

THE CENTRAL BANK OF
THE REPUBLIC OF ARMENIA

*Approved under the Central Bank Board
Resolution No. 203A,
dated November 27, 2018*

Inflation Report

Monetary Policy Program, Q4, 2018



*Status Report on Implementation of the Monetary
Policy Program, Q3, 2018*

The inflation targeting strategy of the Central Bank of Armenia highlights the importance of communicating of the Bank to the general public by publishing, inter alia, quarterly inflation reports.

The first section of the inflation report includes the Monetary Policy Program that provides main directions of the monetary policy in the forecast horizon as well as forecasts of inflation and other macroeconomic indicators. These forecasts are based on the Bank's assessment of the current situation and future assumptions by the Bank, which also include the impact of the Bank operations.

The second section includes status report on implementation of the monetary policy program of the previous quarter, which presents the results of monetary policy implementation and covers the actual developments in the domestic economy.

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.

According to the rule of monetary policy, the policy is aimed at minimizing the deviations between the 4% target and the inflation forecasts. The path to inflation rate shaped as a result of projected policy directions is published as a forecast probability distribution chart for the 12-quarter time horizon.

Projections in this report are based on the actual information available by November 13, 2018, i.e. the day on which the refinancing rate was set, the results of a survey conducted by the Bank 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 all press-releases and other monetary policy-related publications.

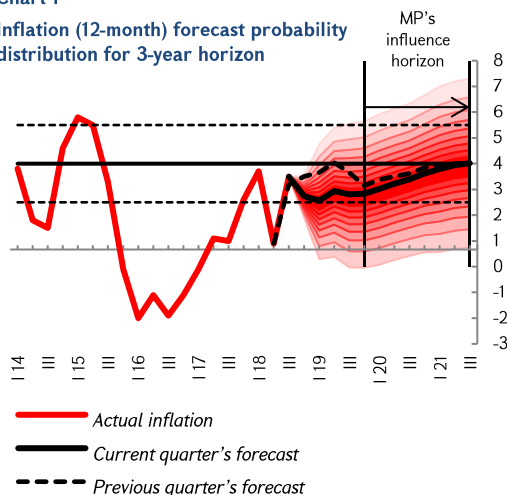
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1. EXECUTIVE SUMMARY

As the Central Bank continues implementing an expansionary monetary policy, and in expectation of economic developments, the 12-month inflation rate will behave steadily, remaining near to the lower part of the confidence band, and it will stabilize around the 4% target in the forecast horizon.

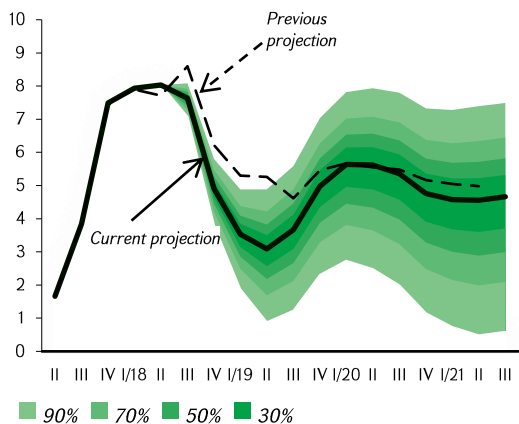
Chart 1
Inflation (12-month) forecast probability distribution for 3-year horizon



Source: Armenia Statistics Committee,
Central Bank forecast

Compared to high economic activity over the first half of 2018, its growth rates slowed down to some extent in the third quarter due to both supply-driven and weak domestic demand factors.

Chart 2
Real GDP (cumulative)¹ growth projection probability distribution for 3-year horizon



Source: Armenia Statistics Committee,
Central Bank forecast

In the fourth quarter of 2018, both headline and core inflation rates slowed down to a certain extent. Under an expansionary monetary policy implemented by the Central Bank and expected economic developments, the 12-month inflation rate will behave steadily, remaining close to the lower part of the confidence band; in the forecast horizon it will stabilize around the 4% target.

A low inflation environment persisted during the third quarter and the 12-month inflation rate mainly fluctuated within the lower part of the confidence band. In spite of supply shock-driven inflationary effects in some commodity markets, reducing of core inflation and short-term inflation expectations was observable, primarily due to weaker-than-expected demand developments. ***In a current macroeconomic situation and low inflation environment, the policy rate is now estimated stimulating enough, so the Central Bank has left it unchanged, keeping the monetary conditions expansionary. At the same time, in the light of upcoming developments, abandoning expansionary monetary conditions will take place at a slower pace in order to give the economic recovery rates more sustainable impulses.***

Growth rates of high economic activity observable during the first half of 2018 slowed down slightly in the third quarter due to both the supply-driven and weak domestic demand factors. It is estimated that economic growth in the forecast horizon will recover, approaching its long-term equilibrium.

According to the baseline scenario, mid-term economic growth trends will largely depend on the economy's fundamentals, investment activity and expanding of production capacities, on the one hand, and the pace at which the Government will push forward the structural reforms and what economic growth potential can be expected in partner countries, on the other.

Risks to inflation and economic growth ***outlook in the short run and medium run*** are dual-sided, yet downside risks tend to prevail (see subsection 2.2.4 "Main assumptions and risks").

The Central Bank keeps a watchful eye on macroeconomic developments: in the event the risks deviate from a prediction path, the Central Bank will react accordingly, while ensuring price stability.

¹ The growth rate of each quarter is calculated as the cumulative growth rate for the last four quarters.

2. FORECAST, FORECAST CHANGES AND RISKS

2.1. External environment

The world economy will continue growing smoothly in the latter part of 2018 but there is anticipation that the growth will decelerate gradually in the upcoming years as the global demand slackens. As regards major trade partners to Armenia, economic growth rates are expected to remain strong in the United States, the slowing of high growth rates will further be seen in the Eurozone, while Russia's economic growth will continue to recover slowly in the short run.

Economic developments in the external sector: According to preliminary estimates of the Bureau of Economic Analysis of the U.S. Department of Commerce, economic growth in the **United States** in the third quarter of 2018 was 3.0% y/y, with average economic growth of 2.8% projected for 2018², driven by robust domestic consumption indicators and a lingering positive effect of tax reforms. The third quarter of 2018 saw the unemployment rate reduce further – it stood at 3.9% – against the same reference period last year.

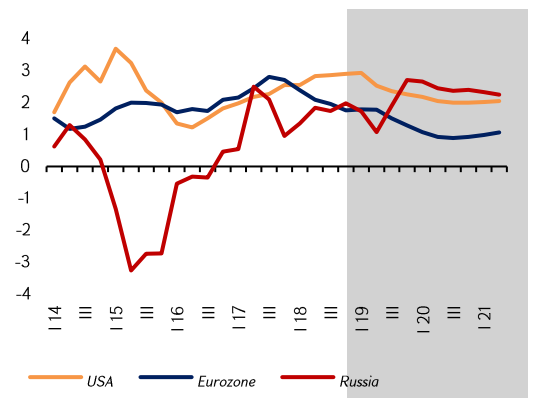
According to preliminary estimates provided by the Eurostat, economic growth in the **Eurozone** in the third quarter of 2018 amounted to 1.7% y/y, and 2.0% is projected for 2018. The slowdown in the Eurozone's economic growth has been largely driven by sluggish rates of economic growth in major EU member states, while high private consumption in individual member states continued contributing positively to the growth. In the Eurozone in the third quarter of 2018, the unemployment rate dropped further to 8.1%.

According to preliminary estimates provided by State Statistics Service of the **Russian Federation**, economic growth in the third quarter of 2018 was 1.3% y/y compared to the previous quarter's 1.8%. The 2018 economic growth is forecast to reach 1.6%. The third quarter's low growth indicator was primarily due to reduced investment and weak growth in agricultural sector because of the sanctions imposed on Russia. In the context of such economic activity, the unemployment rate continued to decline, amounting to 4.5% in the third quarter of 2018.

Inflation and financial market developments in the external sector: In the third quarter of 2018, the prices in commodity and food product markets of the world tended to decrease, except for the

The global economy will continue growing smoothly in late 2018, however the economic growth may slow down gradually in the subsequent years as the global demand weakens.

Chart 3
Economic growth in trade partner countries, %



Source: Bureau of Economic Analysis (BEA), Eurostat, Rosstat, Central Bank forecast

² These estimates for short-term and long-term growths in partner countries to Armenia are the Central Bank forecasts.

international oil price, which continued its growth pattern observable since the start of the year, but at the beginning of the fourth quarter it has changed its direction downward.

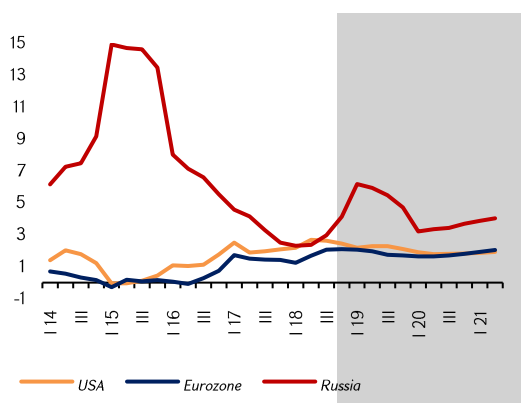
In the United States in the third quarter of 2018, the average quarterly inflation remained close to the previous quarter's high indicator; it amounted to 2.6%, running above the US Federal Reserve System's mid-term target. In view of such economic and price developments, the FRS increased the policy rate in the third quarter, as was expected, by another 0.25 pp, setting it in a 2.00-2.25% range. Predictions suggest that the US inflation will remain above its target in 2018 and, taking into account the economic growth trends, the Fed will further pursue a gradually tightening monetary policy. Even though the risk to capital outflows from emerging economies and subsequent volatilities in the financial markets now proves weaker compared to high volatilities reported in the third quarter, it will persist in the event the long-term interest rates of US Treasury bonds rise.

In the third quarter of 2018, the average quarterly inflation in the Eurozone accelerated to 2.1%, standing above the target projected by the European Central Bank, which was mainly driven by soaring international oil prices since the beginning of the year. Core inflation remains at a low level, however. In view of such economic developments when inflation needs to be kept close to the target in the medium run, the ECB will still pursue a low interest rates policy, as purchases of EUR 15 billion a month will continue until December inclusive, and it will wind up the asset purchases program at the end of the year. In the meanwhile, the ECB has announced the possibility of leaving interest rates unaffected up until the half of 2019.

In the third quarter of 2018, the average quarterly inflation in the **Russian Federation** accelerated to 3.0% (2.4% in previous quarter), but was still below the projected target of 4%. Recovered prices in individual groups of food products on the one hand and depreciated Russian ruble on the other have speeded up the rate of inflation. Note that the decision on increasing the VAT in Russia since 2019 was announced in June of 2018. In view of such inflationary developments and increased inflation expectations caused by high fuel prices, depreciated exchange rate since the beginning of the year and a planned increase in VAT starting early in the next year, the Central Bank of Russia altered the direction of monetary policy in the third quarter by raising the policy rate up to 7.5%. It is therefore expected that the CBR will, taking into account the risks deriving from the external world and the inflation, inflation expectations and economic growth developments, adjust its monetary policy accordingly.

In the third quarter of 2018, the euro exchange rate versus the US dollar depreciated by 2.4% q/q to 1.16 dollars per euro, reflecting the differentiated approach to conducting monetary policies in the US and Eurozone. In the third quarter of 2018, the Russian ruble depreciated by 10.0% q/q to an average RUB 65.6 per dollar, mainly due to US

Chart 4
Inflation in trade partner countries, %



Source: Bureau of Economic Analysis (BEA), Eurostat, Rosstat, Central Bank forecast

sanctions imposed on Russia. In the short-term, small appreciation of the Russian ruble is likely owing to altered direction by the Bank of Russia in its monetary policy.

