

THE CENTRAL BANK
OF THE
REPUBLIC OF ARMENIA

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Inflation Report

Monetary policy program Q4, 2012



*Status report on implementation
of the Monetary Policy Program
Q3, 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.

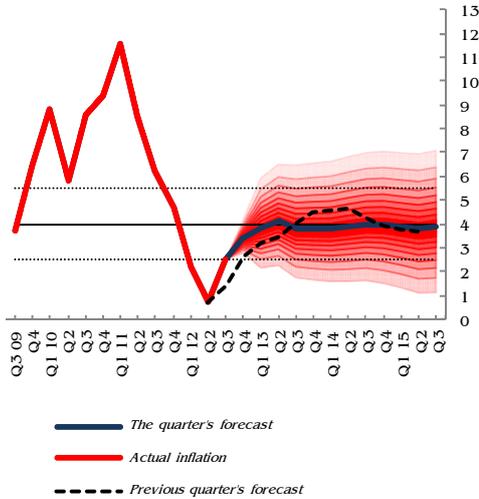
Each quarter, the monetary policy programs of the Bank used to present inflation forecast for the upcoming 12-month period under the assumption of unchanged interest rates as well as forecasts of the response of the policy rate. The programs included a blueprint for monetary policy directions.

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.

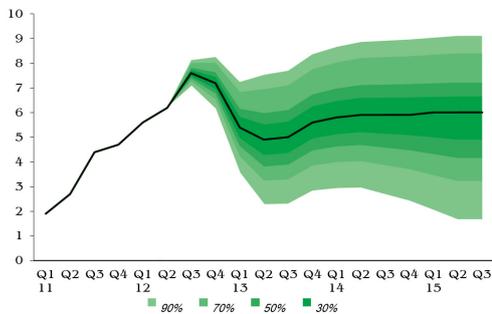
Starting from Q2, 2012, the Bank will present inflation forecasts for a longer time horizon of 3 years instead of previously applied 1-year and will publish non-conditional inflation instead of conditional.

1. EXECUTIVE SUMMARY

Inflation forecast probability distribution chart (12-month)



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



There was 1.1 percent of deflation recorded in the third quarter of 2012 compared to that of 2.8 percent in the same period of the previous year, and the 12-month inflation ascended earlier the third quarter after continued subsidence in the course of the first half of the year and reached 2.5 percent in end-September. The 12-month inflation indicator has been totally due to 1.8 percent increase in food prices (with 0.96 pp of contribution to headline inflation) and 5.7 percent and 2.1 percent rises y-o-y in non-food prices and service tariffs (with 1.55 pp of contribution to headline inflation).

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 3.4 percent. Then, *in the forecast horizon*, it will be managed primarily around a 4 percent target level.

In the second quarter of 2012 *economic growth* was 6.6 percent y-o-y, with the January-June growth having reached 6.2 percent. The Economic Activity Indicator for the third quarter of 2012 as 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 high probability that economic growth in 2012 will be in the range 7–7.4 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 end-2012 these will amount to roughly 6 percent, 9.5 percent and 11 percent, respectively. The outlined trends of economic growth will persist over *forecast horizon* while economic growth will stabilize within the 5–6 percent interval.

In the *labor market* in 2012 the growth of average nominal wage will be 5.7 percent and official unemployment will reduce by 1.2 pp to 17.2 percent, according to the Central Bank estimates. 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.

With private consumption and private investment growing by 8 percent and 4.8 percent, respectively, *private spending* will grow by 7.2 percent in 2012 and bring in some inflationary pressures in the consumer market in the second half of the year, according to the Central Bank estimates. Growth rates in private consumption and private investment for 2013 were revised upside against previous forecasts and are predicted to reach 4 percent and 5.5 percent, respectively. Whereas private spending will grow by 4.4 percent while its deceleration will loosen the inflationary impact. There is anticipation that in the *forecast horizon* private consumption will grow at somewhat a slower but steadier pace compared with high growth rates observed in 2012. Private investment will continue rebounding after the

slump in the first half of 2012 and will grow in a stable pattern in the medium run, contributing to sustainable economic growth and not creating inflationary pressures.

In the third quarter of 2012 the impact of *fiscal policy* on aggregate demand was contractionary according to the fiscal impulse indicator. This is within the Central Bank projection and determined by contractionary influence of revenues (0.57 pp) and of expenditures (0.51 pp). For 2012, the *fiscal impulse* was estimated 1.1 pp contractionary according to the baseline scenario, attributable to savings on government expenditures. In 2013 the fiscal policy's impact on aggregate demand is predicted to be neutral, which will be driven by restrictive influence of revenues and that much expansionary impact of 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 is estimated to be non-inflationary.

In end-2012 the deficit of current account to GDP ratio will be around 9 percent compared with 10.9 percent recorded in the previous year. In the third quarter of 2012 the ratio is estimated to drop by 1.5 pp.

With slower rates of recovering of world economy and persisting high growth rates reported in domestic economy, the deficit of *current account* in the third quarter of 2012 has shrunk in relation to the third quarter of the previous year. With export prices reducing, the dollar value of both export and import of goods has decreased by 5.3 percent and 8.7 percent, respectively, in relation to the same period of the previous year. In the third quarter growth rates in remittances of individuals persisted chiefly determined by economic developments in Russia.

In 2013 the dollar value of export of goods and services is expected to increase by 4–6 percent, and that of import, by 3–5 percent. The growth of net inflow of non-commercial transfers of individuals will be in the range of 8–10 percent as Russia's economic growth forecast for 2013 is revised down.

Current account will keep on improving in *forecast horizon* and is predicted to be within a 6–8 percent interval, a more favorable position relative to the previous program.

In *world economy* the third quarter of 2012 was marked by certain economic policy measures taken by the U.S.A. and the European Union to stimulate growth and provide solutions to debt problems. The U.S. Federal Reserve System's decision to exercise 3rd quantitative easing, maintain a low-interest-rates policy for another year up until 2015 as well as the European Central Bank's decision to purchase bonds from secondary markets of debt-hit governments under special terms was prominent.

Estimation of *world economic growth* for 2012 was revised by the IMF down to 3.3 percent from 3.8 percent forecast for 2011. The downside revision was primarily due to 1.3 percent slowing of *economic growth in developed countries*, which will affect the

economic growth in emerging countries as well (it is an estimated 5.3 percent for 2012 instead of 6.2 percent recorded in 2011).

In the third quarter of 2012 global markets of basic commodities and some food products saw inflationary trends driven by supply-side factors as well as QE3 exercised by the U.S. Fed. The Food Price Index released by FAO rose by an average 3.7 percent in the third quarter against the previous quarter, which is 6.7 percent lower from the indicator of the same quarter in the previous year.

Economic growth in developed countries in 2013 is expected to recover at much slower rates to reach 1.5 percent (with 0.3 pp downside revision to it). Developments in such countries will have their impact on ***emerging economies*** which will be going to post 5.6 percent growth in 2013 (with 0.2 pp downside revision to it).

In ***forecast horizon*** pressures from the external environment will come in as minor inflationary as existing inflationary developments in individual commodity and food product markets will go in balance with a low level of global demand. Also, the world wheat market is in fundamental tightness¹ and therefore sensitive enough to any new information in a sense that it may suffer high price volatility.

In ***forecast horizon*** there are serious uncertainties over the further pace of global economy, and ***risks*** to downside developments are prevailing. The downside risks in short run will include, in particular, escalation of debt problems in EU countries, further fiscal consolidation in the U.S.A. and possible rise in energy prices due to geopolitical developments. The upside risks will include faster rebounding to economic growth thanks to more effective economic policy implementation in the U.S.A. and the EU, with less likelihood to happen that way, though.

In the third quarter of 2012 the Central Bank kept the ***refinancing rate unchanged, at 8.0 percent***. This was attributable to the 12-month inflation having gone an ascending path and stabilized around the lower border of the confidence band as a result. This was accompanied by expectations of minor inflationary pressures from the external sector and domestic economy. Under such circumstances the domestic financial market saw interest rates falling and the dram tending to appreciate during the third quarter (see sections 3.3.1 Interest Rates and 3.3.3 Exchange Rate).

In ***forecast horizon*** the 12-month inflation will rebound further and is expected to come closer to the 4 percent target already in the first half of 2013.

Risks to inflation deviating from forecast value in short and long run are balanced and associated with economic developments in both external sector and domestic sector.

¹ By *fundamental tightness* we mean a situation in the market whereby development of fundamentals (supply- and demand-side factors) has resulted in a combination of supply and demand when price developments incur the influence of primarily random and unpredictable factors.

Domestic price increases in response to contracted agricultural supply resulting from adverse weather conditions and price increases on energy resources in world markets due to geopolitical developments mark risks to expanding of the inflation environment. On the other hand, developments such as contractionary fiscal policy in forecast horizon, escalated debt problems and a decline in global demand due to slowing of potential GDP growth rate in the long run point to possible deflationary risks, which will be offset by the aforementioned inflationary risks.

2. FORECAST, FORECAST CHANGES, RISKS

2.1. External environment²

In 2013 global economy is predicted to develop on the premise of effective economic policies to provide solutions to debt problems which the developed countries attempt to handle in the face of even more uncertainties over downside economic growth. Less reliance on external sector and the domestic economy-sustained growth will be vital to emerging countries. In October of 2012 the IMF adjusted world growth outlook indicator again downside, making a forecast of 3.6 percent (the downside adjustment was 0.3 pp). In 2013 *economic growth in developed countries* will bounce back at a very sluggish pace to merely 1.5 percent (the downside adjustment of 0.3 pp). Such developments in these countries will have their impact on *emerging economies* which are expected to post 5.6 percent growth in 2013 (with 0.2 pp downside revision to it).

