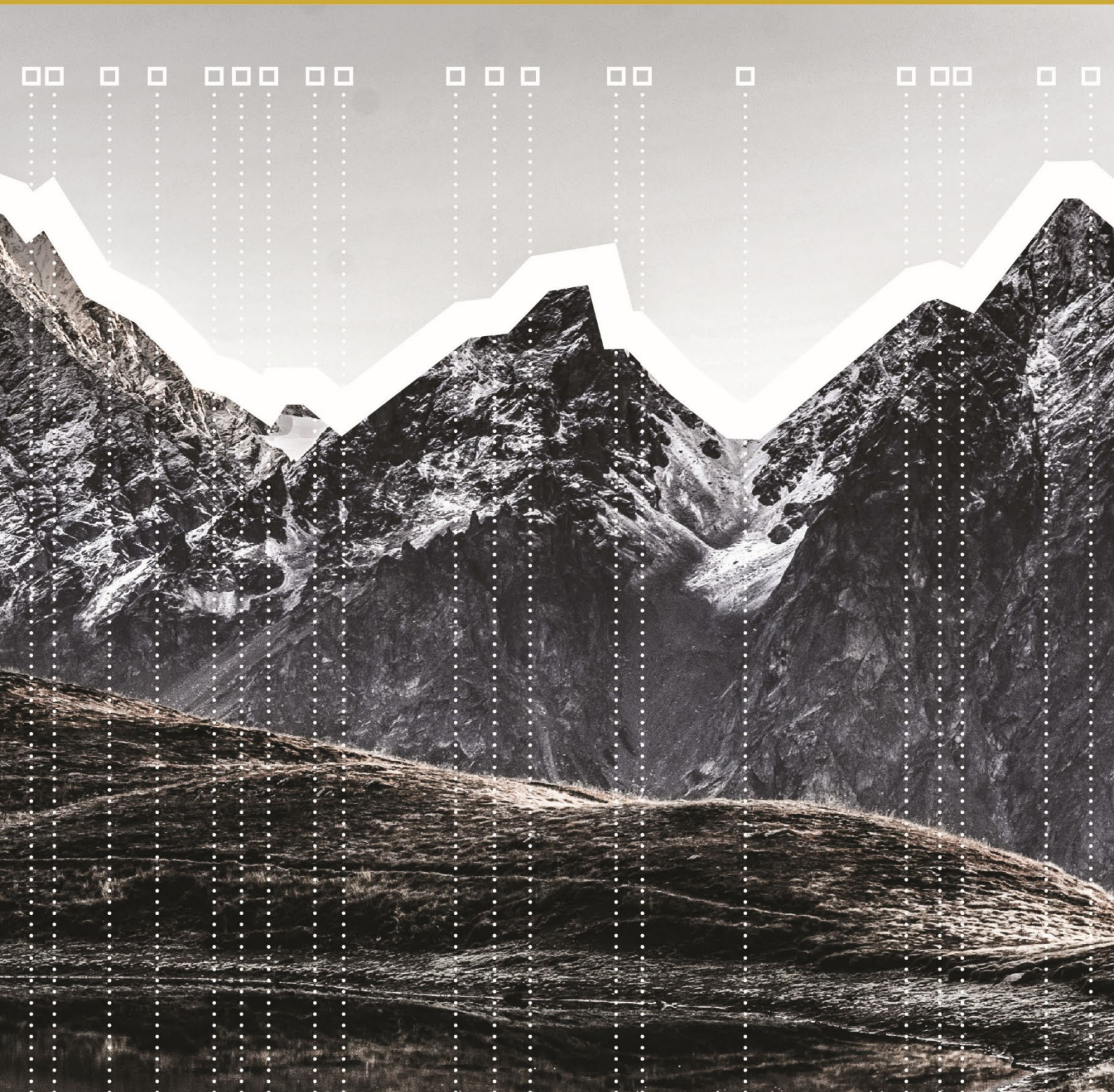




THE CENTRAL BANK OF
THE REPUBLIC OF ARMENIA

Inflation Report

2022 / 2



*Approved under the Central Bank Board
Resolution No 109A
dated 28.06.2022*

Inflation Report/2

Monetary Policy Program, Q2, 2022

✦
*Status Report on Implementation of the Monetary
Policy Program, Q1, 2022*

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 the Status Report on implementation of the monetary policy program of the previous year, which presents the results of monetary policy implementation and covers the actual developments in the domestic economy.