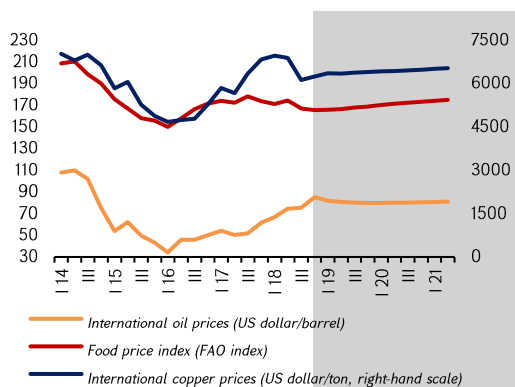
International copper prices declined sharply but oil prices grew during the third quarter of 2018. The drop in international copper prices was determined by a slowdown in economic growth in China, a huge exporter and importer of copper, and an expected slackening of demand as trade tensions between the USA and China are persisting. It should be noted, however, that in the forecast horizon the international copper prices are expected to rebound as there is hope that trade tensions will phase out. Notwithstanding the decision to increase oil production under the OPEC+ Deal, international oil prices posted a rise during the third quarter of 2018 largely due to US sanctions against Iran, and the prices will continue incurring the impact of the sanctions in the short-term perspective too.

Nonetheless, trade wars, as well as existing sanctions, contain significant risks which may affect the prices of raw materials.

In the market of food products in the third quarter of 2018, the prices of almost all commodity groups have dropped in relation to the previous quarter. Specifically, the dairy, vegetable oil and sugar prices posted a decline, although the price of sugar, due to poor harvest expectations and the Brazilian real having appreciated versus the US dollar, has begun, in early October, to follow an upward path.

Chart 5

International prices of raw materials and food products



Source: World Bank, FAO, Central Bank forecast

2.2. Forecasts

2.2.1. Inflation and monetary policy

In the fourth quarter of 2018, both headline and core inflation rates slowed down to some extent. Driven by an expansionary monetary policy implemented by the Central Bank and in the light of expected economic developments, they will behave steadily, remaining close to the lower part of the confidence band, and will stabilize around the 4% target in the forecast horizon.

In the third quarter of 2018, core inflation continued slowing down even taking into account the influence of supply-side shocks in some product markets³, which is also in line with a weaker-than-expected demand developments. The fall in prices of seasonal products, vegetables in particular, was softer than usual, which is determined by some shift in the agricultural cycle on the one hand and shortage of certain cultivation plants on the other. Accordingly, it is expected that recovering of the prices of seasonal agricultural products will be much weaker in the fourth quarter.

Both headline and core inflation rates slowed down in the fourth quarter of 2018.

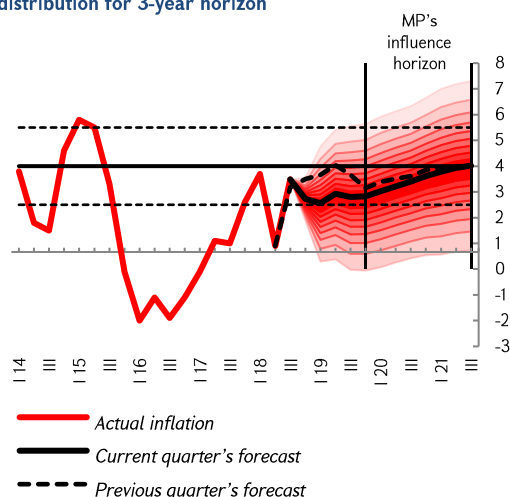
Driven by an expansionary monetary policy carried out by the Central Bank and in the light of expected economic developments, these will behave steadily, remaining close to the lower part of the confidence band, and will stabilize around the 4% target in the forecast horizon.

³ This is mainly about the increase in local meat prices.

In the third quarter of 2018, relative to the second quarter, economic activity slowed down considerably, according to the Central Bank estimates, which is explained mainly by reduced output of the agricultural sector and mining industry. In the demand point of view, most of the estimated reduction owes to the decline in the private consumption growth rate. Aggregate demand remains incurring the significant contractionary impact of public demand, which is attributable to considerable savings on budget expenditures. As a result, the GDP gap is estimated as negative in the third quarter of 2018; there is expectation that it will stay in the negative territory until the end of the year and will gradually be approaching zero in 2019 only thanks to the expansionary monetary environment as well as certain positive fiscal impulses that are expected. As the aforementioned developments unfold, aggregate demand will also incur a short-term contractionary impact of exchange rate depreciation in partner countries, which will however weaken gradually as external equilibrium rebounds. In the outcome, inflation will also stabilize around the target at the end of the forecast horizon. The short-term inflationary expectations of the public are estimated to have reduced slightly in the light of current inflation developments, particularly on the back of certain slowing of the core inflation rate, in the period under review. Nevertheless, these expectations will also stabilize around the target as inflation recovers. ***Because the current level of the policy rate is estimated to be expansionary enough, the Board of the Central Bank has kept it unchanged while leaving the monetary conditions expansionary. At the same time, in the light of upcoming developments, abandoning expansionary monetary conditions will take place at a slower pace in order to give the economic recovery rates more sustainable impulses.***

Strong economic activity that was observable in the first half of the year started to slow in the third quarter of 2018. However, backed by an unprecedented high growth in working capital inventories, growth in private sector spending remains high.

Chart 6
Inflation (12-month) forecast probability distribution for 3-year horizon



Source: Armenia Statistics Committee,
Central Bank forecast

Table 1

Period	Inflation interval forecast probability distribution				
	<1.0%	1.0-2.5%	2.5-5.5%	5.5-7.0%	>7.0%
Q4 2018	0.0%	33.2%	66.8%	0.0%	0.0%
Q1 2019	13.1%	35.8%	49.7%	1.4%	0.0%
Q2	10.9%	28.8%	56.0%	4.0%	0.3%
Q3	15.0%	28.6%	51.1%	4.7%	0.6%
Q4	15.0%	28.1%	51.1%	5.1%	0.7%
Q1 2020	13.1%	25.8%	53.2%	6.7%	1.2%
Q2	11.0%	23.8%	55.3%	8.2%	1.7%
Q3	9.4%	21.9%	56.9%	9.7%	2.2%
Q4	8.1%	19.5%	57.0%	12.0%	3.4%
Q1 2021	7.8%	17.8%	55.3%	14.0%	5.0%
Q2	6.9%	16.5%	55.1%	15.4%	6.1%
Q3	6.6%	15.8%	54.7%	16.1%	6.8%

2.2.2. Economic activity⁴

Aggregate demand: Strong economic activity that was observable in the first half of the year started to slow in the third quarter of 2018. However, growth in private spending remains high, which is bolstered by a record high growth in working capital inventories. The economic growth expected in 2018 is largely attributable to the reported investment activity⁵, growth of lending to the economy and an increased number of visitors to Armenia.

In light of the aforementioned developments, economic growth in 2018 is predicted in the range of **4.6-5.1%**. Private spending will make a 10.6 pp contribution to the economic growth, whereas the contributions of public spending and net export will leave, respectively, 2.8 and 2.9 pp negative impact on the 2018 growth.

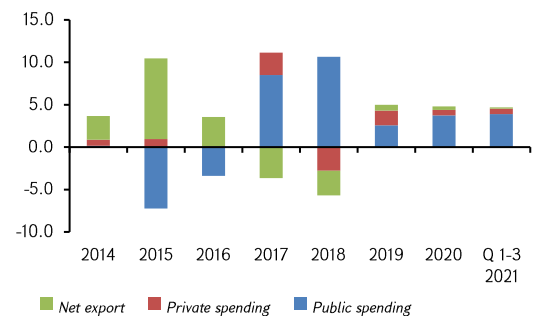
In the medium run, economic growth developments are largely determined by economy's fundamentals, investment activity and the pace of implementing reforms. Thus, the 2019 economic growth is estimated in the range of **4.4-5.5%**, that of 2020, in the range of **3.9-5.4%**, and at the end of the forecast horizon it will approach its long-term equilibrium. The mid-term growths are mostly attributable to the expanding of production capacities, the pace of Government-led structural reforms, and anticipated potential of economic growth in partner countries.

External demand: In the third quarter of 2018, even though the global economic growth proved enduring, the real export growth rates were sluggish primarily because of the problems in the mining industry. At the same time, positive developments were discernable in the tourism sector of Armenia. While the growth of import of investment goods slowed down, it remained strong. As a result of these developments, the net export deficit is estimated to be bigger.

The forecasts of real export of goods and services for the fourth quarter of 2018 have incurred revision in view of the lingering effects of problems in the mining industry. As a result, the real growth of export of goods and services in 2018 will be in the range of 3.0-5.0%. The 2018 forecasts of real growth of import of goods and services exceed those of made in the previous quarter and will be within 9.0-

Chart 7

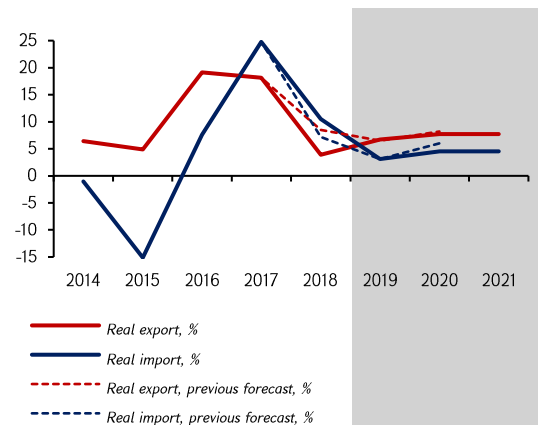
Demand components contributing to the growth, percentage point



Source: Armenia Statistics Committee, Central Bank forecast

Chart 8

Changes in real export and import of goods and services in the medium term, %



Source: Armenia Statistics Committee, Central Bank forecast

⁴ For a detailed numeric account of economic growth forecasts, see the "GDP Projection Probability Distribution", chart 18, table 2.

⁵ According to a publication (https://www.armstat.am/file/article/sv_07_18a_113.pdf) by the Republic of Armenia Statistics Committee, gross accumulation in January-June 2018 has increased by 76% over the same period of the previous year (a half-year cumulative growth was calculated using the quarterly data published by the RA SC). The share of change in tangible working capital inventories in gross accumulation amounted to 39.8%. It should also be noted that the share of change in tangible working capital inventories in the period January-June 2018 has been 8.5% of GDP in the same period, whereas in the same half-year period of the previous year the ratio was 0.8% (reference to the publication of indicators for 2017: https://www.armstat.am/file/article/sv_03_18a_112.pdf, p. 32-33).

11.0%. As a result of these forecasts, net export's contribution to the real GDP will continue to be negative.

Remittances of individuals in the third quarter of 2018 were below the projected level due mainly to new developments connected with the ruble depreciation. The estimated growth of individuals' remittances for 2018 is in the range of 1.0-3.0% in the event the ruble keeps on depreciating during the fourth quarter.

As a result of the aforementioned developments, the current account deficit-to-GDP ratio will increase to be within 5.0-7.0% in 2018. In the medium run, bolstered by a quicker growth of export, the ratio will stabilize around an estimated 3.0% equilibrium.

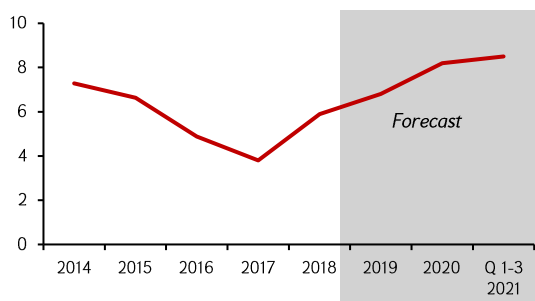
Fiscal policy: The **fiscal policy's impact** on aggregate demand in 2018 has been estimated using the revenue and expenditure indicators outlined in the Republic of Armenia Law on "State Budget 2018" and adjusted⁶ under specific Government of Armenia resolutions, as well as using the Central Bank estimates.

