

THE CENTRAL BANK  
OF THE  
REPUBLIC OF ARMENIA

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Bank Resolution No. 216A,  
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# Inflation Report

*Monetary policy program Q3, 2012*



*Status report on implementation  
of the Monetary Policy Program  
Q2, 2012*



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*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 a 4 percent target.*

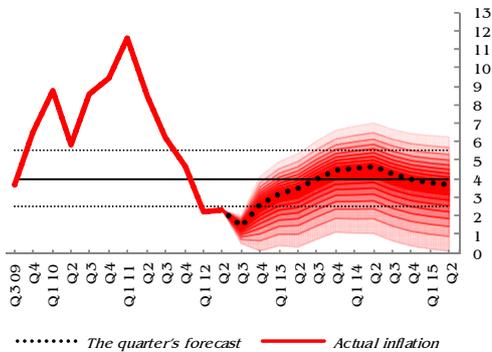
*Each quarter, the monetary policy programs of the Bank used to present inflation forecast for the upcoming 12-month period under the assumption of unchanged interest rates as well as forecasts of the response of the policy rate. The programs included a blueprint for monetary policy directions.*

*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 will present inflation forecasts for a longer time horizon of 3 years instead of previously applied 1-year and will publish non-conditional inflation instead of conditional.*

## 1. EXECUTIVE SUMMARY

The 12-month inflation forecast probability distribution chart

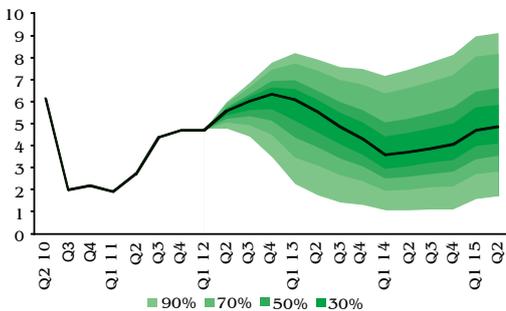


There was 3.1 percent of deflation recorded in the second quarter of 2012 compared to that of 1.6 percent in the previous reference period, and the *12-month inflation* further subsided to 0.7 percent at the end of June. A low 12-month inflation indicator has been totally due to 0.9 percent decline in food prices whereas non-food prices and service tariffs have posted increases as expected, by 3.9 percent and 1.9 percent, respectively.

In the forecast horizon the developments in world economy and domestic economy mark some expanding of the inflation environment. In the upcoming period of time the 12-month inflation will go up, reaching a lower border of the confidence band at the end of the year. Then, *in the forecast horizon*, it will be managed primarily around a 4 percent target level.

In the first quarter of 2012 *economic growth* was 4.7 percent. The Economic Activity Indicator for the second quarter of 2012 released by the National Statistics Service of Armenia points to an enlivened economic activity, which is a result of increased output volumes in industry, agriculture and services. According to a baseline scenario, there is much probability that economic growth in 2012 will be in the range 5.6–6.7 percent, attributable to expected faster recovering of external and domestic demand in the light of optimistic domestic economic growth outlook. Economic growth will continue to be driven mostly by increased value added in services, industry and agriculture: in 2012 these will amount to roughly 5 percent 9.5 percent and 7.5 percent, respectively. The outlined trends of economic growth will persist over *forecast horizon* while economic growth will stabilize within the 4–5 percent interval.

Real GDP cumulative growth projection distribution for 3-year horizon



In the *labor market* in the second quarter of 2012, average nominal wage grew by 6.0 percent and official unemployment reduced by 0.3 pp to 18.9 percent, according to the Central Bank estimates. In the light of expected economic activity, in 2012 the labor market will anticipate 6.2 percent growth of average nominal wages and 0.3 pp reduction of unemployment. Given the baseline scenario-developments with economic growth persist, such growth rates of average nominal wages and reduction of unemployment will continue in the *forecast horizon*, too. Material imbalances affecting the inflation in the labor market are not anticipated, either.

Real growth of *private spending* in the second quarter of 2012 was 3.5 percent, according to the Central Bank estimates, whereas private investment has contracted by 11.5 percent. In the second half of the year growth rates of private spending is expected to remain relatively strong (7.1 percent) while private investment is anticipated to recover slowly (4.1 percent) after the first half's decline. In the private sector, total expenditures will grow by 6.4 percent. There is anticipation that in the *forecast horizon* high growth rates in private consumption will be adjusted downside to carry on with somewhat a slower and

steadier pattern. Growth rates in private investment will bounce back, contributing to added private spending and sustainable economic growth.

In the second quarter of 2012 the impact of *fiscal policy* on aggregate demand was neutral, according to the fiscal impulse indicator, which was determined by expansionary impact of revenues (1.25 pp) and contractionary influence of expenditures (1.1 pp). For 2012, the *fiscal impulse* was estimated to be 1.1 pp contractionary according to the baseline scenario, attributable to restrictive influence of both revenues and expenditures. In the *forecast horizon* the fiscal policy will be steered to an effective debt management and maintaining the debt/GDP ratio up to a 3 percent level, under which circumstance the impact of fiscal policy in *forecast horizon* is estimated to be non-inflationary.

In the second quarter of 2012, relative to the previous reference period, the deficit of *current account* has improved in the light of developments in world economy and domestic economy. The dollar value of export of goods was nearly the same as in the second quarter of the previous year while that of import of goods amounted to 3.8 percent y-o-y. Growth rates in remittances of individuals somewhat slowed down due to slackened economic growth rates in Russia. Over 2012 current account will keep on improving and the current account/GDP ratio will be in the region 10–12 percent, which will be determined by higher growth rates of imports in real terms and reduced export prices. In 2012 the dollar value of export of goods and services is expected to increase by 6–8 percent, and that of import, by 5–7 percent. The growth of net inflow of non-commercial transfers of individuals will be in the range of 10–12 percent in 2012.

Though the position of current account will improve in *forecast horizon* it will be within the 9–11 percent interval relative to the previous program. This is primarily explained by reluctant world economic recovery in the face of persisting uncertainties over financial issues in the Eurozone.

Recent trends in *world economy* mark slowing of economic growth in both emerging and developed countries, and the Euro-area developments will determine the further pace of world economy. In the time of murky prospects in finding solution to financial issues in developed countries the first half of the year saw a weak global demand, and deflationary trends were observed in world commodities and food markets. The Food Price Index released by FAO fell by an average 4 percent in the second quarter compared to the previous quarter, which is 11 percent lower from the indicator of the same quarter in the previous year.

Estimation of *world economic growth* rate was revised by the IMF slightly downside in July (by 0.1 pp to 3.5 percent for 2012 and by 0.2 pp to 3.9 percent for 2013).

Expectations for slowdown in world economic growth rates in *2012-2013* will create a minor inflationary environment in the main commodities markets. There will be primarily inflationary

trends in global food markets because of damage to the harvest due to dry weather in the U.S.A. and leading food producer countries in CIS.

Given weather conditions are favorable, international prices of food products will be adjusted downside in **2014** and may behave moderately inflationary if world demand for food remains surpassing. Further, with the global demand growing at a temperate pace, international prices of base metals and oil products may create weak inflationary pressures in **2014-2015**; as such, developments in oil product markets will be driven predominantly by geopolitical developments.

Main risks to world economic developments in **forecast horizon** are pertinent to slower-than-forecast growth rates of world economy due to persisting uncertainties over debt problems in Euro-area as well as more complexities in connection with the financial crisis. In particular, more threatening is the risk to financial stability of the European Union, since, if materialized, it would bring in even more slowing of economic growth rates in both industrialized and emerging countries and significant deflationary pressures in international raw materials markets.

In the second quarter of 2012, in spite of a considerably low level of the 12-month inflation, the Central Bank further implemented a neutral monetary policy, leaving the **refinancing rate unchanged, at 8.0 percent**. This was driven mainly by two factors: first, the core inflation has been within the target during that period of time, and second, there has been the dram's depreciation in May-June, which was already seen as easing of monetary conditions. The dram depreciation pushed interest rates up in the financial market in the short run, which is however a fall trend in relation to the previous quarter if average quarterly indicators are considered (see Section 3.3.2 Interest Rates).

In **forecast horizon** in general, economic developments in both external sector and domestic sector mark some expanding of the inflation environment. In the upcoming months inflation will increase to reach the lower border of the confidence band at the end-year. Then, expected developments in external and domestic macroeconomic environment as well as further implementation of a neutral policy by the Central Bank will bring the inflation closer to the 4 percent target, which will possibly be maintained in that region up until the end of the forecast horizon. Also, in the forecast horizon lending growth rates will remain strong and the level of financial intermediation increasing.

Considerable slowing of world economic growth, i.e. falling of international prices of basic commodities, less growth rates in inflow of private remittances to Armenia and decline in domestic demand, remains the most probable risk in relation to the baseline scenario. Easing of monetary conditions so as to minimize the influence of the risk on the Armenian economy is seen by the Central Bank as the most probable alternative to the baseline scenario.

## 2. FORECAST, FORECAST CHANGES, RISKS

### 2.1. External environment<sup>1</sup>

Policies carried out to steer the regulation of debt problems in developed countries will continue to be the main driver to development of global economy. Persisting uncertainties over financial problems in Eurozone will continue to hinder the recovery of the world economy, putting a drag to the growth in both emerging and developed economies. In July of 2012 the IMF adjusted world growth outlook indicator somewhat downside, making a forecast of 3.5 percent (the downside adjustment was 0.1 pp) while for 2013 the adjustment was 0.2 pp downside, amounting to 3.9 percent.

