

THE CENTRAL BANK
OF THE REPUBLIC OF ARMENIA

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dated February 24, 2017

Inflation Report

Monetary Policy Program, Q1, 2017



*Status Report on Implementation of the Monetary Policy
Program, Q4, 2016*

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The Central Bank of Armenia has, starting from January 2006, moved to a fully-fledged inflation targeting strategy, which highlights the importance of communicating of the Bank to the general public by publishing, inter alia, quarterly inflation reports. First section of the inflation report includes next quarter's monetary policy program that provides new forecasts of inflation and other macroeconomic indicators and main directions of the monetary policy in the forecast horizon. Second section includes status report on implementation of the monetary policy program of the previous quarter, which covers actual economic and monetary developments.

Publishing of inflation forecast and assumptions underlying it makes the monetary policy of the Bank more transparent, understandable and predictable, which considerably increases the public confidence in the Bank. The Bank believes that a clear and trusted monetary policy positively affects the anchoring of inflation expectations and maintaining financial stability in terms of cost reduction.

Starting from the second quarter of 2012, the CBA has been publishing forecasts of non-conditional inflation in a 3-year time horizon, in implementation of the inflation targeting strategy, whereby the monetary policy is steered to minimize any deviations of potential inflation from a 4 % target.

Projections in this report are based on the factual information available by February 14, 2017, i.e. the day on which the refinancing rate was set, the results of a survey conducted by the CBA and the judgment made pursuant to the information on future developments of the macroeconomic environment.

All inflation reports which have been published to date are available on the Bank's website which also contains monetary policy-related publications.

1. EXECUTIVE SUMMARY

The monetary policy the Central Bank of the Republic of Armenia (hereinafter “the Central Bank”) carried out in 2016 was expansionary and aimed at softening the existing deflationary environment, in view of the macroeconomic situation and inflation developments at the time. The consistency by which the Central Bank attempted gradual easing of monetary conditions proved effective since inflation expectations had reduced significantly amid persistently low inflation, domestic demand and inflation recovered to some extent during the year, leading to sustained income purchasing power and restored external competitiveness.

The Central Bank had revised the 2016 economic growth forecast downward, yet the 2017 economic growth forecast remained virtually unchanged.

The deflationary patterns observable in the most part of 2016 somehow mitigated in the fourth quarter; at the end of the year the 12-month inflation rate amounted to -1.1%. Up until the end of 2017, the deflationary environment will phase out and the 12-month inflation rate will return to the target in the forecast horizon.

Economic activity growth rates remained slow in the fourth quarter of 2016 mainly due to reduced output in agriculture and mining sectors. In view of such developments, although the Central Bank had revised the 2016 economic growth forecast downward, the 2017 economic growth forecast remained virtually unchanged. Starting from 2017 up until the end of the forecast horizon, however, the growth rates will speed up to gradually approach the long-term equilibrium under the influence of somewhat accelerating global economic growth rates, expected gradual recovery of domestic demand in the economy, as well as a number of export and investment promotion programs and structural reforms by the Government of Armenia. The deflationary patterns observable in the most part of 2016 somehow mitigated in the fourth quarter; at the end of the year the 12-month inflation rate amounted to -1.1%. In anticipation of lower prices of some non-food products and reduction in the electricity tariff since February of 2017, the path to inflation target will be slightly slower compared to the previous prediction. Up until the end of 2017, the deflationary environment will phase out and the 12-month inflation rate will return to the target in the forecast horizon.

In the fourth quarter of 2016 the economic activity continued growing sluggishly due to reduced output of agricultural product and slowing of growth rates in mining sector. The decline in remittances from Russia 2015-2016 has negatively affected the domestic demand, yet expansionary monetary and fiscal policies implemented by the Central Bank and Government of Armenia in the meanwhile have somewhat neutralized the effect. So, starting from the second quarter of 2016, the domestic demand recovered to some extent, reflecting accelerating growth rates in private consumption that time. As a result, 0.9% growth in **real private consumption** but 2.5% decrease in **real private investment** are estimated for the year. In the fourth quarter net real exports continued improving – for 2016 the real growth of export of goods and services is estimated at 14.0% and the real growth of import of goods and services, 1.5%. In the light of such developments, in 2016 the **economic growth is estimated in the range of 0.3-0.5%.**

In 2016 the economic activity indicator is estimated in the range of 0.3-0.5%.

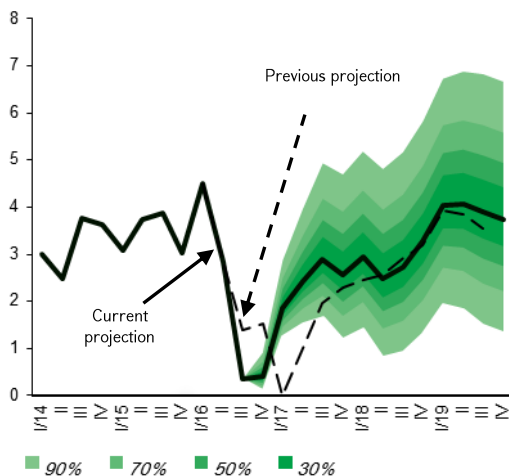
In 2016 the 12-month inflation rate amounted to -1.1%.

The Central Bank kept on loosening monetary conditions in the fourth quarter: the refinancing rate was lowered by a total of 0.5 pp (2.5 pp annually) to 6.25% in late December.

Starting from 2017, the pace of global economic growth rates will somewhat accelerate while inflationary patterns will continue to be seen in international markets, with the exception of the wheat market.

In 2017 the economic growth is expected within 2.2-3.2%.

Real GDP Cumulative Growth Projection Probability Distribution Chart for a 3-year horizon



The Central Bank finds that easing of monetary conditions in the first quarter of 2017 is appropriate and possible.

There was 2.7% inflation in the fourth quarter of 2016 compared to that of 1.9% observed in the same period of the previous year, in which case the **12-month inflation rate** amounted to **-1.1%** at the end of the year. In view of the deflationary environment to still persist over the coming months, sluggish domestic demand and the inflation expectations further mitigating, the Central Bank kept on loosening monetary conditions in the fourth quarter as well: the refinancing rate was lowered by a total of 0.5 pp (2.5 pp annually) to 6.25% in late December (see details in section “3.1.1. Actual inflation and fulfillment of the inflation target”).

According to the Central Bank forecasts, beginning from 2017, the pace of global economic growth rates will somewhat accelerate while inflationary patterns will continue to be seen in international markets, with the exception of the wheat market. Nevertheless, in the **forecast horizon, considerable inflationary pressures from the external environment are not likely**.

In 2017 the economic growth rates will speed up, mostly thanks to expected gradual recovery of the domestic demand, effective implementation of a number of programs by the Government of Armenia aimed at export and investment promotion, continued improvement in external economic environment and pushing ahead with structural reforms. In 2017 as a result, the **economic growth is expected within 2.2-3.2%**. From the demand perspective, this will be fuelled by private consumption (1.7% growth), private investment (3.0% growth) and net exports, with the export growth of goods and services forecasted in the range of 5.0-7.0%, while the growth of imports of goods and services is predicted in the 0-2.0% range. Also, the fiscal policy is expected to have 3.0 contractionary impact on aggregate demand during the year, compared to last year. From the supply perspective, the growth in industry and agriculture will contribute to the economic growth on the whole.

The economic growth rates will further accelerate, to be within 3.2-4.4% in the forecast horizon.

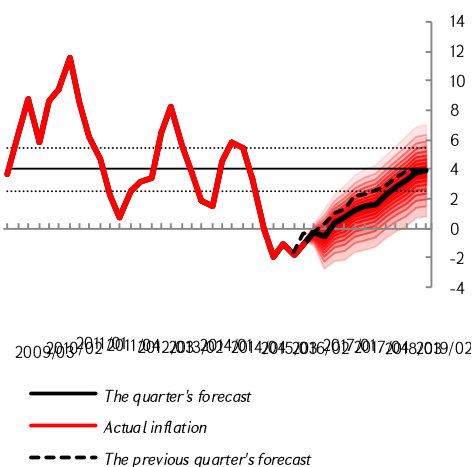
Thus, **in the forecast horizon up to the beginning of 2018, the domestic demand's deflationary impact on domestic prices will gradually weaken but then, up until the end of the forecast horizon, it will turn into that of inflationary.**

According to the Central Bank forecasts, in anticipation of lower prices of some non-food products and the electricity tariff cut since February of 2017, the path to inflation target will be slightly slower compared to the previous prediction. Then, the deflationary environment will phase out by the end of the year, and the 12-month inflation rate will return to the target in the forecast horizon.

Given these factors, as well as the fiscal policy to be contractionary in 2017 in comparison with the previous year, the **Central Bank finds that easing of monetary conditions in the first quarter of 2017 is still appropriate and possible.**

The Central Bank believes that the policy implemented to date has created enough stimuli for neutralizing the deflationary environment in

Inflation (12-month) Forecast Probability Distribution Chart for a 3-year horizon



2017 and fulfilling the inflation target in the forecast horizon, while future possibilities of conventional monetary policy remain limited.

Risks that inflation will deviate from the projected value are estimated to follow a downward path in both short and medium-term perspectives. Risks deriving from external sector have not changed much against the previous prediction and are somewhat inflationary; these are mainly associated with capital outflows from developing countries and, consequently, volatilities in financial markets, and the developments in international prices of raw materials and food products. ***Risks deriving from the domestic sector are estimated to be deflationary*** and reflect the extent to which price developments in product markets in the external sector will affect the domestic prices, the pace at which domestic demand and private investments will recover, as well as the Government-led structural reforms. At the same time, dual-sided risks to the developments in agriculture, a sector greatly depending on weather conditions, are possible.

If the aforementioned risks materialize, the Central Bank will react accordingly by maintaining the inflation target in the medium run.

2. FORECAST, FORECAST CHANGES AND RISKS

2.1. External environment¹

The world economy will grow more rapidly in 2017 after the slow growth in the previous year.

Inflationary patterns will be observable in 2017 in international markets of raw materials and food products, except for the wheat market.

The world economy will grow more rapidly in 2017, compared to the slow growth in the previous year. In particular, as regards the main trading partner countries to Armenia, a notable acceleration in the pace of economic growth is anticipated in the USA, somewhat a slower growth in the Eurozone and rebounding growth in Russia following the economic downturn in 2016.

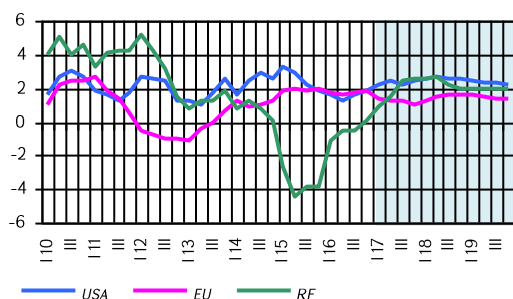
Inflationary patterns will be observable this year in international markets of raw materials and food products, except for the wheat market.

Economic growth in the **U.S.A.** is forecast to be 2.3% in 2017 instead of the 1.6% growth in 2016 and in the medium-term it is expected to accelerate to 2.4%, which will be driven mostly by continued growth of investment². On the back of a lowering rate of unemployment and inflation recovering to a certain extent, there is anticipation that the US Federal Reserve System will gradually tighten its monetary policy in 2017.

Economic growth in **Eurozone** in 2017 is predicted to be 1.3% compared to the 1.7% growth in 2016. Stronger domestic demand is the key driver to the growth and contraction in net exports, the main setback. In the medium term, the economic growth will be averaging around 1.5%. Notwithstanding accelerating rate of inflation in the Eurozone, it still runs below the target and is largely driven by increased service fees and food prices. The European Central Bank further conducts an expansionary policy under which the quantitative easing program will continue up until the end of 2017 while the inflation will only reach the target by the end of the forecast horizon.

A 1.8% economic growth is anticipated in **Russia** in 2017 after the 0.5% slowdown in 2016. In the medium term, the growth will amount nearly to 2% thanks to the Bank of Russia's monetary policy set to reducing inflation and anchoring inflationary expectations, as well as in the event oil prices will further persist at relatively high levels. The inflation continues to subdue and is expected to approach the target in the second half of 2017. In the medium run it is expected around a 4% target. The Russian ruble continues strengthening amid declining inflation expectations in spite of the use of currency intervention under a transition budget law by the Russian Ministry of Finance.

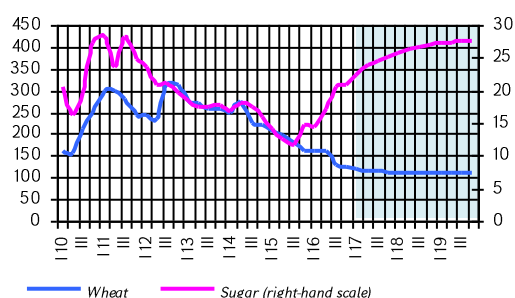
Economic growth in main trade partner countries (%)



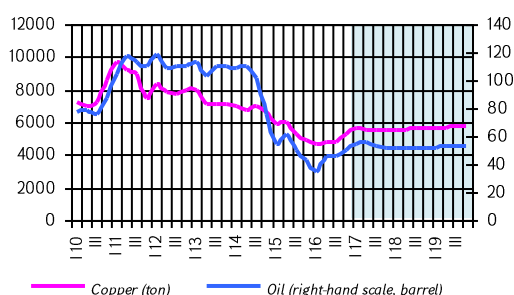
¹ The forecasts of external sector were based on the information provided from international reputable analytical, research, ratings organizations and financial institutions as well as various news agencies worldwide (including the IMF, the World Bank, The Economist, Economist Intelligence Unit, the Global Insight, the Financial Times, and so on).