Relative to the previous MP program, the state budget revenue forecasts remained almost unaltered and are in line with the law-endorsed figure. Fewer public spending in the course of past nine months of the year, when expenditures made had amounted to nearly 84% of the quarter's plan, allow to forecast savings of approximately AMD 97.0 billion for the year, with almost a 94.4% performance rate of the annual plan. The deviation of expenditures from the plan is largely due to a low performance of transport, defense, water supply, irrigation, and energy projects carried out under foreign assistance. Low expenditures will also cut the deficit which, the Central Bank estimates show, will make up 1.3% of the GDP instead of 2.7% as provided for by the law. As a result, the fiscal policy will have a 3.0 pp contractionary impact in 2018, mainly owing to tightened expenditures. Nevertheless, uncertainties as to the end-year pace of implementing those foreign-assistance projects persist in the context of measuring the extent of contractionary effect the fiscal policy will have for the year.

In view of the need to creating a sustainable fiscal and debt environment according to the Medium Term Expenditure Framework for 2019-2021, the mid-term impact of fiscal policy is estimated slightly contractionary for 2020 and 2021. The Central Bank has no other assumptions for the medium term. As for 2019, the fiscal policy will have a 0.8 pp expansionary impact relative to 2018, provided that respective indicators are secured in the draft to the law on budget.

Chart 9

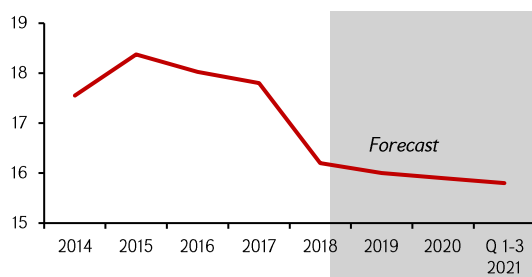
Changes in real export and import of goods and services in the medium term, %



Source: Armenia Statistics Committee, Central Bank forecast

Chart 10

Unemployment rate, %



Source: Armenia Statistics Committee, Central Bank forecast

⁶ The indicators set out in the Republic of Armenia laws on state budget are adjusted under separate Government of Armenia resolutions during the year, for which the Government of Armenia has a relevant mandate; these resolutions are published on <https://www.e-gov.am>.

Labor market⁷: Around a 6.0% increase in the nominal wage⁸ in the **private sector** is anticipated in 2018, which is somehow below the previous projection as the economic growth forecast incurred revision. In the medium run however, the private sector nominal wage growth will be consistent with economic growth and inflation developments, i.e. its fundamentals. In 2019, the private sector's nominal wage is predicted to increase by 6.8%, and at the end of the forecast horizon it will stabilize around 8.5%.

In case the productivity growth rates slow down, the aforementioned economic growth will be concomitant with growing employment, so a lower unemployment rate of 16.3% can be expected in 2018 as a result. In the medium term, the unemployment rate will decrease by 0.1-0.2 pp annually, approaching a 15.8% level at the end of the forecast horizon.

In 2018, the growth of firms' unit labor costs will accelerate and at the end of the forecast horizon it will stabilize around its fundamental value, i.e. the 4% inflation target.

2.2.3. Comparison with the previous forecast

As to developments in the economies of trade partners to Armenia, short-term economic growth indicators will remain in the framework of previous forecasts. However, mid-term growth forecasts for the USA and Eurozone economies were adjusted downside.

The US economic growth forecasts for 2018-2019 were revised slightly upside, mainly attributable to strong growth rates observed during 2018 and tax reforms that continue contributing to the growth positively.

The 2018 economic growth forecasts in Eurozone were adjusted downside primarily due to net export and domestic consumption volumes that are anticipated to shrink to some extent.

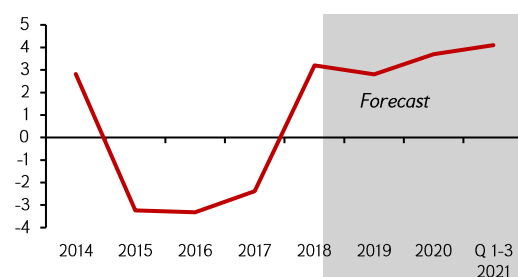
Current forecasts of economic growth in Russia are close to the ones made in the previous quarter, according to which the economic growth was revised downside, explained by contracted external demand because of the sanctions imposed on Russia, on the one hand, and reduction in demand in expectation of a contractionary fiscal policy, on the other.

⁷ The labor market data for 2018-2021 are the Central Bank projections which are based on the first and second quarter 2018 data and actual July-August 2018 figures. The growth indicators presented in this sub-section are relative to the same reference period last year, unless otherwise specified.

⁸ Starting from January 2018, the Republic of Armenia Statistics Committee began publishing the nominal wage, using data of commercial undertakings with 1 or more employees. Previously, the National Statistics Service of Armenia was publishing data of commercial undertakings with more than 50 employees. Because the 2017 figures on average monthly wage of commercial undertakings with 1 or more employees are not available for now, the Central Bank will, for its predictions, look to previous methodology of calculating the average salary, in order to maintain comparability. Starting from 2019, the Central Bank will forecast the average nominal wage of commercial undertakings with 1 or more employees in the private sector.

Chart 11

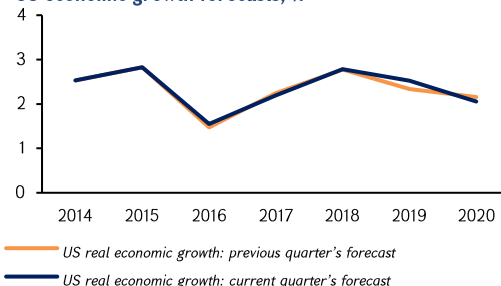
Unit labor costs growth, y/y, %



Source: Armenia Statistics Committee, Central Bank forecast

Chart 12

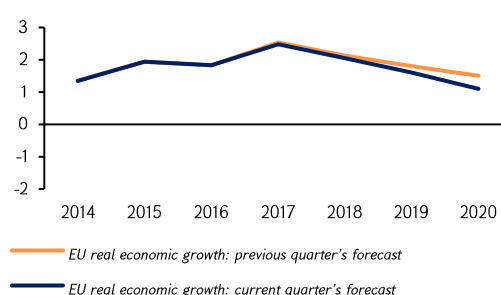
US economic growth forecasts, %



Source: Bureau of Economic Analysis (BEA), Central Bank forecast

Chart 13

EU economic growth forecasts, %



Source: Eurostat, Central Bank forecast

Chart 14

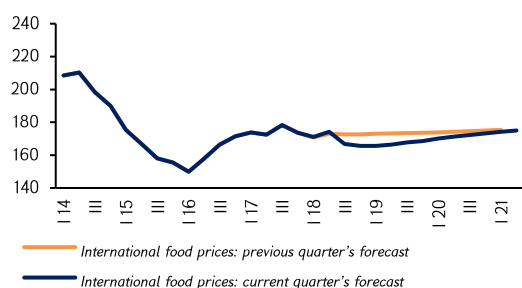
Russia economic growth forecasts, %



Source: Rosstat, Central Bank forecast

Chart 15

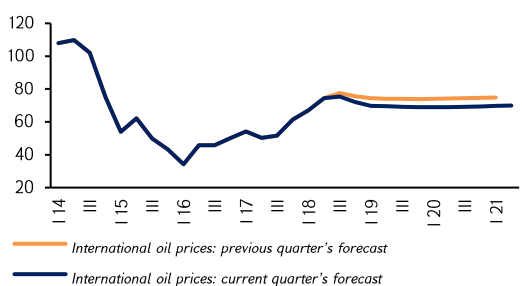
International food price forecasts



Source: FAO, Central Bank forecast

Chart 16

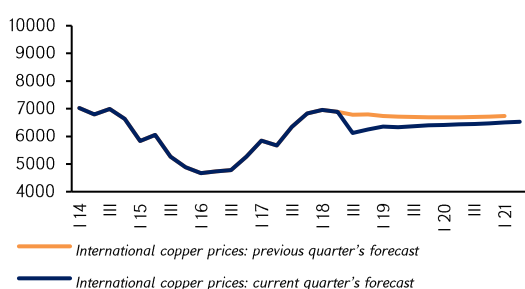
International oil price forecasts



Source: World Bank, Central Bank forecast

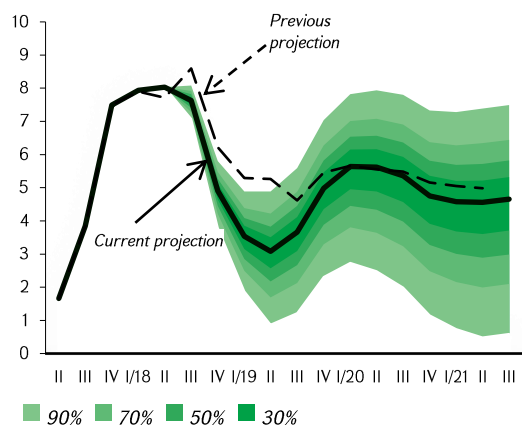
Chart 17

International copper price forecasts



Source: World Bank, Central Bank forecast

Chart 18

Real GDP (cumulative)⁹ growth projection probability distribution for 3-year horizonSource: Armenia Statistics Committee,
Central Bank forecast

In the world's basic commodity markets, somewhat a weaker inflationary environment is anticipated in comparison with the previous forecast.

Specifically, in the world's food product markets the prices are predicted to go paths other than forecasted previously; in some markets (vegetable oil, dairy products) they will shape at somewhat lower levels due to expected large supply volumes, whereas sugar and wheat prices will demonstrate faster increases, as currencies of major exporting countries appreciated against the US dollar and the expected harvest will be less abundant due to weather conditions.

Relative to previous forecasts, international oil prices will rest on a lower level amid the latest developments in the oil market and uncertainties connected with oil production.

In the forecast horizon, international copper prices will shape at the levels lower than outlined in the previous forecast, driven by expected contraction in demand by China as trade tensions persist in the international copper market.

Armenia's economic growth rate for 2018 is predicted to be 4.9% against the previous forecast of 6.2%.

The economic growth of the recent period marks high activity in private spending (see subsection 3. 2. 2) and services (see subsection 3. 2. 3). Furthermore, with slower growth rates in fixed capital accumulation and persistently strong growth rates in the change in tangible working capital inventories, there is expectation that throughout the entire forecast horizon the economic growth will run somehow below the scenario outlined in previous predictions. The economic growth will mainly be fueled by the services sector, whereas the industry, agriculture and construction sectors will bring relatively small contributions.

The negative GDP gap induced as a result of contractionary fiscal policy and contracted net exports will gradually phase out under the current expansionary monetary environment, and at the end of the forecast horizon the inflation will reach its target value.

Table 2

Real GDP (cumulative) growth projection probability distribution		
Period	30% probability interval	90% probability interval
January-December 2018 / January-December 2017	4.6 - 5.1	3.8 - 5.8
January-December 2019 / January-December 2018	4.4 - 5.5	2.3 - 7.0
January-December 2020 / January-December 2019	3.9 - 5.4	1.2 - 7.3
January-September 2021 / January- September 2010	3.7 - 5.3	0.6 - 7.5

⁹ The growth rate of each quarter is calculated as the cumulative growth rate for the last four quarters.

In 2018, the current account deficit-to-GDP ratio will run above the previously forecasted level, which will be attributable to the problems in the mining industry amid continued high growth in import.

The fiscal sector's impact on aggregate demand is estimated to be greater, 3.0 pp, relative to the previous forecast of 1.6 pp contractionary, which is attributable to contractionary effects of revenues (0.2 pp) and expenditures (2.8 pp).

The contractionary impulse has grown primarily as a result of adjustment to the budget indicators¹⁰ and revised nominal and potential GDP estimates.