*Economic growth in developed countries* is predicted to slow down to 1.4 percent in 2012 and to amount to 1.9 percent in 2013 (0.2 pp adjustment downside). The slowdown will be determined by 0.3 percent economic decline in Eurozone in 2012. This, called for by a need to fiscal consolidation, will bounce back at a very timid pace and economic growth in 2013 will amount to merely 0.7 percent. The U.S. economy will continue to recover to post 2 percent growth in 2012 and 2.3 percent growth in 2013. More positive trends for economic growth in developed countries will have their influence over *emerging economies* where economic growth will slacken as well – reaching 5.6 percent in 2012 and 5.9 percent in 2013 (with downside adjustment of 0.1 pp and 0.2 pp, respectively).

The forecasts for *economic growth in Russia*, a principal trade partner, stayed unchanged – 4.0 percent for 2012, slightly below the 2011 indicator. In 2013 this indicator will be in the region of 3.9 percent. Risks to economic growth are estimated to be mainly downside, driven by oil price developments.

According to the IMF predictions, *economic growth in China*, a huge booster of world demand for raw materials and food products, will somewhat decelerate to 8 percent in 2012 from 9.2 percent in 2011 but will slightly accelerate to reach 8.5 percent in 2013 (with downside adjustment of 0.2 pp and 0.3 pp, respectively). In the meantime, average annual inflation in developed countries will be 2 percent in 2012 and 1.6 percent in 2013; in emerging countries that indicator is predicted to be 5.7 percent and 6.2 percent, respectively.

In the face of expected slowing of world economic growth rates in 2012-2013 a minor deflationary environment will be seen in the world's main commodities markets. However, inflationary trends will prevail in world food markets, driven by fundamental tightness due to dry weather in the U.S.A. and leading food producer countries in CIS. In addition, individual product markets will develop under fundamental factors specific to the given market.

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

According to International Energy Agency estimations, the 2012 demand for *oil* will grow moderately against the 2011 demand. About 60 percent of global oil demand will be met by production of oil by non-OPEC countries (it is expected to increase by 1.6 percent against the previous year), under which circumstance average demand for extraction of oil by OPEC countries will slightly reduce to reach 29.9 million b/d. Under such conditions international oil prices are expected to go down in the period 2012-2013 but to trend moderately inflationary in 2014-2015 as world economic activity revives. However, the world market of oil products will possibly see inflation risks owing to geopolitical developments in the Middle East and fears of reduced volumes of Iranian oil export as a result of U.S. sanctions with regard to Iran in July and the exercised EU ban over the import of oil.

Minor deflationary trends are anticipated in *base metals markets* on the back of weak global demand for 2012-2013. However, some inflationary trends will be observed in 2014-2015 as the world economic recovery is back on track.

*Prices of precious metals* are expected to show moderate deflationary patterns in 2012-2013 in anticipation of slowing world economic growth. Prices of precious metals will possibly incur necessary adjustments.

In the second half of 2012 *world wheat market* will see some inflationary trends in expectation of reduction of harvest due to dry climate in Russia, Kazakhstan and the U.S.A. In the wheat market the tightness in connection with reduced harvest will continue to be felt over 2013 too. According to July estimations of the U.S. Department of Agriculture, world wheat stock will decrease by 7.6 percent in relation to the marketing year 2011/2012 and will reach 182 million tons, whereas in the marketing year 2012/2013 world consumption is predicted to reach 680 million tons and some 665 million tons of wheat crops is expected.

In marketing year 2012/2013 world production of *rice* will again hit record levels, around 465 million tons. Notwithstanding expected rich crops, the tightness in the rice market may persist if authorities in Thailand decide to keep on enforcing state regulatory mechanisms. Under such conditions the rice market will see mainly minor deflationary trends, along with inflation risks however, associated with the enforcement of state regulatory mechanisms in Thailand and other major rice exporter countries.

In world *sugar* markets the developments will be determined primarily by the extent of damage to crops in Brazil due to heavy rains in July. Possibly, in the second half of 2012, inflationary pressures will be observed in world markets. However, expected abundant crops in Europe, Thailand and Russia in the marketing year 2012/2013 will be going to offset the influence from reduction in Brazil on the global market. Under such circumstances, international sugar prices in 2013 will mainly perform stably.

With global demand growing faster than global supply, international prices of commodities and food products will trend

moderately inflationary in the medium run. The developments in individual product markets will depend on the fundamentals pertaining to such markets.

In 2012 *financial markets* will remain volatile because of further uncertainties associated with possible escalation of financial problems in Euro-area and expectations of slowing world economic growth.

Positive developments which were discernible in the U.S. economy did not persist, so a slow recovery process in the face of uncertainties is inevitable. Pursuing to stimulate the recovery, the Federal Reserve System will continue lowering interest rates up until the end of 2012. In the meantime, the Fed will withhold from tightening monetary conditions until late 2014 and will conduct a low interest rates policy.

In the face of vulnerability in economic and financial system in *Euro-area* the European Central Bank will continue cutting interest rates, while implementing a quantitative easing policy and applying liquidity injection mechanisms in the medium run. In the foreign exchange market in 2012, *Euro* is expected to experience depreciation pressures whereas the *U.S. dollar* will tend to appreciate in the light of positive prospects of developments in the U.S. economy.

*Risks* to the global economic outlooks are mainly associated with more-than-predicted slowing of the world economic growth rates, due to debt problems in Euro-area as well as new difficulties of financial crisis. In particular, risks are increasingly threatening the stability of EU financial system. If materialized, they could result in even more slowing of economic growth rates in both developed and emerging countries and significant deflationary pressures in international raw materials markets. Such risks may significantly affect the pace of economic growth in Russia as well provided that oil prices fall. Under such conditions, there will be mainly downside risks to prices of raw materials whereas food prices will depend chiefly on weather conditions.

*To sum up, risks to further financial and economic hardships in Euro-area and more sluggish external demand will be persisting. No material inflationary pressures from world commodities markets in the face of slowing global economy will be observed. Geopolitical developments in the Middle East may add to turbulence in world oil markets.*

*World food markets will perform under a fundamental tightness, and inflationary pressures in such markets will prevail.*

## 2.2. Aggregate supply and Aggregate demand

*Aggregate supply:* economic growth forecasts were revised upside, reflecting higher-than-expected economic activity in agriculture and services in the first half of 2012 as well as anticipations for faster pace of recovery of domestic demand in

the light of optimism for domestic economic growth outlook. So, economic growth in 2012 is expected in the range of 5.6–6.7 percent<sup>2</sup>. The economic growth trends will carry on in forecast horizon and the economic growth will stabilize within 4–5 percent.

Below is the forecast for developments in the sectors of the economy.

For **Industry** value added is expected to grow in the region 8.5–10.5 percent in 2012. The growth of industry will continue to be driven by such sub-industries as *ore mining, metallurgy, food and beverage, diamond processing* and *energy*, owing to expected increase of production capacities of enterprises active in these areas.

For **Construction** forecasts of value added were roughly the same: after the peak recorded in 2008, the output volumes in construction halved in the last three years and resulted in somewhat narrowed construction base. In view of the aforementioned developments it is expected that value added will be within 2.5–4.5 percent for 2012, owing to increased construction volumes in energy, processing industry, trade, transport and communication, and agriculture.

For **Services** forecasts were revised upside, and this was driven by factual developments in the first half of the year on the other hand and revised forecasts for domestic demand on the other, which will affect both the trade turnover and volumes of other services provided. As a result, the value added of services is forecast in the range of 3.5–5.5 percent for 2012.

For **Agriculture** forecasts were revised upside in anticipation of abundant harvest owing to good weather and also as a result of dedicated government action for the development in this area. The real growth of value added is expected to be within 6.5–8.5 percent for 2012 owing to expected growth in *plant growing* and *animal breeding*.

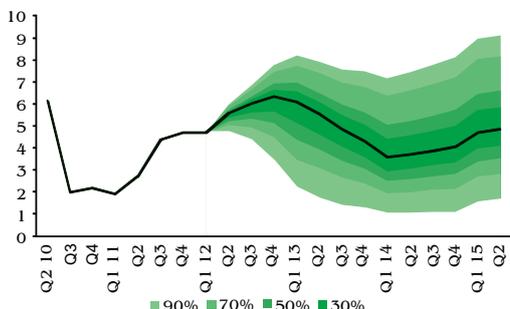
**Under the baseline scenario** risks to economic growth are dual-sided and associated with exogenous and indigenous factors. More to the point, upside risks are prevailing as they are associated with accelerated recovery rates of global economy, faster-than expected growth of domestic demand as well as risks to upside performance of indicators in branches of the economy which hold bigger shares in GDP.

In particular, upside risks may prevail in: i/ services, which is determined by increased household income, and ii/ industry, which is attributable to operation of new mines and realization of new investment projects in this field. In construction, upside risks to the growth are also prevailing in connection with more efficient implementation of major road construction and infrastructures improvement projects. Risks are tantamount in agriculture, as there is high reliance on weather conditions.

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<sup>2</sup> See the 30 percent interval in the Real GDP Growth (Cumulative) Projection Probability Distribution Chart in this paper.

Real GDP cumulative growth projection distribution for 3-year horizon



Real GDP growth projection probability distribution				
Period	90% probability interval		30% probability interval	
	minimum	maximum	minimum	maximum
January-December 2012 / January-December 2011	3.4	7.8	5.6	6.7

**Labor market<sup>3</sup>:** forecasts of labor market indicators for 2012 were revised slightly upside, according to the baseline scenario, since the economic activity is expected to be higher versus previous forecasts. Under such conditions, some more growth of nominal wages and faster 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 in 2013 and will persist in the medium-run, too.

In particular, average nominal wages are expected to grow in 2012 by 6.3 percent due to the increase in productivity in the private sector, reduction in unemployment, steady inflation, and a moderate growth in some budget-supported organizations. Given that inflation paces in accordance with the baseline scenario, the growth of real wages in 2012 will amount to 3.4 percent. It is expected that growth rates of nominal wages will accelerate in 2013 and in the medium run, resulting in even higher growth rates of real wages.

In 2012 demand for labor will further increase and the number of the unemployed is again expected to reduce. The average level of the officially unemployed in the economy will reduce against the respective indicator of the previous year by 0.3 pp and will reach 18.1 percent. The level of unemployment will keep on subsiding over 213 and in the medium run as well.