Publishing of inflation forecast and underlying assumptions in parallel to target inflation indicator makes 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 Projection Probability distribution chart for the 12-quarter time horizon.

Projections in this report are based on the actual information available by June 14, 2022, i.e., the day on which the refinancing rate was set, the results of 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 (www.cba.am) which also contains all press-releases and other monetary policy-related publications.

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1. EXECUTIVE SUMMARY

In the second quarter of 2022, under the impact of the Russian-Ukrainian conflict, the sanctions applied to the Russian economy, and the great uncertainty derived thereof, trends of economic slowdown in the main partner countries of Armenia continue. At the same time, in international commodity markets, as well as in partner economies a continuous expansion of the inflationary environment and an increase in inflationary expectations are observed as a result of the ongoing disruptions in supply chains. The impact of such developments in the external sector on the Armenian economy is expressed on the one hand by the inflationary impact transmitted to domestic prices through a number of imported products, while on the other, a high growth of economic activity and a certain expansion of the inflationary environment under the impact of strong acceleration of external demand in services sector.

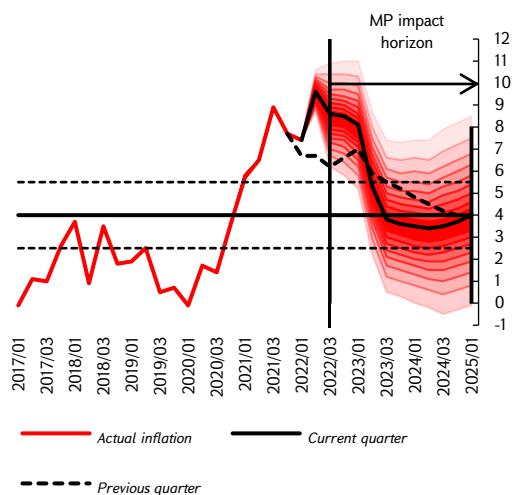
In the second quarter, after the decrease in the previous quarter, the 12-month inflation grew again totaling to 9.0% in May. According to the Central Bank's presented scenario, the effects of global inflationary trends and external demand prevailing in the current inflation factors will weaken in the near future amid the concomitant AMD appreciation, subduing inflation and neutralizing the risks related to inflationary expectations. In view of this and the fact that the previous contraction of monetary conditions by a relatively large step was sufficient to mitigate the high inflation environment, the Central Bank has refrained from changing policy interest rate at this stage. At the same time, the Central Bank will consistently ensure stabilization of inflation through adequate actions and counteract every risk of deanchoring of inflation expectations.

As a result of the implemented monetary policy and the expected macroeconomic developments, the 12-month inflation will gradually decrease and stabilize around the 4% target from the second half of 2023.

According to the scenario presented to the Central Bank, high economic activity will persist in the near future, as a result of which in 2022 the economic growth rate will be significantly higher than the previous estimate. In the medium term, it will gradually decrease and stabilize around the long-term equilibrium level.