Note that the estimate of the contractionary impact of the budget is still uncertain as it greatly depends on the pace of implementation of the projects carried out under foreign assistance.

Current forecasts denote that the inflation in the short run will be lower than outlined in the previous scenario, which is explained by a weaker demand and lower-than-expected seasonal prices of agricultural products. Continued growth of meat prices and faster recovering prices of agricultural products in the fourth quarter will be offset by the fall in non-food prices. As a result, the 12-month inflation rate will subdue, resting in the lower part of the confidence band.

In the meanwhile, core inflation will throughout the entire forecast horizon run below the path outlined in the previous scenario, determined by a relatively sluggish environment for aggregate demand. Consequently, fulfilling the inflation target will require keeping the monetary policy expansionary for some time and letting it phase out gradually in the medium run, thus helping the inflation stabilize around the target at the end of the forecast horizon (see Chart 1: "Inflation Forecasts Probability Distribution").

Short-term inflation expectations will settle on a level lower than outlined previously and will virtually be driven by how core inflation patterns unfold.

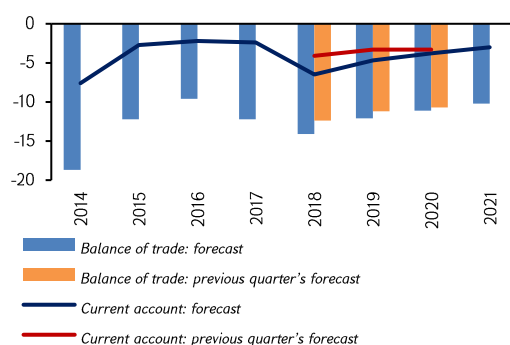
2.2.4. Main assumptions and risks

This section contains the main assumptions underlying the Monetary Policy Program for the third quarter of 2018 and the risks to implementation of the program, which derive from the external sector developments, the fiscal policy, current trends and short-term forecasts.

It is worth mentioning that the impact of Armenia's state budget, estimated as contractionary in the previous scenario, is more

Chart 19

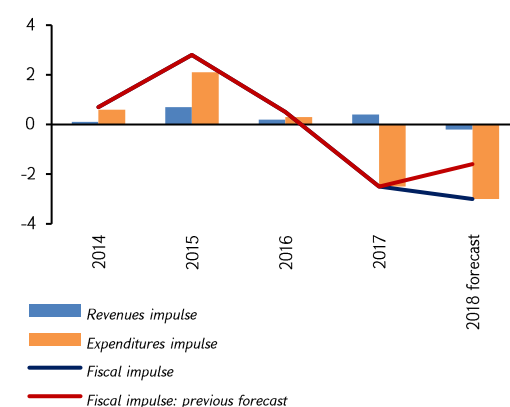
Mid-term current account-to-GDP ratio forecasts, %



Source: Armenia Statistics Committee, Central Bank forecast

Chart 20

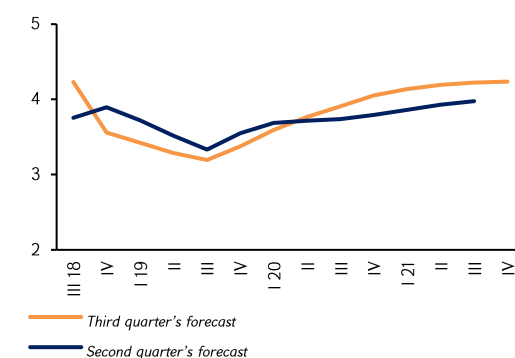
Fiscal impulse forecasts, percentage point



Source: Central Bank forecast

Chart 21

Short-term core inflation expectation estimations, %



Source: Central Bank forecast

¹⁰ In the calculation of the impulse by the Central Bank, the state budget flows came in netted against the actual loan amounts received as commodity.

contractionary now due to noticeably underperformed expenditures. The budget impulse for the year is estimated as 3.0 pp negative. However, depending on how rigorous the budget will make its end-year expenditures and, in particular, the expenditures within the projects carried out under foreign assistance, there can emerge risks to even more contractionary impact.

The deficit-to-GDP ratio will increase in 2019¹¹ by 0.9 pp relative to the 2018 Central Bank estimates. In the event the figures provided in the draft budget law 2019 are secured, the fiscal policy will have an estimated 0.8 pp expansionary impact on aggregate demand relative to 2018. It will be totally determined by the expansionary effect of expenditures and net lending¹².

The estimates of the Central Bank also denote certain risks to not making full-scale public expenditures in 2019, relating, specifically, to the implementation of externally-financed projects and shortfalls in net lending to the economy. According to the estimates, in 2019 the fiscal policy will have a neutral impact in case of almost 3% underperformed expenditures, and a contractionary impact, if the amount of underperformed expenditures is bigger.

Chart 22

Share of households expecting high and too high inflation in a one-year horizon

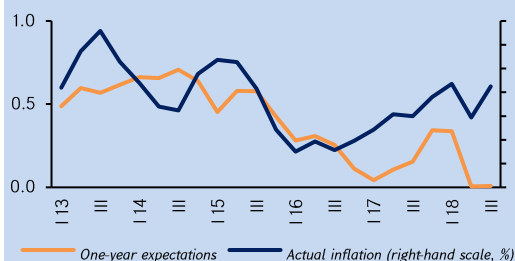
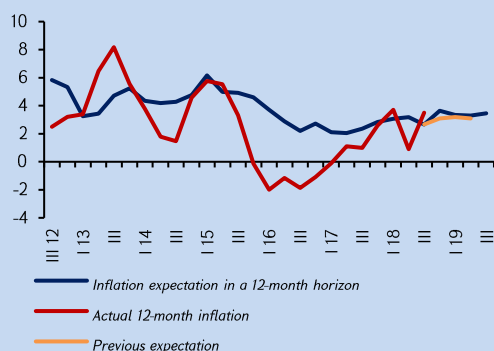


Chart 23

Average level of financial system's inflation expectations, %



Box 1:

The results of survey on expectations by the households and the financial system

The inflation expectations somewhat increased in the third quarter of 2018, according to the results of the Q3, 2018 survey on selected macroeconomic indicators the Central Bank carries out by way of inquiries among households and companies in the financial sector. Although the share of the households expecting high and very high inflation rates for a one-year horizon remained almost the same in total respondents, as in the previous quarter (almost a zero level), those expecting an unchanged level of prices and slower price inflation rates have considerably grown in number, owing to the reduced number of households that expected deflation. However, these figures may still contain the effects of the political events taken place during the year, so the real impact of pricing and how it has actually affected consumption behavior remains more or less limited.

The average level of inflation expectations of the financial system in the upcoming one-year horizon has increased to 3.4% from 3.0% reported in the previous survey.

¹¹ It is based on the indicators of the draft to the Republic of Armenia Law on State Budget 2019; the 2018 deficit is the Central Bank's estimate.

¹² Net lending, once allocated, has an expansionary effect and, once recovered, a contractionary effect. Allocation of net lending is planned in 2018-2019 while recovery from allocated resources, in 2019.

Forecast assumptions

Table 3:

Main judgments and assumptions	Possible developments, if this assumption proves to be correct
Economic growth rates keep on recovering and prices grow at faster rates in major partner countries to Armenia	- As economy continues to recover slowly, external demand will be expected to further recover in partner countries. In this case, developing countries are expected to gradually tighten their monetary policy conditions. - Growing inflation expectations as a result of the VAT increase as well as elevated local petrol prices will prompt the Bank of Russia to tighten the monetary policy in the short run. - International copper prices will recover to a certain extent, in anticipation that trade wars between the United States and China can be smoothed out.
Armenia's risk premium persists at the current level	The Government of Armenia-issued 10-year Eurobond rates spread, relative to the similar-maturity US assets, will be around 3% in the fourth quarter of 2018, remaining at the previous quarter's level. Armenia's risk premium is also assessed accordingly.
There is demand-side shock	Possible positive effects of a number of large-scale events ("La Francophonie Summit 2018", "Yerevan 2800th Anniversary of Founding", etc.) in the latter part of the year were considered in the overall demand forecasts. According to the estimates, the total contribution of the above mentioned measures to the GDP in the fourth quarter will reach 0.4 pp.
Private investment grows	The 2018 private investment forecasts have considered that strong growth rates in the change in tangible working capital inventories in the first half of the year will persist in the second half of the year too.
There are supply-push inflation shocks	In the third quarter, the effects of supply-push shocks on some products were reflected in core inflation; the combined amount of the effects on core inflation were estimated to reach 0.5 pp.
Fiscal policy conditions	- The fiscal sector's impact on aggregate demand is an estimated 3.0 pp contractionary in 2018. - Given that the 2019 state budget performs in full, the fiscal policy's impact on aggregate demand will be 0.8 pp expansionary. However, a certain threshold of underperformed expenditures (3% or so) by the Government will lead to a neutral impact.
Action that fosters the growth of potential GDP	The potential GDP will be bolstered thanks primarily to continuous growth in private investment in the tradable sector by increasing output capacities for both goods and services, ensuring an annual 4.5-5.0% growth.

Forecast risks

The main risks to inflation are determined by both the supply and demand-driven developments in the relevant sectors of the economy.

In terms of aggregate demand, the main risks are related to the following factors:

- The budget leaves a bigger contractionary impact that persists until the end of the year and spills over into 2019, as a result of which the aggregate demand will have even a more deflationary effect on the inflation, calling for implementing an extra expansionary monetary policy.
- The actual high growth rates in investment slow down as the change in tangible working capital inventories recovers to normal.

In terms of supply, the following are risks to the inflation:

- Mostly short-term deflationary risks may emerge as core inflation recovers at unsatisfactory rates. On the other hand, dual-sided risks following a change in customs duty to be imposed on some products in 2019 exist in terms of the extent of impact on the inflation (estimated to be around 0.2 pp). The risks, however, are small quantitatively.
- Enforcing a tighter tax administration, the impact of which on the inflation in the medium run will depend on market participants' repositioning, competition in the markets and, consequently, structural adjustment to markup prices.
- Risks to capital outflow from developing countries continue, once the developed countries attempt more vigorous tightening of their monetary policy conditions; this would lead to raising the country's risk premium and might, other things equal, create inflationary pressures through exchange rate fluctuations.
- Imposing possibly new sanctions and trade restrictions by the USA on the regional partner countries, which may add to the volatility in currency markets in the region, particularly, Russia's.

Overall, the risks to inflation in the medium run are assessed as balanced, and the 12-month inflation rate is within the confidence band (see Chart 1: "Inflation Forecasts Probability Distribution").

In addition to the above inflation risks, there are some mid-term risks to economic growth potential, and albeit dual-sided, the downside risks prevail. Risks, in particular, are associated with the following domestic factors:

- Resolving the situation around the Amoulsar mine¹³ and the uncertainties associated with the future operation of Alaverdi copper smelter.
- In the context of long-term economic growth estimation, the future course of structural reforms in the economy and to which extent they will affect the business and investment climate are important.

¹³ The Monetary Policy scenario has been developed exclusive of the Amoulsar's activity.