The forecasts for *economic growth in Russia*, a principal trade partner, was adjusted slightly downside – 3.8 percent for 2013 (with 0.1 pp downside adjustment).

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 (with downside adjustment of 0.2 pp). In 2013 average annual inflation will reach 1.6 percent in developed countries and 5.8 percent in emerging countries.

In the face of expected sluggishness in world economic recovery over 2013 no inflationary trends will be observed in the world's main commodity markets. However, high price levels will prevail in world food markets, driven by fundamental tightness due to supply-side factors. Moreover, individual commodity markets are predicted to develop under the influence of fundamental factors inherent in any such markets.

According to International Energy Agency estimations, the demand for oil in 2013 will grow just by 0.74 percent against the 2012 demand. Roughly 61 percent of global oil demand will be met by producing oil by non-OPEC countries (it is expected to increase by 1.7 percent against the previous year), under which circumstance average demand for extraction of oil by OPEC countries will slightly reduce to reach 29.8 million b/d. Under such conditions international oil prices are expected to grow moderately in the period 2013-2015 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* on the back of weak global demand in 2013, and inflationary trends will not be seen. However, moderate inflationary patterns may be observed in 2014-2015 as the world economic recovery is back on track. *Prices of precious metals* are expected to show

² 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.

moderate inflationary patterns in 2013 in anticipation of persisted uncertainties.

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 stay at the high levels as was recorded in the second half of 2012. According to October estimations of the U.S. Department of Agriculture, world wheat stock will decrease by 13 percent in relation to the marketing year 2011/2012 and will reach 173 million tons, whereas in the marketing year 2012/2013 world consumption is predicted to reach 678 million tons and some 653 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. On the back of anticipated 469 million tons of rice world rice stock will somehow decrease for the marketing year 2011/2012. 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.

Prices in *sugar* market are mainly expected to stabilize in anticipation of rich crops in Europe, Thailand and Russia in the marketing year 2012/2013.

With global demand growing faster than global supply, international prices of commodities and food products will trend moderately inflationary in *forecast horizon*. The developments in individual product markets will depend on the fundamentals pertaining to such markets.

In 2013 *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.

The impact from implementing expansionary policy by the U.S. Fed will be discernible over 2013. The U.S. economy will be growing faster compared with the pace it did in the second half of 2012 and will reach 2.5 percent up until 2015. In the meantime however, downside risks to growth drive by the need for fiscal consolidation may be notable.

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. Under such conditions the economy in Euro-area in 2013 will only afford a timid recovery rate, 0.1–0.2 percent, which would reach 1.4 percent up until 2015. In the foreign exchange market in the period 2013-2015 *Euro* is expected to experience depreciation pressures on the whole.

Risks to the global economic growth outlook are mainly associated with possible slowing of the world economic growth rates in the U.S.A. and the EU, due to growing structural unemployment in the face of high unemployment and persistently high debt levels.

Global inflation risks will be mainly balanced as risks to low inflation environment, driven by weak economic growth, would be offset by risks to increased prices on energy resources due to adverse geopolitical developments. 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, in forecast horizon pressures from external environment will be minor inflationary as existing inflationary developments in individual commodity and food product markets will go in balance with weak global demand. Risks to external inflation environment are estimated to be neutral as risks to further financial and economic hardships in Euro-area and more sluggish external demand will be persisting. World wheat market is under the fundamental tightness and is therefore sensitive enough to expectations that prices would perform in stressed volatility.

2.2. Aggregate supply and Aggregate demand

Aggregate supply: real growth rates in value added in the branches of the economy are expected to slow to some extent in forecast horizon, given current macroeconomic developments persist. It is therefore expected that economic growth in 2013 would be in the range 5–6.2 percent⁵. Economic growth forecasts were revised upside, reflecting improvement in production capacities of companies, increased investment attractiveness in the light of optimism for domestic economic growth outlook and continued recovery of external demand. As a result, economic growth will stabilize within 5–6 percent.

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

For **Industry** value added is expected to grow in the region 8–10 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, pharmaceuticals and energy*, owing to expected increase of production capacities of companies active in these fields.

Risks deriving from industry are predicted downside and will be determined by expected slowing of world economy.

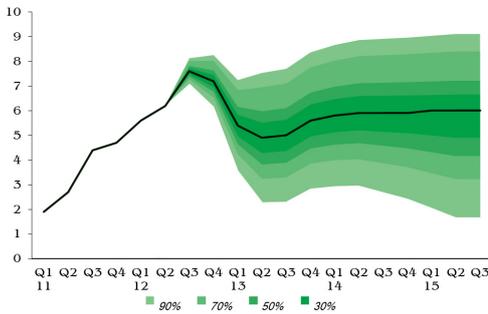
For **Construction** forecasts of value added in 2013 were revised upside as growth in the range 2.5–4.5 percent is anticipated owing to increased volumes of construction in energy, processing industry, trade, transport and agriculture.

Risks to even higher growth rates in construction exist though, which is attributable to quicker implementation of road construction and infrastructure improvement projects.

For **Services** continued high growth trends are 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 4.5–6.5 percent for 2013.

⁵ See the 50 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 *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 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 medium and long run.

Risks in agriculture and services are balanced.

Under the baseline scenario risks to economic growth are dual-sided and associated with exogenous and indigenous factors. More to the point, downside risks are prevailing as they are associated with decelerated rates in global economic recovery.

Real GDP Growth Projection Probability Distribution				
Period	90% probability interval		30% probability interval	
	Min	Max	Min	Max
January-December 2013				
January- December 2012	2.8	8.4	5	6.2

Labor market⁴: forecasts of labor market indicators were revised 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 and will persist in the medium-run, too.

In particular, average nominal wages are expected to grow in 2013 by 11.5 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. The change in the framework with which wages are to be taxed⁵ 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 3.7 percent. It is expected that growth rates of nominal wages will accelerate in the medium run, resulting in even higher growth rates of real wages.

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 0.9 pp to 16.2 percent. The level of unemployment will keep on subsiding in the medium run.

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.

⁴ The labor market data for 2012 are the Central Bank estimates which are based on January-October 2012 figures. 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.

Aggregate demand⁶: forecasts of **private sector spending** for 2013 as well as for medium-term perspective were revised upside based on expectations for brisker economic activity, high consumption growth rates reported in the first half of 2012 and expectations for faster growth rates in private investment in forecast horizon.

According to revised estimations, in 2013 private expenditures are expected to grow by 4.4 percent in real terms. The domestic demand is expected to grow by 4.8 percent provided that private spending grows as predicted and public expenditures grow by 7.4 percent in real terms. Note that private spending growth will somewhat decelerate in 2013 in comparison with 2012, due to slowing private consumption growth rates. In forecast horizon the private spending growth rates are expected to pace concomitant with the economic growth rates, reflecting the slowdown of high private consumption growth rates in 2012 and recovering investments in the medium run.

Relative to previous forecasts, the growth rate of private consumption for 2013 was revised upside and it amounts to 4 percent. The revision was made in anticipation of higher growth rates of domestic economy and even stronger growth of private consumption reported in the first half of 2012. The upside revision notwithstanding, private consumption growth rates will slow down in 2013 determined by stabilizing inflation, slowing lending growth rates as well as revision of consumption at certain time intervals. In the medium run the growth rate of private consumption will slow down further to be consistent with economic growth.

Growth rates of private investment were revised slightly upside, attributable to revived activity in construction in the third quarter of 2012 and investment being made in industry and services. As a result, an estimation of 5.5 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.

Given that private consumption growth rates slow down and investment recover at a slower pace during 2013, the positive private spending gap will narrow gradually to wane out to zero at the end of the year, eliminating incongruence between the supply and private sector demand. So, the private spending will create 0.2–0.3 pp of deflationary pressures in the consumer market. Starting from the end-2013 the impact of private spending on inflation will be neutral in the medium run.

In view of accelerated adjustment of current account the forecast of **current account** of Balance of Payments was revised for improvement in response to slowed growth rates in global economy but speeded up growth rates in domestic economy. Given the relative export and import price reductions, the improvement of current account will be determined by

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 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.

persistently stronger real export volumes and contracting real import volumes. In 2012 the growth rates of real export of goods and services is expected to reach 11.1 percent; in view of export price developments the growth by dollar value will amount to nearly 5 percent, according to the Central Bank estimates. High growth of export of goods and services in real terms will be strong, in the range 8–10 percent in 2013, which will be mainly attributable to persisted high growth rates in the domestic industry. The growth of export of goods and services by dollar value is expected in the region 4–6 percent. Risks to exports will remain dual-sided, determined by growing downside risks to world economy, international metals prices and industry developments in Armenia.

The import growth rates were revised downside in consideration of further developments in global and domestic economies. In view of noticeably lower-than-predicted growth of import in the third quarter of 2012 and an expected next quarter's import indicator, in 2012 the growth rates of import of goods and services in real terms is expected around 4.0 percent while the growth of dollar value is expected to be zero. In 2013 the growth rates of real import of goods and services will slow down to be in the region 1–3 percent, and the dollar value of import of goods and services is expected within 3–5 percent. Risks to import will remain dual-sided and will further depend on developments in the domestic economy and international prices.

The growth of non-commercial remittances by individuals in the period January-September has been consistent with the forecasts although the Russia economic growth rates slowed down, according to Q3, 2012 estimates. In the light of the actual developments an expected growth of non-commercial remittances by individuals will remain much the same, around 10 percent. Notwithstanding the downside revision of the Russia economic growth indicator for 2013, the growth rates of net inflow of non-commercial remittances will be in the region 8–10 percent.

All aforementioned developments suggest that the Current Account Deficit/GDP ratio will reduce to around 9 percent in 2012 from the previous year's 10.9 percent, according to the Central Bank estimates. In *forecast horizon* the position of current account will keep on improving to stay within 6–8 percent interval.