Chart 1

Inflation (12-month) projection probability distribution for 3-year horizon



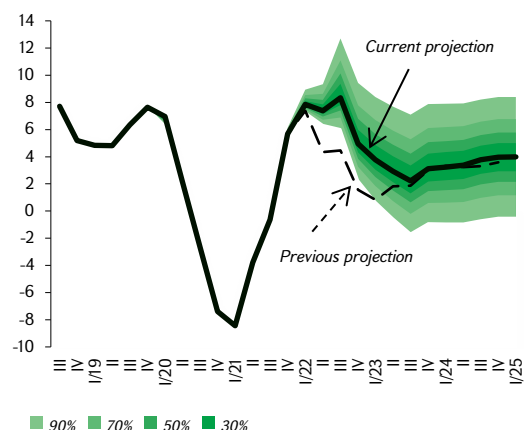
Source: NSS, CBA projection

The expected economic growth in 2022 will mainly be driven by high demand in the service sector under the impact of extensive foreign visitors and financial inflow to Armenia driven by the persisting Russian-Ukrainian conflict. At the same time, in parallel with external demand, a certain acceleration of domestic consumption is observed within the structure of aggregate demand, due to the resumed growth of the *deferred* private spending. In the medium term, the economic growth will gradually decrease and approach the estimated long-term sustainable levels amid weakening external demand.

Risks of inflation deviating from the projected trajectory in the forecast horizon are balanced, whereas in terms of the economic growth, upward risks prevail slightly (see the details in Subsection 2.2.4 “Key Assumptions and Risks”). In terms of inflation, risks mainly come down to problems associated with transportation of goods from Armenia for export and for import by land route, disruptions of global supply chains, as well as spill-over effects of dram appreciation on inflation. In case of emergence of any risks, the Central Bank stands ready to respond adequately, in order to ensure the achievement of the price stability objective.

Chart 2

Real GDP growth (cumulative) forecast probability distribution for 3-year horizon



Source: NSS, CBA projection

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 Developments

The Russian-Ukrainian conflict and severe restrictions imposed in the context of the spread of coronavirus in some industrial and transportation hubs of China have contributed to the prospects for the slowdown of global economic growth, and the expansion of global inflationary environment due to the problems related to extending the terms of supply of intermediate goods and plummeting supply of raw materials and food products. In such circumstances, given the risks of unanchoring long-term inflationary expectations under persisting high inflation, central banks of developed and several emerging economies will conduct a much stricter monetary policy.

The Russian-Ukrainian conflict and the severe restrictions amid the spread of coronavirus in some industrial and shipping centers of China have contributed to the prospects for the slowdown of global economic growth, and the expansion of global inflationary environment.

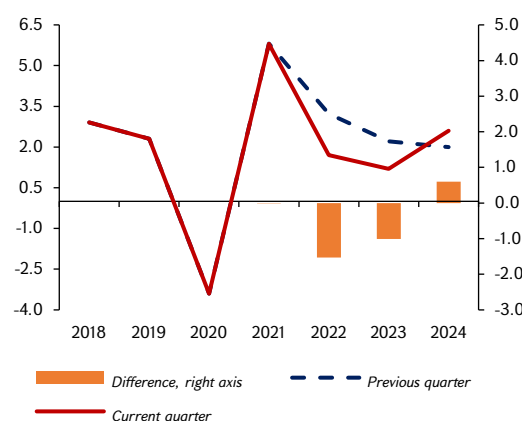
Given the risks of de-anchoring long-term inflationary expectations due to the persistence of high inflation, central banks of developed and a number of developing countries will conduct a much stricter monetary policy than was previously expected.

Economic Developments in the USA. Current developments in the US economy indicate a slower short term economic recovery. According to the Bureau of Economic Analysis of the US Department of Commerce, the 3.5% growth of US economy on a year-to-year basis in the first quarter of 2022 was lower than previously projected by the CBA, mostly caused by the slowdown of government spending and certain restriction of financial terms. It is expected that under the impact of those factors, particularly more stringent monetary policy, economic growth in the USA in current and next year will be still decreasing, staying slightly below the long-term stable level.

According to the Department of Commerce Bureau of Economic Analysis, inflation of personal consumption expenses² continued to accelerate in the USA, reaching 6.3% year-to-year in April. Inflation in the first quarter was higher than expected under the previous program, mainly because of the growth in prices of transportation services stemming from higher prices on energy carriers and the ensuing effects. Acceleration of inflation was factored by persisting disruptions in production chains, and the growth in prices of housing services and used cars. High prices of these product groups, especially energy carriers and transport services, will continue to fuel inflation in the short term, too.