3. ACTUAL DEVELOPMENTS IN Q3, 2018

3.1. Inflation

3.1.1. Fulfilment of the inflation target

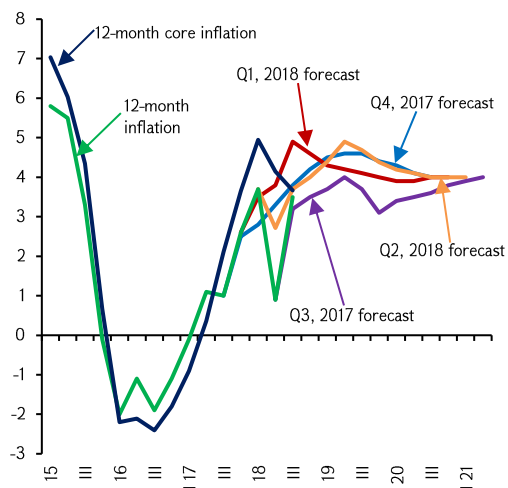
Fulfilment of the inflation target in a preceding 1-year horizon (Q4, 2017 to Q4, 2018) suggested that the inflation environment would further be expanding in the upcoming one-year period, mainly facilitated by sustained strengthening of domestic demand, inflationary effects transmitting from world commodity markets, and expansionary monetary policy implemented by the Central Bank, according to Q4, 2017 Monetary Policy Program. The estimation was that altered customs and excise duty rates on certain goods would have a limited inflationary effect in the short run, which would be temporary in nature and would be phasing out starting 2019. In this circumstance, the Central Bank reckoned, monetary conditions would still be left unchanged but, in the near future, **abandoning expansionary monetary conditions gradually would be needed**. As a result, the inflation would run slightly above the target in the first few months of 2018 and, fine-tuned by the Central Bank tools, would rest at the 4% value thereafter.

The actual inflation developments showed that the inflation environment considerably expanded, as was expected, in the fourth quarter of 2017 and the first quarter of 2018, with the 12-month inflation having increased to 3.7% in March 2018 from 1.0% in late September of 2017. In the meanwhile, certain inflation expectations relating to possible impact from the change in customs and excise duty rates at the start of 2018 and additional inflation expectations of households resulting from increased prices of some food products in the world markets have accumulated. This, coupled with the expansionary monetary policy implemented, has prompted core inflation to outpace headline inflation, helping the 12-month core inflation rate increase by nearly 3.6 pp over the fourth and first quarters to amount to 5.5% at the end of March 2018.

The second and third quarters of 2018 saw the inflation deviate from its path outlined in the previous baseline scenario; driven by agricultural product prices that fluctuated because of earlier developed seasonality, the 12-month inflation slowed down to 0.9% in end-June and then it rebounded again to 3.5% at the end of September. In the monetary policy impact point of view however, more pronounced is the quarterly behavior of core inflation, which is also going a down-slope

Chart 24

According to the Central Bank forecasts, the 12-month inflation will continue expanding in the upcoming period and will then stabilize around the target



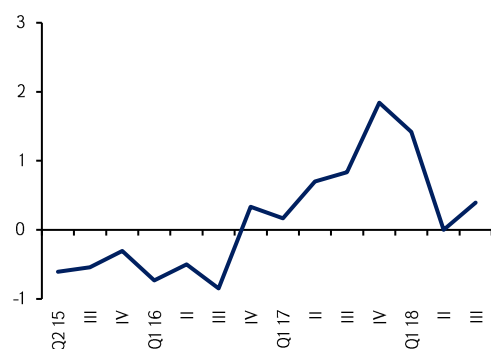
Source: Armenia Statistics Committee,
Central Bank forecast

path in the mentioned period, pointing to certain softening in inflation expectations.

In view of the macroeconomic situation and inflationary patterns described above, the Central Bank has left the monetary conditions unchanged for the previous one-year period, **leaving the refinancing rate at a 6% level**. As the inflation environment somewhat expanded and inflation expectations grew at the end of 2017 and during the first quarter of 2018, keeping the monetary environment expansionary was justified by the need to ensure sustained recovery of demand and implementation of a contractionary fiscal policy. And because the risks to achieving the inflation target were mostly on a downside trend that time, the Central Bank signaled to the financial market that **gradually abandoning the expansionary monetary conditions would be needed** very soon. Staring the second quarter, core inflation began slowing due to a weaker-than-expected demand and, in part, supply factors, which **changed the position of monetary policy, highlighting that it would have to remain expansionary for a longer period**. Consequently, under such scenario for monetary policy implementation, the 12-month inflation was supposed to run somehow below the target and then to stabilize around the 4% value in the forecast horizon.

Chart 25

Core inflation behavior during the quarter, %



Source: Armenia Statistics Committee,
Central Bank forecast

The third quarter of 2018 reported 0.3% deflation which owed primarily to around 9% fall in seasonally-sensitive food prices.

3.1.2. Prices

Consumer prices: There was **0.3% deflation** recorded in the third quarter of 2018, largely driven by about 9% decrease in seasonally-sensitive food prices. Similarly, non-food and service tariffs have dropped by 0.6% and 0.4%, respectively (contribution to the quarter's overall deflation: around 1.0 pp). Fallen prices in commodity groups "Clothes" (3.0%) and "Footwear" (4.5%), and reduced tariff in "Air transport" (7.6%) were the main contribution to the deflation.

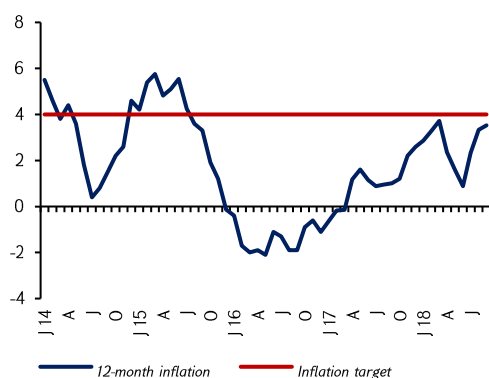
It should be noted that agricultural products' price deflation in the third quarter was slower relative to the historical seasonality, while the group "Egg" posted as much as 28.8% price rise (contribution to the quarter's overall inflation: about 0.39 pp).

At the same time, core inflation averaged 0.4%, mainly due to a 4.5% increase in prices of the group "Meat products" (contribution to the quarter's core inflation: about 0.6 pp).

With the developments mentioned above, the 12-month inflation rate amounted to 3.5% in September of 2018 instead of the predicted value of 3.2%.

Chart 26

In the third quarter of 2018 inflation accelerated



Source: Armenia Statistics Committee,
Central Bank forecast

Table 4:

Price inflation by commodity item, as key contributors ¹⁴						
Commodity item	June, 2018 (y/y)		September, 2018 (y/y)		Q3, 2018	
	growth	contribution	growth	contribution	growth	contribution
CPI	0.9		3.5		-0.3	
Food products	-1.6	-0.7	5.3	2.4	-0.01	0.0
Bread products	-1.05	-0.09	-0.23	-0.02	1	0.09
Meat products	9.52	0.92	10.89	1.06	4.5	0.43
Dairy products	6.2	0.28	4.04	0.18	-0.4	-0.02
Oils and fats	16.77	0.5	10.63	0.32	0.2	0.01
Fruit	-16.11	-0.45	0.28	0.01	-19.1	-0.53
Vegetable and potato	-22.6	-1.26	19.25	1.07	-4	-0.22
Fish	5.9	0.05	6.31	0.05	1.8	0.01
Egg	-21.4	-0.29	4.44	0.06	28.8	0.4
Sugar	-12.6	-0.1	-15.43	-0.12	-7.9	-0.06
Non-food products	5.3	1.1	3.87	0.82	-0.6	-0.13
Services	1.4	0.5	0.74	0.25	-0.4	-0.12

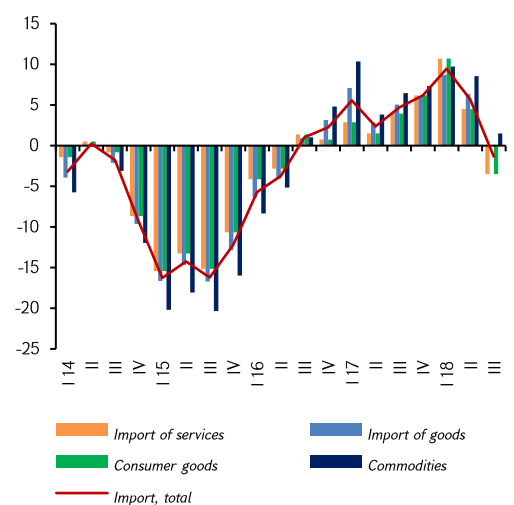
According to the official data issued by the Republic of Armenia Statistics Committee, there was 0.1% inflation in October of 2018, mainly due to price increases in groups “Meat products” (1.3%), “Dairy products” (0.8%), “Egg” (4.5%), “Clothes” (8.6%) and “Footwear” (13.6%), with a combined 0.6 pp contribution to inflation. On the other hand, the fall in prices in groups “Fruit” and “Vegetable” by 3.3% and 7.6%, respectively, has mitigated the inflation by 0.6 pp.

Import prices: The dollar prices of import of goods and services to Armenia reduced by 4.2% q/q on average in the third quarter of 2018, with the reduction amounting to 1.3% against the same quarter of the previous year. The decrease in dollar prices of import owed to notably depreciated exchange rates in the main partner countries, resulting in reduced prices of imported consumer goods and services. At the same time, the impact of international commodity prices is still inflationary, though it has reduced significantly.

¹⁴ In the table the y/y data of structural elements of food products are calculated by the Central Bank using the information provided by the Republic of Armenia Statistics Committee.

Chart 27

In the third quarter of 2018 the growth of dollar prices of import of goods and services slowed down, y/y, %



Source: Central Bank calculations

3.2. Economic developments

3.2.1. Economy position

The GDP gap is negative in the third quarter of 2018. The expansionary monetary policy the Central Bank has been conducting since 2016, the growth in external demand, money transfers and lending all have contributed to the notable contraction of the GDP gap. Starting from end-2017, bolstered domestic demand and investments in particular have facilitated the shaping of a positive GDP gap. The GDP gap is negative in the third quarter, according to the Central Bank estimates, which is consistent with the deflationary pressures in the consumer market and reflected in the slowing of core inflation (see subsection 2.2.1). Slackening domestic demand this quarter (see subsection 3.2.2) also points to the negative GDP gap, which is primarily attributable to the contractionary effect of the fiscal policy. Somewhat appreciated real exchange rate and reduced remittances in real terms have also contributed to the shaping of a negative GDP gap in the period under review.

Box 2:

The potential GDP and GDP gap

The monetary policy that is aimed at maintaining a low and stable inflation environment uses its main tool, the refinancing rate, to counteract inflationary and deflationary pressures in the economy. Since a certain period of time is required before an interest rate change leaves its impact on the inflation, the Central Bank needs to be oriented towards the inflationary (deflationary) pressures that are most likely to persist in the near future too, allowing to make a more accurate decision on the current interest rates. One of the key variables pointing to such pressures is the GDP gap or the difference between actual and potential levels of GDP.

What is the potential GDP?

The potential GDP denotes the level of output that can be generated on a sustainable basis, without causing inflationary or deflationary pressures, when factors of production – labor and capital – available in the economy are used to their full (normal) capacity. By saying a full capacity, we mean not the maximum level of physical capacities of resources, but how their use is regularized economically, adjusted to the fact that a certain rate of unemployment rate is natural, as workers need time to seek jobs and employers, to find workers. The actual output may be above or below the potential. For example, when demand for goods and services in the economy is higher than those of supply, firms should use the resources at hand more intensively (increase the workday hours, use the capital more intensively so that it depreciates sooner than scheduled, as a result) or they should attract new resources so as to meet the demand. This process will result in an increase in the firms' unit resource costs, driven by both an increased price of resources and reduced margin productivity thereof (for example, where fixed capital inventories are in place, the effectiveness of each new employee involved diminishes).

Increased costs may bring about considerable inflationary pressures within the firm; this may at first not be expressed as a price rise but will, by exerting pressures on the firm's earnings at a certain point, ultimately affect the price of goods.

The peculiarities of the idea of the potential GDP may vary when viewing different time horizons. In the long run, it is determined by institutional and structural features of the economy, e.g. demographic factors that affect labor resources, investments, productivity, etc. In the short and medium run, influenced by temporary factors, the potential GDP may deviate from its long-term equilibrium sustainability and return to it after the influence of these factors phases out. For example, such factors may include a temporary flow of direct foreign investment, potential agriculture fluctuations that are reliant on weather conditions, reducing shadow economy as a result of tax administration and so on.