² All forecasts for the external environment are based on the information available as of 27.01.2017.

Food products (US dollar)



Commodities (US dollar)



According to the IMF January 2017 report “World Economic Outlook”, world economic growth forecast for 2017 is 3.4%, which is the same indicator compared to the previous publication of the report in October.

There is anticipation that inflationary trends will persist in the **world commodity and food product markets** in 2017, which will be primarily driven by supply factors and somehow recovering demand.

Risks to the developments in global economy are much the same compared to the previous forecasts. More prominent risks include the capital outflow from developing countries and, consequently, further volatilities in financial markets, because of uncertainties about the US monetary policy, and volatile international oil prices.

Box 1

Developments in commodities markets in the forecast horizon

The January 2017 report of the **oil** market published by OPEC predicts that the global oil demand will grow in 2017 by 1.16 million b/d and consumption will average 95.6 million b/d (compared to an average 94.44 million b/d consumption in 2016). The report also foresees that oil production outside OPEC in 2017 will grow by 0.12 million b/d to 57.26 million b/d on average. Oil production by OPEC is predicted to grow by 0.15 million b/d in 2017. However, international oil prices will behave somewhat volatile in the short run, depending on the likely dollar swings in anticipation of changes in policy interest rates by the US Fed.

Prices in world **metals** markets will continue trending upward, largely determined by recovering demand. In 2017, the world copper market anticipates a further upward trend in consumption notwithstanding an expected augmenting of production volumes. In a setting like this, international copper prices are expected to be somewhat higher. In the medium term perspective international copper prices will remain elevated mostly owing to the increase in copper consumption in the USA and China.

According to the January estimates of the U.S. Department of Agriculture, in the 2016/2017 marketing year the world **wheat** harvest will reduce by 4.2 million tons to some 748.2 million tons. However, despite reduction by 4.7 million tons, world wheat stock will reach 248.6 million tons for the 2016/2017 marketing year, according to estimations. International wheat prices will continue dropping in the short term, yet it will occur at a slower pace as a result of abundant harvest. However, modest price growth will be observable in the medium term amid some contraction in the production as well as gradual recovery of the global demand.

World **sugar** prices will continue growing at a slower pace due to expectations for contracting production of sugar, which is determined by anticipated reduction in sugarcane harvest in Brazil, a leading manufacturer and exporter of sugarcane.

2.2. Aggregate supply and aggregate demand

Aggregate supply

The Central Bank forecasts of economic growth for 2016 were revised downside mostly due to lower-than-expected growth in the second half of the year; this in turn is attributable to emergence of risks to reduced output in the agricultural and mining sectors, which had been outlined in previous monetary policy programs. As a result, the **2016 economic growth is estimated in the range of 0.3-0.5%**³. Note that the economic growth forecast for 2017 remained virtually unchanged.

The narrowing of private transfers from Russia to Armenia has considerably influenced the domestic economic activity in 2016 yet the negative effect of contracting remittances has been cushioned by expansionary monetary and fiscal policies conducted during the year. Under such conditions, the **domestic demand grew by 0.8%** in 2016, which is still smaller from its equilibrium. It should be noted that remittances from Russia increased by about **5%** in the fourth quarter of 2016, which, along with expansionary policy implementation, has led to a rapid growth in domestic demand later the year.

The domestic demand expected to recover gradually, efficient implementation of the Government's programs aimed at export and investment promotion, continued improvement in the external economic environment and structural reforms are the key factors that will speed up the economic growth in the forecast horizon. So, the **economic growth in 2017 is predicted within 2.2-3.2%** which, gradually accelerating, will reach **3.2-4.4% at the end of the forecast horizon**⁴. The acceleration will occur by broadening export capacities, identifying new export markets and products in the context of export-promotion policy of the Government of Armenia.

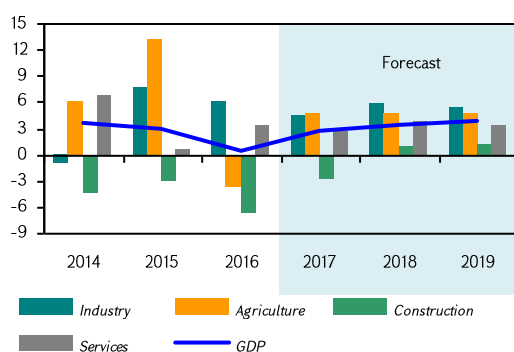
Also, taking into account long-term economic developments anticipated in partner countries to Armenia as well as structural shifts in the domestic economy, **Armenia's long-term economic growth equilibrium is estimated within 4-5%**, and presently the GDP potential growth is estimated at the level of 1.0-1.5%. It should be noted, however, that both estimated long-term GDP growth rate and medium-term forecast of the economic growth rate may decelerate if the structural reforms are pushed ahead slowly and investment in the tradable sector grows insufficiently. It is worth mentioning that investments in the tradable sector will prove rather effective in the forecast horizon, if they come as foreign direct investment or are funded through domestic savings.

The following developments are expected in the sectors of the domestic economy in the forecast horizon:

The 2016 economic growth is estimated in the range of 0.3-0.5%.

The economic growth in 2017 is predicted within 2.2-3.2% which, gradually accelerating, will reach 3.2-4.4% at the end of the forecast horizon.

GDP growth by sectors of economy



³ See the 30% range in the Real GDP Growth (Cumulative) Projection Probability Distribution Chart.

⁴ See the 30% range in the Real GDP Growth (Cumulative) Projection Probability Distribution Chart.

For **Industry**, the forecasts were revised slightly upside in the light of high economic activity observed in the processing industry and the mining sector later in 2016. As a result, **in 2017 the value added in industry is forecast to grow within 4.4-5.2%**. In the forecast horizon the growth in industry sector **will stabilize in the range of 5.6-6.0%**, which will be bolstered by implementing a handful of investment projects and broadening export capacities in the context of export-promotion policy of the Government of Armenia.

For **Construction**, the 2017 forecasts of value added were revised somewhat downside due to lower-than-expected economic activity in the construction sector. The decline in value added in construction in 2017 is expected in the range of **2.5-3.1%** which will be mainly attributable to reduced construction funded by government resources and international loans. The decline will, however, be cushioned by construction to be financed by organizations.

In the **end of forecast horizon**, the growth is expected to **stabilize in the range of 0.7-1.3%** if the supply-and-demand imbalance in the construction sector phases out. The growth will be fostered primarily by construction projects designed for infrastructure improvement and investment projects in the private sector.

For **Services**, the 2017 forecasts of value added were much the same: the growth is estimated in the range of 2.4-3.0% and will be underpinned by slowly rebounding activity in trade turnover and increasing volumes of services provided. Somewhat higher economic activity is anticipated in the services related, particularly, to air transport, financial and insurance activities, as well as services in tourism industry.

In the **forecast horizon**, the growth in services is predicted to **stabilize within 3.2-4.0%** in view of gradually recovering domestic demand and expected tourism growth.

For **Agriculture**, the 2017 forecasts of value added did not change notably (4.5-5.3%). The expected growth in the sector will especially be driven by strong value added to be created in greenhouse facilities and expected moderate growth in plant growing and animal breeding.

In the forecast horizon, the growth in agriculture will reach **4.0-5.0%**. The growth rates in the sector can be expected in the forecast horizon as the Government of Armenia remains committed to conducting a consistent policy to expand house farming and refrigerator facilities, arable land, crops and cattle, and to engage extra means of transportation for exports and boost up competitiveness in the agriculture. There are risks to both increased and decreased output in the agricultural sector due to the factor of weather conditions.

In the forecast horizon risks to the economic growth are dual-sided, yet upside risks to the growth prevail.

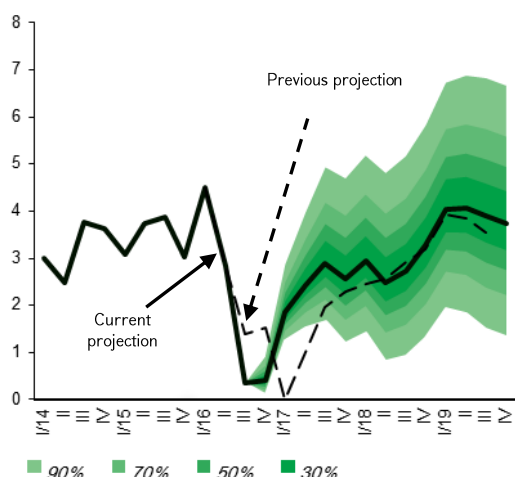
In the forecast horizon, while risks to the economic growth are dual-sided, **upside risks to the growth prevail**. The risks to the economic growth are associated with uncertainties in global and domestic economic environments.

Among upside risks, most prominent is the implementation of a number of projects aimed at improving the business climate and

promoting export-oriented businesses and how this will affect the economic growth. The global economy recovering faster than the baseline scenario, as well as the domestic economic agents exploring new export markets and creating new products are other positive risks to the growth.

Downside risks include adverse weather conditions, a slower-than-expected recovery of private demand in the medium run and a lingering pace of pushing ahead with structural reforms for economic growth.

Real GDP Cumulative Growth Projection Probability Distribution Chart for a 3-year horizon



<i>Real GDP Growth (Cumulative) Projection Probability Distribution</i>				
Period	30% probability interval		90% probability interval	
	Min	Max	Min	Max
January-December 2016 / January-December 2015	0.3%	0.5%	0.1%	0.9%
January-December 2017 / January-December 2016	2.2%	3.2%	1.2%	4.6%
January-December 2018 / January-December 2017	2.8%	3.9%	1.3%	5.8%
January-December 2019 / January-December 2018	3.2%	4.4%	1.3%	6.7%

Labor market:⁵ The average nominal wage⁶ forecasts for 2017-2019 were adjusted slightly downside in view of actual developments with average nominal wage in the public sector. The forecasts for the unemployment rate have not changed much.

With low economic activity as well as a deflationary environment persisting in 2016, the growth rates of **nominal wages in the private sector** slowed down at the yearend. Such slow growth rates are expected to persist over 2017 too but will accelerate gradually in the forecast horizon, taking into account the policy which is steered to achieving economic growth and fulfilling the inflation target. Thus, average nominal wage in the private sector is forecast to grow by 3.6% in 2017, 4.7% in 2018 and 6.1% in 2019. The private sector wage forecasts are not much different from previous forecasts.

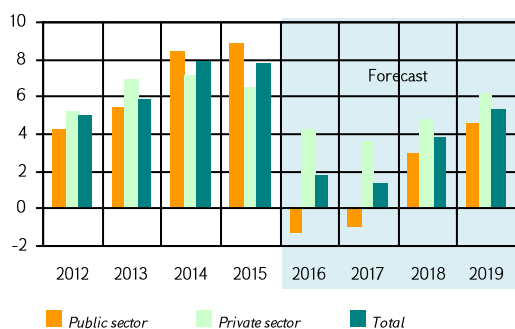
In 2016 the average salary of employees in the **public sector** decreased. This is attributable to the improvements as part of the optimization policy of the Government of Armenia. In consideration of the policy⁷, the average nominal wages in the public sector is expected to decline by 1% in 2017 instead of the previously forecast 0.4% growth. The public sector wage growth, the Central Bank estimates, will

⁵ The labor market data for 2017-2019 are the Central Bank projections which are based on the third quarter of 2016 data and actual January-November of 2016 figures. The growth indicators presented in this sub-section are relative to the same reference period last year, unless otherwise specified.

⁶ Average nominal wage constitutes a grand sum of salary and salary equivalents (premiums, allowances, bonuses, one-time incentive pays, etc.).

⁷ Given the taking of reforms in the system of public administration as outlined in the Government's October 2016 program, the Central Bank estimates a decrease in average nominal wage in the public sector, due to the change in the statistical distribution of nominal wage structure.

Average nominal wage growth, y/y



accelerate in 2018-2019, driven by inter-branch competition in the labor market for private and public sectors. In the outcome, the public sector wage is predicted to grow by 2.9% in 2018 and about 4.5% in 2019.

On the back of the aforementioned private and public sector wage developments, the **average nominal wage is expected to grow by 1.5% in 2017, 3.6-4.0% in 2018, and 4.8-5.2% in 2019.**

In 2017 the unemployment rate is forecast to be 18.5% on average, which is not that different from the previous forecasts.

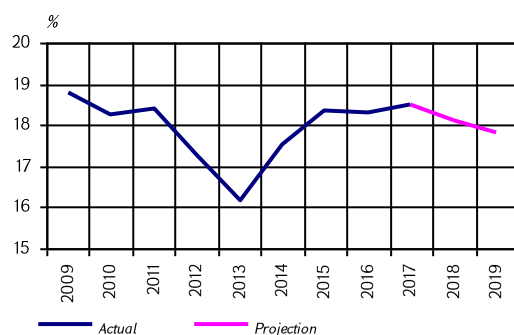
The demand for labor, which was weak in 2016 as a result of lower economic activity, will bounce back gradually in the forecast horizon as economic growth accelerates, contributing to a slowly growing employment. The weak demand for labor has in part been offset by increased average weekly hours worked during 2016.