Under the aforementioned developments significant disequilibrium that would affect inflation in the labor market is not likely to appear.

**Aggregate demand<sup>4</sup>:** forecasts of *private sector spending* for 2012 were revised upside based on expectations for brisker economic activity, high consumption growth rates observed in early 2012, stronger lending to the economy, and expectations for faster growth rates in private investment in forecast horizon.

According to revised estimations, in 2012 private expenditures are expected to grow by 6.4 percent in real terms, owing to relatively strong growth of private consumption and some timid growth of private investment. The domestic demand is expected to grow by nearly 5.5 percent provided that private spending grows and public expenditures remain unchanged (in real terms). In forecast horizon the private consumption growth

<sup>3</sup> The labor market data for 2012 are the Central Bank estimates which are based on Q1 2012 indicators and actual April and May figures of 2012. The growth indicators presented in this sub-section are relative to the same quarter of the previous year, unless otherwise specified.

<sup>4</sup> 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 first 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.

trends are expected to slow down while growth rates of private spending will be maintained owing to anticipated acceleration of growth rates in investment.

Relative to previous forecasts, the growth rate of private consumption was revised upside and it amounts to 7.1 percent. The revision was made in anticipation of more revived domestic economic activity, a low inflation environment, persistently strong lending and high growth of private consumption reported in the first quarter of 2012. In 2013 and in the medium run the growth rate of private consumption will slow down to be consistent with economic growth expected in the medium run.

Growth rates of private investment were revised downside but economic activity, economic profitability and lending growth rates forecasts were revised upside. The downside revision was based upon adverse developments observed in construction in the first half of 2012 and more-than-expected decline in investment into construction in the same period of time in 2012. As a result, private investment most probably will grow by 4.1 percent in 2012. However, estimations suggest that the growth in private investments will remain low enough in comparison with the growth rates of investments recorded in pre-crisis times. In 2013 and in the medium run growth rates in private investments will somehow speed up to sustain economic growth in the medium-term perspective. Despite a low level of private investments, the growth rate in private spending will be higher from average, starting from the second half of 2012, owing to expected high growth rates in private consumption. According to the Central Bank estimates, the positive private spending gap will make up 1–1.5 percent which, however, will wane out to zero at the second half of 2013, eliminating incongruence between the supply and private sector demand. In the second half of 2012 and the first half of 2013 the negative gap will create 0.5–0.8 pp of deflationary pressures in the economy.

Forecasts of components of *current account* of Balance of Payments were revised in response to slowed growth rates in global economy but speeded up growth rates in domestic economy. In view of reduced global economic growth rates and deflationary trends in international prices of metals, growth rates of real export were revised upside. The revision was based on higher-than-expected growth of real export in the first six months of 2012 and the expectation for persisted high growth rates in Armenian industry. In 2012 the growth rates of real export of goods and services is expected to reach 10–13 percent. In view of export prices developments, growth of export of goods and services by dollar value is expected in the region 6–8 percent. In the first half of 2013 the growth rates in export of goods and services is predicted to remain strong, 9–11 percent y-o-y. Risks to exports will continue to be dual-sided, determined by growing downside risks to world economy, international metals prices and industry developments in Armenia.

The import growth rates were revised upside in consideration of further developments in global and domestic

economies. In 2012 the growth rates of import of goods and services in real terms is expected in the range of 7–9 percent. In view of import prices developments, growth of import rates of goods and services by dollar value is expected in the range of 5–7 percent. In the first six months of 2013 the growth of real import of goods and services is expected in the region 2–4 percent. Risks to import will remain dual-sided and will further depend on developments in the domestic economy and international prices.

Forecasts of growth rates of non-commercial remittances by individuals for 2012 did not change and will further depend on the developments in the Russian economy. The IMF June 2012 forecasts of the Russia economic growth indicator remained the same, 4.0 percent. In the light of the aforementioned developments the growth rates of net inflow of non-commercial remittances by individuals in 2012 will be within a 10–12 percent interval. However, the downside revision of the Russia economic growth indicator for 2013 is predicted to somehow lower the growth rates of net inflow of non-commercial remittances to a 9–11 percent level.

All aforementioned developments suggest that in 2012 the current account will keep on improving, so the current account/GDP ratio will grow to some extent and will be within 10–12 percent (against that of 9–11 percent as forecast before). This will be attributable to higher growth rates in real import and fallen export prices in 2012.

In 2013-2014 current account will keep on improving yet it will be within 9–11 percent interval, somewhat a higher level in relation to the previous program. This tendency will be attributable primarily to reluctant recovery of the global economy in the face of more uncertainties over financial problems in the Euro-area.

The estimation of impact of the *fiscal policy* in 2012 was revised in relation to the Q2 monetary policy program forecast to be to 1.1 pp contractionary instead of 0.7 pp contractionary<sup>5</sup>. It should be mentioned that providing a 0.8 pp growth of tax revenue and social security charges in GDP relative to the previous year as well as execution of public expenditures in line with program proportions was the main benchmark in public expenditures programs. However, factual developments in the first quarter (collection of revenues and some over-performance and savings on expenditures) make it possible to afford cutbacks on some expenditures items during the year, to the extent of 2.4 percent of the annual program figure. If this happens, the estimated impact of the fiscal policy on aggregate demand will make up 1.1 pp contractionary in relation to 2011, ***which will be driven by restrictive nature of both revenues and expenditures***. In the second half of the year contractionary impact of revenues will be determined by a circumstance that

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<sup>5</sup> The fiscal sector's impact has been estimated using consolidated budget indicators based on the proportions laid down in the Republic of Armenia Law on State Budget 2012. The fiscal impulse has been estimated against consolidated budget indicators of 2011. The revenues impulse has been calculated against an estimated nominal GDP indicator and the expenditures impulse has been calculated against an estimated potential GDP.

the above mentioned growth of revenues was projected to have occurred in the second half of the year.

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

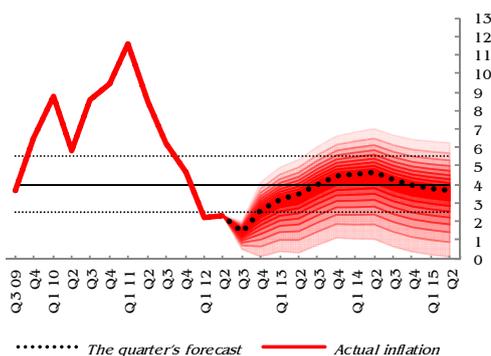
*To sum-up, the inflationary impact of private spending will outnumber the contractionary influence of the fiscal sector during 2012, and this prevalence will be more pronounced in the second six months of the year. The labor market is estimated to have a neutral impact during the year. So, one may conclude that in 2012 net impact of the fiscal sector, private demand and labor market will be minor inflationary.*

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

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

As outlined in the baseline scenario, in the period 2012-2013 the global economy will grow at a slow pace in the main. However, starting from 2013, economic growth rates in developed countries will come back on track, driven by reduced austerity measures and more guaranties for debt reconstruction in the EU and effective monetary policy implementation steered to stimulate their economies. With the global demand recovering at a slow pace, world markets of commodities will feel minor deflationary and even stabilization trends. In the second half of 2012 world wheat markets will see an inflationary environment in expectation of reduced crops of grain due to dry weather in Russia, Kazakhstan and the U.S.A, and such environment is predicted to be persisting up until mid-2013. In the meantime, prices of main commodities will trend slightly inflationary on the back of rebounding demand in developed countries at the end of forecast horizon.

The 12-month inflation forecast probability distribution chart



In view of commitment to maintain the budget deficit/GDP ratio up to the 3 percent level pursuant to the Government's Medium-Term Expenditures Program, the impact of fiscal policy in forecast horizon is estimated to be non-inflationary. Taking into consideration the above developments, private spending and aggregate demand are expected to be above the equilibrium in the forecast horizon and will possibly lead to an inflationary environment in the second half of 2012. However, these are expected to return to their equilibriums in the forecast horizon. In the outcome, determined by limited public investment growth perspectives as well as less ability of the private sector to carry out major investment projects due to substantial narrowing of

inflow of capital on the brink of sluggish recovery in developed countries, the growth of GDP will be in the region 4.5 percent in forecast horizon.

Period	Inflation forecast probability distribution chart				
	<1%	1-2%	2.5-5.5%	5.5-7%	7%<
Q3, 2012	27.55%	72.37%	0.09%	0.00%	0.00%
Q4, 2012	18.36%	40.65%	40.93%	0.07%	0.00%
Q1, 2013	12.48%	30.09%	56.40%	1.02%	0.01%
Q2, 2013	12.53%	26.22%	58.40%	2.76%	0.08%
Q3, 2013	8.15%	19.68%	63.46%	8.10%	0.60%
Q4, 2013	5.48%	14.97%	62.82%	14.72%	2.02%
Q1, 2014	5.78%	14.51%	60.21%	16.46%	3.04%
Q2, 2014	5.82%	14.00%	58.38%	17.80%	4.00%
Q3, 2014	8.30%	17.20%	58.68%	13.35%	2.47%
Q4, 2014	10.46%	19.49%	57.66%	10.65%	1.74%
Q1, 2015	11.80%	20.66%	56.43%	9.55%	1.55%
Q2, 2015	12.9%	21.53%	55.38%	8.78%	1.41%

*In 2012 in general, developments in domestic economy mark a moderate expanding of the inflation environment. In particular, GDP will be somewhat above its equilibrium in the upcoming months because of faster growth rates in private consumption. Driven by inflationary trends in world wheat markets, inflation will recover from the low level caused by the drop in agricultural prices and come closer to the lower border of confidence band at the end of the year. Under such circumstances, the implementation of a neutral monetary policy will prompt inflation to come up to a 4 percent target and GDP to reach its equilibrium, in the forecast horizon. The neutral monetary policy will suggest a policy rate matching to the neutral one (in which case inflation is on the target and GDP in equilibrium), which is currently estimated at around 8 percent.*

Faster growth rates in private consumption due to forecast easing of credit conditions, continued rapid growth of lending and increase in real income as well as expected influence from even more robust inflation potential in world wheat markets are marking risks to further expanding of inflation. On the other hand, among risks the most likely one can be the considerable slowing of global economy, which presumes falling of international prices of main commodities, reducing of growth rates in private remittances to Armenia, declining domestic demand. Easing of monetary conditions by the Central Bank can be the most probable alternative to the baseline scenario to make sure the influence of such risk on the Armenian economy is minimal.