The estimation of *impact of the fiscal policy* on aggregate demand in 2013 was based on the indicators outlined in the draft budget law 2013 which provides a 0.8 pp increase for the Tax/GDP ratio and a 1.3 pp increase for the Expenditures/GDP ratio. Furthermore, the Deficit/GDP ratio in 2013 will be 2.6 percent.

In 2013 it is anticipated that the fiscal policy's impact on aggregate demand, hence inflation, would be neutral, which would be driven by contractionary influence of revenues and that much expansionary impact of expenditures. More to the point, expansionary impact was observed in the first quarter and contractionary influence in the course of the next three quarters.

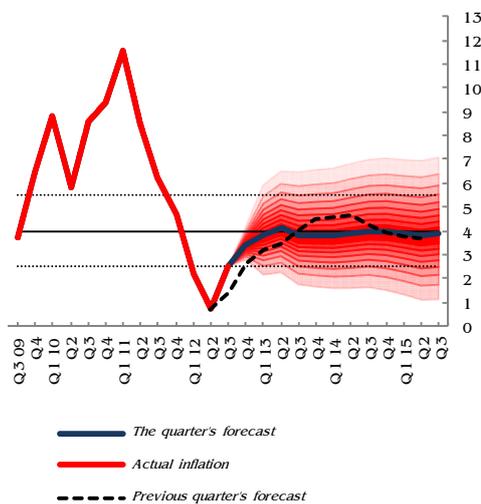
The 2013 fiscal policy can be ascribed as the one that will further be steered to reducing deficit.

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 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; 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

Inflation forecast probability distribution chart (12-month)



The short-term inflation forecasts were revised slightly upside against previous forecasts. The second quarter's deflation environment rebounded at a faster pace owing to more-than-predicted private spending in the domestic economy, somewhat a brisker response of domestic prices to international wheat price rise and lesser fallen prices of domestic agricultural produce. As a result, inflation will near the 4 percent target by mid-2013 while in forecast horizon it will be tamed primarily around that value.

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

Period	Inflation Forecast Probability Distribution Chart				
	<1%	1 - 2.5%	2.5 - 5.5%	5.5 - 7%	7%<
Q4, 2012	0.0%	2.3%	95.7%	2.0%	0.00%
Q1, 2013	1.0%	13.0%	78.2%	7.4%	0.40%
Q2, 2013	1.1%	10.7%	73.2%	13.4%	1.60%
Q3, 2013	3.1%	16.2%	67.8%	11.2%	1.70%
Q4, 2013	3.6%	16.6%	66.0%	11.8%	2.00%
Q1, 2014	4.0%	16.8%	64.8%	12.1%	2.30%
Q2, 2014	4.0%	15.9%	63.3%	13.7%	3.10%
Q3, 2014	3.9%	15.0%	62.2%	15.0%	3.90%
Q4, 2014	4.1%	15.2%	61.4%	15.2%	4.10%
Q1, 2015	4.9%	16.3%	60.8%	14.2%	3.80%
Q2, 2015	5.8%	17.5%	59.8%	13.4%	3.50%
Q3, 2015	5.4%	16.5%	59.5%	14.5%	4.10%

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 be 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 commodity markets will see prices tending to stabilize. High prices in world wheat markets will persist under fundamental tightness in forecast horizon due to reduced

crops attributable to dry weather in Russia, Kazakhstan and the U.S.A.

Growth rates of private consumption will remain strong up until the end of 2012. Starting from 2013 however, the growth rates will slow down and stabilize around the equilibrium in the medium-term perspective. Following the decline in the first half of the year, private investment will rebound, starting from the second half, and will grow in forecast horizon in line with GDP equilibrium. At the end of 2012 the fiscal policy will restrain in part the growth of domestic demand as driven by the increment in private consumption, but in forecast horizon it will have a neutral impact on domestic demand. The aforementioned developments will end up with a positive GDP gap going to wane out to zero by the end of 2013. It should be mentioned that high export growth of end-2012, which will slow down to some extent in forecast horizon, will also contribute to the positive GDP.

In the outcome, in the end-year the domestic economy will see inflationary pressures driven by robust consumption. However, a contractionary fiscal policy implementation will mitigate such pressures to some extent. Specifically, inflationary pressures will wane out provided that private consumption growth rates slow down and the government implements a neutral fiscal policy.

The fundamental tightness in wheat market will keep inflation patterns in the economy up until the end-year, and these patterns will be absorbed in forecast horizon.

The aforementioned developments will prompt inflation to rebound further and stay within the confidence band and even come up to a 4 percent target in the first half of 2013. As well as current policy rate will be applied to keep the inflation within a 4 percent target and the GDP in its equilibrium.

Risks to inflation deviating from forecast value in short-term and long-term perspective are tantamount and depend on external and domestic economic factors. Domestic price increases in response to contracted agricultural supply resulting from adverse weather conditions and price increases on energy resources in world markets due to geopolitical developments mark risks to expanding of the inflation environment. On the other hand, developments such as contractionary fiscal policy in forecast horizon, escalated debt problems and a decline in global demand due to slowing of potential GDP growth rate in the long run point to possible deflationary risks, which will be offset by the aforementioned inflationary risks.

Forecasts of monetary indicators for the projected time horizon are based on the actual macroeconomic environment of the third 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 ***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 a 4 percent target and it stay at a stable level up until the end of horizon. At the same time, growth rates in lending will remain strong whereas financial intermediation will slow to a certain extent.

3. ACTUAL DEVELOPMENTS IN Q3 2012

3.1. Inflation

3.1.1. Actual inflation and attainment of target

12-month inflation heightened since the start Q3 2012, stabilizing within lower border of the band



Actual Q3 2012 results denote 1.1 percent of deflation against 2.8 percent recorded in the same quarter of the previous year. As a result, the 12-month inflation began expanding in early third quarter after having been subdued in the course of the first six months and amounted to 2.5 percent in end-September of 2012. The inflation environment is predicted to expand somehow in the upcoming quarter, in consideration of persistently high prices of wheat in world markets as well as prices of agricultural products recovering from currently low levels. At the end of the year, therefore, some 3.4 percent of inflation is predicted, which is a slightly upside revision compared to the former forecast.

The 12-month inflation indicator outstripped the Q3 monetary program's baseline scenario by about 1.1 pp, and this has been attributable primarily to higher-than-expected rise in prices of food products. Prices of non-food products and service tariffs however were mainly in line with the predicted growth. The main contribution to the 1.8 pp increase of the 12-month growth of food prices came from items "fruit", "vegetable and potato" and sugar prices, which all dropped lesser than forecast, by 13.2 percent, 9.7 percent and 5.4 percent, respectively; prices of "bread products" which rose more than expected (by 7.1 percent) was another contribution to the above increase. Prices of non-food products and service tariffs have increased by 5.7 percent and 2.1 percent, y-o-y.

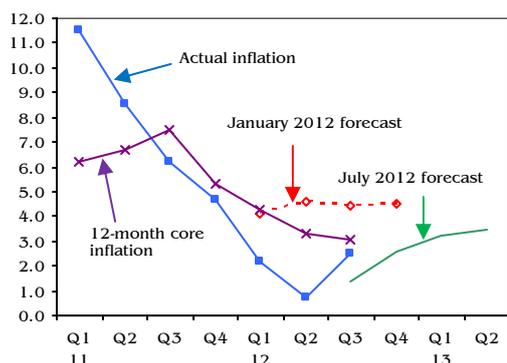
The 12-mnth core inflation subsided during the third quarter, reaching 3.1 percent in end-September.

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.

The 12-month inflation continued sloping down in the first half of 2012 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 border 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 and the first half of 2012 (when agriculture posted growth of 13.7 percent and 9.5 percent y-o-y, respectively) resulted in the reduction of prices.

At the start of the year, in view of a down-sloping inflation path and existed non-inflationary environment, the Board of the

In the third quarter expectations for the 12-month inflation and expanding of inflation environment supported the implementation of a neutral monetary policy



Central Bank estimated that the likelihood of the inflation environment expanding again is rather low, meaning that interest rates in financial market could be used to attain the target. So, in the period January-September of 2012 the refinancing rate has been left unchanged. Even in the second quarter of 2012 when the 12-month inflation was 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 had all the time been within the confidence band. An unchanged policy rate in the third quarter was also supported by an anticipation that the impact from pronounced seasonal fall in prices of agricultural products would vanish and the 12-month inflation would stabilize at the lower border of the band. These considerations, along with certain inflationary pressures expected from external sector and domestic economy, suggested that the 12-month inflation would near the confidence band of $4\% \pm 1.5$ pp.

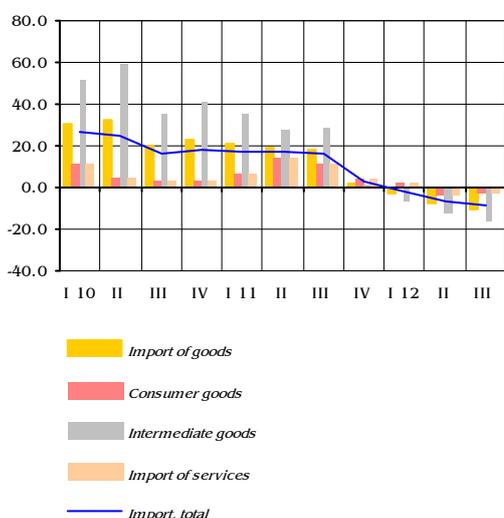
3.1.2. Import prices and producer prices

Import prices: in the third quarter of 2012 import prices denoted downward trends in spite of various price developments in world commodity markets. According to the Central Bank estimates, in the third quarter of 2012 the dollar prices of import reduced by 8.4 percent y-o-y versus a 6.8 percent fall recorded in the previous quarter.