On the premise of stronger economic growth in the forecast horizon, the unemployment rate will subside by around 0.3-0.4 pp annually in 2018-2019 to reach 18.0-18.2% and 17.6-18.0%, respectively.

According to Central Bank estimates, in the timespan between the first quarter of 2017 and the first half of 2018 the unemployment rate will run above its equilibrium due to the negative GDP gap and minor deflationary pressures it will have created. In case the economic growth contributes positively, the disequilibrium will phase out in the forecast horizon, and the unemployment will approach its medium-term equilibrium.

As a result of the above-mentioned developments, in the first half of 2017 the wage growth will lag behind the productivity growth and this will create some 0.2-0.3% of deflationary pressures in the consumer market. In the forecast horizon the labor market's impact on the inflation is estimated to be neutral.

Unemployment rate



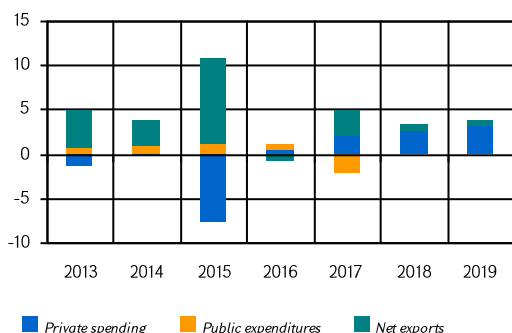
Aggregate demand⁸

Continued decline in remittances from Russia, a principal trade partner, has negatively affected the level of private spending in the economy in 2016, which in turn has contributed to a low inflation environment at that time. The Central Bank has, since end-2015, continuously eased the monetary conditions to foster private spending and stabilize inflation. The Government has also conducted an expansionary fiscal policy to mitigate negative economic consequences resulting from sluggish domestic demand in 2016. These expansionary policies have led the domestic demand to grow by nearly 1.0% in 2016.

In anticipation of recovering remittances from Russia, positive effect of investment promotion policy of the Government and

⁸ The data of real growth of private consumption, investments, private spending and domestic demand for 2017-2019 are the Central Bank estimates. These actual figures are as of the third quarter of 2016 published by the National Statistics Service of Armenia. The real growth indicators represented in this sub-section are relative to the same reference period last year, unless otherwise specified.

Demand components contributing to the economic growth



influence from loosened monetary conditions, the private spending growth rates will speed up to amount to around 2.0% in 2017. In view of the goal of debt sustainability in the medium-term perspective, the budget deficit is expected to decrease, which will, however, leave a dampening effect on domestic demand in the short run. So, the above-described developments in the private and public sectors suggest that around 0.1% growth in domestic demand will be anticipated in 2017, in which circumstance the domestic demand will still run below its equilibrium.

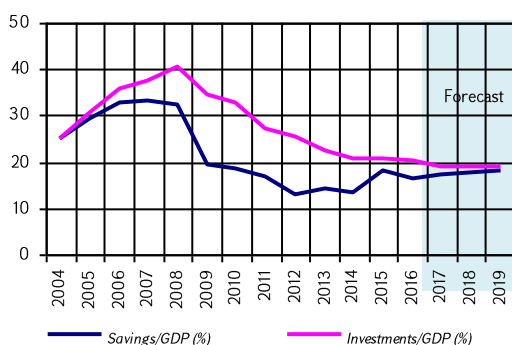
The domestic demand will continue growing to get closer to its equilibrium in 2018-2019 as economic activity revives in partner countries to Armenia and the lagged impact of the expansionary monetary policy in the Armenian economy persists.

Given that the global demand expands and investments in the tradable sector increase in 2017-2019, net exports will continue to largely contribute to the economic growth. Furthermore, investments will prove highly effective, if they are funded from domestic savings rather than through foreign debt instruments, or if they come as foreign direct investment, since financing through loans increases companies' susceptibility to risk.

In the forecast horizon, revenues generated in the tradable sector will, in turn, serve another source to finance gross private expenditures and will bolster the recovery of domestic demand and economic growth on the whole.

In the forecast horizon, a relatively weak domestic demand and tradable sector-driven economic growth will lead to stronger equilibrium (eliminating the negative gap between savings and investments) observable in the economy since 2016, which will reduce the economy's external vulnerability and provide for more sustainable growth prospects while accumulating domestic savings.

The investments-savings gap dynamics

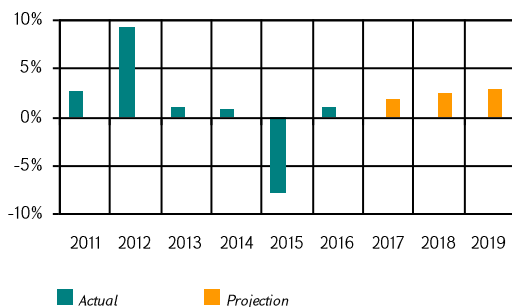


Private sector spending

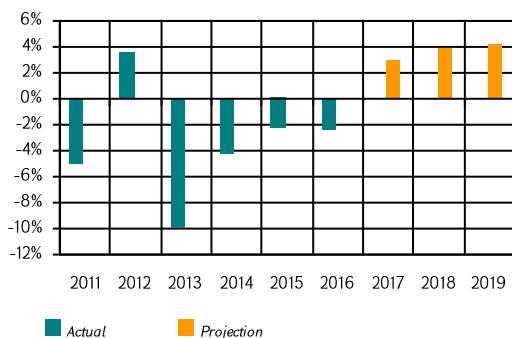
An anticipated increase in private transfers from Russia as well as persisting deflationary environment in the domestic economy will positively affect household incomes in 2017. The final consumption expenditures of households are expected to grow in 2017 by roughly 1.7%, and this forecast is not that different from the previous ones. The growth of private spending in 2017 is expected to be approximately 0.8 pp higher from the relevant indicator recorded in 2016. Private consumption will be underpinned by expansionary monetary policy implementation since 2015, existing deflationary environment in the economy, as well as positive influences the economic growth brings to disposable income by contributing to net exports. Despite an expected private consumption growth in 2017, estimates suggest that it will still be below the equilibrium.

There is expectation that investment activity in non-tradable sectors of the economy will somewhat recover in 2017. On the other hand, a relatively high investment activity in the tradable sector of the economy

Private consumption



Private investment



is possible thanks to the Government's investment promotion policy and an increase in relative competitiveness of the sector. These developments denote that gross private investment in the economy in 2017 will grow by nearly 3%, which is higher from the previous projection. If the investment promotion policy proves highly effective, the private sector investment growth could be higher than the said estimation. The private consumption and investment developments described above will lead private spending to grow by around 2.0% in 2017h.

It should also be mentioned that fiscal policy will have a contractionary impact on aggregate demand in 2017, pinpointing the consistent budget deficit cutting in view of maintaining the sustainability of public debt in the medium run. The domestic demand, therefore, is expected to grow in 2017 by nearly 0.1%.

The increase of household incomes, which will be a result of improved economic environment in trade partner countries and continued growth in exports, coupled with persisting lagged effect from the expansionary monetary policy and recovering remittances from Russia will also help the private sector demand to rebound in 2018-2019. It is expected that private consumption will grow by 2.0-2.5% in 2018 and approach the 2.5-3.1% growth range in the end of the forecast horizon.

Given the incentives described above work out well, private investment will grow by 3.7-4.1% in 2018 and 4.0-4.6% in 2019. Increasing competitiveness in the tradable sector, continued implementation of structural reforms and the Government's policy steered to support investment will also foster the investment growth. On the back of these developments, a non-tradable sector of the economy – construction and trade sectors in particular – may anticipate a slowly rebounding investment activity in 2018-2019, but the growth there is expected to be smaller than in the tradable sector. Moreover, upside risks to the private investment growth in the period 2018-2019 will prevail as well, depending on how effectively and consistently the Government will carry out its policy in improving the investment climate.

In view of the aforementioned developments with private consumption and investment, private sector expenditures will increase in 2018-2019 by 2.4-2.8% and 2.9-3.3%, respectively. Accordingly, domestic demand and private spending will grow in the same period of time by 2.0-2.4% and 2.5-2.9% as a result of the fiscal policy aimed at the sustainability of public debt and the above-described developments with private spending.

Despite an expected increase, the private spending will still be below its equilibrium in 2017, according to Central Bank estimates. Continued growth in private spending will gradually reduce the negative private spending gap and help this imbalance phase out in early 2018. In the span of the second quarter of 2018 to the end of the forecast horizon, the private spending gap is estimated to be positive.

From the beginning of 2017 to the beginning of 2018, the **private spending gap will gradually narrow and its deflationary effect weaken**. As domestic demand recovers thanks to an expansionary monetary policy, the private spending gap will, from the second quarter of 2018 to the end of the forecast horizon, turn into a positive one, leaving a positive impact on the inflation. Up until the start of 2018 the private spending gap will create an average 0.4-0.6 pp of contractionary impact on the inflation; from the second quarter of 2018 to the end of the forecast horizon, it will be inflationary – 0.8-1.0 pp on average.

Current account

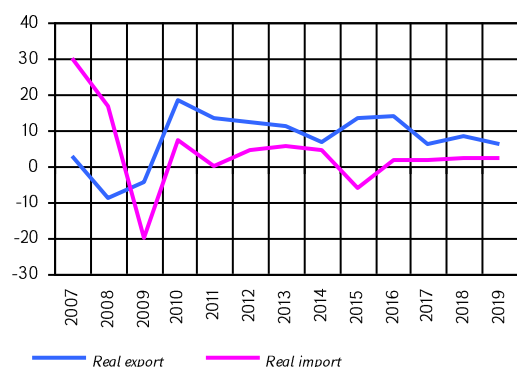
The current account deficit-to-GDP ratio continued improving in 2016, which is estimated around 2.0% compared with the previous year's indicator of 2.7%. This has been primarily due to a decrease in the trade balance deficit. In 2016 the real growth of export of goods and services was estimated at around 14.0% and the real growth of import of goods and services, around 1.5%. The decline in remittances in 2016 was estimated at around 6.5%, taking into account its recovery in the fourth quarter.

The main revision in the 2017 forecasts was in respect of improvement of the terms of trade compared with the previous quarter's forecast. Improved terms of trade will trigger an upside adjustment of metals prices in international markets. With the 2017 metals prices much higher compared with previous forecasts, the growth of export of certain goods and services has been revised to some extent, which is forecast in the 5.0-7.0% range. The growth of import of goods and services will remain within the previous forecast, in the range of 0-2.0%, as the domestic demand continues to be sluggish.

Private transfers of individuals will bounce back in 2017 on the back of expected recovery of the Russian economy. In this case, the growth of remittances, as was previously predicted, will be in the range of 4.0-6.0%.

As a result, the current account deficit-to-GDP ratio will get a better shape against the previous forecast to run in the range of 0-2.0% in 2017, as the terms of trade improve and the above mentioned forecasts materialize.

Real export and real import of goods and services (y/y, %)



The fiscal sector

The estimation of the fiscal policy's impact on aggregate demand for 2017 was made, using the indicators of the Republic of Armenia Law on "State Budget 2017". Thus, relative to the 2016 preliminary budget indicators, the tax-to-GDP ratio is expected to increase by 0.2 pp and the expense-to-GDP ratio to decrease by 2.3 pp⁹. Note that the

⁹ The 2016 and 2017 GDP is the Central Bank estimate.

The fiscal policy is expected to have 3.0 contractionary impact on aggregate demand in 2017, compared to 2016.

reduction of expenses is planned with regard to the item **“Transactions with non-financial assets”**. As a result, the deficit-to-GDP ratio will amount to 2.8% of GDP in 2017.

In 2017, relative to 2016, the fiscal policy is expected to have 3.0 of contractionary impact on the aggregate demand, with the revenues and expenses leaving 0.3 and 2.7 of contractionary effects, respectively. It should be noted that such impact is anticipated in all quarters of 2017. However, the impact of fiscal policy on aggregate demand will largely depend on how the state budget will perform.

The **fiscal policy's forecast horizon** is based on the main nominal indicators of the Republic of Armenia “Medium-Term Public Expenditures Program for 2017-2019” and on the Central Bank forecasts. In the **medium run**, to achieve a sustainable debt environment, the fiscal policy aims at gradual reduction of the deficit, which will amount to an average of 1.85% of GDP in 2018-2019. The impact of the fiscal policy on aggregate demand will be slightly contractionary and, therefore, non-inflationary.