*Forecasts of monetary indicators for the projected time horizon* are based on the actual macroeconomic environment of the previous quarter, macroeconomic developments projected for the next three years and the fiscal policy scenario envisaged for that period. In *forecast horizon* economic developments in both external sector and domestic sector mark some expanding of the inflation environment, which will bring the 12-month inflation up to the lower border of the confidence band from a

currently very low level. In the forecast horizon, the implementation of a neutral monetary policy will allow the Central Bank to bring inflation up to a 4 percent target and maintain it at a stable level up until the end of forecast horizon. At the same time, growth rates in lending will remain strong and financial intermediation will keep on increasing.

### 3. ACTUAL DEVELOPMENTS IN Q2 2012

#### 3.1. Inflation

##### 3.1.1. Actual inflation and attainment of target

Actual Q2 2012 results denote 3.1 percent of deflation against 1.6 percent recorded in the same quarter of the previous year. The 12-month inflation further subdued and amounted to 0.7 percent in end-June of 2012.

**12-month inflation further reduced during Q2, 2012**

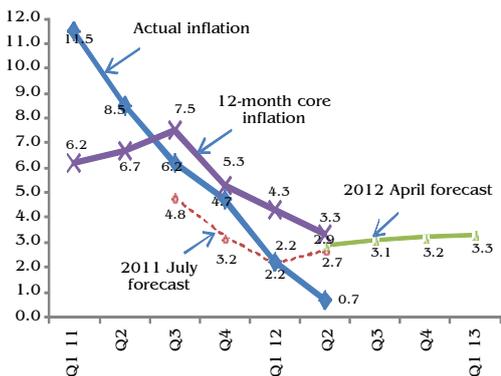


The 12-month inflation indicator below the baseline scenario was conditioned totally by the fall in prices of food products, whereas prices of non-food products and service tariffs reported increases, as was expected. Back in mid-2010 when agriculture posted considerable decline in output volumes there were somewhat higher levels of 12-month inflation attributable to lesser seasonal decline in prices of domestic agricultural products. In the years following, prices began falling on a regular basis as domestic output volumes increased consistently (13.7 percent p/a in 2011 and 9.5 percent in Q1 2012). As much as 21.4 percent drop of prices in item “vegetable and potato” largely contributed to the 12-month deflation of 0.9 percent. Non-food prices and service tariffs have grown by 3.9 percent and 1.9 percent y-o-y, respectively.

Monetary policy programs of 2011 predicted that the inflation environment would ease continuously and that the 12-month inflation would rest within the confidence band at the end of the year. A relatively steady path of the 12-month inflation was envisaged by the 2012 monetary policy program, suggesting that it will be within the confidence band throughout the year.

Projected directions of inflation management were realized until the end of 2011, and the year ended with the 12-month inflation resting within a 4.7 percent level, closer to midpoint of the band. This has not however been the case with the first half of 2012 as the 12-month inflation went a down-trending path instead of a projected stable. So, in January-June -0.4 percent of inflation was recorded against nearly 3.5 percent of inflation in the previous two years, under which circumstances the 12-month inflation amounted to 0.7 percent as of the end of June, somewhere below the lower border of the confidence band. As 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.

**Despite the diminishing path of 12-month inflation, the Central Bank left the refinancing rate unchanged, based on core inflation and forecast inflation**



Starting from the middle of 2011, in view of actual moderation of the inflation environment and in anticipation of price falls in domestic agricultural products due to their increased supply in the sector compared with the previous year, the Board of the Central Bank estimated that the likelihood of the inflation environment expanding again is too low, meaning that interest rates in financial market are such that existing inflationary environment will be possible to restrain. So, in the period July-August the refinancing rate was left unchanged. In

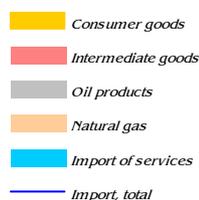
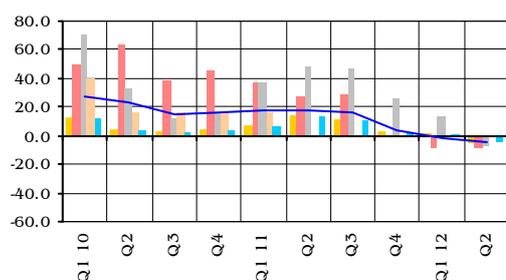
September, however, it was lowered by 0.5 pp to 8.0 percent and was maintained at that level until June of 2012. Even in the second quarter of 2012, when the 12-month inflation went below the lower border of the band, the Central Bank did not cut the refinancing rate in consideration that the dram depreciation in the months of May and June was already meant easing of monetary conditions and that during that period the 12-month core inflation has all the time been within the confidence band. On the other hand though, a low level of the 12-month inflation in recent months has been primarily conditioned by a pronounced seasonal fall in prices of agricultural products the influence of which on inflation will wane out until the end of the year, while inflation will enter the confidence band of  $4\% \pm 1.5$  pp.

### 3.1.2. Import prices and producer prices

**Import prices:** in the second quarter of 2012 prices in world commodities markets trended mainly stably, with growth rates of prices of food products and raw materials having slowed down in relation to the same period of the previous year.

According to the Central Bank estimates, in the second quarter of 2012 the dollar prices of import reduced by 5.2 percent y-o-y.

Prices of imported goods trended downward in Q2, 2012



Indicators	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012
Import, total <sup>6</sup> , %	17.8	16.6	3.2	-1.3	-5.2
Import, services, %	13.7	10.5	3.0	0.6	-4.4
Import, goods, %	18.9	18.1	3.2	-1.8	-5.4
Capital goods <sup>7</sup> , %	0.0	0.0	0.0	0.0	0.0
Consumer goods, %	13.7	10.5	3.0	0.6	-4.4
Intermediate goods and food products, %	27.7	29.1	-0.7	-8.7	-9.4
Diamond <sup>7</sup> , %	0.0	0.0	0.0	0.0	0.0
Oil products, %	48.8	47.2	25.9	13.0	-7.0
Natural gas, %	0.0	0.0	0.0	0.0	0.0

The decrease of import prices was driven by the fall of prices of intermediate goods and food products (a total of 2.9 pp of contribution) and import consumer goods and oil products (respectively, 1 pp and 0.5 pp of contribution).

The dram prices grew an average by 4.5 percent y-o-y as the dollar prices of import goods reduced by 5.2 percent y-o-y and the average nominal AMD/USD exchange rate depreciated by 6.8 percent y-o-y in the second quarter of 2012.

**Producer prices<sup>8</sup>:** in the second quarter of 2012 the GDP deflator was an estimated 102.9 y-o-y, which is a result of increased index of producer prices and carriage costs.

<sup>6</sup> The historic data series adjusted according to International Financial Statistics.

<sup>7</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.

<sup>8</sup> The price index change as presented here is relative to the same period of the previous year unless otherwise specified.

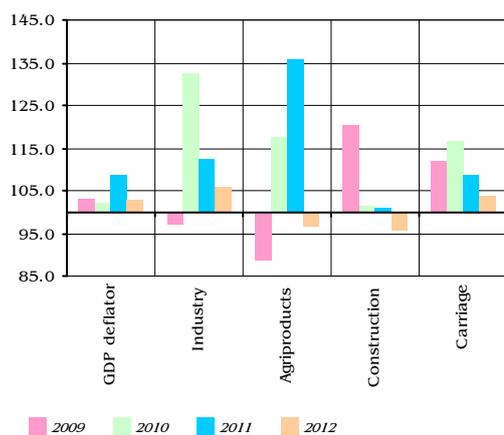
**Industry** reported the highest price increases, with quarterly growth having reached 6 percent y-o-y in which case the January-June growth has amounted to 6.1 percent y-o-y due to the increased volumes reported in *processing industry* (4.1 percent) and *energy and gas production and distribution* (22.1 percent). These growth developments is a result of continued recovery of external and domestic demand as well as relatively higher feed-in tariffs determined for new electric energy plants<sup>9</sup>.

**Agriculture** reported 4.3 percent y-o-y decline in prices<sup>10</sup> in which case the January-June decline has amounted to 3.6 percent y-o-y due to 24.2 percent price falls reported in plant growing. Moreover, prices of *grains* and *potato, melons and gourds* and *fruit* reduced by 16.4 percent y-o-y, 17 percent y-o-y and 34.9 percent y-o-y, respectively, notably contributed to such price reduction. In animal breeding, around 16.5 percent rise in meat price contributed to a 4.4 percent increase in prices in the sub-branch.

**Construction** reported 2.8 percent y-o-y deflation in the second quarter, in which case the January-June reduction has reached 4.4 percent y-o-y mainly attributable to a slow pace of recovery in the branch.

**Carriage** costs grew by 3.6 percent in the second quarter, with the January-June price increase having amounted to 3.6 percent y-o-y, mostly determined by increased tariffs on *railroad transport* (10.3 percent) *air transport* (7.2 percent) and *truck transport* (3 percent).

