investment to grow. Under such circumstances economic growth is predicted to stabilize around its equilibrium level. In the forecast horizon a ***non-inflationary impact*** on domestic prices is anticipated from the Armenian economy as a result of a weak private demand and implementation of neutral fiscal policy.

In ***external sector*** in 2012 the global demand remained fragile while no inflationary tendencies were observed in international markets of basic commodities and food products. In the ***forecast horizon*** the global economic growth rates are expected to rebound slowly amid persisting uncertainties associated with political solution to debt problems of developed countries. On the back of a sluggish global demand, international prices of basic commodities and food products are going to perform relatively steady, staying at high levels, however. In the ***forecast horizon*** therefore primarily a ***non-inflationary influence*** will be expected from the external sector.

In 2012, taking into account the dominating influence of a temporary supply shock on the low inflationary environment, the Central Bank implemented a neutral monetary policy during the year, leaving the refinancing rate unchanged. In the **forecast horizon** the 12-month inflation will be within the confidence band provided non-inflationary effects from both external and domestic sectors are in place, while the Central Bank will continue carrying out a ***neutral monetary policy***, with a ***refinancing rate left unchanged, at 8 percent***. Risks to global and domestic economic growth outlooks are estimated as balanced. However, the Central Bank may consider revision of the policy rate if these risks materialize as appropriate.