The decrease of import prices was driven by the fall of prices of intermediate goods and food products (a total of 7.1 pp of contribution) and import consumer goods (with contribution of 0.6 pp). Interestingly, sharp increases of prices of some food products were compensated by reduced base metals prices.

The dram prices of imported goods included in consumer basket grew an average by 5.8 percent y-o-y as the dollar prices of import goods reduced by 8.4 percent y-o-y and the average nominal AMD/USD exchange rate depreciated by 10.2 percent y-o-y in the third quarter of 2012.

Import prices kept on falling in Q3 2012



Indicators	Q3 2011	Q4 2011	Q1 2012	Q2 2012	Q3 2012
Import, total ⁷ , y-o-y, %	16.6	2.5	-2.0	-6.8	-8.4
Import, services, %	11.2	4.0	1.5	-3.5	-2.8
Import, goods, %	18.4	1.9	-3.2	-7.9	-10.2
Consumer goods, %	11.2	4.0	1.5	-3.5	-2.8
Intermediate goods and food products ⁸ , %	28.2	1.1	-6.6	-12.3	-16.6
Capital goods ⁹ , %	0.0	0.0	0.0	0.0	0.0
Diamond, %	0.0	0.0	0.0	0.0	0.0

⁷ The historic time series was revised according to International Financial Statistics data.

⁸ This includes oil and natural gas.

⁹ The lack of estimation of prices of capital goods and diamond is explained by their extremely volatile character, so the price change is estimated zero.

Producer prices¹⁰: in the period January-September of 2012 the GDP deflator was an estimated 101.5 y-o-y, which is a result of increased index of producer prices and carriage costs.

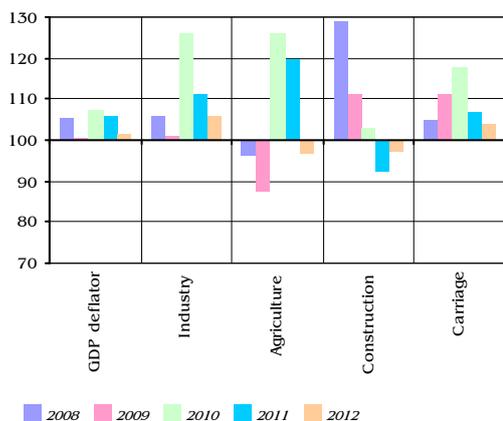
Industry reported higher price increases, with quarterly growth of 8.2 percent y-o-y in which case the January-September growth has amounted to 5.7 percent y-o-y due to increased prices reported in *processing industry* (6.1 percent) and *energy and gas production and distribution* (12.3 percent). These 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 plants¹¹.

Agriculture reported 7 percent y-o-y decline in prices¹² in which case the January-September decline has amounted to 3.2 percent y-o-y due to 10 percent price falls reported in plant growing. Moreover, prices items “potato and berries”, “fruit” and “melons and gourds” reduced by 8.1 percent y-o-y, 16.1 percent y-o-y and 4.2 percent y-o-y, respectively, notably contributed to such price reduction. In animal breeding, around 10.8 percent rise in meat price contributed to 1 percent increase in inflation in the sub-branch.

Construction reported 0.4 percent y-o-y deflation in the third quarter, in which case the January-September reduction has been 3.1 percent y-o-y mainly attributable to a slow pace of recovery in the branch.

Carriage reported some 3.7 percent y-o-y increase in both the third quarter and the period January-September of 2012, determined mostly by increased tariffs on *railroad transport* (9.6 percent), *air transport* (7.4 percent) and *truck transport* (3.5 percent).

In the period January-September 2012 price increases reported in industry and carriage



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 further had low inflation expectations in the third quarter. Based on the third quarter 2012 survey results, banks anchored their expectations of the 12-month inflation in the range of 2.5–5.5 percent (62 percent against 57.0 percent in the previous survey). The share of banks having chosen a higher interval of 5.5–8.5 percent has reduced to 33 percent from 38.1 percent in the previous survey. Inflation expectations by credit organizations were almost identical for the above two intervals – making up 41 percent. The third quarter survey results suggest that households’ inflation expectations were mainly close to the inflation target – in the region 4.5 percent based on the last two months’ survey results.

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

¹⁰ The price index change as presented here is relative to the same period of the previous year unless otherwise specified.

¹¹ These changes had no impact on end-consumption electricity tariffs.

¹² Sales prices of producers of agricultural product are presented.

3.2. Aggregate supply and Aggregate demand

3.2.1. Aggregate supply¹⁵

In the second quarter of 2012 economic growth was 6.6 percent y-o-y, with the January-June growth having amounted to 6.2 percent.

Economic activity in the period January-September of 2012 has remained high enough, 7.6 percent, despite some slowing of EAI growth rates in the third quarter. Economic growth forecasts under the baseline scenario were revised upside based on higher-than-expected activity in agriculture and services in the course of past nine months of 2012 as well as anticipated acceleration of the rates of recovery of domestic demand in the light of optimism for domestic economic growth. So, economic growth in 2012 is predicted in the region 7–7.4 percent y-o-y¹⁴.

In **Industry** the growth of value added is estimated in the range of 9–10 percent y-o-y mainly due to the increased volumes in *metal ore mining (16.2 percent)*, *food production (4.5 percent)*¹⁵, *beverage production*¹⁶ (28.1 percent), *tobacco production (56.5 percent)*, and *metallurgy (11.12 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 3–4 percent y-o-y. Note that the decline in construction volumes financed by *humanitarian aid (-79 percent)* and *state budget (-11.2 percent)* has been completely offset by construction financed from such items as *organizations (12.4 percent growth)*, *international loans (25.8 percent growth)*, *households (17.3 percent growth)* and *local budgets (17.3 percent 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 in the region 5.5–6.5 percent y-o-y as a result of increased volume of *services rendered* and *trade turnover* by 11.2 percent and 2.9 percent, respectively. The increase in the volume of services rendered was driven by growth recorded in *financial and insurance activities (23.6 percent)*, *information & communication (4.4 percent)*, *transport (7.8 percent)*, and *travel agency services (46.8 percent)*, and *events, leisure and rest (73.2 percent)*. The growth of trade was totally due to retail

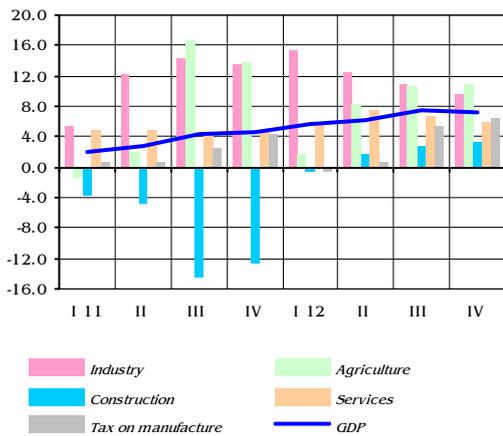
¹⁵ Indicators of branches of the economy represent the Central Bank estimates for the period January-December while indicators of sub-branches represent y-o-y growth rates in output volumes for January-December, unless otherwise specified.

¹⁴ See the 30 percent interval in the Real GDP Growth (Cumulative) Projection Probability Distribution Chart in this paper.

¹⁵ Food production posted growth mainly owing to increased output of vegetable oil (2.5-fold), meat, meat products and prepared meat items (3.6 percent, 6.6 percent and 7.8 percent, respectively), sugar (9.8 percent), confectionery (11.9 percent), flour production (58.3 percent), sour cream (15 percent), and ice cream (4.7 percent).

¹⁶ Growth in beverage production was due to increased output in brandy (30.4%), vodka (43.2%), spring water (15.6%) and natural juice (9.1%).

Actual and real projected GDP growth rate y-o-y, by growth of value added



trade, wholesale trade and car sales, having increased by 2 percent, 3.3 percent and 12.5 percent, respectively.

In **Agriculture** the growth of value added is estimated to reach 10–11 percent y-o-y, owing to 3.1 percent growth in *plant growing* and 16.9 percent increase in *animal breeding*. Reported increases in *slaughtered animal and poultry* (0.2 percent), *milk production* (5.8 percent) and *egg production* (7.9 percent) largely contributed to the overall growth in animal breeding sub-branch. Reported increases in plant growing were driven by increased output in *grains* (1.8 percent), *potato* (15.1 percent), *vegetable* (7.5 percent), *gourds and melons* (7.9 percent), *berries* (29.1 percent) and *grapes* (as much as 76.8 percent). The growth in plant growing was owing to both improved climate conditions and government programs¹⁷ which are implemented in this area.

3.2.2. Aggregate demand¹⁸

Developments in the Armenian economy in respect of **private spending** over the second half 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 half of the year private consumption is expected to remain strong and investment to grow a little.

In the first half of 2012 private consumption has grown by 7.8 percent, with an estimated private consumption growth indicator having reached 8 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.

In the first half of 2012 private investment has declined by 19 percent, reflecting negative developments in construction. Nevertheless in the second six months private investment is predicted to rebound as construction activity recovers. Under such conditions, in 2012 private investment will report relatively modest growth rates, 4.8 percent.

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. As a result of the aforementioned developments, in the third quarter private spending grew by 7.2 percent but public expenditures reduced by 4.1 percent in real terms. Furthermore, the growth of domestic demand in 2012 is estimated 5.7 percent.

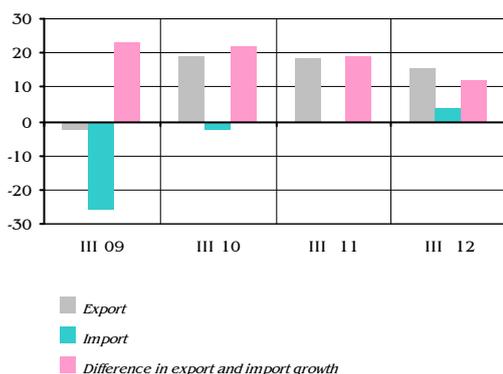
¹⁷ These include programs for agricultural lending, agro-product supply chain, wheat and barley seed growing and production, development of organic agriculture and domestic production of bio-fertilizers.