**Industry and carriage reported price increases in the period January-June 2012**



### 3.1.3. Inflation expectations

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

Because the 12-month inflation further subsided over the second quarter, the financial sector made adjustment to their inflation expectations for a one-year horizon, accordingly. In particular, based on the second quarter 2012 survey results, there were even more financial organizations that anchored their expectations of the 12-month inflation in the range of 2.5–5.5 percent (57.0 percent against 48.0 percent in the previous survey). The share of banks having chosen a higher interval of 5.5–8.5 percent has reduced to 38.1 percent from 43.0 percent in the previous survey. The picture is somewhat different with credit organizations as their preference for the two intervals has been almost identical, 38 percent. The second quarter survey results suggest that households' inflation expectations have moderated as well, with an average inflation level having dropped to 4.1 percent from the previous 5.0 percent figure.

According to the survey results, banks and credit organizations will further anticipate stable market interest rates for the upcoming one-year horizon. There is however exception to interest rates of dram loans and deposits for which these participants of the financial sector anticipate some rise.

<sup>9</sup> These changes had no impact on end-consumption electricity tariffs.

<sup>10</sup> Sales prices of producers of agricultural product are presented.

## 3.2. Aggregate supply and Aggregate demand

### 3.2.1. Aggregate supply

**Economic Activity Indicator<sup>11</sup>**: in the first quarter of 2012 economic growth was 4.7 percent y-o-y.

Pointing out to an enlivened economic activity in the period January-June of 2012 it should be noted that the growth in January-June has been 7.8 percent y-o-y as a result of faster growth of EAI in the second quarter, which is due to increased output volumes reported in industry, agriculture and services. According to the Central Bank estimates based on EAI, the real GDP growth in the period January-June of 2012 will be in the region 5.4–5.7 percent<sup>12</sup>.

In **Industry** the growth of value added is estimated around 12 percent y-o-y mainly due to the increased volumes in *metal ore mining (16.5 percent)*, *food production (6.9 percent)*, *beverage production (37 percent)*, *metallurgy (11.1 percent)*, *production of building materials (17.5 percent)* and *items of jewelry (19.9 percent)*, which is the result of consistent improvement in external demand as domestic and world economies recover. High growth in electricity and gas production volumes (7.2 percent), driven by heightened economic activity as well as increased electricity exports to Iran, further contributed to the growth of value added.

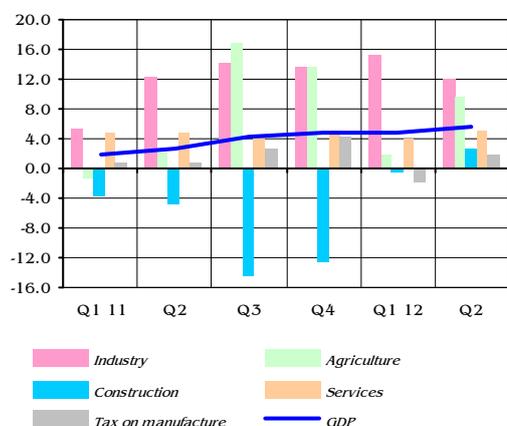
In **Construction** value added is estimated to grow by nearly 2.6 percent y-o-y. Note that the decline in construction volumes financed by *humanitarian aid (-77.5 percent)*, *state budget (-6.8 percent)* and *organizations (-14.8 percent)* has been completely offset by construction financed from such items as *households (47.4 percent)* and *local budgets (5.1-fold growth)*.

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

In **Services** the growth of value added is estimated around 5 percent y-o-y as a result of increased volume of *services rendered* and *trade turnover* by 12 percent and 2.4 percent, respectively. The increase in the volume of services rendered was driven by growth recorded in *financial and insurance activities (24.6 percent)*, *information & communication (5.8 percent)*, *transport (9.9 percent)*, and *travel agency services (46.8 percent)*. The growth of trade was totally due to retail trade, wholesale trade and car sales, having increased by 2 percent, 1.9 percent and 11.5 percent, respectively.

In **Agriculture** the growth of value added is estimated to reach 9.5 percent y-o-y, owing to 1.2 percent growth in *plant growing* and 28.4 percent increase in *animal breeding*. Reported increases in *slaughtered animal and poultry (0.8 percent)*, *milk production (1.9 percent)* and *egg production (2.4 percent)* largely contributed to the overall growth in animal breeding sub-

Real GDP growth rate by the growth of value added



<sup>11</sup> Indicators of sub-branches of the economy are for the period January-June, unless otherwise specified.

<sup>12</sup> See the 30 percent interval in the Real GDP Growth (Cumulative) Projection Probability Distribution Chart in this paper.

branch. Reported increases in plant growing were driven by increased output in *grains* (2.7-fold), *potato* (10 percent), *vegetable* (17 percent), *gourds and melons* (4.2-fold) and *berries* (as much as 91 percent).

### 3.2.2. Aggregate demand

Developments in the Armenian economy over the second quarter of 2012 were generally in line with the baseline scenario provided in monetary policy programs. It should be mentioned however that growth of private consumption has been higher than expected while the decline in private investment deeper.

In the second quarter of 2012 private consumption grew by 6.2 percent, reflecting a considerable growth reported in services (trade, in particular) and agriculture. High growth of private consumption was fuelled by persistently strong lending volumes, a steady level of monetary remittances inflowing from abroad as well as a low inflationary environment in the economy.

In the second quarter of 2012 private investment declined by 8.4 percent, reflecting negative developments in construction observable since the start of the year. The impact of decline in construction on private investment was somewhat mitigated by continued growth in economy lending volumes. As a result of the aforementioned developments, in the second quarter private spending grew by 3.5 percent and public expenditures, by 0.6 percent in real terms. Furthermore, domestic demand has increased by 2.8 percent.

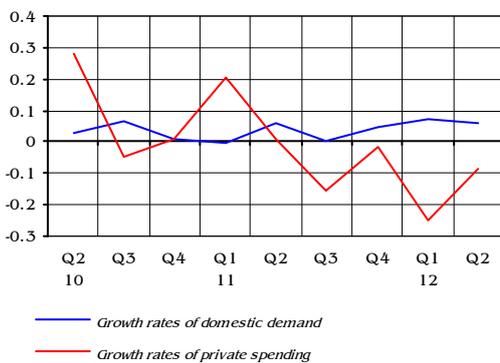
Composite economic indices<sup>13</sup> as calculated and published by the Central Bank point out to the above developments with private spending. In the second quarter of 2012 the consumer confidence index rose by 6.2 percent and the economic activity index went up by 2.3 percent.

In the second quarter of 2012 the private spending gap reached zero after a negative value reported in 2011, and expenditures by the private sector were estimated to have a non-inflationary impact.

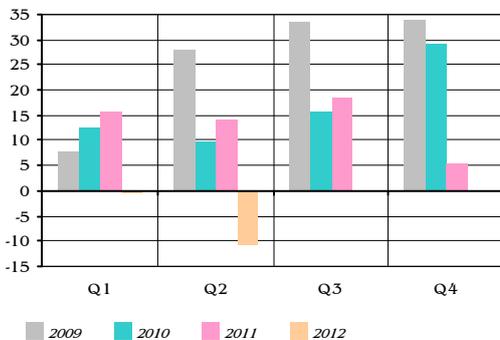
In the second quarter of 2012 external demand further contributed to the real GDP growth negatively thus prompting negative balance of real net export of goods and service to have grown by 10.7 percent y-o-y<sup>14</sup>. The dollar value of negative balance of net export of goods and services has increased in comparison with the same quarter of the previous year.

In the second quarter of 2012 real growth rates of export of goods and services remained relatively strong (12.0 percent), mainly thanks to persisting high growth rates in industry. Growth rates in dollar value of export of goods and services have decelerated in response to faster declining rates in export prices and amounted to 2.1 percent y-o-y<sup>15</sup>.

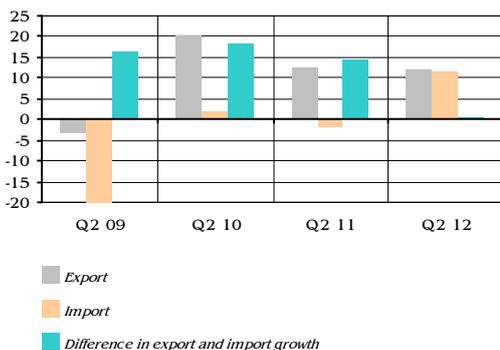
**Private consumption growth speeded up but investment slowed down in H1, 2012**



**Net export position deteriorated in Q2, 2012 (net real export, y-o-y, %, positive sign = improvement)**



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



<sup>13</sup> See <http://www.cba.am/am/SitePages/statsscci.aspx>.

<sup>14</sup> The real export and import growth indicators are the Central Bank's estimates.

<sup>15</sup> In January-June the growth rates of export of goods (FOB) have been 13.5 percent. The second quarter 2012 indicator of export of services is a forecast.

Real growth rates of import of goods and services speeded up to 11.4 percent y-o-y in the second quarter of 2012 in the face of lively domestic economic activity and the y-o-y decline in import prices. The dollar value of import of goods and services has increased by 4.8 percent y-o-y<sup>16</sup>.

In the second quarter of 2012 the inflow of non-commercial remittances of individuals grew by 6.8 percent y-o-y against 5.6 percent y-o-y growth of outflow. Influenced by some slowing of the Russian economy in the second quarter of 2012, growth rates in net inflow of non-commercial remittances somewhat decelerated this quarter and amounted to 7.1 percent y-o-y.

### 3.2.3. Labor market<sup>17</sup>

The labor market developments over the first six months of 2012 were consistent with the growth reported in the economy, so no imbalances were observed in that market. In the second quarter of 2012 there was an estimated 6.2 percent increase in average monthly wages, reflecting an increase in productivity in the private sector and moderate growth in some budget-supported organizations. Under such conditions, there has been 5.2 percent real rise 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.