The difference between the actual GDP and potential GDP, which is known as the GDP gap, points to the excess (deficient) demand and is an impulse for creating inflationary (deflationary) pressures, and in order to counteract it, implementing a contractionary (expansionary) monetary policy will be needed.

The GDP may be presented in a more generalized form, through the following equation:

$$\text{Real GDP} = \text{Potential GDP} + \text{GDP gap} + \text{equation error},$$

where the equation error is a random variable and shows the statistical deviations in the GDP calculation, the GDP revisions and any other processes not reflected in the potential GDP or GDP gap.

The potential GDP is a variable that is not directly observable, so its measuring is a difficult task for any economy and developing countries in particular, where frequent structural changes in the economy are common. Therefore, to be more certain in the results, estimates of the potential GDP are usually made using different methods.

Chart 28 shows the potential GDP estimates by three widely used models¹⁵ (the Hodrick-Prescott filter, the Multivariate Kalman filter, the production function method), which are basically of the same quality and demonstrate that potential GDP growth rates have slowed down in the aftermath of the global financial-economic crisis of 2008-2009. The average potential GDP growth rate, calculated by three methods, has been around 9.9% in 2001-2008 and 3.2% in 2010-2017, which means that, without inflationary pressures, the growth potential has been nearly 3 times higher in the pre-crisis period than afterwards.

The potential GDP estimates calculated by the production function method (Chart 29) make it clear that the growth of potential GDP over the past few years has been fostered by increased overall resource productivity, unlike a notable pace of capital accumulation, whereas the labor force's contribution to the potential GDP growth has been generally negative.

Chart 28

Potential GDP estimation by different methods, y/y growth, %

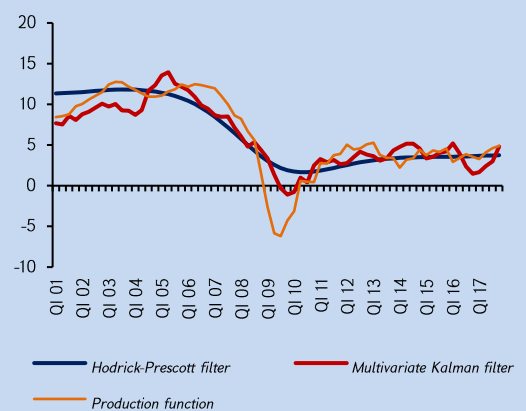
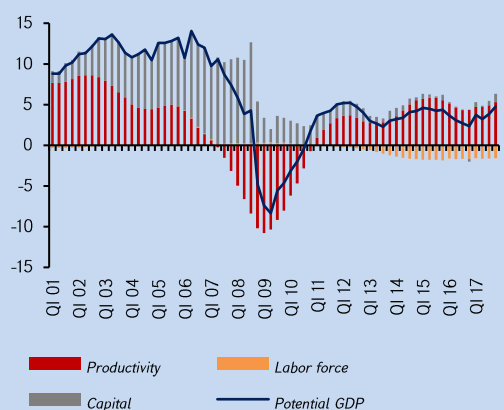


Chart 29

Potential GDP structure by production function, y/y growth, %

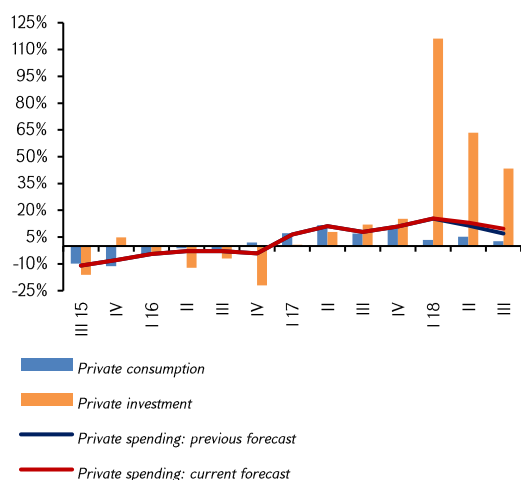


¹⁵ An analytical paper "Potential GDP Estimation Methods in the CBA", Hayk Karapetyan, 2018, coming out soon.

3.2.2. The expenditures aspect of the economy

Chart 30

Structure of private spending, y/y, %

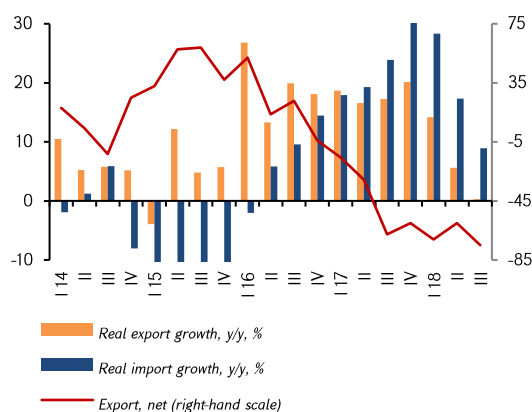


Source: Armenia Statistics Committee,
Central Bank estimate

Chart 31

In the third quarter of 2018 net export position deteriorated as import grew at a faster pace over export

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



Source: Armenia Statistics Committee

The growth rate of private demand was still high during the third quarter of 2018. With an anticipated 3.5% economic growth, the growth of private spending is an estimated 9.6%. In the third quarter of 2018 the growth rate of private spending slowed down against that of reported in the first half of the year.

The consumption component of private spending grew by 2.7% in the third quarter of 2018. The estimation of private spending has been revised downside due to a lower level of remittances to Armenia compared to the previous forecast. In the period under review, the estimate of private investment has been revised in the light of persistently strong growth rate of tangible working capital inventories this quarter. As a result, as strong as nearly 43.0% growth¹⁶ of private investment owed primarily to the increased tangible working capital inventories. In the third quarter of 2018, the growth of private investment was also driven by increased import of investment goods.

In the first half of 2018, private spending was above its potential value. In the period under review, slowing growth rates in private spending has led to a negative gap in private spending, which created weak inflationary pressures in the third quarter.

In the third quarter of 2018, according to the Central Bank estimates, net real export affected the GDP growth negatively as a result of rather faster growth of real import of goods and services over those of export, since domestic demand has posted a growth higher than anticipated. Thus, while the real growth of export of goods and services was estimated zero in the third quarter, the real growth of import exceeded the expectations, reaching an estimated 12.4%¹⁷ this quarter. It should be noted that the growth rate of import of investment goods has slowed down, yet it remained high.

In the third quarter of 2018, net remittances of individuals (seasonal workers' income and personal transfers inclusive) in US dollars slowed down to an estimated 6.8% y/y, as the Russian ruble exchange rate continued depreciating versus the US dollar.

Under the aforementioned developments, the current account deficit-to-GDP ratio rose by about 2.0 pp in the third quarter of 2018, which is mainly financed by the private sector.

¹⁶ According to a publication (https://www.armstat.am/file/article/sv_07_18a_113.pdf) by the Republic of Armenia Statistics Committee, gross accumulation in January-June 2018 has increased by 76% over the same period of the previous year (a half-year cumulative growth was calculated using the quarterly data published by the RA SC). The share of change in tangible working capital inventories in gross accumulation amounted to 39.8%. It should also be noted that the share of change in tangible working capital inventories in the period January-June 2018 has been 8.5% of GDP in the same period, whereas in the same half-year period of the previous year the ratio was 0.8% (reference to the publication of indicators for 2017: https://www.armstat.am/file/article/sv_03_18a_112.pdf, p. 32-33).

¹⁷ The Q3, 2018 real export and import growth indicators are the Central Bank estimates.

Fiscal policy¹⁸: In the third quarter of 2018, the state budget performed with actual expenditures and revenues deviating from the Central Bank's projections¹⁹. As was outlined in the previous MP program, there were risks to the fiscal policy with regard to collecting revenue and making expenditures. The quarter reported under-performed revenues and low performance of expenditures. In the outcome, the fiscal policy's impact on aggregate demand was an estimated 2.5 pp contractionary instead of the predicted 1.0 pp contractionary, for the third quarter.

In the third quarter of 2018, budget revenues amounted to nearly 94% and tax revenues, 93.8%, of the projection. The under-performed revenues notwithstanding, the revenue impulse was 0.4 pp contractionary, as was estimated, which was attributable to the nominal GDP estimate having decreased relative to the projection for the quarter.

The state budget expenditures constituted 94.4% of the projection by the Central Bank. In the expenditures structure of the budget in the third quarter of 2018, **government consumption** was below the predicted figure by nearly 5%. The expenditures on item **"Transactions with non-financial assets"** amounted to 42% of the projected value, which is explained by low performance of the programs implemented under foreign assistance. For the quarter, the expenditures impulse was 2.1 pp contractionary instead of the forecast 0.6 pp contractionary. The deviation owed to a low expenditures performance, on the one hand, and net lending (about 20% of the planned lending was provided based on the quarterly results), on the other.

With revenues and expenditures performance described above, the state budget generated a deficit of roughly AMD 15.0 billion in the third quarter of 2018, instead of AMD 45.7 billion deficit as outlined in the MP program²⁰.

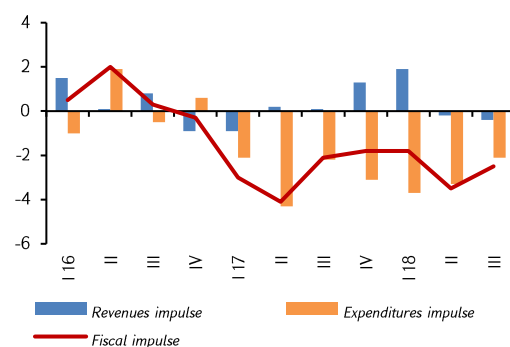
In general, taking into account the past nine months' results, the public debt indicators have improved significantly owing to a smaller extent of implementation of projects under foreign assistance.

3.2.3. The production aspect of the economy

Although somewhat sluggish in April-May 2018, the economic activity again accelerated to nearly 10.0% thereafter, but in August and September the economic activity indicator fell down to 0% due to the

Chart 32

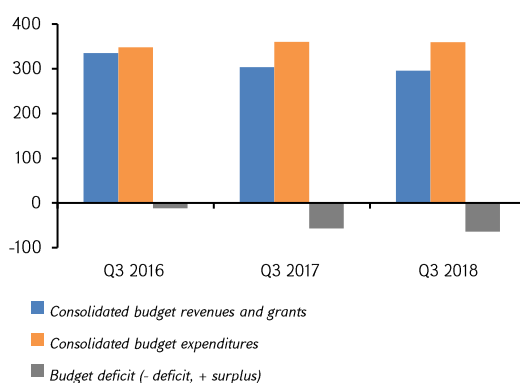
In the third quarter of 2018 the contractionary effect of fiscal policy owed primarily to the contractionary effect of expenditures



Source: Central Bank estimate

Chart 33

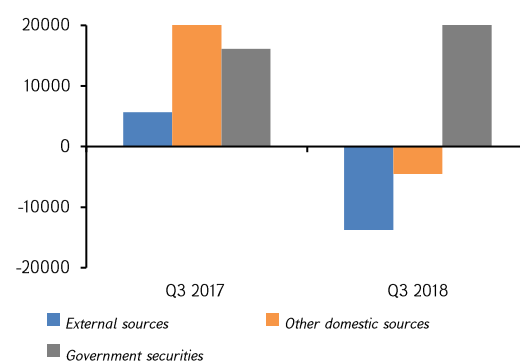
Main indicators of the consolidated budget, billion AMD



Source: Finance Ministry, Central Bank estimate

Chart 34

In the third quarter of 2018 the proceeds on government securities were used to finance the budget deficit, million AMD



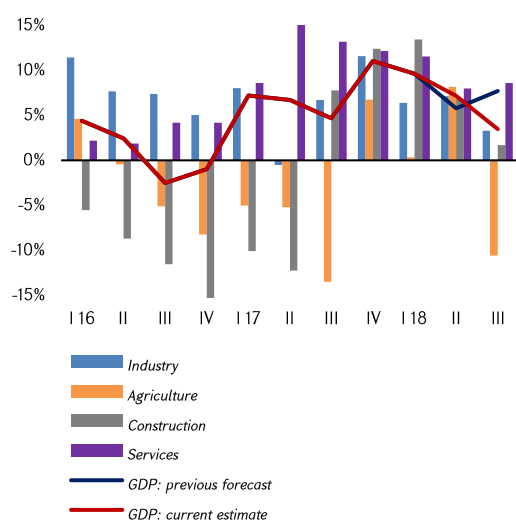
Source: Finance Ministry

¹⁸ 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 third quarter of 2018, excluding off-budgetary funds.