Medium-term fiscal policy impact assessment					
% of GDP	2015	2016	2017	2018	2019
Budget revenues ¹⁰	22.4	22.2	22.6	22.4	22.6
Budget expenditures	27.2	27.7	25.4	24.5	24.3
Debt interest payment	1.5	1.9	2.3	2.1	2.1
Budget balance	-4.8	-5.5	-2.8	-2.0	-1.7
Primary balance*	-3.3	-3.6	-0.5	0.1	0.4
One-off flows**	-0.6	0.1	-0.1	-0.6	-0.8
Adjusted balance***	-2.7	-3.7	-0.4	0.7	1.2
Cyclical balance****	-0.3	-0.6	-0.9	0.0	0.3
Cyclically adjusted primary balance (structural balance sheet)	-2.4	-3.1	0.5	0.7	0.8
Fiscal stance *****				-0.2	-0.1
* Budget balance less debt interest payments. ** Temporary or one-off budget entries. In this case net lending is considered; the sign “+” means resources allocated and the sign “-” means resources repaid. *** Primary balance sheet adjusted by temporary or one-off entries. **** The Central Bank estimate: a part of the budget balance which depends directly on the business cycles. The latter's components depend on the GDP gap and revenues and expenditures elasticity coefficients on GDP gap. ***** The Central Bank estimate: y/y change in the structural budget balance that reflects a discretionary nature of the fiscal policy (the positive sign denotes fiscal expansion and the negative sign denotes fiscal contraction).					

Summary: the aggregate demand gap observable in 2017 will vanish in the second quarter of 2018. In 2017, relative to 2016, the deflationary impact of the negative gap in aggregate demand will be weaker. Beginning from 2017 up to the second quarter of 2018, the combined impact of the fiscal policy, private demand and labor market on domestic prices will be deflationary, in the range of 1.5-1.7 pp. This will be determined by predominantly deflationary

¹⁰ The state budget indicators presented here exclude records of off-budgetary funds.

pressures coming from the domestic demand amid stabilizing inflation expectations. Also, given the 0.1-0.3 pp inflationary impact of net external demand, one may conclude that overall aggregate demand and labor market developments will create an average 1.3-1.5 pp of deflationary pressures in the consumer market in the above-mentioned period.

Underpinned by comfortable monetary conditions, the aggregate demand will recover starting from the second half of 2018. As it is expected to have a positive gap, the said deflationary pressures will phase out gradually. Starting from the second quarter of 2018 up until the end of the forecast horizon, the overall aggregate demand and labor market will create an average 0.9-1.1 pp of inflationary impact.

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

With the global demand still sluggish in the fourth quarter of 2016, ***economic activity further tended to accelerate in the main partner countries to Armenia.*** In the meantime, notwithstanding reduced supply factors in the external environment, one could see certain inflation developments ***mostly consistent with the previous program forecasts.***

In the forecast horizon global economic growth will continue at a slow pace. While economic growth rates are predicted to accelerate in developing countries, growth rates will remain sluggish in developed countries. Not only risks and uncertainties about further pace of the global economy, pinpointed in the previous forecast, persisted in general but some political and economic risks associated with the change in the leading party in the USA were added.

In the short run, ***a weak inflationary environment will be observable in international markets of commodities and food products,*** except wheat market, due to supply factors. In the forecast horizon international prices of commodities and food products will trend slowly upward as global demand recovers gradually and output volumes reduce.

The economic growth rate published for the period January-September 2016 has been 0.3%, which is 1.1 pp smaller from the previous estimate by the Central Bank. Relatively high economic growth expectations by the Central Bank in previous forecasts was due to earlier reported 1.6% growth in economic activity for January-September. In this case, the economic growth in 2016, along with sluggish economic activity persisted in the fourth quarter, is expected in the range of ***0.3-0.5%,*** which will not notably affect the 2017 growth forecast, however. The industry and service sectors remain the key drivers to the economic growth in 2016.

In 2016 the economic growth is expected in the range of 0.3-0.5%, which will not notably affect the 2017 growth forecast, however.

As the slump in the Russian economy decelerated and the ruble appreciated vis-à-vis the US dollar, the **dollar value of net inflow of private remittances and seasonal worker pays grew** in the fourth quarter of 2016, **as was predicted**, amounting to 5.4% y/y, with an annual decline rate estimated at about 6.5% for 2016. Under such conditions, the previous quarter's negative gap of real private transfers vanished in the fourth quarter of 2016 and is now within the forecast.

With growth rates in private transfers recovering, trade turnover increasing and lending growth accelerating, the private consumption growth rates rebounded in the fourth quarter of 2016 and are consistent with previous forecasts. As well as investment activity has been somewhat reviving compared to the forecast, although it remained weak amid persistent sluggishness in construction activity. This circumstance notwithstanding, the private spending and domestic demand recovered during the quarter at a pace commensurate with expectation. At the same time, expansionary monetary and fiscal policy implementation in 2015-2016 as well as deflationary environment in the economy have largely facilitated the recovery of domestic demand. Note also that net external demand continued improving in the fourth quarter, although the previous quarters' high growth rates slowed down due to somehow recovered real growth of import amid persistently strong growth of export of goods and services. As a result, the current account deficit-to-GDP ratio has improved by around 2.0%, according to the 2016 estimates.

As a result of the aforementioned developments, in the fourth quarter of 2016 the **negative GDP gap narrowed against the third quarter**, as was estimated. In this circumstance, the core inflation rate in the fourth quarter **was in line with the expectation** while the 12-month indicator reached **-1.8%** in late December. The quarter's inflation was fuelled primarily by a seasonal rise in prices of certain food products. In the outcome, the deflationary environment came in somewhat softened at the end of the year, close to the forecast indicator, in which case the **12-month deflation rate** amounted to **1.1%** in end-December.

At the end of 2016 the 12-month deflation rate amounted to 1.1%.

The Central Bank continued loosening monetary conditions during the fourth quarter of the year.

In the fourth quarter of 2016, in view of economic growth outlook deteriorating since the third quarter of the year and the outlined deflationary risks persisting and materializing in the medium run, the **Central Bank continued loosening monetary conditions** in the fourth quarter **by reducing the refinancing rate in November and December a total of 0.5 pp to 6.25% in late December**. The Central Bank estimates that the policy rate is already quite close to a country risk-premium level, which is considered the bottom of interest rate for emerging economies, and that its monetary policy implemented to date has created enough stimuli to overcome the deflationary environment in 2017 and attain the inflation target in the forecast horizon.

Macroeconomic forecasts by the Central Bank: as was estimated in the previous forecast, the **dollar value of net inflow of remittances will increase** to be within 4.0-6.0% in 2017 as the Russian economy

recovers gradually. And, given the low inflationary environment and the monetary conditions considerably loosened in the period 2015-2016, the private consumption growth rates, still below the equilibrium, will somewhat accelerate in 2017, being close to the previous forecasts. At the same time, in case the implementation of the Government's investment promotion policy proves effective, some recovery in investment activity could be expected in 2017, helping the private investment increase by around 3.0% from a decline reported in 2016 and run a little above the previous estimations. It should be noted that the fiscal policy will have a contractionary impact on domestic demand in 2017, so the growth rate of domestic demand that time will not change significantly compared to the previous year, amounting to about 0.1%. At the same time, with terms of trade improving against the previous forecast, year 2017 may anticipate an improvement of net external demand, will be conditioned by high growth rates of real exports amid expectations of lower real growth of import of goods and services in the previous forecast. **As a result, the current account deficit will get a better shape in GDP in 2017 against the previous forecast, running within 0-2.0%.** These developments suggest however that, even though the negative gap in private spending will gradually decrease in 2017, the negative GDP gap will gradually worsen in the meantime, due to the Government's contractionary fiscal policy in 2017 compared to the previous year, the effect of which on domestic demand depends on the course of the policy implementation.

In 2017 the economic growth rates are expected to accelerate slightly to be in the range of 2.2%-3.2%.

With the private spending gradually restoring in the domestic economy, improving external economic environment and relatively favorable developments in agriculture, the economic growth rates are expected to accelerate slightly to be **in the range of 2.2%-3.2%** in 2017. It should be noted that economic growth forecast has not been revised much compared to the previous one.

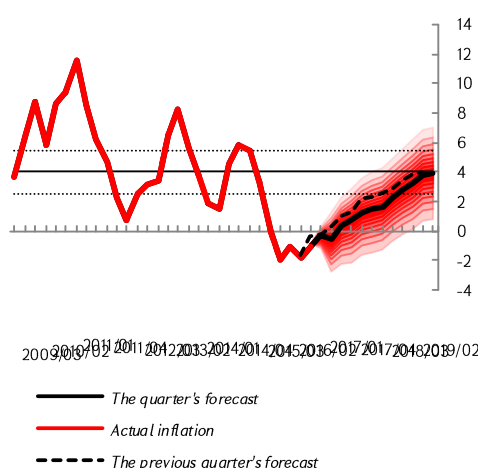
The prediction of the period **2018-2019** is that improving external economic environment, recovering growth rates in private remittances and implementation of a number of projects by the Government of Armenia to promote the tradable sector will facilitate the domestic demand to restore gradually, approaching its equilibrium. In the meantime, external demand will continue fostering the economic growth. This will lead the negative GDP gap to reduce gradually, starting from 2018, and to return a positive territory in the second half of the year. In such circumstance, the Central Bank estimates that **the economic growth rates will accelerate to be within 3.2-4.4% at the end of the forecast horizon.** This will be primarily driven by the tradable sector **as Armenia's competitiveness rises in an inflation environment which is lower compared with trade partner countries.** The economic growth forecasts, nevertheless, greatly depend on investments in the private sector, the scale, directions and effectiveness of the projects and structural reforms the Government of Armenia implements, as well as the developments in the external sector.

Inflation developments for 2017: the end-year forecast of the inflation rate was revised downside relative to the estimation in the

The Central Bank estimates that the deflationary environment will gradually phase out by the end of the year and the 12-month inflation rate will return to the target in the forecast horizon.

The easing of monetary conditions in the first quarter of 2017 is still relevant and likely.

Inflation (12-month) Forecast Probability Distribution Chart for a 3-year horizon



previous program, which is primarily driven by adjusted forecasts of the core inflation rate under a persisting negative GDP gap, an expectation for lower prices of some non-food products and reduced electricity tariffs since February of 2017¹¹. The overall effect of reduced electricity tariff on the inflation is estimated by the Central Bank to reach -0.3 pp. It should also be noted that natural gas prices fell by 5.25% for the households, as was expected, in January of 2017 (contribution to inflation: -0.32 pp). In view of the above developments, the Central Bank estimates that the deflationary environment will gradually phase out by the end of the year and the 12-month inflation rate will return to the target in the forecast horizon. The path to achieving the inflation will be slightly slower compared to the previous forecast, however.

Given these factors, as well as the Government's fiscal policy to be contractionary in 2017 in comparison with the previous year, the **Central Bank finds that easing of monetary conditions in the first quarter of 2017 is still relevant and likely.**

In the outcome, the Central Bank reckons that the policy implemented to date has created enough stimuli for neutralizing the deflationary environment in 2017 and fulfilling the inflation target in the forecast horizon.

Period	Inflation interval forecast probability distribution				
	<1.0%	1.0-2.5%	2.5-5.5%	5.5-7.0%	>7.0%
Q1, 2017	99.9	0.04	0.00	0.00	0.06
Q2	93.0	6.7	0.2	0.00	0.06
Q3	75.7	21.3	2.9	0.00	0.04
Q4	65.1	27.4	7.4	0.01	0.06
Q1, 2018	49.5	33.9	16.5	0.1	0.02
Q2	43.0	33.9	22.7	0.4	0.0
Q3	38.0	34.2	27.1	0.7	0.0
Q4	25.7	32.8	39.4	1.9	0.2
Q1, 2019	17.5	28.5	48.9	4.5	0.6
Q2	12.4	23.5	53.7	8.5	1.9
Q3	7.1	17.7	57.2	13.7	4.2
Q4	6.4	16.6	57.0	15.0	5.1

Risks that inflation will deviate from the projected value are estimated to follow a downward path in both short and medium-term perspectives. Risks deriving from external sector have not changed much against the previous prediction and are somewhat inflationary; these are mainly associated with capital outflows from developing countries and, consequently, volatilities in financial markets, and the developments in international prices of raw materials and food products. **Risks deriving from the domestic sector are estimated to be deflationary** and reflect the extent to which price developments in product markets in the external sector will affect the domestic prices,

¹¹ Based on the decision on the revision of electricity tariffs for consumers, adopted by the "Electric Networks of Armenia" CJSC on December 23, 2016 (http://psrc.am/images/docs/monitoring/electric/Texekaq_Sakagner_Sayt.pdf).

the pace at which domestic demand and private investments will recover, as well as the Government-led structural reforms. At the same time, dual-sided risks to the developments in agriculture, a sector greatly depending on weather conditions, are possible.

If the aforementioned risks materialize, the Central Bank will react accordingly by maintaining the inflation target in the medium run.