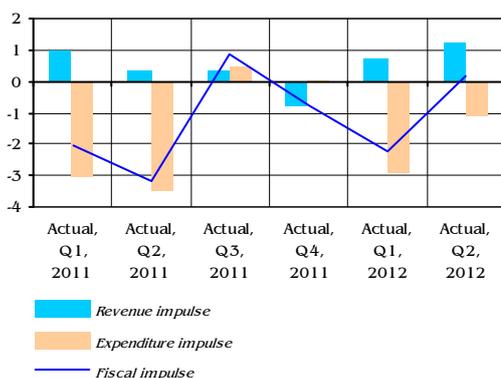
In the second quarter of 2012 average quarterly unemployment subdued by 0.3 pp in relation to the previous year's reference period and by 2 pp in relation to the previous quarter and amounted to 18.9 percent.

Material imbalances in the economy were not observed. In particular, the growth of real wages has been consistent with the growth of productivity. So, one may conclude that the impact of the labor market on inflation in the second quarter of 2012 was primarily neutral.

### 3.2.4. Fiscal policy<sup>18</sup>

In the second quarter of 2012 the impact of *fiscal policy* on aggregate demand was neutral, which is within the Central Bank forecast. This has been driven by expansionary impact of revenues (1.25) and contractionary impact of expenditures (1.10). Actual expenditures of the second quarter were within the Central Bank forecast while about AMD 27.0 billion of savings was realized against state budget quarterly proportions, however.

**Fiscal impulse had a neutral impact in Q2, 2012**

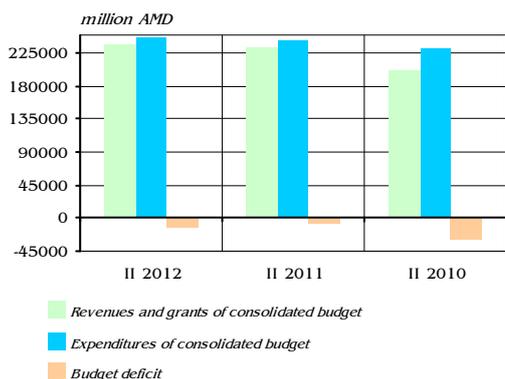


<sup>16</sup> In January-June the growth rates of import of goods (CIF) have been 6.7 percent. The second quarter 2012 indicator of import of services is a forecast.

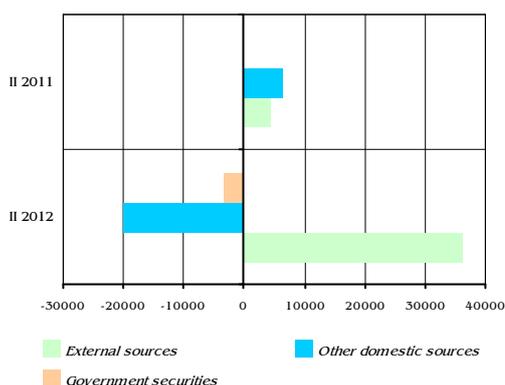
<sup>17</sup> The labor market data for the first quarter of 2012 are the Central Bank estimates which are based on actual January and February 2012 figures and March 2012 estimations. The growth indicators represented in this sub-section are relative to the same quarter of the previous year, unless otherwise specified.

<sup>18</sup> Consolidated budget indicators which were prepared on the basis of preliminary actual data of the second quarter of 2012 (PIU funds included) were used for the review of the fiscal sector.

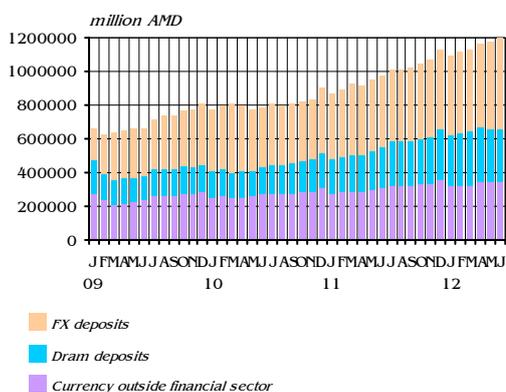
### Main budget indicators in second quarters, 2010-2012



### In Q2, 2012 the budget deficit was financed from external sources



### In Q2, 2012 FX deposits growth outpaced that of dram deposits



It is noteworthy that high economic activity in the second quarter of 2012 positively affected collection of revenues in line with program proportions and even resulted in some over-performance on the budget.

Tax revenues and social security charges grew by 5.2 percent against the second quarter of the previous year. In the structure of tax, y-o-y growth of indirect taxes was 5.2 percent and that of direct taxes, 9.0 percent. Direct taxes posted growth on all taxes, with profit tax and income tax having grown by 10.6 percent and 11.4 percent, respectively.

In the second quarter of 2012 consolidated budget expenditures grew by about 2.6 percent in comparison with the same period of the previous year. In the meantime, current expenditures have increased by 4.8 percent y-o-y, with **public consumption** having grown by 5.6 percent. Expenditures on item *transactions with non-financial asset* have reduced by 11.3 percent, due to programs incurring shortfalls of external financing.

With revenues and expenditures figures shown above, the budget deficit in the second quarter of 2012 reached AMD 12.6 billion or 29.3 percent of the quarterly plan.

According to first half 2012 results, state budget revenues were over-performed against program proportions by nearly AMD 3.3 billion, whereas the growth of revenues in relation to the same period of the previous year has been 5.2 percent or AMD 20.3 billion. The amount of public expenditures (PIUs included) remained roughly the same compared to the same indicator for the previous reference period. State budget deficit has amounted to AMD 20.8 billion or about 15.7 percent of the annual plan. In general, the fiscal policy implemented in the first half of the year had 0.8 pp of contractionary impact on aggregate demand.

## 3.3. Money and financial market developments

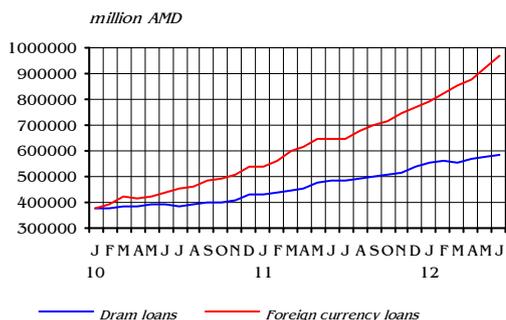
### 3.3.1. Money and credit

In the second quarter of 2012 actual monetary indicators were mainly consistent with the baseline scenario. During the quarter dram deposits have reduced by AMD 12.7 billion (3.9 percent), with demand deposits having reduced by AMD 13 billion (8.3 percent).

Foreign currency deposits have grown by AMD 56 billion (11.6 percent or 4.3 percent when the impact of change in foreign exchange rate is excluded), due to the growth of time deposits attracted prevalingly from households. Demand deposits have grown by AMD 15.6 billion.

Currency outside the financial sector has increased by AMD 17.6 billion (5.5 percent). As a result of such developments, broad money has grown by AMD 61.2 billion and amounted to AMD 1 trillion 195 billion, and dram broad money has grown by AMD 5 billion and amounted roughly to AMD 655 billion.

**High lending growth in the second quarter was again due to increased volumes of foreign currency loans**

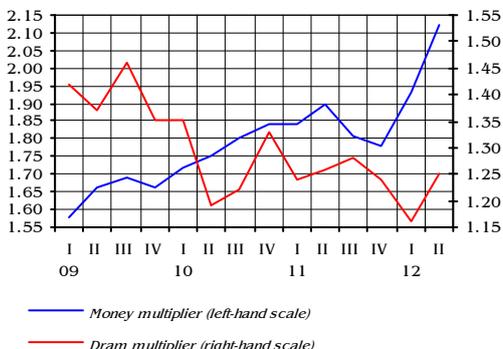


The second quarter of 2012 saw persistently high growth in lending volumes by as much as AMD 152 billion or 10.5 percent. Foreign currency loans again prevailed, having grown by 13.6 percent (or 3.2 percent when the impact of change in foreign exchange rate is excluded). Loans were mainly originated to private undertakings. Dram loans have grown by nearly AMD 32 billion (5.7 percent) mostly owing to loans provided to households.

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 reduced during the second quarter; as well as easing of the terms of lending has slowed down but that is expected to rebound in the next quarter.

The 12-month performance of monetary indicators as of end-March 2012 was as follows: broad money and dram broad money have grown by 22.5 percent and 27.9 percent, respectively; currency outside the financial sector, by 15.5 percent; dram deposits and foreign currency deposits, by 42.9 percent and 16 percent, respectively, monetary base, by 9.4 percent and lending to the economy, by 34.5 percent. The dollarization of the economy (measured as a ratio of foreign currency deposits to broad money) reached 42.7 percent, down by 1.0 pp relative to the same period of the previous year, which was driven by faster growing rates of dram aggregates over those of money aggregates.

**Money and dram multipliers**



The 12-month growth performance of monetary indicators as of end-June was as follows: broad money and dram broad money grew by 21.9 percent and 20.7 percent, respectively; currency in circulation outside financial sector increased by 12.6 percent; dram deposits and foreign currency deposits grew, respectively, by 30.8 percent and 23.4 percent (or 10.5 percent when the impact of change in foreign exchange rate is excluded). As a result, the level of dollarization has risen by 0.5 pp to 45.2 percent relative to the second quarter of the previous year. The 12-month growth of economy lending reached 36.5 percent.

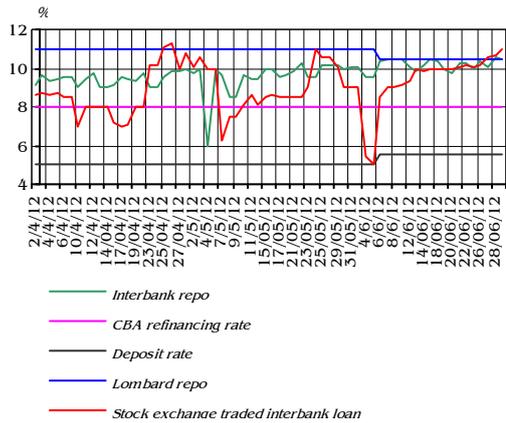
Indicators of financial intermediation, i.e. money multiplier and dram multiplier, reached 2.1 and 1.3, respectively, at the end of the quarter (these indicators in the same period of the previous year were 1.9 and 1.3, respectively).