Trends of overheating in the US labor market persist. The unemployment has already retrieved to the pre-crisis level, with the number of vacancies almost twice the number of unemployed, which is

Chart 3
US economic growth projections (%)



Source: BEA, CBA projections

² The personal consumption expenditure price index target is 2%, which on average is commensurate with headline inflation of 2.3%.

historically quite high. In this context, the growth in demand in goods and services markets, on one hand, and difficulties related to the expansion of output (including the insufficient supply of labor in labor market) on the other, exert continuous positive pressure on wage levels and, therefore, the acceleration of inflation.

Undoubtedly, prices of product groups with rigid prices and long-term inflation expectations grow faster (somewhat above target level) in the environment of positive demand and sustained high inflation. To this end, after completing the purchase of assets under the quantitative easing program, the US Federal Reserve, will tighten monetary policy at a much faster pace (gradual reduction of the FRS balance sheet and a steep rise in policy interest rate).

Along with the tightening of monetary and fiscal policies in the US and gradual recovery of global production and supply chains, inflation will gradually slow down, approaching the target level in the final segment of the forecast horizon.

Economic developments in the Eurozone. Economic growth in the Eurozone in the first quarter of 2022 was in line with the CBA estimates. According to the Eurostat estimates, economic growth in the Eurozone in the first quarter of 2022 totaled 5.0% yoy.

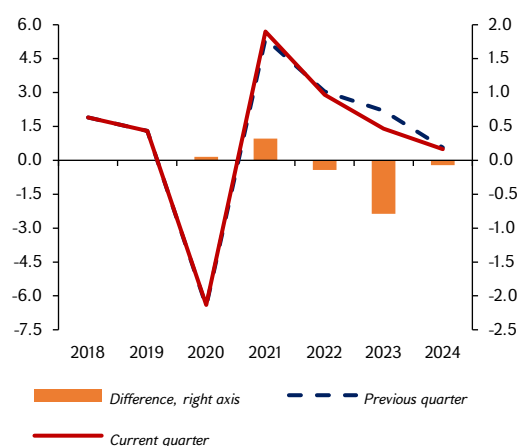
The Russian-Ukrainian conflict has a negative impact on the recovery of the Eurozone economy, resulting in a significant growth of prices for producers and consumers. Thus, in line with previous estimates, the higher uncertainties on future developments and lower exports of goods and services to Russia will cause a significant slowdown of the economic growth in the Eurozone both in the short and medium term. Furthermore, persisting disruptions in global supply chains, as well as the complications or suspension of supplies of some product groups as a result of the sanctions following the conflict, put additional pressure on the recovery of supply. However, along with the lifting of coronavirus related economic restrictions, a rapid recovery of domestic (restrained) demand has been observed, mainly at the expense of household savings. According to the CBA current estimates, positive demand trends already shaping in the Eurozone are beginning to contribute to the acceleration of inflation.

Subsequently, economic growth of the Eurozone in the current year will be within the scope of previous estimates, and the effects of tighter economic policies and sluggish external demand will be mainly manifested during 2023.

In the first quarter of 2022, 6.2% y/y inflation was recorded in the Eurozone, which is largely a consequence of the high prices of energy carriers, oil and gas. In the second quarter of 2022, the acceleration of

Chart 4

EU economic growth projections (%)



Source: Eurostat, CBA projection

Eurozone inflation continued, reaching the level of 8.1% in May. In the short term, high energy and food prices will continue to support the high inflation environment.

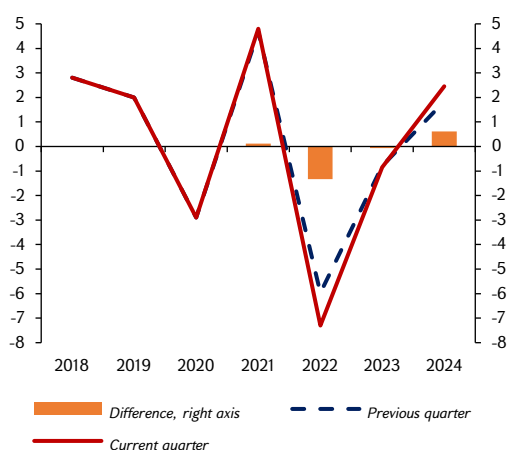
Labor market conditions are continuously improving in the Eurozone as well. Unemployment is strongly below the pre-crisis level, while labor force participation rate, unlike the USA, has completely recovered and is above the pre-crisis level.