3. ACTUAL DEVELOPMENTS IN Q4, 2016

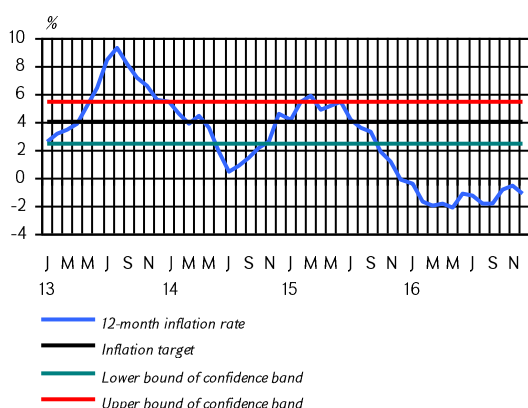
3.1. Inflation

3.1.1. Actual inflation and fulfilment of the inflation target

There was **2.7%** inflation in the fourth quarter of 2016, which was primarily driven, as expected, by a seasonal increase in food prices, with prices in items “fruit” and “vegetable and potato” having risen by 5.1% and 74.2%, respectively (contribution to the quarter’s inflation: 4.1 pp¹²). In the time of inflationary pressures persisting in certain commodity markets of the world and a negative GDP gap, the **core inflation rate has been close to the forecasts, making up 0.3% in the fourth quarter of 2016**, while the 12-month rate amounted to -1.8% in late December. The latter was largely driven by increased prices in items “dairy products” and “sugar” as well as increased recreational and leisure service tariffs (7.6% q/q), the impact of which on the core inflation was partly offset by a fall in petrol prices (-10.4% q/q), air transport fare (-8.8% q/q) and healthcare service tariffs (-0.6% q/q). In addition, non-food price inflation ran slightly below the forecasts, reaching 0.1% in the quarter, and was mostly due to slower-than-expected rise in prices of import goods, particularly clothing and textiles (5.9% q/q), footwear (1.0% q/q) and medicine (0.5% q/q), as well as a continued decline in prices of detergents (-5.0% q/q) and cosmetics (-2.4% q/q).

On the back of the aforementioned developments, the fourth quarter’s deflation, as was expected, was mitigated to a certain extent, and **the 12-month deflation rate amounted to 1.1% in December**.

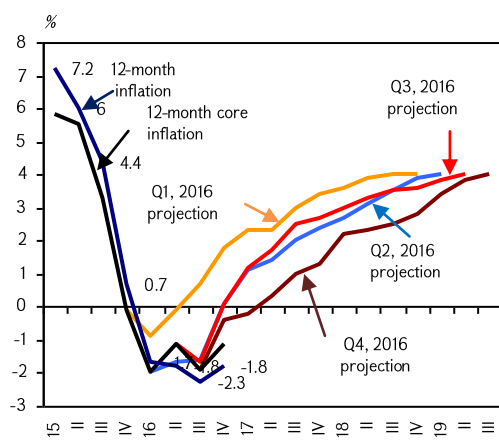
In the fourth quarter of 2016 the deflationary environment somewhat mitigated



Price inflation by groups serving as key contributors						
Group	September 2016 (y/y)		December 2016 (y/y)		Q4, 2016	
	Growth (%)	Contribution (%)	Growth (%)	Contribution (%)	Growth (%)	Contribution (%)
CPI	-1.9		-1.1		2.7	
Food products	-3.3	-1.5	-0.2	-0.1	6.1	2.7
Bread products						
Meat products	-3.0	-0.3	-3.7	-0.4	-0.6	-0.1
Dairy products	-4.1	-0.4	-1.7	-0.2	0.1	0.01
Fruit	-4.3	-0.2	-3.4	-0.1	1.8	0.1
Vegetable and Potato	2.0	0.1	17.0	0.4	5.1	0.1
Eggs	-19.0	-1.0	-1.0	-0.1	74.2	4.0
Sugar	15.5	0.2	6.8	0.1	-0.3	0.0
Non-food products	9.8	0.1	14.6	0.1	5.0	0.04
Services	-3.8	-0.9	-3.4	-0.8	0.1	0.02

¹² Some statistical discrepancy between the grand sum of certain commodity items' contribution to inflation and the officially published headline inflation can be found due to the characteristics of statistical methodology for inflation calculation.

According to the Central Bank forecasts, the existing deflationary environment will phase out gradually and, starting from the second half of 2017, the 12-month inflation will enter a positive territory and stabilize around the 4% target in the rest part of forecast horizon



For the previous one-year horizon, which covers year 2016, **a weak deflationary environment, observable since the previous yearend, was to persist over the first half of the year**, according to the first quarter 2016 monetary policy program, as no significant inflationary pressures from the domestic economy and the external sector were likely. Then, the **12-month deflation** was to gradually phase out, approaching and stabilizing around the target in the forecast horizon. In such a situation, the Central Bank was planning to continue easing the monetary conditions during the year, making **step-by-step stimulation** a preferred choice because positive effect of low inflation was estimated at the time to be the most appropriate way to reduce and anchor existing high inflation expectations, curb the decline in domestic demand, maintain the income purchasing power and contribute to the recovery of the external competitiveness which had been distorted as a result of sizable currency depreciation in the partner countries.

The 12-month inflation behavior in 2016 shows that it had been generally below the expected indicator due to a number of factors. In the first quarter, as was expected, the deflationary environment deteriorated and persisted over the next two quarters. This has been largely attributable to the influence of deflation patterns in international commodity markets having transmitted onto the domestic prices, the weak domestic demand and a low level of prices of food products relative to the same reference period last year, owing to strong growth in the agricultural sector. As a result, the first 5 months of the year reported a 0.5% deflation against a 1.5% inflation in the same reference period last year, which led the 12-month inflation rate to reduce by 2.0 pp to -2.1% in late May (fallen food price contribution to headline deflation: 1.8 pp). There was a 3.2% deflation in the period June-September, compared to that of 3.4% in the same reference period of the previous year, in which case the 12-month inflation rate remained virtually unchanged, amounting to -1.9% in end-September. The deflationary environment came in somewhat eased in the fourth quarter: a 2.7% inflation was reported against that of 1.9% in the same period of the previous year, with the 12-month inflation rate having amounted to -1.1% at the end of the year.

The Central Bank carried on implementing an expansionary monetary policy throughout the year in consideration of such inflation developments. While an abrupt easing of monetary conditions at the end of the previous year was quite enough to neutralize the deflationary pressures during the year, the Central Bank decided on a **gradual** easing of monetary conditions at the beginning of the year by cutting the refinancing rate by 0.25 pp each month. May and September, when the policy rate was lowered by 0.5 pp each month, were exceptions on the back of considerable reduction in inflation expectations as a result of consistent monetary policy by the Central Bank and expected falling of natural gas price since the second half of the year, and deteriorating of economic growth outlook since the third quarter and inflationary risks increasing due to a sluggish demand, respectively.

Overall, the refinancing rate was lowered a total of 2.5 percentage points during the year to **6.25%** in late December. The transmission mechanism was highly effective at the time as market rates notably reduced in line with the falling of the policy rate, while the government bond yield sloped down all along the curve.

Also, the Central Bank estimated that the policy rate was already quite close to a country risk-premium level, which is considered the bottom of interest rate for emerging economies, and that its monetary policy implemented to date had created enough stimuli to overcome the deflationary environment in 2017 and attain the inflation target in the forecast horizon.

3.1.2. Import prices and producer prices

In the fourth quarter of 2016 the dollar prices of import of goods and services grew (y/y, %)



Import prices: in the fourth quarter of 2016 the dollar prices of import of goods and services fell by an average 0.8% q/q. The growth over the same period last year amounted to 2.4% y/y.

The y/y increase in dollar prices of import was driven by growth of prices of goods and services (by 2.2 pp and 0.2 pp, respectively). The growth of oil and metals prices in the international market has resulted in increased prices of imported raw materials.

Driven by y/y currency appreciation in Japan and Russia, the prices of imported consumer goods from these countries have risen. The contribution of consumer goods amounted to 0.2 pp.

Producer prices¹³: the GDP deflator in January-December of 2016 has increased by around 1.0% in relation to the same period last year, according to the Central Bank estimates. Price developments in different sectors of the economy underlie the estimates, as follows:

Industry reported 1.5% y/y rise in prices in January-December. The 7.2% price rise in mining notwithstanding, the quarter saw a price decline in processing industry (0.4%), energy, gas production and distribution (0.7%) and waste management and processing (0.2%). The above price developments owed to the recovery of prices in world ore and minerals markets as well as weak external and domestic demand.

Agriculture posted 2.2% price deflation in the same period of time, reflecting a 7.4% decrease in prices in animal breeding amid a price rise in plant growing (4.7%). The fall in prices is due to a sluggish domestic demand whereas price inflation in plant growing is a result of reduced output there in comparison with the previous year.

Service tariffs rose by a mere 1.8% amid sluggishness in economic activity during the year, which is considerably below the average growth rate¹⁴ observable in recent years due to weak domestic demand.

¹³ The price index change for January-December 2016 is relative to the same reference period last year, unless otherwise specified.

¹⁴ In the period 2013-2015 the service tariffs have increased by 4.8% on average.

Construction reported a 1.8% y/y price deflation in January-December due to reduced costs in construction and assembly works (2.0%), equipment and materials (0.6%) and other expenditures (2.2%). The price deflation is a result of contracted output and reduced wages in the construction sector, which, in turn, is attributable to the supply outweighing the demand in construction.

Carriage service reported a 7.4% y/y rise in tariffs in January-December as a result of reduced fare of railroad transport (2.0%) and motor transport (5.2%) and an as much as 15.8% increase in trunk pipeline tariff. The price deflation was driven by contracted trade volumes and fallen prices of petrol and diesel in the period under review, on the one hand, and added trunk pipeline maintenance costs, on the other.

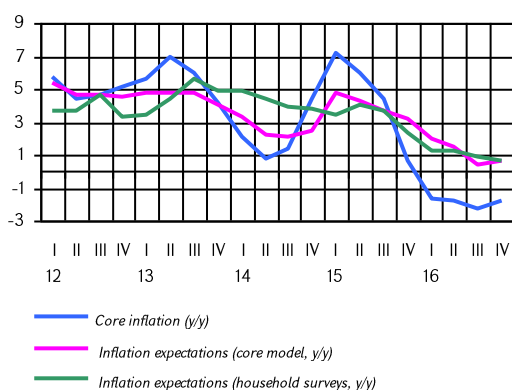
3.1.3. Inflation and interest rate expectations

Considerably reduced in the period 2015-2016, the households' inflation expectations somewhat stabilized in the fourth quarter, as was expected, and will recover gradually in an upcoming one-year horizon, anchoring around the inflation target in the forecast horizon. Estimations produced on the Central Bank core model suggest that inflation expectations behaved relatively steady this quarter compared to the previous quarter, making up 0.6%, primarily thanks to the consistent monetary policy of the Central Bank implemented in 2015-2016 and somewhat weakened deflationary environment later the year.

The results of survey conducted by the Central Bank in the fourth quarter of 2016 to figure out what the financial sector and households expect with regard to a number of macroeconomic indicators point to some stabilization of inflation expectations. Thus, the inflation expectations by households for an upcoming one-year horizon have somewhat stabilized as the 12-month inflation rate anchored around a **0.7%** level. At the same time, the average level of the financial system's inflation expectations will reach **2.6%** for an upcoming one-year horizon compared to the relevant indicator of **2.8%** reported in the previous survey. The commercial banks and credit organizations followed a stable path for their inflation expectations, with the 12-month inflation rate having averaged at the **2.4%** and **3.0%** level, respectively. Inflation expectations of insurance companies and investment firms and investment funds have started to reduce as the 12-month inflation rate was now expected at **2.2%** and **2.3%**, respectively, in comparison with the previous survey's relevant indicator of **2.7%**.

In the financial market in the fourth quarter of 2016, interest rates continued trending downward. Loosened monetary conditions on the one hand and an excess liquidity as a result of reduced reserve requirement ratio and bank capital replenishment on the other have fuelled the rapid pace of decline in interbank interest rate and government bond yield (see details in section "3.3. Money and financial market developments").

Inflation expectations



The financial market's expectations for interest rates followed a downward path this quarter. According to the survey results, the financial system anticipates a gradual decline in interest rates on funds attracted and funds allocated, for a one-year perspective.

3.2. Aggregate supply and aggregate demand

3.2.1. Aggregate supply¹⁵

The **economic growth indicator** published by the National Statistics Service of Armenia for the period January-September 2016 was 0.3% y/y, which is 1.1 pp below the former forecast value of the Central Bank. Higher expectations the Central Bank had for economic growth in the previous forecasts were fuelled by an earlier published figure of 1.6% economic activity growth¹⁶ for the period January-September.

A slow growth of economic activity persisted in the fourth quarter of 2016, with the relevant indicator having amounted to 0.5% in the period January-September.

Given the aforementioned developments, the January-December economic growth forecast was revised downward, in the range of 0.3-0.5%¹⁷. Note, however, that the monetary policy implemented by the Central Bank as well as fiscal incentives provided to the economy have cushioned the slowdown of economic activity, pointing to a 6.0% growth in lending volumes in 2016 and an estimated 5.5% budget deficit for the year.

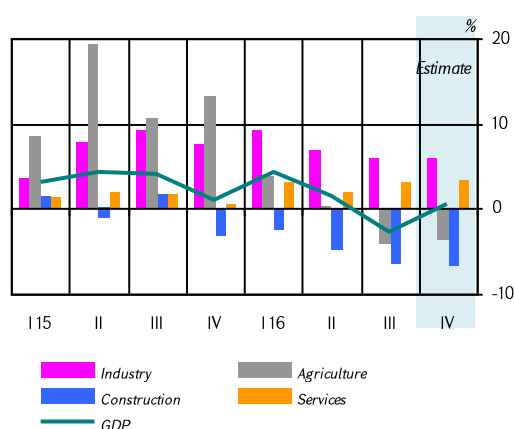
Taking into account an increased output of 6.7% y/y reported in **Industry** in January-December 2016, the growth of value added there for the same reference period is estimated within 5.6-6.0% y/y. This is mainly attributable to the growing domestic demand in partner countries and structural improvements taking place in the Armenian economy.