¹⁹ The Q3, 2018 state budget proportion was viewed as the revenue plan; the expenditure forecast is the Central Bank estimate.

²⁰ Comparison was made relative to the adjusted program which was available at that time.

Chart 35
GDP sectoral structure, y/y growth, %

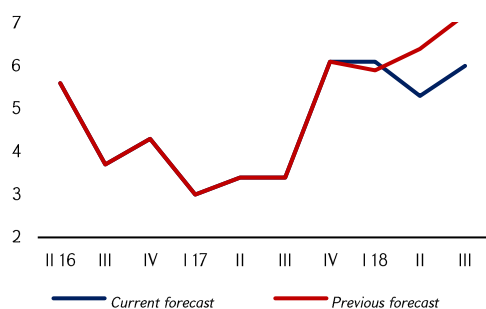


decline in the agriculture sector. In view of the slowdown in economic activity in the period under review, the GDP growth is an estimated 3.5% in the third quarter instead of the previously forecasted 7.7%.

In the period under review, there was an estimated 10.6% decline in the agriculture sector due to unfavorable developments in plant growing, while the construction sector may only expect a moderate 1.7% growth, reflecting the slowdown in construction funded by foreign firms. The industry sector's growth was an estimated 3.3%, mainly driven by the positive developments in the processing industry in spite of reduced output in the mining industry. The largest contribution to the third quarter's economic growth came from the services sector with an estimated 8.6% growth there, owing to an increased number of foreign travelers to Armenia.

Following strong growth rates observable since the beginning of 2017, the productivity, calculated as real value added per hour worked, has slowed down starting the first quarter of 2018. The Central Bank estimations show that the productivity growth rate slowed down by around 1.0% to 1.5% in the third quarter, reflecting in part the decelerated economic growth rate in the period under review.

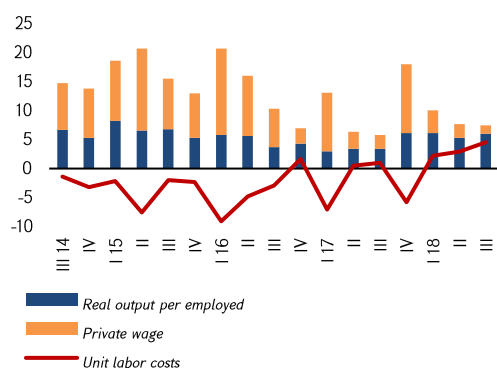
Chart 36
Private nominal wage, y/y growth, %



3.2.4. Labor market²¹

In the third quarter of 2018, the private sector nominal wage growth rate was an estimated 6.0%, around 1 pp lower from the previous forecast by the Central Bank. The revision was attributable to the economic growth developments which were slower than expected. The third quarter's economic growth was commensurate with growing demand for labor force. This influences the wage growth positively. As a result, in the period under review the private sector wage has seen a slight revision relative to the previous forecast. The real wage growth rate amounted to nearly 3.0%, which is consistent with the economic growth outlook. In the period under review, the productivity has grown by 1.5%, which is below the real wage growth rate. In the third quarter of 2018 weak inflationary pressures came from the labor market, as a result.

Chart 37
Unit labor costs, y/y growth, %



The unemployment rate was an estimated 15.5% in the third quarter of 2018, which is 0.3 pp lower the indicator outlined in the previous forecast. Despite the downward revision of the 2018 economic growth, the firms' demand for labor force has increased on the back of a slower employee productivity growth rate. As a result, the unemployment rate will be somewhat lower, in comparison with the previous forecast, in the third quarter.

In the period under review, unit labor costs of the firms have grown by 4.5%, reflecting the private sector wage growth rate having accelerated in relation to the output growth rate per unit of labor.

²¹ The labor market data for the third quarter 2018 are the Central Bank estimates which are based on the second quarter 2018 data and actual July-August 2018 figures. The growth indicators provided in this subsection are relative to the same reference period last year, unless otherwise specified.

3.3. Financial market developments

In the third quarter of 2018, the Board of the Central Bank decided to leave the refinancing rate unchanged, at a 6% level.

In consideration of minor inflationary pressures expected from the external environment and non-inflationary patterns prevailing in the domestic economy, the Central Bank has kept the policy rate unchanged, while leaving the direction of monetary policy expansionary and looking to the possibility to abandon stimulating monetary conditions gradually in the medium run. The other consideration was that if risks to the inflation deviating from the prediction path emerged, the Central Bank would react accordingly, ensuring price stability.

Table 5:

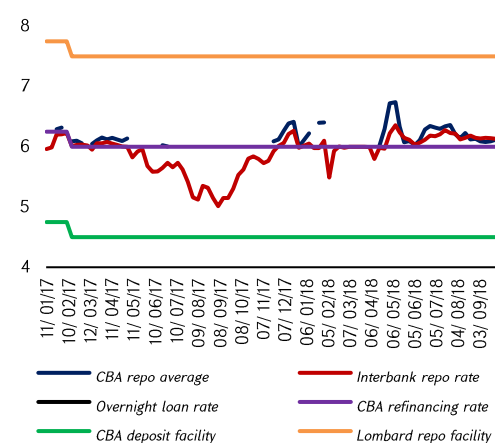
Average quarterly interest rates in Armenia's financial market					
Instrument	Q3, 2017	Q4, 2017	Q1, 2018	Q2, 2018	Q3, 2018
Central Bank refinancing rate (end of quarter)	6.00	6.00	6.00	6.00	6.00
Central Bank repo rate	6.06	6.20	6.20	6.32	6.17
Interbank repo rate	5.31	5.89	5.94	6.09	6.17
Short-term treasury bill yield	6.19	5.93	6.04	6.13	6.17
Medium-term notes yield	8.45	8.03	7.64	8.36	8.24
Long-term bonds yield	10.03	9.90	12.29	9.30	11.37

The financial market performed relatively steady in the third quarter of 2018, with short-term market rates having shaped around the policy rate of the Central Bank. Unlike the previous quarter, when the domestic political events brought in a certain tension so some rise in interest rates was inevitable, the uncertainty with market participants has reduced this quarter, and a slight increase in short-term interest rates was fueled by the demand for short-term liquidity which the Central Bank has satisfied almost in full, aiming to maintain short-term market rates around the policy rate. Thus, the interbank repo (up to 7-day) rate has increased by 0.08 pp against the previous quarter to 6.17% this quarter and the average monthly repo rate has increased by 0.03 pp against June to 6.14% in September.

Commensurate with the developments in the money market, the yields of short-term government securities were also set around the policy rate of the Central Bank during the quarter. It was quite different in the mid-term and long-term segments of the market, as the participant's demand for long-term bonds was strong enough in both the primary and secondary markets, which pushed their yields down notably in contrast to medium-term notes. As a result, the yield curve has changed its slope and convexity relative to the previous quarter, with mid-term security yields grown by an average 0.3 pp but long-term security yields dropped by 0.4 pp in September relative to June.

Chart 38

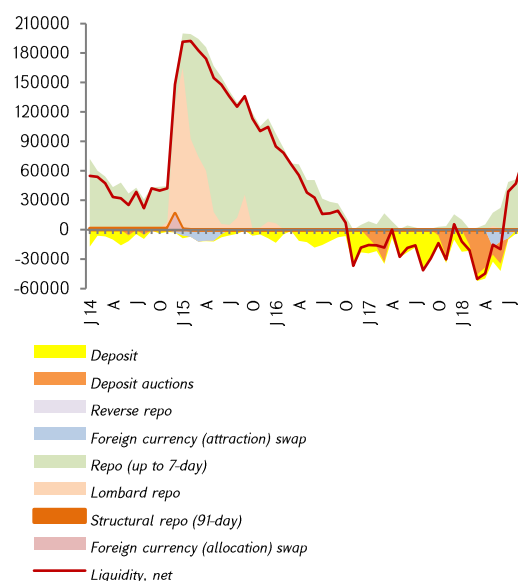
During the quarter short-term interest rates remained around the Central Bank's policy rate



Source: Central Bank

Chart 39

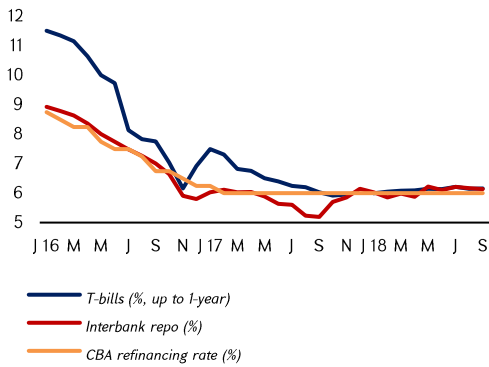
Liquidity injection and absorption through the Central Bank operations (average quarterly inventory), million AMD



Source: Central Bank

Chart 40

The behavior of short-term interest rates in the third quarter of 2018

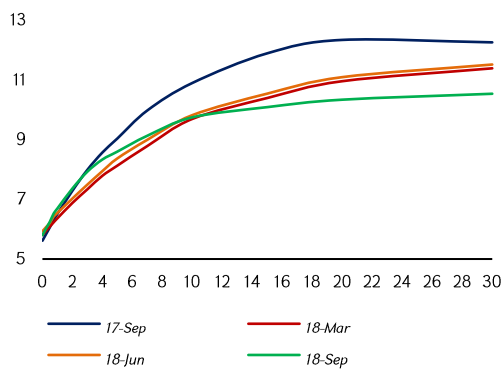


Source: Central Bank, Nasdaq OMX Armenia

The amount of assets allocated by financial organizations continued to expand in the third quarter of 2018 thanks to the expansionary monetary policy pursued by the Central Bank. Loan conditions and procedures facilitated amid increasingly dynamic competition among banks led the quarterly lending indicator to grow by 2.3%, owing mostly to a 7.5% growth of lending in local currency. The 12-month growth of total lending to the economy amounted to 20.6% in September of 2018. The lending growth was concurrent with dropping interest rates, and this was more expressly demonstrated in dram loans provided to individuals.

Chart 41

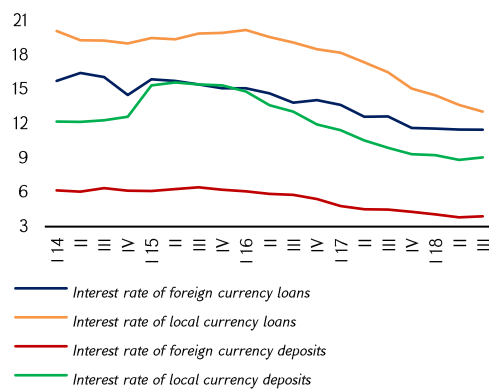
In the third quarter of 2018 yields of long-term government securities market reduced



Source: Central Bank

Chart 42

Interest rates on deposits of and loans to individuals



Source: Central Bank

BOARD MEETING OF THE CB

MINUTES (13.11.2018)

On the Refinancing Rate

The CBA Board Meeting of November 13, 2018 attended by Chairman Arthur Javadyan, Deputy Chairman Vakhtang Abrahamyan, and Board Members Ashot Mkrtchyan, Arthur Stepanyan, Armenak Darbinyan, and Martin Galstyan

The Board meeting opened with presentation of the Situation Report as of November 13, 2018. It addressed current developments on inflation, external environment and real, fiscal and monetary sectors of the economy.