Under this context, after completion of the asset purchase programs, the European Central Bank will proceed to gradually raising interest rates in the second half of the year. It is expected that along with the gradual tightening of policy and recovery of global production and supply chains, inflation in the Eurozone will slow down and reapproach the target level in the final part of the horizon.

Economic developments in Russia. According to the State Statistical Service of Russia, in the first quarter of 2022, the Russian economy observed a 3.5% yoy growth despite the harsh economic sanctions imposed against the country in connection with the war. It should be noted that in the context of significant short-term appreciation of the ruble immediately after the conflict escalation, and strong acceleration of inflationary expectations amid the perspective of shortage of various imported commodities and food products, in the first quarter, a significant growth in private consumption was observed, contributing to economic growth. In the coming quarters, consumption is expected to decline significantly. As a result of the new sanctions, a certain decline in oil and gas output will be reflected in a deeper economic recession, compared to the previous estimates of the Central Bank. As a result, the decline of the Russian economy in the current year will total around 7.4%, and economic activity in the following years will be within the boundaries of the Central Bank's previous forecasts.

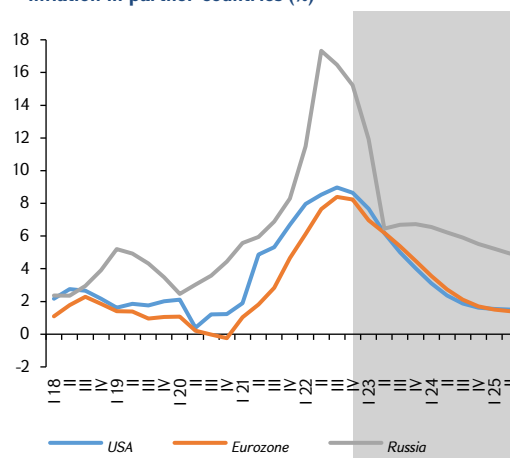
The impact of the military conflict and sanctions imposed on Russia was further reflected in inflation dynamics. Thus, inflation in the first quarter of 2022 was 11.5%, compared to 8.3% in the previous quarter (staying above the 4% target). The highest level of 12-month inflation was observed in April (17.8%). Notably, maximum acceleration of monthly inflation, paralleled with the short-term sharp acceleration of consumption, was in March, totaling 7.7%, and then it became to slow down in the following months to 0.1% in May, under the impact of strong appreciation of the ruble and tight monetary policy. Thus, in the first quarter, amid martial law, existing uncertainties and high inflation expectations, at its extraordinary session, the RB raised policy interest rate by 11.5 percentage points to 20%, setting in parallel strict restrictions on capital flow. However, during the second quarter amid

Chart 5
Russia economic growth projections (%)



Source: Rosstat, CBA projections

Chart 6
Inflation in partner countries (%)



Source: BLS, Eurostat, Rostat, CBA projections

the sharp slowdown in inflation and inflationary expectations, the RB in its four meetings (including an extraordinary one), lowered policy interest rate to 9.5%, somewhat easing the restrictions on capital flow.

According to the CBA current estimates, along with stabilization of inflation expectations and slowdown of inflation, the Russian Central Bank will continue to gradually reduce policy interest rate and ease capital restrictions ensuring that inflation reaches the target level at the end of the forecast horizon without jeopardising as much as possible the process of long-term transformation of the economy.

Developments in commodity markets. Prices in almost all commodity markets, have increased and remain at high levels due to aggravating supply problems amid persisting demand recovery.

In the first quarter of 2022, prices in international copper market grew less than expected due to a somewhat lower demand amid the strict restrictions applied in view of the new wave of the pandemic in China. : As a result, the growth of international copper prices in the first quarter of 2022 was 3.9% quarter-on-quarter, and the short-term forecasts of copper prices were revised downwards to some extent. However, in the medium term, with demand slightly outpacing supply, international copper prices will continue to grow at previously estimated rates, approaching USD 12,000 per ton at the end of the horizon.