In view of an actual decrease in output volumes (10.8% y/y) reported in **Construction** for January-December 2016, the decline of value added for that period is estimated within 6.4-7.0% y/y. The decline is due to sluggish domestic demand and persisting demand-and-supply disequilibrium in the construction sector.

The growth of value added in **Services** for January-December 2016 is estimated in the range of 3.2-3.6% y/y, which is explained by 7.1% increase in services provided during the year and 1.0% growth in trade volumes. The modest growth reported in trade points to weak economic

The economic growth forecast for January-December 2016 has been revised downward, in the range of 0.3-0.5%.

GDP and economic sectors dynamics



¹⁵ The indicators of y/y real growth of value added in sectors of the economy for January-December 2016 are the Central Bank forecasts, whereas the indicators of sub-sectors represent y/y growth rates in output volumes for January-December 2016, unless otherwise specified.

¹⁶ <http://www.armstat.am/file/doc/99498788.pdf>.

¹⁷ See the 30% range in Real GDP Growth (Cumulative) Projection Probability Distribution Chart.

activity in the sector, which has been a result of slackened domestic demand in the period under review.

Given the contracted output in **Agriculture** (5.2% y/y) recorded for January-December 2016, the diminishing of value added in the sector in the same reference period is estimated within 3.4-4.0% y/y. This has been attributable to reduced output in plant growing (11.7%), caused by less favorable weather conditions this year compared to the previous year as well as methodological adjustments in the calculation of output in the sector, and to increased output reported in animal breeding and fish growing, by 4.7% and 3.0%, respectively. Note also that the risks to reduced output in agriculture were outlined in previous monetary policy programs published by the Central Bank.

3.2.2. Aggregate demand¹⁸

The growth of private spending in the fourth quarter of 2016 was estimated at around 2.5% – consistent with previous forecasts – in which case the growth of private consumption will amount to 0.9% for 2016.

A narrowing inflow of remittances from Russia, a trend observable since mid-2014 and persisting in 2015-2016, has negatively affected the households' disposable income, which led to reduced private consumption costs throughout 2015 and in the first quarter of 2016. It should be noted, however, that the decline in private spending has diminished considerably thanks to the Central Bank's policy steered to ease the monetary conditions since the end of 2015, as well as a deflationary environment. The above-described developments contributed to an increase in private consumption in the second quarter of 2016, speeded up in the third and fourth quarters. The growth in the reporting period notwithstanding, the private consumption is still below its equilibrium because of deep downturns reported in the previous year.

The surveys conducted by the Central Bank as well as trade turnover indices calculated by the National Statistics Service of Armenia for the fourth quarter of 2016 are indicative of still sluggish but slowly recovering consumption in the private sector: the Consumer Confidence Index this quarter was 44.7 which is below its stability range of 45-55 and signals that the private consumption is still running lower its equilibrium. Then again, the CCI has increased by nearly 7.5% relative to the same reference period last year, which in turn shows that the private consumption is slowly recovering from low levels. Moreover, in the fourth quarter of 2016, compared to the same period of the previous year, trade turnover has increased by 3.4%. It should also be

¹⁸ The private spending, private consumption and private investment indicators for the fourth quarter of 2016 are the Central Bank estimates which are based on the actual third quarter 2016 data. The growth estimates provided in this sub-section are relative to the same reference period last year, unless otherwise specified.

noted that narrowing of the inflow of remittances (employee remuneration and private transfers) halted in the third quarter of 2016 and took a positive growth path in the fourth quarter. In 2016 the negative impact of remittances on consumption was somewhat mitigated by growth in lending to the economy.

In the fourth quarter of 2016 the investment activity in the economy was higher than predicted, with private investment having reduced by about 2% in relation to the same reference period last year. Sluggish investment climate in the period under review was due to an inadequate level of domestic demand and persistently low construction activity. Nevertheless, some growth in the organization-funded construction activity was observable at the end of the year. As it was outlined in the Central Bank's previous forecasts, the decline in investment had been more pronounced in non-tradable sector of the economy as opposed to a relatively high growth in the tradable sector.

The Central Bank's surveys on business environment conducted at companies point to the slowing of decline in investment since the mid-2016. According to the survey results, in the fourth quarter of 2016 the Business Activity Indicator was 52.1, up by 3.6% against the same reference period last year; the BAI in non-tradable construction sector was 41.6, which is below its stability value of 50.0. On the other hand, the BAIs in industry as a tradable sector amounted to 60.6, running above the stability value of 50.0.

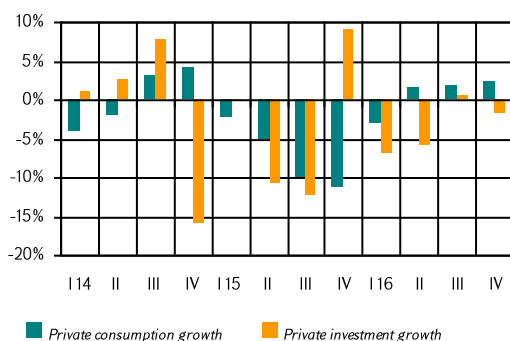
The aforementioned developments with private consumption and investment led to an estimated 1.6% growth in private spending in the fourth quarter. With public expenditures growing up faster than private spending, the domestic demand has increased by around 2% in the period under review. The monetary conditions eased by the Central Bank, the fiscal policy at the time expansionary in response to a large budget deficit as well as the deflationary environment in the economy all have substantially contributed to the growth of domestic demand. As a result, the growth of private spending is an estimated 0.3% and the growth domestic demand, 0.8%, for 2016.

Despite a recorded growth, the private spending gap in the fourth quarter of 2016 is estimated as negative, which created **1.4-1.6 pp of deflationary pressures** in the consumer market.

According to the Central Bank estimates, in the fourth quarter of 2016 real net export continued improving, although high growth rates observable in the previous quarters slowed down amid a somehow recovered growth of real import of goods and services. In the fourth quarter of 2016 growth rates of real export of goods and services amounted to 8.0% y/y versus 3.2% y/y growth in real import of goods and services¹⁹.

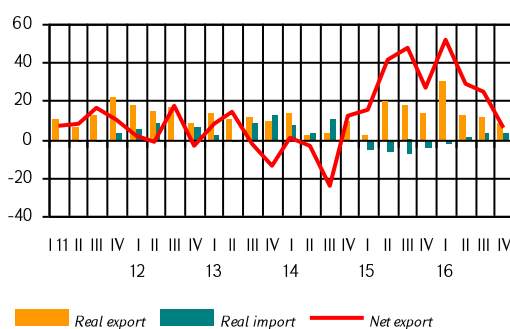
The fourth quarter of 2016 saw the inflow of remittances grow in dollar terms, as the Russian economy began recovering.

Private consumption and investment growth, y/y



In the fourth quarter of 2016 net real export improved at a slower pace

(net real export, y/y %, positive sign means improvement)



¹⁹ Real export and import growth indicators are the Central Bank estimates.

3.2.3. Labor market²⁰

In the fourth quarter of 2016 the **average nominal wage growth rate** ran below the previous forecast of the Central Bank, and was an estimated 0.3%, reflecting a lower-than-expected level of wages in the public sector. The average nominal wage growth rate in 2016 was 1.8%.

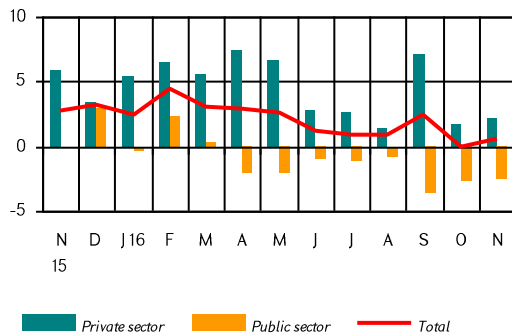
Starting from the third quarter of 2016, the nominal wage growth in the **private sector** slowed down, reflecting a slackened economic activity and a low inflationary environment. In the fourth quarter the growth rate of nominal wages in the private sector was 1.8%, with its annual growth of 4.2% for 2016.

Lower in comparison with previous forecasts, the nominal wages in the public sector decreased by 2.7% in the fourth quarter of 2016, driven by improvements as part of the optimization policy in the sector. In 2016 the nominal public wage growth rate decelerated by 1.4% in relation to the previous reference period.

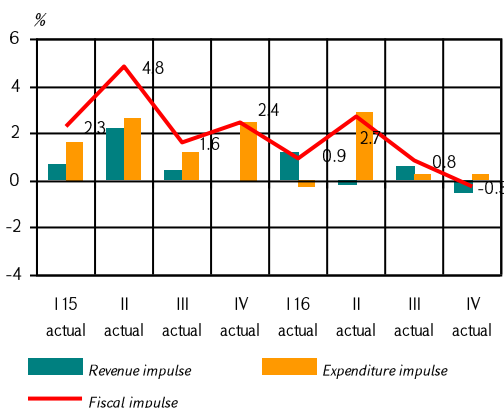
Sluggish economic activity recorded in 2016 led to the shrinkage in demand for labor in the economy. Yet, the weak demand for labor has in part been offset by a strong productivity growth rate, pointing to the increased average weekly hours worked. Taking also into account the deceleration of economic growth rates in the second half of the year, the fourth quarter's **unemployment rate** was estimated at 18.6%, running a little above the previous forecasts. In this case, the average annual unemployment rate in 2016 amounted to 18.3%.

As a result of the aforementioned developments, in the fourth quarter of 2016 the productivity growth rate outweighed the wage growth rate, leaving 0.2-0.4% of deflationary pressures on consumer prices.

Nominal wage growth, y/y



The neutral impact of fiscal policy in the fourth quarter of 2016 has been due to a contractionary effect of revenues and that much expansionary effect of expenditures.



3.2.4. Fiscal policy²¹

In the fourth quarter of 2016 the Republic of Armenia State Budget was performed with revenues and expenditures having outstripped the Central Bank's estimates²², whereas the indicator of net lending to the economy (expected repayment of lending) stood behind the projected value. The fiscal sector's impact on aggregate demand is estimated 0.3 contractionary for the quarter, which is commensurate with the fourth quarter forecast.

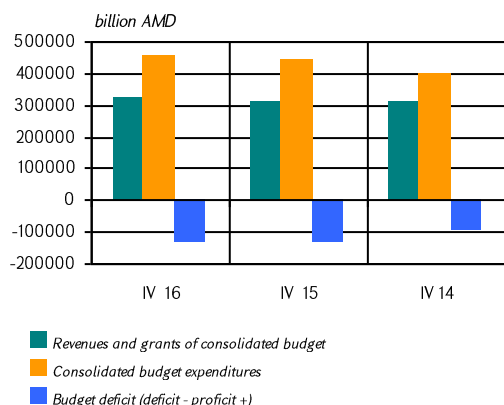
In the fourth quarter of 2016, relative to the same reference period last year, consolidated budget revenues and grants have grown by

²⁰ The labor market data for the fourth quarter of 2016 are the Central Bank estimates which are based on the third quarter 2016 data and actual January-November 2016 figures. The growth indicators provided in this sub-section are relative to the same reference period last year, unless otherwise specified.

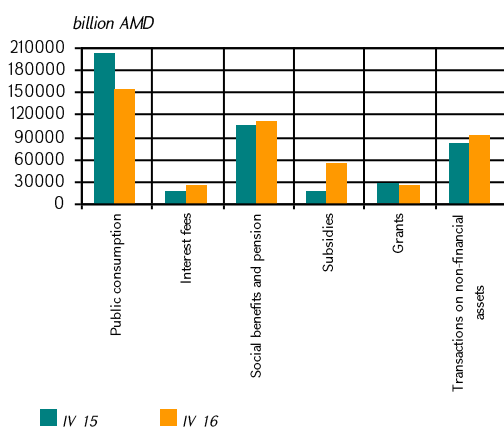
²¹ The review of the fiscal sector was done using preliminary actual consolidated budget indicators (local budgets as an estimate) prepared on the basis of preliminary actual indicators of the fourth quarter of 2016 (PIU funds included), excluding off-budgetary funds. The impact of revenues was calculated in respect of the nominal GDP indicator while the impact of expenditures, in respect of an estimated economic potential.

²² Comparison was made with the Central Bank projections.

Consolidated budget indicators' dynamics



Budget expenditures



The fiscal policy conducted in 2016 had a total 0.8 of expansionary impact on aggregate demand.

roughly 4.0%, owing to increased tax and other income and reduced grants. The revenues impulse indicator was 0.5 contractionary instead of the projected 0.4 expansionary, which was mainly attributable to the revenues having been collected 4.2% more than the Central Bank forecast.

In the fourth quarter the expenditures outgrew the Central Bank forecast by 1.2%. This quarter saw about 3.0% increase in consolidated budget expenditures compared with the same reference period last year, which occurred to the expense of the item **“Transactions with non-financial assets”**. Relative to the same reference period last year, the share of **public consumption** in current expenditures has decreased by 23.8% while the figure of subsidies has outgrown the previous year’s indicator more than threefold²³ due to the change in the principle of education funding as well as increased subsidies provided to water supply and transport subsectors.