¹⁸ The private spending data for 2012 are the Central Bank estimates based on actual first half 2012 data. Growth estimates in this sub-section are relative to the same quarter of the previous year, unless otherwise specified.

Net export position improved in Q3 2012
(net real export, y-o-y %, positive sign denotes improvement)



Real growth of export of goods and services fairly outstripped real growth of import of goods and services (y-o-y %)



Composite economic indices¹⁹ 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 54.4 for the third and fourth quarters, respectively. In the third quarter of 2012 business climate index rose by 8.8 percent to 52.6 and economic activity index went up by 2.9 percent to 60.4.

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 six months is expected to be positive and have some 0.4–0.5 pp of impact on inflation as a result of persistently strong private spending and recovering private investment.

In the third quarter of 2012 y-o-y growth rates of *export of goods and services in real terms* considerably outpaced y-o-y growth rates of *import of goods and services in real terms*²⁰. In the third quarter real growth rates of export of goods and services remained relatively strong (15.3 percent), mainly thanks to persisting high growth rates in industry. With export prices dropping faster, growth rates in dollar value of export of goods and services remained at the level recorded for the same quarter of the previous year²¹.

Real growth rates of import of goods and services slowed down substantially to 3.6 percent y-o-y in the third quarter of 2012 in the face of lively domestic economic activity and somewhat a slower y-o-y decline in import prices. The dollar value of import of goods and services has decreased by 5.1 percent y-o-y²².

In the third quarter of 2012 the inflow of non-commercial remittances of individuals grew by 9.1 percent y-o-y against 2.8 percent y-o-y growth of outflow. As a result, net inflow has grown by 10.2 percent y-o-y, influenced by the developments in the Russian economy in the third quarter of 2012.

3.2.3 Labor market²³

Average monthly nominal wage growth rates and reduced rate of unemployment in the period January-September of 2012 are estimated to have been in line with the forecast. Material imbalances affecting inflation in the labor market will not be observed in the second half of 2012 either as wages will keep on growing and unemployment subsiding.

In the period January-September of 2012 there has been an estimated 5.5 percent increase in average nominal wages,

¹⁹ See <http://www.cba.am/am/SitePages/statsscci.aspx>.

²⁰ The real export and import growth indicators are the Central Bank's estimates.

²¹ In January-September the growth of export of goods (FOB) has been 6.0 percent y-o-y. The third quarter 2012 indicator of export of services is a forecast.

²² In January-September the growth of import of goods (CIF) has been 1.2 percent. The third quarter 2012 indicator of import of services is a forecast.

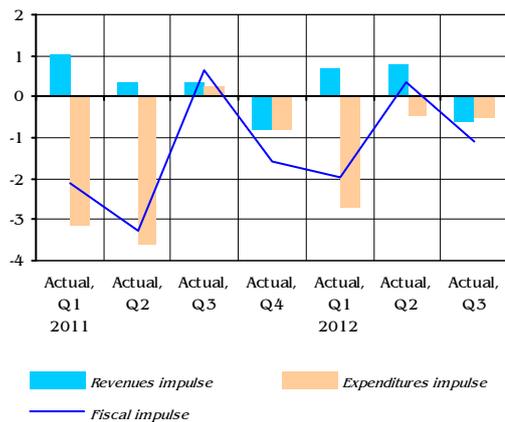
²³ The labor market data for 2012 are the Central Bank estimates which are based on the first half 2012 data and actual September and October 2012 figures. The growth indicators represented in this sub-section are relative to the same quarter of the previous year, unless otherwise specified.

reflecting an increase in productivity in the private sector and moderate growth in some budget-supported organizations. Under such conditions, there has been 3.1 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. The growth of wages in 2012 is an estimated 5.7 percent and the growth of real wages, 3.2 percent.

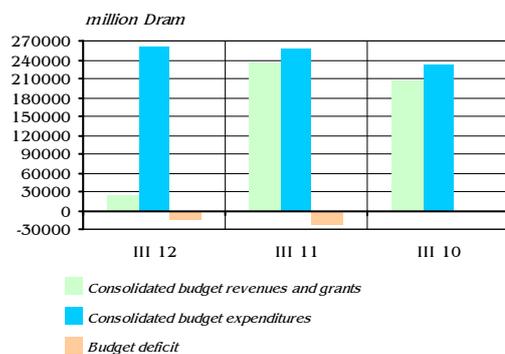
In the first half of 2012, relative to the same period of the previous year, average quarterly unemployment has subdued by 1.3 pp to 18.8 percent. The unemployment will keep on reducing over the second half of the year to reach 17.2 percent for the year, representing a 1.2 pp reduction in relation to the previous year.

Material imbalances in the economy have not been observed in the period January-September. In particular, the growth of real wages has been consistent with the growth of productivity. The aforementioned developments will carry on until the end of the year, and one may conclude that the impact of the labor market on inflation in 2012 will be neutral.

In Q3 2012 the fiscal impulse's impact was contractionary



Q3 2012 saw state budget deficit reduce in comparison with the same reference period of previous years



3.2.4 Fiscal policy²⁴

In the third quarter of 2012 the impact of **fiscal policy** on aggregate demand was estimated to be restrictive, which is within the Central Bank forecast. This has been driven by contractionary impact of revenues (0.57) and of expenditures (0.51). Actual expenditures of the third quarter were executed in deviation of both quarterly proportions of the program budget and the Central Bank projection, which resulted in savings of about AMD 17.0 billion.

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

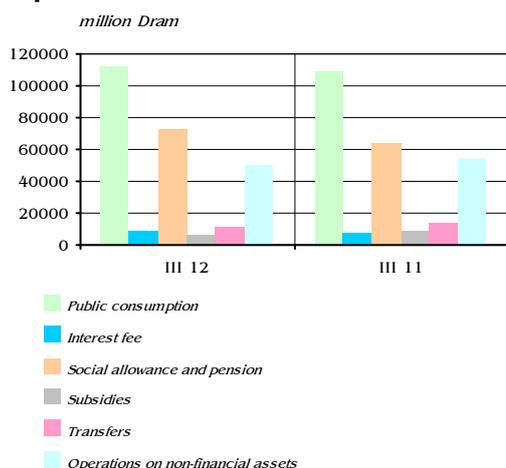
Revenues of the consolidated budget have grown by 12.4 percent or AMD 27.0 billion in relation to the third quarter of the previous year, mostly owing to a 14.2 percent increase of tax revenues. The growth of indirect taxes was 19.0 percent y-o-y and that of direct taxes, 15.8 percent y-o-y. Direct taxes posted growth on all taxes, with profit tax and income tax having grown by 27.0 percent and 9.2 percent, respectively.

In the third quarter of 2012 expenditures of the consolidated budget have grown by about 2.0 percent in comparison with the same period of the previous year. In the meantime, current expenditures have increased by 4.5 percent y-o-y, with **public consumption** having grown by 2.8 percent y-o-y. Expenditures on item **transactions with non-financial asset** have reduced by 7.6 percent, due to programs incurring shortfalls of external financing.

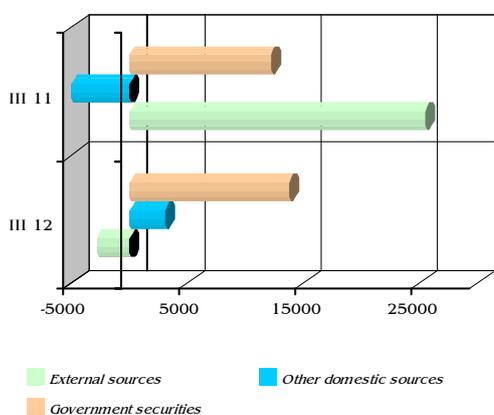
With revenues and expenditures figures shown above, the budget deficit in the third quarter of 2012 reached AMD 14.0 billion or 47.3 percent of the quarterly plan.

²⁴ Consolidated budget indicators which were prepared on the basis of preliminary actual data of the third quarter of 2012 (PIU funds included) were used for the review of the fiscal sector.

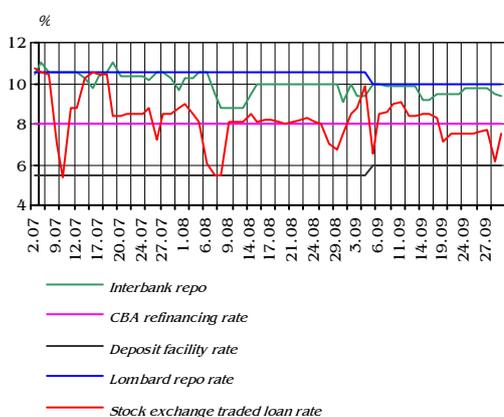
In budget expenditures structure in Q3 2012, subsidies, grants and capital expense reduced



In Q3 2012 budget deficit was financed by domestic sources



Interests in short-term segment trended downward during the quarter



According to first nine months' results, state budget revenues were over-performed against program proportions by nearly AMD 4.5 billion, and the growth of revenues in relation to the same period of the previous year has been 7.4 percent or AMD 45.8 billion. The amount of public expenditures (PIUs included) has grown by nearly 1 percent as compared to the same indicator for the same period of the previous year. Based on the first nine months' results, the state budget deficit has amounted to AMD 33.5 billion or about 25.3 percent of the annual plan. In general, the fiscal policy implemented in the course of the first nine months of 2012 has had 0.8 pp of contractionary impact on aggregate demand.