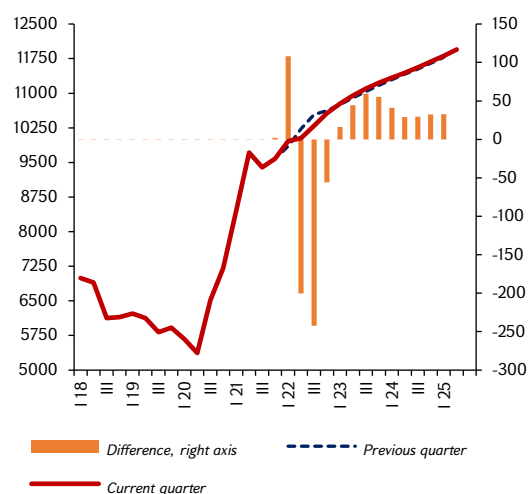
Due to the slow growth of supply and demand and the on-going recovery of demand in the market, international oil prices grew in line with the expectations in the first quarter. In the first quarter of 2022, price growth was 21.5% quarter-on-quarter. As a result of the conflict, amid the sanctions imposed against Russia, additional risks of a larger deficit in the oil market have emerged, reflected in the short-term growth of prices and higher volatility. While after the restrictions applied in China, demand has slackened somewhat and the OPEC+ member countries reached a new agreement on boosting the output (up to 648,000 barrels per day for July and August), in the second quarter, international oil prices witnessed a sharp drop. Markets' response to the OPEC+ decision was insignificant, as skepticism remains about the ability of some member countries to meet the output targets. Thus, the growing gap between demand and supply amid the strong uncertainty contributes to persisting high oil prices. As a result, compared to the previous program, short-term forecasts have been somewhat revised upward.

In the medium term too, the global oil supply will recover at a slow pace, given that in recent years, investments in the oil infrastructure were not sufficient. Under these conditions, according to Central Bank

Prices in almost all commodity markets, have increased and remain at high levels due to aggravating supply problems amid persisting demand recovery.

Chart 7

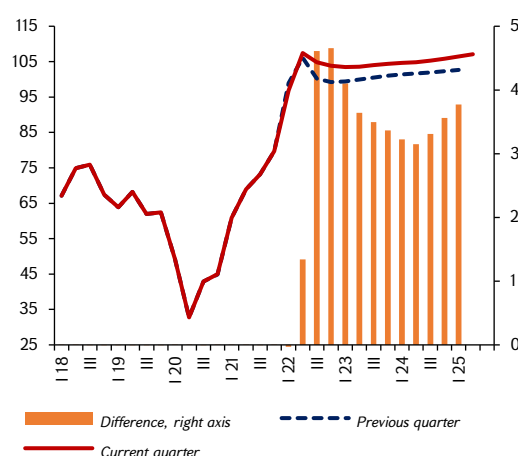
International copper price projections (US\$)



Source: World Bank, CBA projections

Chart 8

International oil price projections (US\$)



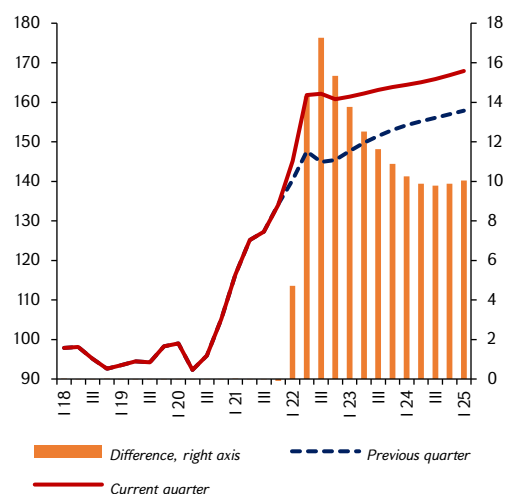
Source: World Bank, CBA projections

forecasts, in the medium term, oil prices will decrease somewhat, remaining at higher levels than previously expected.