The public debt interest payments outgrew the previous year’s relevant indicator by 65.0%, primarily due to added servicing costs as a result of the increased level of debt.

Relative to the same reference period last year, the item **“Transactions with non-financial assets”** has increased by 13% to the expense of added capital expenditures from domestic sources. In the fourth quarter of 2016 the expenditures impulse indicator was 0.2 expansionary instead of the projected 0.7 contractionary, which is due to increased expenditures and net lending.

With revenue and expenditure performance described above, in the fourth quarter of 2016 the state budget generated a deficit of roughly AMD 130 billion, which is close to the Central Bank’s projection for the quarter. Specifically, net proceeds from placement of T-bills in the fourth quarter amounted to AMD 66.2 billion for deficit financing early in the quarter (tax revenues were falling), and steering the interest rates under a coordinated policy of the Central Bank and Government late in the quarter. In the fourth quarter of 2016 the fiscal policy left a minor contractionary impact on the aggregate demand.

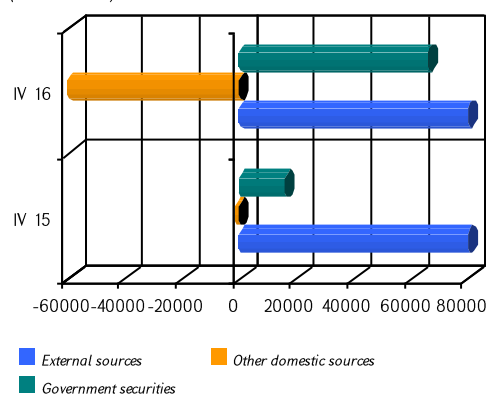
Based on the annual results²⁴, the state budget revenues and grants have grown by 0.5% compared to the same reference period last year. Tax revenues have grown by 1.2% and the tax-to-GDP ratio, by 21.1%, which is 0.1 pp lesser than the previous year’s indicator. The y/y growth of public spending (PIU funds included) was 3.5%. The year’s budget deficit reached AMD 282.0 billion or 5.5% of GDP. The 67.2% of the deficit was financed from foreign sources and 32.8% from domestic sources.

The fiscal policy conducted during the year had a total 0.8 of expansionary impact on the aggregate demand, primarily owing to the expansionary effect of expenditures.

²³ The indicator stood behind the previous year’s figure due to the change in the principle of financing the preschool and general education establishments. Last year it was regarded as procurement of contractual services and, starting from 2016, as providing of subsidies to these organizations.

²⁴ The off-budgetary funds excluded.

In the fourth quarter of 2016 budget deficit was financed from external sources
(billion AMD)



Summary: reduced private transfers from Russia and sluggish investment activity in the domestic economy dampened consumption in the private sector in the fourth quarter of 2016. However, fiscal stimulus delivered to the economy and continued easing of monetary conditions by the Central Bank in the period 2015-2016 secured a slower contraction of private spending while softening the domestic economy's slowdown and deflationary environment.

The private spending gap in the fourth quarter of 2016 is estimated as negative. Taking into account the expansionary fiscal policy's lagging effect, deflationary patterns in net exports and labor market, the aggregate demand and labor market are estimated to have jointly created 2.1-2.3 pp of deflationary pressures in the consumer market in the fourth quarter.

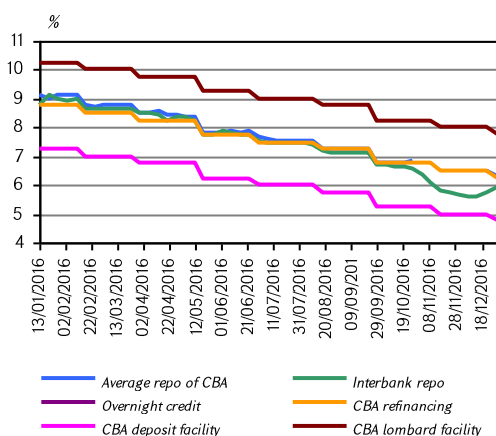
3.3. Money and financial market developments

3.3.1. Financial market, money and credit

The Central Bank continued loosening monetary conditions in the fourth quarter of 2016; the Board lowered the refinancing rate by 0.25 pp in November and that much in December, to 6.25 pp in late December.

The Central Bank kept on loosening monetary conditions in the fourth quarter of 2016 as the Board of the Central Bank cut the refinancing rate by 0.25 pp in November and 0.25 pp December to 6.25% in late December as inflation expectations continued to decline and some deflation risks materialized.

During the quarter short-term interest rates deviated from the Central Bank's repo rate



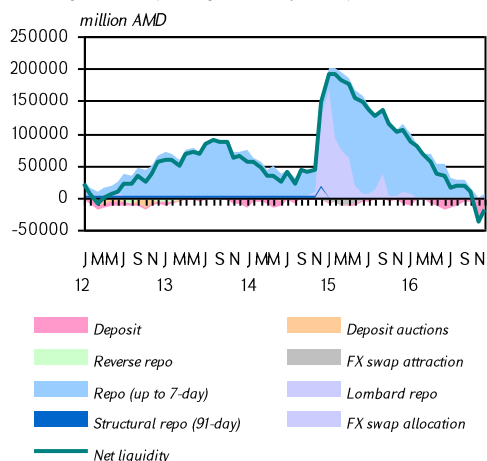
In the meantime, the Central Bank estimated and gave the financial market participants a signal that the policy rate was already quite close to a country risk-premium level (estimated by the Central Bank), considered as the bottom of interest rate for emerging economies, and that the monetary policy implemented to date had created enough stimuli to overcome the deflationary environment in 2017 and attain the inflation target in the forecast horizon.

Average quarterly market rates in Armenia				
	Q1, 2016	Q2, 2016	Q3, 2016	Q4, 2016
CBA refinancing rate (end of quarter)	8.25	7.5	6.75	6.25
CBA repo rate	8.92	8.13	7.35	6.54
Interbank repo rate	8.73	8.01	7.27	6.19
T-bills yield	11.33	10.25	7.87	6.65
Medium-term notes yield	14.51	13.88	11.36	10.13
Long-term bonds yield	16.33	16.37	14.16	13.65

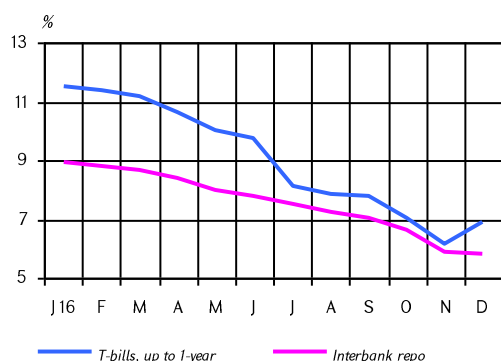
The gradual lowering of the Central Bank's policy rate, on the one hand, and a reduced reserve requirement ratio for foreign currency funds attracted by banks and bank capital replenishment, on the other, have resulted in a noticeable decline in interest rates in the domestic financial market. Perhaps, it was the high liquidity in the banking system that facilitated the interbank interest rates to stand

The gradual lowering of the Central Bank's policy rate, on the one hand, and a reduced reserve requirement ratio for foreign currency funds attracted by banks and excess liquidity as a result of bank capital replenishment, on the other, have resulted in a noticeable decline in interest rates in the domestic financial market.

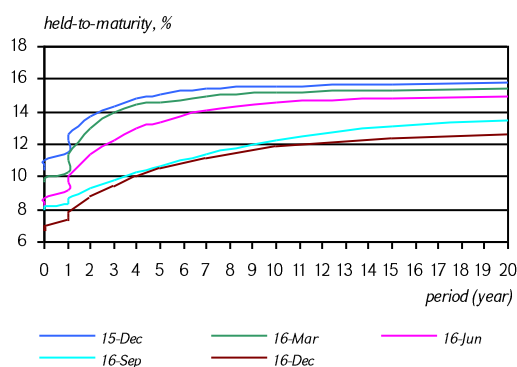
Liquidity injection and absorption through the Central Bank operations (average monthly value)



Short-term market rates in the fourth quarter of 2016



The government securities yields along the entire curve in the fourth quarter of 2016



below the Central Bank's refinancing rate. Coordinated action by the Government and the Central Bank has led such a difference to reduce at the end of the year, so the interbank interest rates approached the policy rate in late December.

The developments in the fourth quarter were such that there was low demand for liquidity offered through the Central Bank repo facility. Moreover, banks often used the standing deposit facility of the Central Bank. As a result, the volumes of 7-day repurchase agreements, the main policy instrument of the Central Bank, were quite small in the fourth quarter, with the average quarterly interest rate having fallen by 0.81 pp against the previous quarter to 6.54% this quarter. The average monthly interest rate in December was 6.38%, dropped by 0.74 pp against September.

In the fourth quarter of 2016 the average quarterly interbank repo rate fell by 1.08 pp to 6.19%. In December, the average monthly interest rate was 5.79%, reduced by 1.22 pp against September.

Yields on government bonds behaved in line with trends in the financial market during the quarter by following a downward path as well. Moreover, in November short-term bond yields ran below the Central Bank's policy rate. Although the increased issue volumes of treasury bills induced a rise in the yields in December, the average monthly rate of short-term bonds slumped by 0.85 pp against September and amounted to 6.91% and the average quarterly rate decreased by 1.22 pp compared to the previous reference period.

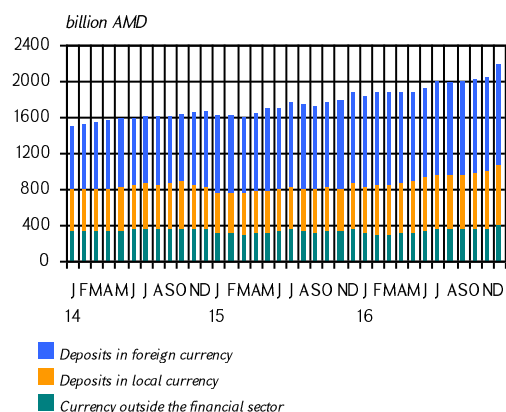
The trend of falling interest rates prompted the government bond yield curve to follow a downshift during the fourth quarter. The decrease was most pronounced in the short and long-term yields, by 1.1 pp and 0.6 pp on average, respectively, compared to the previous quarter. The long-term (20-year) yield dropped by 0.9 pp to 12.6% in late December. However, the slope grew by 0.4% to 5.9 pp in December, owing to a sizable reduction in short-term rates.

In the fourth quarter of 2016, sustained easing of monetary conditions, falling interest rates in the financial market continue leaving influence on interest rates of funds which commercial banks borrowed and allocated.

Interest rate on deposits in local currency	Q3, 2016	Q4, 2016	Change
Up to 1 year			
Non-financial corporations	9.07	8.75	-0.32
Households	12.92	11.56	-1.36
Over 1 year			
Non-financial corporations	12.65	12.61	-0.04
Households	13.21	12.54	-0.67
Interest rate on loans in local currency			
Up to 1 year			
Non-financial corporations	14.17	13.21	-0.96
Households	20.97	20.36	-0.61
Over 1 year			
Non-financial corporations	14.64	12.4	-2.24
Households	18.23	17.61	-0.62

Interest rate on deposits in foreign currency	Q3, 2016	Q4, 2016	Change
Up to 1 year			
Non-financial corporations	4.9	6.34	1.44
Households	5.15	4.86	-0.29
Over 1 year			
Non-financial corporations	7.27	6.31	-0.63
Households	6.75	6.12	-0.62
Interest rate on loans in local currency			
Up to 1 year			
Non-financial corporations	8.8	8.18	-0.62
Households	13.96	14.69	0.73
Over 1 year			
Non-financial corporations	9.94	9.59	-0.35
Households	14.02	13.84	-0.18

In the fourth quarter of 2016 deposits in local currency outgrew deposits in foreign currency



In December of 2016 the 12-month growth of dram deposits was 32.6% and that of foreign currency deposits, 11.2%. The surpassing growth of dram deposits owed to reduced inflationary expectations, which led to a decline in the dollarization (by 3 pp in 12 months). The dollarization ratio of resident foreign currency deposits to resident total deposits decreased by 4.1 pp compared to the previous year and amounted to 59.9% in December.

During the quarter, lending rates decreased with regard to almost all types of credit, and the 12-month growth of total loans stood at 6.02% in December of 2016. The foreign currency loans remained prevalent, accounting for about 62% in total lending portfolio, which represents nearly 2% reduction in relation to the previous quarter.

Box 2

Survey on the Terms of Lending by Banks and Credit Organizations in Armenia

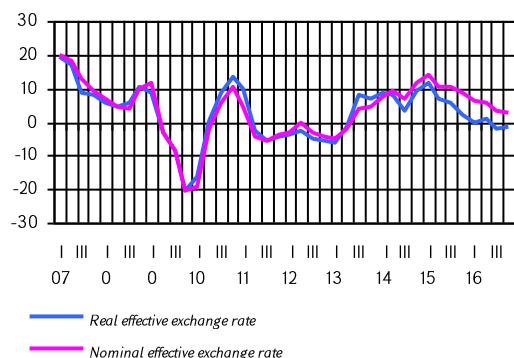
According to the results of the fourth quarter 2016 survey on terms of lending by local banks and credit organizations, there has been further easing of terms in all aspects of lending. Increased competition between financial institutions and revised terms in refinancing programs led to less strict requirements to loan interest rates, non-interest payments, maturity and collateral. Actual demand for all types of credit has grown.