As low as 0.1% inflation rate was observable in October of 2018 as compared with the month's seasonality, which owed to price falls in commodity groups "Fruit" and "Vegetable" by 3.3% and 7.6%, respectively (combined contribution to inflation: -0.6 pp). These deflationary effects on the month's inflation were primarily offset by increased prices of commodity groups "Meat products" and "Clothes and footwear". The 12-month inflation has decreased to 2.8% in late October as a result, approaching the lower part of the confidence band. In October, core inflation also reduced to some extent, pointing to some weakening of inflation expectations.

Addressing the economic environment, the Board summed up the third quarter's actual results, according to which the economic growth had somewhat weakened mainly due to reduced agricultural output and slower growth rates in construction sector. Following this development, the January-September 2018 economic activity indicator, relative to the same reference period last year, amounted to 6.6%, compared with that of 8.9% registered in the first half of the year. In the third quarter, domestic demand continued to be driven by considerable growth in private spending. In the meantime, the domestic demand growth rate has in part slowed down under the influence of a contractionary fiscal policy. Moreover, the pace of fiscal policy implementation on the developments related to demand will also be significant in early 2019.

The external sector developments addressed at the Board meeting pointed to some sluggishness of the inflation environment amid persisting economic growth trends globally. Thus, price decreases were observable in basic commodity and food product markets of the world – one exception is the oil price which still is on the rise. However, as actual inflations in major partner countries today run above their targets and certain inflation expectations accumulate, the central banks

of these countries are tightening the monetary conditions by raising the policy rate and taking other action as required.

The Board referred to the developments in the domestic financial market: it was stated that trends mostly persisted as interest rates in different segments of the market were shaped around the policy rate.

Following presentation of the Situation Report and the developments in external and domestic macroeconomic environments, the Board began addressing the monetary policy directions and making a decision on the interest rate. Considering that no significant inflationary pressures are expected from the external environment and domestic economy of Armenia and that current policy rate is estimated to be rather expansionary in the light of sluggish domestic demand, the Board finds it reasonable to leave the refinancing rate unchanged. As well as the Board believes that fulfilling the inflation target will require keeping the monetary policy expansionary for a longer period and letting it phase out gradually in the medium run. ***As a result, the expectation is that the inflation will be fluctuating in the lower part of the confidence band for some time and will stabilize around the 4% target at the end of the forecast horizon.***

The Board also referred to existing inflation risks. Mostly on a downside path, these risks relate to the pace of fiscal policy implementation and slowing of economic activity in comparison with a baseline scenario. In the event these risks materialize, the Central Bank will adjust the monetary policy direction accordingly, while ensuring the price stability.

The Board approved the decision on interest rates of monetary instruments of the Central Bank and the proposed press release, which are attached hereto.

THE CENTRAL BANK OF THE REPUBLIC OF ARMENIA

BOARD DECISION

Interest rates of operations by the Central Bank in the financial market

By virtue of Article 20 (c) of the Republic of Armenia Law on the Central Bank, the Board of the Central Bank of the Republic of Armenia e n a c t s:

1. Leave the refinancing rate of the Central Bank of the Republic of Armenia unchanged, at 6.0%.

2. To the Financial Department of the Central Bank of the Republic of Armenia to carry out operations in the financial market of the Republic of Armenia, using the interest rates, as follows:

2.1. Lombard facility rate offered by the Central Bank to be 7.5%.

2.2. Deposit facility rate offered by the Central Bank to be 4.5%.

3. This decision shall take force on the day following the adoption thereof.

Arthur Javadyan,
Chairman of the Central Bank

November 13, 2018

PRESS RELEASE
13.11.2018

In the November 13, 2018 meeting, the Board of the Central Bank of Armenia (CBA) decided to leave the refinancing rate unchanged: at the level of 6.0%.

There was 0.1% inflation in October of 2018, in which circumstance the 12-month inflation rate has reduced to 2.8% at the end of the month. At the same time, the core inflation rate has also slowed down slightly. The Board of the CBA estimates that in the upcoming months the inflation environment will be stable and the 12-month inflation rate will be running within the lower part of the confidence band.

Global economic growth trends are persisting, under which the central banks of leading countries gradually tighten their monetary policy conditions. In the meanwhile, the inflation environment in the international markets of basic commodities has somewhat weakened, and the Board of the CBA considers that inflationary pressures from the external sector are not anticipated in the coming months.

The Board notes that certain weakening of economic activity was observable over the third quarter of 2018 mainly due to contracted output in agricultural production and decelerated growth rates in the construction sector. The estimation is that the current fiscal policy continues to have a contractionary effect on domestic demand. Moreover, the pace of fiscal policy implementation in 2019 may also leave a significant impact on the developments in domestic demand.

Taking into account the aforementioned developments as well as sharing the same opinion that the monetary conditions at present are rather expansionary, the Board of the CBA finds it appropriate to maintain the refinancing rate at the current level. At the same time, in view of the anticipated macroeconomic developments, keeping the monetary environment expansionary for a longer period of time is essential for fulfillment of the inflation target, on condition that it gradually eliminates in the medium run. As a result, the expectation is that inflation will still be running within the lower part of the confidence band, stabilizing around the 4% value at the end of forecast horizon.

Risks to fulfillment of the inflation target at the end of forecast horizon are assessed to follow a downward path, due to external and internal factors. However, should there be risks to the inflation and economic growth outlook deviating from the prediction scenario, the CBA will adjust the monetary policy directions accordingly, while ensuring the price stability.

Press Service of the Central Bank of Armenia

MAIN MACROECONOMIC INDICATORS OF ARMENIA

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	actual	actual	actual	actual	actual	actual	actual	actual	program	program	program
Prices											
Inflation (y/y, end of period, %)	9.4	4.7	3.2	5.6	4.6	-0.1	-1.1	2.6	2.7	2.8	3.6
Consumer price index (y/y, average, %)	8.2	7.7	2.6	5.8	3.0	3.7	-1.4	1.0	2.6	2.8	3.3
Core inflation (y/y, average, %)	7.5	8.6	5.3	5.8	1.9	5.1	-2.0	0.8	3.8	2.7	3.8
Gross product											
GDP (billion Armenian dram)	3690.0	4028.9	4266.5	4555.6	4828.6	5043.6	5067.3	5568.9	6098.9	6660.0	7258.9
GDP (% real growth)	2.2	4.7	7.2	3.3	3.6	3.2	0.2	7.5	4.9	5.0	4.8
Supply											
Industry (% real growth)	9.2	13.6	6.4	6.3	-0.9	6.2	7.7	6.6	3.8	4.4	4.7
Agriculture (% real growth)	-16.0	14.0	9.5	7.6	6.1	13.2	-5.0	-5.3	-6.7	3.8	4.4
Construction (% real growth)	3.3	-12.2	4.5	-7.4	-4.5	-3.1	-14.1	2.5	2.0	3.5	4.1
Services (% real growth)	4.1	4.7	6.3	3.1	6.7	1.6	3.2	12.4	8.9	5.7	5.1
Taxes, net (% real growth)	13.4	3.8	9.9	3.6	1.8	-5.1	-4.7	10.1	7.6	5.1	4.8
Demand											
Consumption (% real growth)	3.9	2.6	7.7	1.9	0.7	-6.2	-0.5	9.5	2.2	3.2	3.3
Public consumption (% real growth)	3.9	1.9	-1.4	8.7	3.4	4.7	5.8	11.5	-3.1	3.7	1.3
Private consumption (% real growth)	3.9	2.7	9.1	0.9	1.0	-7.7	-1.2	8.9	3.2	3.1	3.6
Gross investment (% real growth)	0.5	-5.2	0.5	-10.5	-3.0	-1.2	-8.7	13.9	36.4	6.3	6.3
Public investment (% real growth)	-12.7	-6.1	-22.4	-13.8	10.0	13.6	5.0	31.7	-56.1	72.0	14.0
Private investment (% real growth)	2.6	-5.1	3.6	-10.0	-3.7	-3.6	-10.5	11.1	53.7	1.1	5.0
Export of goods and services (% real growth)	20.4	14.5	12.0	8.9	6.4	4.9	19.1	18.2	3.9	6.7	7.7
Import of goods and services (% real growth)	7.2	-0.1	4.7	5.5	-1.0	-15.1	7.6	24.8	10.5	3.1	4.5
External sector											
Balance of trade (million US dollar)	-2065.7	-2109.8	-2111.9	-2196.2	-2055.4	-1186.4	-944.4	-1375.4	-1722.6	-1615.7	-1642.7
Balance of services (million US dollar)	-260.8	-65.8	-101.6	-124.3	-113.0	-94.5	-71.4	-27.9	-58.7	-32.3	-18.3
Remittances (million US dollar)	1421.9	1440.4	1539.8	1755.1	1616.1	1082.4	989.6	1128.1	1146.8	1223.9	1350.8
Current account (million US dollar)	-1261.4	-1058.9	-1057.9	-812.9	-883.1	-279.1	-238.1	-279.7	-815.8	-642.3	-563.1
Balance of trade (share in GDP, %)	-22.1	-20.8	-19.9	-19.7	-17.8	-11.3	-8.9	-11.9	-13.6	-11.8	-11.0
Balance of services (share in GDP, %)	-2.8	-0.7	-1.0	-1.1	-1.0	-0.9	-0.7	-0.2	-0.5	-0.2	-0.1
Remittances (share in GDP, %)	15.2	14.2	14.6	15.8	14.0	10.3	9.3	9.8	9.1	9.0	9.0
Current account (share in GDP, %)	-13.5	-10.5	-10.0	-7.3	-7.6	-2.7	-2.2	-2.4	-6.5	-4.7	-3.8
Public sector											
Revenues and grants (billion Armenian dram)	780.4	880.9	946.2	1071.4	1144.8	1167.7	1171.1	1237.2	1298.7	1490.6	-
Tax revenues (billion Armenian dram)	699.4	777.4	878.4	1000.9	1064.1	1067.9	1079.7	1158.1	1248.6	1399.2	-
Expenditures* (billion Armenian dram)	954.3	986.5	1006.1	1142.9	1235.1	1409.0	1449.1	1503.9	1380.7	1642.2	-
Deficit (billion Armenian dram)	-173.9	-105.6	-59.9	-71.5	-90.3	-241.3	-278.0	-266.7	-82.0	-151.6	-
Revenues and grants (share in GDP, %)	22.6	23.3	22.2	23.5	23.7	23.2	23.1	22.2	21.3	22.4	-
Tax revenues (share in GDP, %)	20.2	20.6	20.6	22.0	22.0	21.2	21.3	20.8	20.5	21.0	-
Expenditures (share in GDP, %)	27.6	26.1	23.6	25.1	25.6	28.0	28.6	27.0	22.6	24.7	-
Deficit (share in GDP, %)	-5.0	-2.8	-1.4	-1.6	-1.9	-4.8	-5.5	-4.8	-1.3	-2.3	-
Monetary sector											
Broad money (y/y, end of period, %)	11.8	23.7	19.5	14.8	8.3	10.8	17.5	18.5	-	-	-
Dram broad money (y/y, end of period, %)	15.7	26.4	11.9	14.9	-3.5	5.2	24.8	28.9	-	-	-
Loans to economy (y/y, end of period, %)	26.7	35.3	27.6	12.9	20.8	-3.3	6.0	16.2	-	-	-
USD / AMD (Armenian dram for one US dollar)	373.7	372.4	401.8	409.6	415.9	477.9	480.5	482.7	-	-	-
* The 2017 Expenditures and Deficit include the AMD 82.0 billion-worth Russian Commodity Loan received at the end of the year.											

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