Due to the expected reduction of supply and shipment problems, in the first quarter of 2022, food prices grew strongly for a number of product groups, surpassing the previous estimates of the Central Bank. In particular, the role of Russian-Ukrainian conflict in the growth of grain and vegetable oil prices is substantial, as both countries are large producers and exporters of those products. Higher oil prices in turn contribute to the growth of vegetable oil prices, due to which crude vegetable oils are used as an alternative to produce biofuel. The latter also drove the growth of sugar prices, although expectations of a good harvest in Brazil and India in the second quarter contributed to the relative stabilization of prices. Furthermore, in the first quarter a significant growth of prices of dairy products was observed due to the rising demand and limited volumes of milk. It is estimated that given the problems with supply and the impossibility of using some of the cultivated areas amid the lingering conflict, current high prices in food markets will persist in the short term.

According to the current estimates of the Central Bank, due to the outpacing global growth of demand over supply and the limited access to Russian fertilizers by other countries, global food prices will shape at higher levels than previously expected throughout the forecast horizon.

Chart 9
International food price projections (index)



Source: FAO, CBA projections

2.2. Forecasts

2.2.1. Inflation and Monetary Policy

In the second quarter of 2022, amid inflationary pressures from almost all international commodity markets and the resulting high demand in Armenia, domestic inflation continued to grow. In May, the 12-month inflation was 9.0%, and core inflation was 8.4%. Still, it is expected that the dram appreciation due to the inflow of international visitors will mitigate the spill-over external inflationary effects to a certain extent and will contribute to the adjustment of the external demand. Given the above developments, the Central Bank considers necessary to keep the policy rate unchanged.

Economic growth expectations in partner economies have been mostly revised downwards. At the same time, inflation continues to accelerate in the US and the Eurozone, both due to disruptions in

In the second quarter of 2022, amid inflationary pressures from almost all international commodity and raw material markets and the resulting high demand in Armenia, domestic inflation continued to grow. In May, the 12-month inflation was 9.0%, and core inflation was 8.4%.

global supply chains and domestic demand factors, fueling inflationary expectations. In such a situation, the central banks of those countries plan a faster tightening of monetary policy. Amid the new negative developments in the oil and gas sector, economic decline in Armenia's key trade partner Russia in the current year will deepen. As a result of severe tightening of monetary and capital flow policies in Russia, inflationary expectations have sharply decreased and inflation has stabilized. In parallel, the ruble has significantly appreciated after a short-term devaluation, which will have a positive effect on the recovery of demand for goods exported from Armenia to Russia. Hence, after the current acceleration, external demand will somewhat subside, but in the short term, spill-over inflationary effects from the external sector on the Armenian economy will continue.

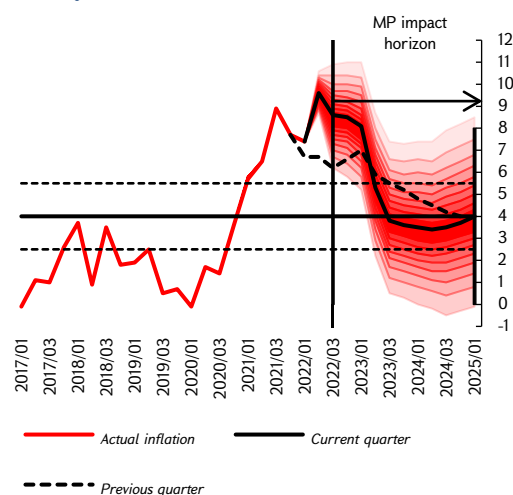
Against the backdrop of the ruble strengthening, the adjustment of demand to the RA tradable sector and remittances will have a positive effect on the total demand. At the same time, the significant inflow of international visitors, which according to the current scenario will continue until the third quarter, will significantly contribute to the expansion of the demand environment. While this will contribute to the recovery of the RA economy, mainly the service sector, additional inflationary pressures may materialize. Nonetheless, dram appreciation concomitant to the growth of external demand will enhance further adjustment of the excessive external demand and alleviation of the inflationary environment.