For the first quarter of 2017 banks and credit organizations anticipate further easing of procedures in provision of all types of credit and a growing demand for loans.

3.3.2. Exchange rate

Pressures from appreciating US dollar were observable in the currency markets of trade partner countries to Armenia in the fourth quarter of 2016 under the US Federal Reserve Bank's monetary policy implemented and forthcoming. Specifically, the partner countries' average weighted nominal exchange rate depreciated by 3%, which was

In the fourth quarter of 2016 the real effective exchange rate depreciated y/y, %



largely driven by depreciated euro, Turkish lira and Bulgarian lev (contribution: 1.1, 0.6 and 0.6 pp, respectively), whereas the Russian ruble appreciated during the quarter. With average weighted depreciation of partner countries' national currencies, the average nominal exchange rate of the Armenian dram depreciated versus the US dollar by 0.7% in the fourth quarter. To absorb short-term volatilities deriving from balance sheet seasonality, the Central Bank bought nearly USD 22.7 million in net terms in the foreign exchange market.

In the fourth quarter of 2016 the nominal effective exchange rate of the Armenian dram appreciated by 2.27% q/q on average as the partner countries' currency basket continued depreciating versus the US dollar. In the meantime, the real effective exchange rate of the Armenian dram depreciated by 3% q/q²⁵.

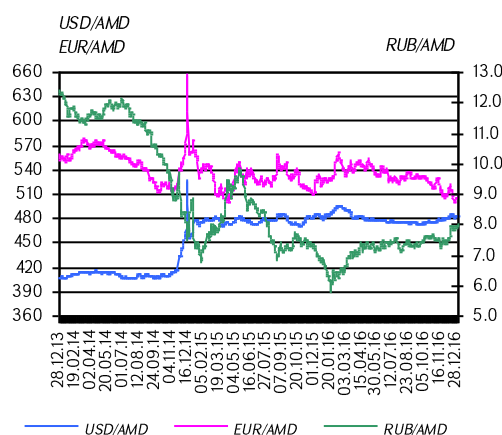
Compared to the same reference period last year, the real effective exchange rate depreciated by 1.3%.

Growth y/y, (%)	Q4	Q1, 2015	Q2	Q3	Q4	Q1, 2016	Q2	Q3	Q4
Real effective exchange rate (+ means appreciation)	9.2	11.7	6.7	5.8	2.2	-0.1	1.02	-1.9	-1.3
Average inflation in Armenia	3.2	5.2	5.1	4.4	1	-1.2	-1.6	-2.2	-0.7
AMD/USD average nominal exchange rate (+ means appreciation)	-5.7	-13.9	-13.4	-14.8	-10.1	-2.3	-0.5	0.8	0
Average weighted inflation in trade partner countries	5.1	6.7	7.9	7.5	6.9	5.1	3.1	3.2	3.2
Trade partners' average weighted nominal exchange rate (+ means appreciation versus dollar)	-18.5	-32.1	-27.2	-29.4	-20.7	-9.1	-6.5	-2.1	-2.7

Real exchange rate appreciation = Inflation in Armenia + Nominal exchange rate appreciation – Trade partners' average weighted inflation – Trade partners' average nominal weighted exchange rate appreciation.

Box 3

Armenian dram's exchange rate versus US dollar, Euro and Russian ruble



Foreign exchange market

As of end of the fourth quarter of 2016, the average USD/AMD was 483.94, which is a 1.96% depreciation relative to the end of the previous quarter.

The aggregate volume of U.S. dollar/Armenian dram transactions in the foreign exchange market in the fourth quarter of 2016 amounted to USD 2.81 billion, increasing by 6.03% (AMD 2.65 billion) against the same reference period last year.

The aggregate volume of Euro/Armenian dram transactions carried out during the fourth quarter reached EUR 297.18 million, which is a 1.09% decrease against EUR 300.48 million reported in the fourth quarter of 2015.

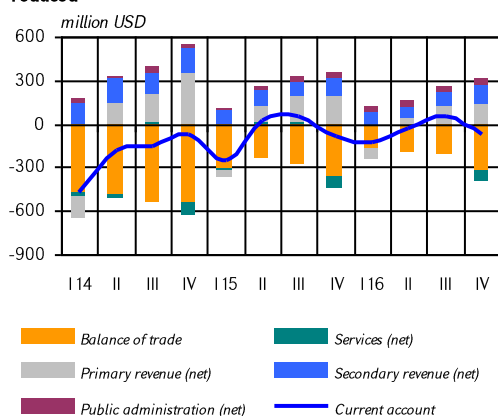
The aggregate volume of Russian ruble/Armenian dram transactions in the fourth quarter of 2016 totaled RUB 20.82 billion, which represents a 1.7% reduction from the relevant figure (RUB 21.18 billion) recorded in the fourth quarter of 2015.

²⁵ The fourth quarter 2016 indicator of the real exchange rate is the Central Bank estimate.

3.4. Balance of payments²⁶

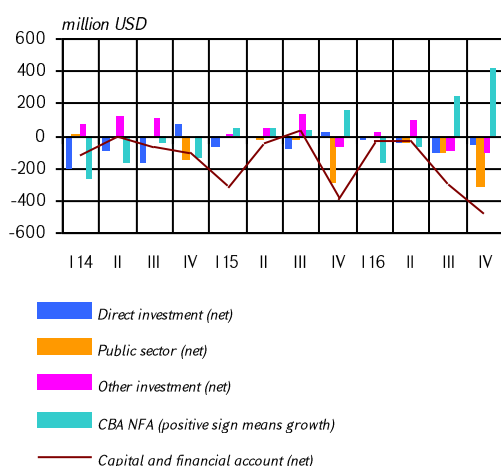
In the fourth quarter of 2016, the deficit of trade balance tended to narrow further in the light of recovering Armenia's external demand and improving terms of trade.

In the fourth quarter of 2016, relative to the same reference period last year, the current account deficit had reduced



In the fourth quarter of 2016 net borrowing grew considerably

(+ net lending, - net borrowing)



In the fourth quarter of 2016, the deficit of trade balance tended to narrow further in the light of recovering Armenia's external demand and improving terms of trade.

Thus, a 20.8% y/y increase in the dollar value of export²⁷ in the fourth quarter of 2016 was mainly driven by grown export of raw materials and the item "Products of prepared food".

Trends of recovering imports of consumer and investment goods persisted in the fourth quarter of 2016 amid gradually improving domestic demand. Import of raw materials also contributed positively to the imports indicator. As a result, a 6.7% y/y increase in the dollar value of import was recorded in the fourth quarter of 2016.

In the fourth quarter of 2016 the deficit of trade balance²⁸ shrank by USD 44.6 million to USD 320.0 million, as a result of outgrown export. The net inflow of remittances broadened by 5.4% y/y as the Russian economy started recovering. The negative balance on investment income has increased by USD 61.0 million. As a result of the aforementioned developments, the current account deficit narrowed this quarter to USD 80.5 million relative to the fourth quarter of the previous year. According to the estimations for 2016, the current account deficit-to-GDP ratio has improved, which is estimated to be around 2.0%.

The net inflow of foreign direct investment totaled USD 54.0 million in the fourth quarter of 2016. The net inflow of loans in the public sector was rather high, amounting to USD 313.2 million. Net foreign assets of the private sector decreased by USD 107.0 million in the fourth quarter of 2016.

The developments with the balance of payment drove the Central Bank's net foreign assets to increase by USD 413.9 million. An increase in public sector credit and in foreign currency correspondent accounts of commercial banks with the Central Bank secured the bulk of such NFA growth. In the fourth quarter of 2016 the Central Bank acted as a net buyer of foreign currency.

3.5. External environment

Main trade partner countries to Armenia saw their economic activity improving further during the fourth quarter of 2016. It is noteworthy that Russia's economic decline halted while economy returned to a positive growth territory.

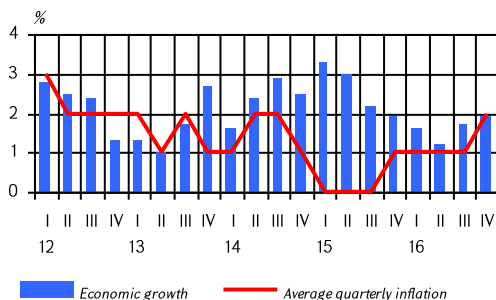
²⁶ The fourth quarter 2016 balance of payments will be published at the end of March 2017, according to the timetable. The fourth quarter 2016 indicators are the Central Bank's forecasts and estimates.

²⁷ The export and import indicators are represented on a balance-of-payments basis, i.e. by credit and debit, respectively.

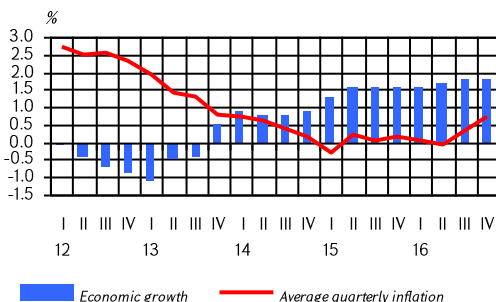
²⁸ The deficit of trade balance was calculated on a balance-of-payments basis, where export is credit, import debit.

According to preliminary estimates of the Bureau of Economic Analysis of the U.S. Department of Commerce, the annualized economic growth in the **United States** in the fourth quarter of 2016 was 1.9% q/q compared to the previous quarter's 3.5% growth. The y/y economic growth amounted to 1.9% against the previous quarter's relevant indicator of 1.7%. The fourth quarter's inflation rate accelerated to 1.6% on average compared to the relevant indicator of 1.1% reported in the previous quarter. Yet, it remains below its target mainly due to lower non-food product prices. In such circumstances, in the fourth quarter the US Federal Reserve System raised the policy rates to the range of 0.5-0.75% from the 0.25-0.5% range in the previous quarter.

In the fourth quarter of 2016 the inflation in the USA accelerated



In the fourth quarter of 2016 the inflation in the Eurozone accelerated



According to preliminary estimates provided by the Eurostat, economic growth in the **Eurozone** in the fourth quarter of 2016 was 1.8% (the previous quarter's relevant indicator was again 1.8%). The strengthening of domestic demand has been the main contribution to the economic growth. The average quarterly inflation in the Eurozone in the fourth quarter of 2016 was 0.7% against that of 0.3% recorded in the previous quarter. Still running below its long-term target, the inflation was mainly driven by increased service tariffs. In the fourth quarter the European Central Bank kept the policy rates at the level of 0.0% for refinancing rate and -0.4% for deposit facility rate. At the same time, the ECB continued its asset purchases program at the amount of EUR 80 billion a month.

In the currency market in the fourth quarter of 2016, the euro depreciated against the U.S. dollar by 3.3% q/q (with y/y depreciation of 1.5%); the average exchange rate reached 1.08 dollars for one euro.

Economic growth in the **Russian Federation** in the fourth quarter of 2016 is estimated at around 0.1% y/y against the previous quarter's decline of 0.4%, in which case the 2016 slowdown will be 0.5% on average. As international oil prices post some rise, the Russian ruble appreciated during the quarter by 4.1% q/q, with the y/y appreciation of 5.5%. In the fourth quarter of 2016 the inflation further decelerated to 6.0% from the previous quarter's 6.7%, which is determined by fallen prices of food and non-food products and service tariffs. Note, however, that the inflation rate continues running above its 4% target, taking also into account that inflationary expectations, despite somehow subdued, are still high. Under such circumstances, the Bank of Russia maintained the policy rates at the 10.0% level in the fourth quarter.

In the fourth quarter of 2016 the **price of Brent crude oil** at Intercontinental Exchange rose by 9.1% against the previous quarter, averaging USD 50.0 a barrel (with 15.7% y/y increase). The oil prices behaved this way primarily owing to supply factors – when the OPEC reached an agreement to reduce oil production within its member states.

In the fourth quarter of 2016 the **price of copper** at the London Metal Exchange grew a sizable 10.2% against the previous quarter (with 7.9% price increase y/y), which was mostly driven by expectations for recovering demand in China and the USA.

The export price of **hard red wheat** followed a downward path during the fourth quarter too, owing to persisting huge worldwide output. The wheat price fell this quarter by 4.3% against the previous quarter (with 24.4% price decrease y/y) to USD 3.3 a bushel on average.

The price index of **unprocessed sugar** at the New York Board-Intercontinental Exchange dropped at the end of the fourth quarter of 2016, as the real, the currency of Brazil – a principal producer and exporter – depreciated versus the US dollar. However, the price remained almost unchanged relative to the previous quarter, with the q/q growth of 1.4% and y/y growth of 41.8%.

In the fourth quarter of 2016 the price of **rice** at the Chicago Board of Trade fell because of reduced world production volumes; the price decreased by 12.4% to USD 16.6 per U.S. hundredweight (45.4 kg), with y/y growth of 2.1%.

Summary: inflationary trends observable in the world's commodity and food product markets in the fourth quarter of 2016 were in line with the previous program's forecasts, although world copper markets reported higher-than-expected price inflation.