**3.3.2. Interest rates**

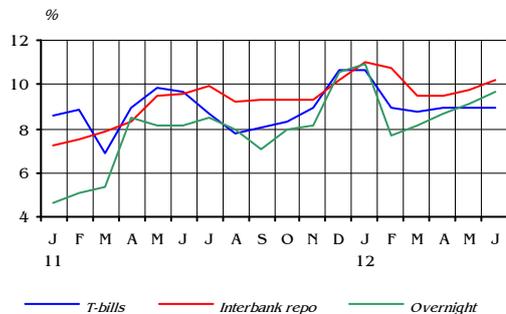
In the second quarter of 2012 the Board of the Central Bank left Refinancing Rate unchanged, at 8.0 percent, but shortened the spread between the Deposit Facility rate and Lombard Facility rate, setting these at 5.5 percent and 10.5 percent, respectively, in order to reduce interest rate volatility in the financial market.

In the second quarter of 2012, total volume of operations under repo agreements, the main instrument of the Central Bank, amounted to AMD 185.0 billion with, an average interest

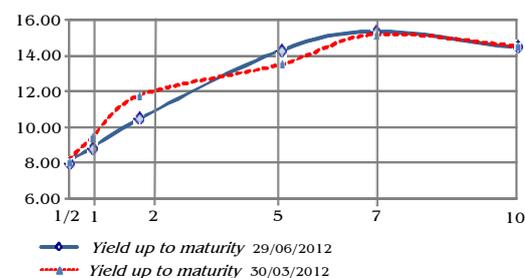
**Short-term interest rates rose at the end of quarter**



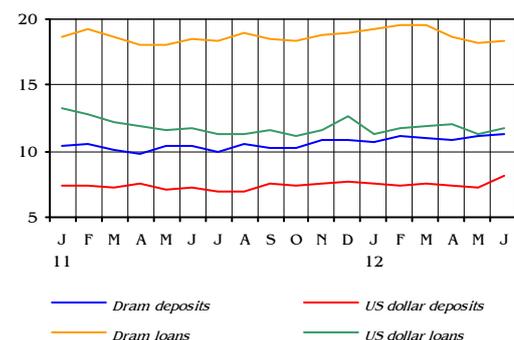
**Interest rates rose to some extent in a short run as the Dram depreciated in May-June**



**The secondary market saw interest rates reducing in short-term segment**



**Deposit and loan interest rates**



rate of 10.29 percent, which is 0.86 pp lower from the previous quarter's indicator. The Central Bank also used a long-term repo instrument, with a total volume of nearly AMD 1.5 billion and with an average interest rate of 9.6 percent (11.26 percent in the previous quarter). In the second quarter the Central Bank entered into reverse repo transactions, with aggregate volumes of nearly AMD 22.0 billion and an average weighted interest rate of 7.89 percent.

In the meantime, commercial banks used standing facilities. Lombard repo operations with a total volume of AMD 179.4 billion were nearly thrice as much compared to the previous quarter's indicator. Aggregate volume of funds deposited with the Central Bank amounted to AMD 318.0 billion, over AMD 60 billion less than the funds deposited in the previous quarter.

In the second quarter of 2012 the volumes of Deposit Auction Facility, a new instrument started first quarter 2012, more than doubled the respective indicator reported in the quarter of its inception, amounting to AMD 68 billion.

The interbank loan market, i.e. the Overnight Bourse, has been active during the quarter, with volume of interbank loans reaching AMD 1754 billion compared to AMD 1214 billion recorded in the previous quarter and with an average interest rate increased by 0.55 pp to 9.16 percent.

In the second quarter aggregate volume of operations performed in the interbank and intrabank repo markets amounted to AMD 285.9 billion, which is a reported increase of AMD 31.3 billion against the previous quarter. The average market repo rate dropped by 0.35 pp against the previous quarter's average and amounted to 10.25 percent.

The share of operations of commercial banks in total repo operations executed reached 37 percent against 32 percent recorded in the previous quarter. Average interest rate in interbank repo market fell by 0.37 pp in relation to the previous quarter's average and amounted to 9.8 percent.

In the second quarter of 2012 total issue volume of short-term treasury bills reached AMD 11.0 billion (AMD 9.0 billion in the previous quarter). The entire issue volume has been allocated reflecting an increased demand for treasury bills. The quarter's average interest rate amounted to 8.95 percent, a 0.16 pp drop in relation to the previous quarter.

The yield curve analysis shows that in the secondary market of government securities yields somehow narrowed in the short-term segment (1-2 year) but widened in the long-term segment (3-5 year). The convexity of the curve has changed negligibly, from 0.34 to 0.38.

In the banking sector interest rates of loans and deposits in Armenian dram and U.S. dollar remained roughly the same, amounting to 11.1 percent and 7.61 percent, respectively. The spread of interest rates of dram and dollar deposits did not change much either, making up 3.45 pp.

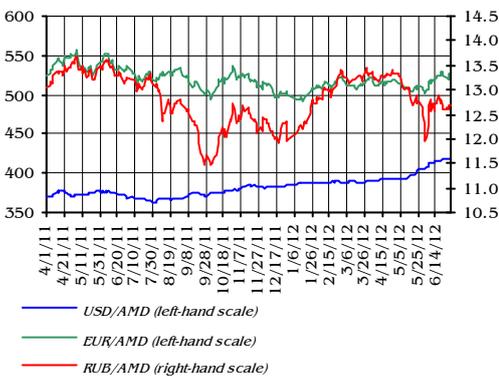
Average interest rates of dram loans and dollar loans were 18.41 percent and 11.71 percent, respectively. Relative to the previous quarter, average interest rate of dram loans has dropped by 1.1 pp but average interest rate of dollar loans remained unchanged. As a result, the spread of interest rates of dram and dollar loans made up 6.7 pp compared to 7.8 pp recorded in the previous quarter.

This quarter the interest rate spread of loans and deposits in Armenian dram reduced to 6.5 pp but the interest rate spread of loans and deposits in U.S. dollar remained almost unchanged, making up 4.0 pp.

### 3.3.3. Exchange rate

At the end of the second quarter of 2012, relative to the end of the previous quarter, the average dram exchange rate versus the U.S. dollar depreciated by 6.5 percent and reached dram 418.01 for one dollar.

AMD exchange rate versus USD, EUR and RUB



Dram exchange rate in Q2, 2012, quarter-on-quarter			
Currency pair	31.03.2012 (AMD)	31.06.2012 (AMD)	% (appreciation +, depreciation -)
USD/AMD	390.64	418.01	-6.55
EUR/AMD	521.39	525.61	-0.80
RUB/AMD	13.31	12.68	+4.97

Average dram exchange rate in Q2, 2012, year-on-year			
Currency pair	Average quarterly exchange rate, Q2, 2011	Average quarterly exchange rate, Q2, 2012	% (appreciation +, depreciation -)
USD/AMD	374.18	401.52	-6.81
EUR/AMD	539.15	514.95	+4.70
RUB/AMD	13.38	12.93	+3.48

The aggregate volume of interbank market transactions executed during the first quarter amounted to USD 2564 million, which represents 3.93 percent increase in relation to the respective indicator of USD 2467 million recorded in the second quarter of the previous year.

The aggregate volume of Euro/Dram exchange transactions has increased as well and amounted to EUR 507.4 million against EUR 206.6 million in the same period of the previous year.

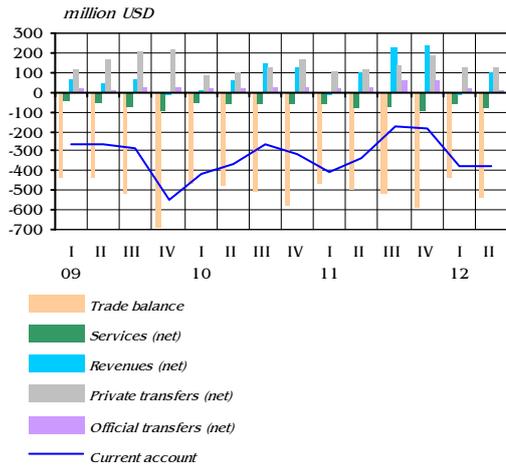
To handle steep dram exchange rate fluctuations, the Central Bank sold USD 94.2 million to commercial banks during the second quarter.

In the second quarter of 2012 the nominal effective exchange rate of the dram depreciated by 1.6 percent q-o-q. This was primarily due to nearly 3.2 percent q-o-q depreciation of average quarterly AMD/USD exchange rate and about 1.7 percent depreciation of partner countries' currencies versus the U.S. dollar<sup>19</sup>.

<sup>19</sup> The indicator denotes a weighted average of trade partner countries' currencies.



**Current account deficit widened compared to the second quarter of previous year**



The deterioration was driven mainly by adverse developments in balance of trade.

In the second quarter of 2012 the deficit of trade balance increased by USD 39.4 million and amounted to USD 539.1 million. Real export kept on increasing amid sluggish external demand though, and such increment was fuelled by persisted high growth rates in domestic industry. In the second quarter the dollar value of export of goods was roughly the same as in the second quarter of the previous year, and this was driven by positive contribution from item “products of prepared food” (7.5 pp) but negative contribution from such items as “base-metals and articles thereof” (-5.0 pp) and “ore and minerals” (-4.7 pp)<sup>20</sup>.

In the face of persisted domestic economic activity and faster reducing dollar prices of import y-o-y, in the second quarter of 2012 growth rates in real import of goods remained strong while growth rates in dollar value of import of goods slowed down to 3.8 percent y-o-y. This was mainly driven by positive contribution from item “products of prepared food” (2.2 pp) and item “chemical products” (1.6 pp).