The fiscal policy is predicted to have nearly 1.1 pp of contractionary impact on aggregate demand in consideration of actual developments over nine months of 2012 and the state budget's Q4 program implementation. The performance of the budget will be in line with quarterly proportions of revenues and some savings on expenditures (to the amount of 4.0 percent of the annual plan). In the outcome, the Deficit/GDP ratio will reach 2.0–2.2 percent instead of 3.1 percent as was provided for under the budget law.

3.3. Money and financial market developments

3.3.1. Interest rates

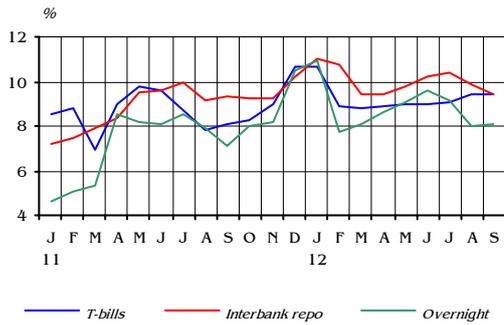
In the third quarter of 2012 the Board of the Central Bank left Refinancing Rate unchanged, at 8.0 percent, but again narrowed the spread between the Deposit Facility rate and Lombard Facility rate, setting these at 6.0 percent and 10.0 percent, respectively, in order to reduce interest rate volatility in the financial market.

In the third quarter of 2012, total volume of repo agreements, the main instrument of the Central Bank, amounted to AMD 489.0 billion, with an average interest rate of 9.03 percent, which is 1.26 pp lower from the previous quarter's indicator. The volume of structural long-term repo agreements reached AMD 1.5 billion, with an average interest rate of 10.28 percent (9.6 percent in the second quarter). In the third quarter the volume of Central Bank reverse repo agreements reached nearly AMD 60.0 billion, with an average weighted interest rate of 7.98 percent.

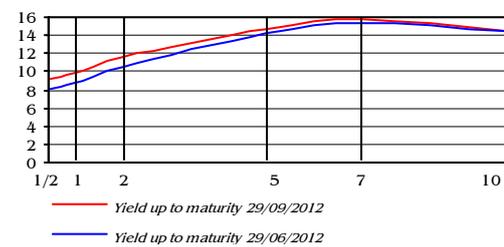
The volume of Lombard Repo operations concluded with commercial banks during the third quarter was more than 5 times less from the previous quarter's respective indicator, reaching AMD 32.5 billion; aggregate volume of funds deposited with the Central Bank was more than twice as less from the figure recorded in the previous quarter, amounting to AMD 158.2 billion.

In the third quarter of 2012 the volumes of Deposit Auction Facility, a new instrument started in the first quarter 2012, reached AMD 48.0 billion, which is AMD 20 billion less than the respective indicator reported in the previous quarter.

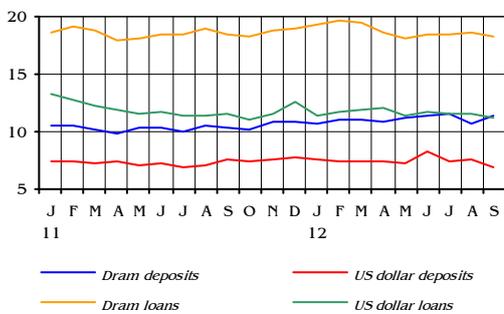
Interbank repo and stock exchange loan interest rates fell during the quarter



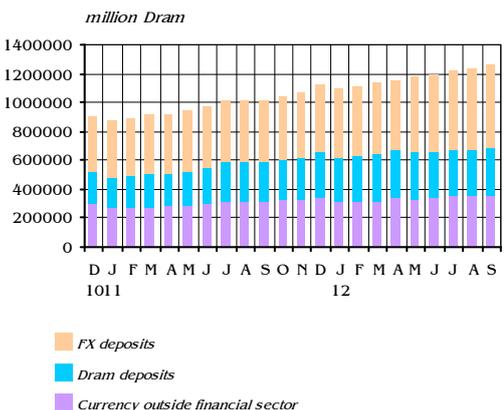
In secondary market interest rates on government securities tended to rise



US dollar loan and deposit interest rates dropped during the quarter



In Q3 2012 FX deposit growth outpaced dram deposit growth



The interbank overnight loan market has been active during the quarter, with volume of interbank loans reaching AMD 1.745 billion, remaining almost unchanged in comparison with the previous quarter, with an average interest rate dropped by 0.77 pp to 8.39 percent.

In the third quarter aggregate volume of operations performed in the interbank and intrabank repo markets amounted to AMD 238.3 billion, which is a reported increase of AMD 47.6 billion against the previous quarter. Though the average market repo rate did not change much (it made up 10.4 percent), it trended down during the quarter to 10.12 percent in September, having dropped by 0.4 pp against June average.

The share of repo agreements of commercial banks in total repo operations executed reached 20 percent against 37 percent recorded in the previous quarter. However, average interest rate in interbank repo market stayed roughly the same, 9.98 percent, in relation to the previous quarter's average.

In the third quarter of 2012 total issue volume of short-term treasury bills reached AMD 12.0 billion (AMD 11.0 billion in the previous quarter). The total demand amounted to 134 percent of the total issue volume, and nearly AMD 11.0 billion of treasury bills was allocated. The quarter's average interest rate kept on trending upward and amounted to 9.35 from 8.95 percent in the previous quarter.

The yield curve analysis shows that convexity of the curve has changed negligibly, from 0.38 to 0.32, reflecting about 0.65 pp rise in yields almost along the curve.

In the banking sector in the third quarter of 2012, interest rates of loans and deposits in Armenian dram remained roughly the same, amounting to 18.4 percent and 11.2 percent, respectively. Interest rates of loans and deposits in U.S. dollar dropped each by 0.3 pp to 11.4 percent and 7.3 percent, respectively.

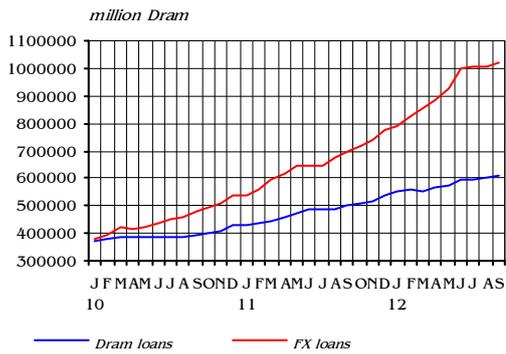
The spread between average interest rates of dram and dollar loans made up 7.0 pp (6.7 pp in the previous quarter). The spread between average interest rates of dram and dollar deposits has increased as well, making up 3.9 pp against 3.5 pp in the previous quarter.

In the third quarter of 2012 the interest rate spread of loans and deposits in both Armenian dram and U.S. dollar remained almost the same, amounting to 7.2 pp and 4.1 pp, respectively.

3.3.2. Money and credit

In the third quarter of 2012 the monetary environment trended as follows: dram deposits grew by AMD 17.7 billion (5.6 percent), almost entirely owing to the growth of demand deposits. Estimations show that the annual growth of dram deposits would reach 10 percent. Foreign currency deposits grew by AMD 37.5 billion (6.9 percent, or 10.0 percent when the impact of change in foreign exchange rate is excluded), due to the growth of time deposits attracted from households and companies. The level of dollarization of the economy (measured as a ratio of foreign currency deposits to broad money) grew by 0.4 pp during the quarter, as a result. The annual growth of foreign currency deposits is estimated to reach 30 percent.

In Q3 2012 lending again remained strong owing to increased FX loans



Broad money increased during the quarter by 6.0 percent and reached AMD 1.3 trillion and dram broad money grew by 5.2 percent, amounting to AMD 689.0 billion. The annual growth of broad money will be more than 15 percent and that of dram broad money, up to 10 percent, according to the Central Bank estimates.

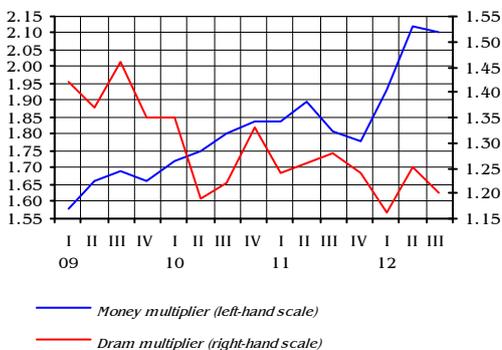
The third quarter of 2012 saw a notable slowing in the lending growth rate, which made up 2.0 percent (AMD 30.7 billion). Foreign currency loans again prevailed, having grown by 2.1 percent (or 4.8 percent when the impact of change in foreign exchange rate is excluded). Loans were mainly originated to private undertakings. Dram loans, with their growth making up 1.8 percent (AMD 12.9 billion), were provided equally to households and companies.

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 third quarter (in the fourth quarter however the demand for business and consumer loans is normally expected to grow). As well as the terms of lending were eased during the third quarter with an exception of consumer loans, however. These developments in lending provide an estimated 25 percent growth of lending for the year.

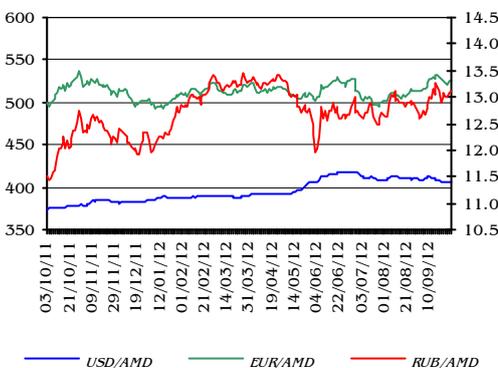
The 12-month monetary indicators as of Q3, 2012 were as follows: dram deposits grew by 22.8 percent and foreign currency deposits, by 34.9 percent (or 23.5 percent when the impact of change in foreign exchange rate is excluded). This resulted in broad money pacing faster than dram broad money (with their growths of 24.2 percent and 16.4 percent, respectively). The dollarization of the economy reached 45.6 percent at the end of September, growing by 3.6 pp y-o-y. The economy lending growth indicator amounted to 31.6 percent y-o-y.