Geographic distribution of external trade trended as follows: the deficit of balance of trade with CIS has narrowed by USD 19.3 million y-o-y whereas the deficit of balance of trade with the European Union has grown by USD 20.2 million. The USD 44.4 million y-o-y increase of deficit of balance of trade with the group “Other countries” was mainly conditioned by increased deficit of balance of trade with the U.S.A., Brazil and Iran.

In the second quarter of 2012 the deficit of balance of services grew by USD 4.4 million y-o-y and amounted to USD 83.3 million. The y-o-y growth of export and import of services reached 9.5 percent and 8.1 percent, respectively.

The y-o-y growth rates in remittances<sup>21</sup> of individuals slowed down to some extent, which is determined by slower growth rates in the Russian economy<sup>22</sup>. During the quarter net inflow of seasonal worker income has grown by 7.1 percent y-o-y and amounted to USD 239.5 million. This more than offset net outflow in item “income on investment”. As a result, item “income” posted net inflow of USD 101.4 million. Net inflow of private transfers has increased by 7.7 percent y-o-y and reached USD 130.4 million.

**3.4.2. Capital and financial account<sup>23</sup>**

In the second quarter of 2012 the capital and financial account reported net inflow of USD 375.9 million, which represented a USD 94.6 million increase y-o-y. In the second quarter net foreign assets of the Central Bank of Armenia have reduced by USD 4.1 million.

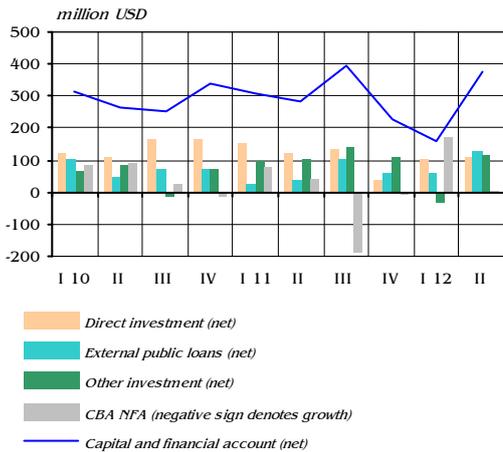
<sup>20</sup> Export and import breakdown by sector and geography is presented, respectively, in FOB and CIF prices.

<sup>21</sup> Q2, 2012 saw net inflow of non-commercial transfers by individuals via the banking system grown by 7.1 percent y-o-y.

<sup>22</sup> In the second quarter of 2012 economic growth in Russia was an estimated 3.9 percent y-o-y, according to the Russian Ministry of Economic Development.

<sup>23</sup> Q2, 2012 capital and financial account figures are the Central Bank forecasts and estimates.

**In Q2, 2012 net inflow on item capital and financial flows grew y-o-y**



In the second quarter the net inflow of capital transfers amounted to USD 22.0 million (USD 24.4 million in the same quarter of the previous year).

In the second quarter net inflow of foreign direct investment amounted to USD 110.2 million (USD 120.4 million in the same period of the previous year), and net inflow of public loans amounted to USD 127.7 million compared to USD 33.8 million recorded in the same period of the previous year.

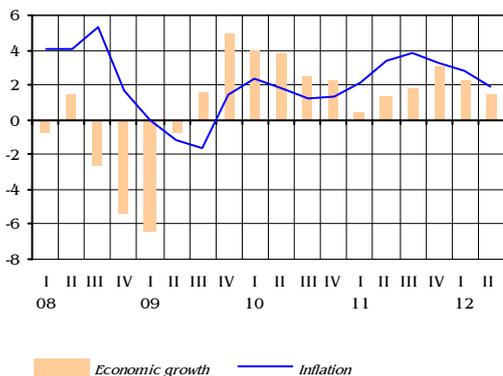
Net foreign assets of private sector have decreased by USD 116.0 million, with net foreign assets of other private sector (banks excluded) reduced by USD 56.0 million and net foreign assets of the banking sector reduced by USD 60.0 million.

**3.5. External environment**

Optimism earlier the year for fast recovery of the global economy waned out, and escalation of the EU debt problems added to the volatilities in financial markets, instead.

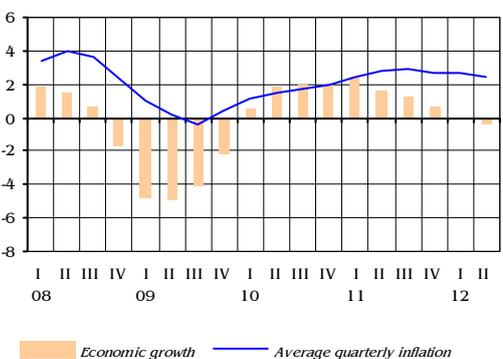
Recent developments mark for a more-than-expected slowdown of economic growth in both developed and emerging countries. Furthermore, the developments in the Euro-area will determine the further pace of global economy. In the second quarter of 2012 financial stability and debt problems became even more vulnerable in the Euro-area while geopolitical tension persisted.

**In Q2, 2012 economic growth slowed down and inflation diminished in the USA**



In the *United States of America* in the second quarter economic growth rates slowed down while unemployment remains elevated. Preliminary estimates by Economic Analyses Bureau of the U.S. Department of Commerce suggest that in the second quarter the U.S. economy posted an annualized 1.5 percent growth q-o-q compared to 2 percent growth recorded in the previous quarter. Positive contribution to the growth came largely from private spending, investments and exports, whereas public expenditures' and imports' contribution has been negative. In the second quarter average quarterly inflation in the U.S. economy subdued to reach 2 percent y-o-y from 2.8 percent y-o-y recorded in the previous quarter (the y-o-y reduction is due to fallen oil prices).

**Economic growth rates further decelerated in Eurozone**



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

In the second quarter of 2012 *Euro-area* saw 0.4 percent of economic decline, according to the EuroStat data.

During the quarter, consumer price index rose an average 2.5 percent y-o-y, which is below the previous quarter's respective indicator of 2.7 percent (mainly driven by fallen oil prices).

Though the inflation indicator is still above the target level of 2 percent, the European Central Bank left the policy rate

unchanged over the quarter and even lowered it in July by 0.25 pp to 0.75 percent.

During the quarter the U.S. dollar went a slowly appreciation path against Euro by an average 2.3 percent and reached 1.28 for one Euro (the y-o-y appreciation amounted to 12.2 percent).

During the quarter the 3-month LIBOR dropped to 0.47 percent on average.

Economic growth in *Russia* slowed down in the second quarter amid debt problems in Eurozone as well as falling international oil prices and reached an estimated 4.0 percent y-o-y, according to the Russian Ministry of Economic Development. Growth rates in industry slowed to 2.3 percent y-o-y from 4.0 percent y-o-y recorded in the previous quarter. Growth rates in retail trade sector remained strong and reported y-o-y increase of 6.7 percent. Construction also posted high growth rates, reaching 5.4 percent y-o-y.

On the back of developments in world and domestic economies, the current account position has worsened y-o-y but net outflow of capital stopped. In the second quarter current account surplus has reduced by USD 2.7 billion y-o-y and reached USD 19.2 billion; net inflow of capital amounted to USD 2.6 billion compared to USD 9.0 billion worth net outflow recorded in the same period of the previous year. Russian Central Bank reserves have increased by USD 15.0 billion (item *errors and omissions* posted net outflow of USD 6.8 billion).

In the second quarter a low level of inflation persisted at 3.8 percent y-o-y. However the rate of inflation accelerated in June in the light of ruble exchange rate depreciation trends.

In the second quarter of 2012 Central Bank of Russia left the refinancing rate unchanged, at 8.0 percent. The decision came in consideration of estimation of inflation risks, expectations of economic growth and more uncertainties over global economic outlook.

Economic growth in *China* in the second quarter was somewhat slower, 7.8 percent, with an average quarterly inflation having reduced to 2.9 percent y-o-y in relation to the previous quarter.

In the light of the aforementioned developments international prices of main commodities and industrial products showed deflationary patterns in the main.

In global oil markets inflationary pressures weakened on the brink of growing pessimism for world economy and appreciating U.S. dollar. In particular, oil prices have reduced notably from high levels recorded in March. Brent crude averaged USD 95 a barrel in June, having decreased by 8.2 percent in relation to the previous quarter (average quarterly reduction amounted to 7 percent y-o-y).

In the second quarter copper price fell by around 6 percent q-o-q and amounted to USD 7830 per ton (y-o-y decline amounted to 14.7 percent y-o-y).

Appreciation of the U.S. dollar in financial markets and signs of continued U.S. economic recovery during the quarter weakened investment demand for gold thus pushing the gold price to reduce by 4.7 percent to USD 1613 per troy oz. (y-o-y growth was 6.8 percent).

Food prices mainly trended downward. The food price index, as released by the Food and Agricultural Organization, has dropped by 4 percent on average relative to the previous quarter. This figure however is 11 percent lower from the respective figure recorded in the same quarter of the previous year.

In the second quarter international *wheat* prices fell by 3.5 percent to USD 7.3 a bushel (y-o-y reduction amounted to 20.7 percent). At the end of the quarter however the prices trended slightly upward in expectation of reduced harvest due to dry weather conditions.

During the quarter international *sugar* price index further dropped and made up 13.6 percent q-o-q whereas the y-o-y reduction amounted to nearly 13 percent. The rising trend observed at the end of the quarter was mostly attributable to delayed harvests caused by heavy rains in Brazil.

During the quarter international *rice* prices dropped as well, reaching USD 14.5 per U.S. hundredweight (45.4 kg) in June from their April highs. In the second quarter however there has been 3.6 percent q-o-q increase (0.8 percent y-o-y increase) of the price. Yet uncertainties in global rice markets are persisting associated with public policy in that industry carried out in Thailand.

***Global economy has been weak in the face of uncertainties over political solutions to debt problems in developed countries, and a deflationary environment has been observed in main world commodities markets.***