The money and dram multipliers in the third quarter were 2.1 and 1.2 compared to 1.8 and 1.3 reported in the third quarter of the previous year, respectively.

Money multiplier and Dram multiplier



Dram exchange rate versus US dollar, Euro and Russian ruble, in a year



3.3.3. Exchange rate

At the end of the third quarter of 2012, relative to the end of the previous quarter, the average dram exchange rate versus the U.S. dollar has appreciated by 2.9 percent to Dram 406.25 for one dollar.

The Armenian dram exchange rate versus the US dollar, Euro and Russian ruble in the third quarter of 2012

Dram exchange rate in Q3, 2012, quarter-on-quarter			
Currency pair	Exchange rate as of 30.06.2012 (AMD)	Exchange rate as of 30.09.2012 (AMD)	% (appreciation +, depreciation -)
USD/AMD	418.01	406.25	+2.89
EUR/AMD	525.61	525.73	-0.02
RUB/AMD	12.68	13.12	-3.35

Average dram exchange rate in Q3, 2012, year-on-year			
Currency pair	Average quarterly exchange rate, Q3, 2011	Average quarterly exchange rate, Q3, 2012	% (appreciation +, depreciation -)
USD/AMD	368.45	410.66	-10.28
EUR/AMD	521.12	513.56	+1.47
RUB/AMD	12.68	12.85	-1.30

The aggregate volume of U.S. dollar/Armenian dram transactions in the foreign exchange market during the quarter amounted to USD 2724 million, which represents 6.2 percent increase in relation to the previous quarter (USD 2564 million in Q2, 2012).

The aggregate volume of Euro/Armenian dram exchange transactions reached EUR 252.3 million against 507.4 million recorded in the third quarter of the previous year.

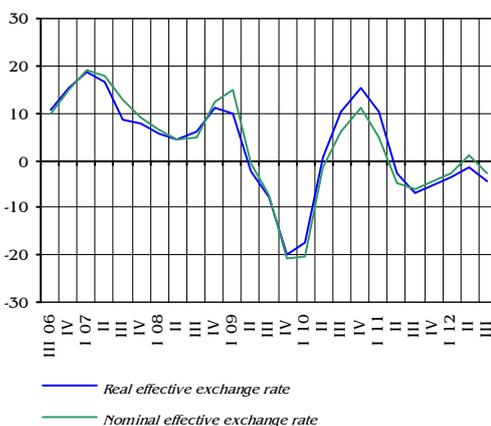
To tackle the dram exchange rate volatility against the U.S. dollar, the Central Bank purchased USD 35.9 million from commercial banks during the third quarter.

In the third quarter of 2012 the nominal effective exchange rate of the dram depreciated by 0.6 percent q-o-q. This was primarily due to nearly 2.2 percent q-o-q depreciation of average quarterly AMD/USD exchange rate and about 1.6 percent depreciation of partner countries' currencies versus the U.S. dollar²⁵.

The nominal effective exchange rate of the dram has depreciated by 2.7 percent against the same quarter of the previous quarter; as much as 10.2 percent y-o-y depreciation of average AMD/USD exchange rate was in part offset on the back of average 8.3 percent depreciation of partner countries' exchange rates versus the U.S. dollar. During the third quarter the dram's real effective exchange rate calculated by CPI (consumer price index) depreciated by an average 4 percent q-o-q amid 0.6 percent q-o-q depreciation of the dram's nominal effective exchange rate. Furthermore, there was 2.8 percent q-o-q deflation in Armenia but 0.7 percent q-o-q inflation in partner countries.

Growth, year-on-year	Q3, 2011	Q4, 2011	Q1, 2012	Q2, 2012	Q3, 2012
Real effective exchange rate (CPI) (+ means appreciation)	-6.9	-5.2	-3.6	-1.5	-4.4
Average inflation in Armenia	5.1	4.4	3.4	1.0	2.3
AMD/USD (+ means appreciation)	-0.9	-5.3	-5.7	-6.8	-10.2
Average weighted inflation in partner countries	5.7	5.2	4.2	3.5	4.0
Partner countries' average weighted inflation (+ means appreciation)	5.1	-1.2	-3.2	-8.4	-8.3

In Q3 2012 real exchange rate further depreciated



Appreciation of real exchange rate = Armenia inflation + appreciation of nominal exchange rate – partner countries' average weighted inflation – partner countries' average weighted nominal exchange rate appreciation

In the third quarter the real effective exchange rate of the dram has depreciated by an average 4.4 percent in relation to the same period of the previous year. This occurred in the face of fast-pacing inflation as well as less depreciated currencies in partner countries as compared with the average depreciation of AMD/USD exchange rate. Average weighted inflation in partner countries reached 4 percent; average quarterly inflation in Armenia amounted to 2.3 percent in relation to the same period of the previous year, and such difference in inflation figures contributed to the depreciation of the real exchange rate.

²⁵ The indicator denotes a weighted average of trade partner countries' currencies.

3.4. Balance of payments

In the third quarter of 2012, relative to the third quarter of the previous year, the deficit of current account has contracted amidst heightened economic activity: the improvement of current account was conditioned by reduced trade balance deficit as well as an increased inflow of remittances by individuals. Though net inflow through capital and financial account has narrowed in relation to the same period of the previous year, it outstripped the current account deficit, however.

3.4.1. Current account

In 2012 the Current Account Deficit/GDP ratio is estimated around 9.0 percent against 10.9 percent recorded in the previous year. In the third quarter of 2012 the deficit of current account contracted by USD 68.5 million y-o-y and reached USD 107.5 million. In the period January-September 2012 the Current Account Deficit / GDP ratio has dropped by 1.5 pp, according to the Central Bank estimates.

In the third quarter of 2012 the deficit of trade balance contracted by USD 60.7 million and amounted to USD 461.9 million. Real export kept on increasing amid sluggish external demand and reduced export prices, and such increment was fuelled by persisted high growth rates in domestic industry. In the third quarter the dollar value of export of goods has decreased by 5.3 percent in relation to the respective figure recorded in the third quarter of the previous year²⁶, and this was driven by negative contribution from items "precious and semi-precious stones, precious metals and article thereof" (-5.7 pp), "transport means" (-5.4 pp) and "ore and minerals" (-3.2 pp) but positive contribution from item "products of prepared food" (5.1 pp)²⁷.

In the face of persisted domestic economic activity and slower reducing rates of dollar prices of import y-o-y, in the third quarter of 2012 growth rates in real import of goods were somewhat slower in comparison with the previous reference period, while the dollar value of import of goods has decreased by 8.7 percent y-o-y. The decrease in dollar value of import of goods²⁸ was mainly driven by negative contribution from items "precious and semi-precious stones, precious metals and article thereof" (-4.1 pp) and "products of prepared food" (-1.5 pp). Import of the item "products of vegetable origin" made a positive contribution of 1.9 pp.

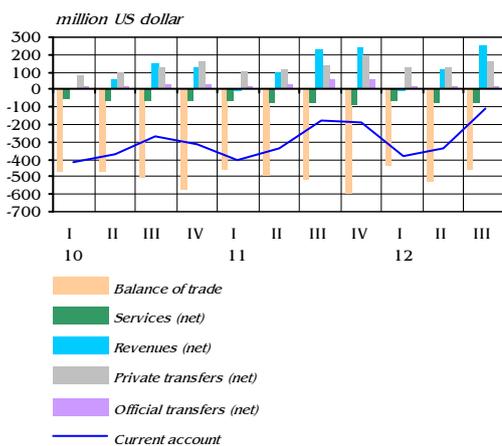
Geographically, external trade trended as follows: the trade balance contracted mainly because of USD 92.0 million y-o-y decrease of the deficit of balance of trade with the group "Other countries". This has been driven by the contraction of the deficit of balance of trade with China and Turkey, whereas there has been a surplus of balance of trade with Switzerland.

²⁶ This has been attributable also to USD 20.0 million worth of export of item "transport means" in September of 2011.

²⁷ Export and import breakdown by sector and geography is presented, respectively, in FOB and CIF prices.

²⁸ In the third quarter of 2012 nearly all items of import posted y-o-y decreases.

In Q3 2012 current account deficit contracted in relation to the same reference period of the previous year

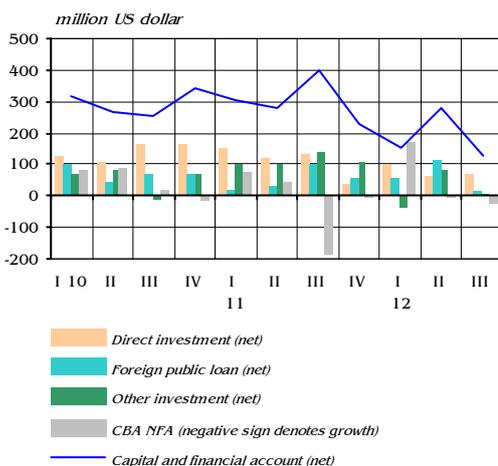


In the third quarter of 2012 the deficit of balance of services shrank by USD 6.0 million y-o-y and amounted to USD 70.7 million. The shrinkage of the trade balance resulted in the reduction of the deficit of balance of transport services. The y-o-y indicator of the deficit of balance of travel will grow however. The growth of export and import of services in the third quarter of 2012 was 8.5 percent and 4.9 percent y-o-y, respectively.

In the third quarter of 2012 the y-o-y growth rates in remittances²⁹ of individuals persisted, which is determined by the developments in the Russian economy³⁰. During the quarter net inflow of seasonal worker income has grown by 10.0 percent y-o-y and amounted to USD 371.9 million. This fairly outstripped net outflow in item "income on investment". As a result, item "income" posted net inflow of USD 251.7 million. Net inflow of private transfers has increased by 17.3 percent y-o-y and reached USD 162.9 million.

3.4.2. Capital and financial account³¹

In Q3, 2012 net inflow through item capital and financial account reduced y-o-y, outstripping current account deficit



In the third quarter of 2012 net inflow of the funds through the capital and financial account contracted by USD 268.8 million y-o-y and reached USD 129.0 million. This exceeded the current account deficit, and net foreign assets of the Central Bank of Armenia have increased by USD 21.5 million as a result.

In the third quarter net inflow of capital transfers amounted to USD 29.8 million (USD 24.1 million in the same quarter of the previous year).

In the third quarter net inflow of foreign direct investment amounted to USD 74.1 million (USD 133.1 million in the same period of the previous year), and net inflow of public loans amounted to USD 14.4 million compared to USD 100.5 million recorded in the same period of the previous year.

Net foreign assets of private sector have decreased by USD 10.8 million, in which net foreign assets of other private sector (banks excluded) grew by USD 36.7 million and net foreign assets of the banking sector reduced by USD 47.5 million.

3.5. External environment

The third quarter of 2012 was prominent in some economic policy actions by the U.S.A. and the EU aimed to stimulate growth and provide solution to debt problems. This included the U.S. Federal Reserve System's decision on QE3, implementing a low-interest-rates-policy for another year up until 2015 as well as the European Central Bank's decision to purchase bonds from secondary markets of debt-hit governments under special terms was prominent.

²⁹ The third quarter of 2012 posted an 11.1 percent y-o-y growth of net inflow of non-commercial remittances by individuals via the banking system.

³⁰ In the third quarter of 2012 economic growth in Russia was 2.9 percent y-o-y, according to preliminary estimates of the Russia State Statistics Service.

³¹ Q3, 2012 capital and financial account figures are the Central Bank forecasts and estimates.

According to the IMF estimation, world economic growth in 2012 will be 3.3 percent against 3.8 percent recorded in 2011. The slowdown was primarily due to 1.3 percent slowing of **economic growth in developed countries** which affects the economic growth in emerging countries as well (it is an estimated 5.3 percent for 2012 instead of 6.2 percent recorded in 2011).

In the **United States of America** in the third quarter economic growth rates stayed almost unchanged in relation to the previous quarter yet unemployment remains elevated. Preliminary estimates by Economic Analyses Bureau of the U.S. Department of Commerce suggest that in the third quarter the U.S. economy posted an annualized 2.3 percent growth q-o-q compared to 2.1 percent growth recorded in the previous quarter.

Positive contribution to the growth came largely from private spending, investment and public expenditures, whereas export's contribution has been negative and import contracted compared to the previous quarter. In the third quarter average quarterly inflation in the U.S. economy further subdued to 1.7 percent y-o-y from 1.9 percent y-o-y recorded in the previous quarter. Economic growth in the U.S.A. in the third quarter of 2012 is estimated roughly 2.2 percent, yet the economy is below its potential level. Inflation will reach 2 percent.

The U.S. Federal Reserve System will remain 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.

In the period July-August 2012 **Euro-area** saw a year-on-year decline in industrial production, which suggests that the economy would further slow in the third quarter, according to the EuroStat data. The IMF predicts that economic decline in the EU in 2012 would be around 0.4 percent.

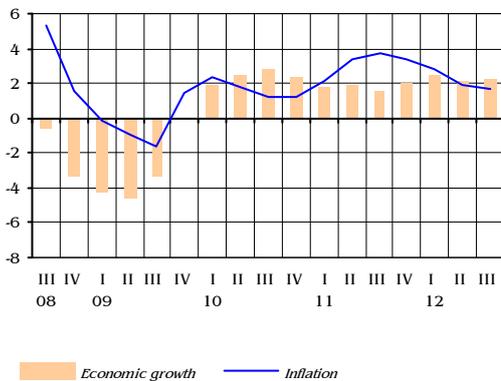
During the quarter consumer price index in Euro-area rose an average 2.5 percent y-o-y, which is almost the same compared to the previous quarter's respective indicator. Average inflation is estimated 2.3 percent which is above the 2 percent target, however.

Despite persisted high inflation, the European Central Bank cut the policy rate by 0.25 pp in early quarter to 0.75 percent.

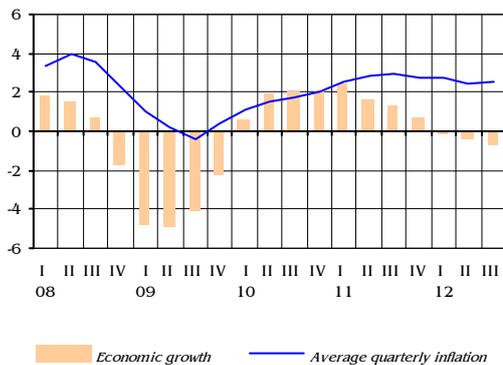
During the quarter the U.S. dollar changed its performance versus Euro by going a depreciation path in August-September after lasted appreciation. However, the dollar appreciated versus euro during the quarter by 2.5 percent and reached 1.25 for one euro (the y-o-y appreciation amounted to 12.8 percent).

Economic growth in **Russia** slowed down in the third quarter amid accelerated inflation. The 2012 economic growth indicator was revised downside to 3.7 percent. Economic growth in the third quarter reached 2.9 percent y-o-y against the previous quarter's 4.0 percent, according to the preliminary estimates of the Russia State Statistics Service. The slowing of growth rates is mainly observable on the back of strong growth recorded in the second half of the previous year. Growth rates in industry speeded up to some extent to 2.5 percent y-o-y from 2.3 percent recorded in the previous quarter. Growth rates in retail trade sector slowed down to 4.6 percent y-o-y. Construction posted 2.7 percent decline y-o-y.

In the USA in Q3 2012, economic activity was recovering slowly



Economic slowdown in Euro-area continued



On the back of developments in world and domestic economies, position of the current account has weakened and outflow of the capital slowed down in relation to the third quarter of the previous year. The current account surplus has reduced by USD 4.8 billion y-o-y to USD 13.0 billion; net outflow of capital amounted to USD 9.0 billion compared to USD 19.6 billion worth net outflow recorded in the same period of the previous year. Russian Central Bank reserves have increased this quarter by USD 1.5 billion.

In the third quarter pressures on the ruble exchange rate came at a lesser extent amidst balance of payment flows, reflecting Russian Central Bank interventions in the foreign exchange market which were gradually reduced to USD 1.88 billion in the third quarter from USD 2.5 billion in the previous quarter. The ruble exchange rate depreciation in the third quarter was 10.1 percent y-o-y.

In the third quarter inflation accelerated as economic growth rates slowed down. Consumer prices went up to 6.5 percent y-o-y in September from 4.3 percent y-o-y in June. In the third quarter inflation reached 6.0 percent y-o-y from 3.8 percent recorded in the previous quarter. The target inflation indicator for 2012 is within 5–6 percent.

The Russian Central Bank decided to raise the refinancing rate by 0.25 pp to 8.25 percent in September in consideration of the inflation environment that expanded and brought in more risks to inflation deviating from its medium-term target.

Economic growth in *China* further slowed down to a reported 7.7 percent in the third quarter of 2012. Average quarterly inflation subdued, making up 1.9 percent y-o-y. Economic growth in China in 2012 is estimated 7.8 percent compared to 9.2 percent recorded in 2011.

In the light of the aforementioned developments in global economy *gold price* rose by 2.7 percent in the third quarter and averaged USD 1657 per oz. (the y-o-y decrement was 2.6 percent). The y-o-y increment of the gold price in 2012 is estimated around 7.3 percent.

Oil price in global markets trended upward during the third quarter, mostly driven by 3rd quantitative easing exercise by the U.S. Fed. Oil price grew by 0.9 percent on average reaching USD 110 a barrel (the y-o-y decrement was 2.2 percent). High volatility of oil prices were recorded throughout the year by fluctuating around USD 112 a barrel. In 2012 oil price decrease compared to the previous year is estimated only 1 percent.

In the third quarter *copper price* fell by 1.5 percent to USD 7732 per ton (the y-o-y decline amounted to 14 percent). Preliminary estimations suggest that average copper price decrement in 2012 would be 9 percent y-o-y.

Selected food markets in the globe saw considerable inflationary trends during the third quarter, driven by supply-side factors. The food price index, as released by the Food and Agricultural Organization, has risen by 3.7 percent q-o-q. This figure however is 6.7 percent lower from the respective figure recorded in the same quarter of the previous year.

In the third quarter international *wheat price* grew by 29.9 percent q-o-q to USD 9.5 a bushel (the y-o-y growth was 10.7 percent), due to reduced supply because of reported drought in

Russia, Kazakhstan and the U.S.A. As estimated by the Central Bank, wheat price will persist at a high level in 2012, mostly equal to the price recorded in 2011.

During the quarter, international **sugar price** index dropped by 1.4 percent, with the y-o-y decrement amounting to 27.0 percent. Average sugar price in 2012 will be 15–18 percent less from its average recorded in 2011, according to the Central Bank estimates.

During the quarter, international **rice price** grew by 2.4 percent to USD 15.5 per U.S. hundredweight (45.4 kg) whereas the y-o-y decrement was 9.3 percent. About 3 percent drop in the price on an annual basis is expected, however.

The global demand remains sluggish amid uncertainties over seeking for political solutions to debt problems faced by developed countries. No considerable inflationary trends are observable in basic commodity markets, whereas main world food markets see trends neutralize each other – fundamental tightness is persisting in the wheat market but deflationary trends are shown in sugar and rice markets.