The recovery of domestic demand in turn contributes to the acceleration of economic activity. This is due to both the increase in the revenues generated in domestic economy resulting from the inflow of international visitors, the improvement of the labor market conditions, as well as the growth of the *deferred* consumption and the gradual adjustment of savings. As a result, domestic demand will also contribute to the growth of economic activity, expanding the inflationary environment. The prior tightening of the Central Bank's policy is gradually reflected in financial market, contributing to the adjustment of domestic demand and fueling inflationary expectations.

In this stage, the Central Bank considered that leaving the policy rate unchanged is feasible. Furthermore, the Central Bank will consistently ensure stabilization of inflation and mitigation of the risks of unanchoring inflationary expectations through adequate actions. In the medium-term, under the impacts of the implemented monetary policy and gradually weakening aggregate demand, inflation, while keeping above the target level in the short run, will gradually decrease, approaching the target in the middle of 2023.

In this stage, the Central Bank considered that leaving the policy rate unchanged is feasible. Furthermore, the Central Bank will consistently ensure stabilization of inflation and mitigation of the risks of de-anchoring inflationary expectations through adequate actions.

Chart 10
Inflation (12-month) projection probability distribution for 3-year horizon



Source: NSS, CBA projection

The high uncertainty related to the macro-economic perspective caused by geopolitical developments still persists. At the same time, the risks of deviating from the projected inflation trajectory in the projected forecast horizon are balanced, and in case of their emergence the Central Bank stands ready to respond adequately, in order to ensure the achievement of the price stability objective.

Table 1

Period	Inflation Interval Projection Probability Distribution				
	<1.0%	1.0-2.5%	2.5-5.5%	5.5-7.0%	>7.0%
Q II, 2022	0.0%	0.0%	0.0%	0.0%	100.0%
Q III	0.0%	0.0%	1.5%	11.6%	86.9%
Q IV	0.0%	0.0%	3.1%	14.6%	82.3%
Q I 2023	0.0%	0.1%	6.7%	19.0%	74.3%
Q II	1.0%	5.5%	46.3%	27.2%	20.0%
Q III	7.8%	16.7%	51.9%	15.6%	8.1%
Q IV	9.4%	18.0%	50.7%	14.4%	7.5%
Q I 2024	11.1%	19.1%	49.4%	13.4%	6.9%
Q II	12.6%	18.9%	47.2%	13.5%	7.8%
Q III	14.2%	18.0%	44.1%	13.8%	9.8%
Q IV	12.8%	16.8%	43.9%	14.9%	11.6%
Q I, 2025	10.8%	15.2%	43.5%	16.3%	14.3%

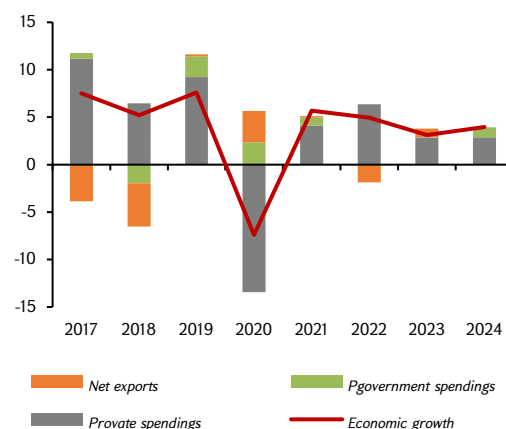
Source: NSS, CBA projection

2.2.2. Economic Activity³

Since the beginning of 2022, the level of economic activity was fairly higher than projected by the CBA. Compared to the previous program, for 2022 a higher economic growth is now projected due to the revision of both domestic and foreign demand. The acceleration of demand is strongly driven by the inflow of international visitors (mainly from the Russian Federation), which in turn is reflected by the growth of exports in the services sector. In addition, it is expected that as a result of a certain appreciation of the Russian ruble, decline in remittances will be smaller than projected and, accordingly, its negative impact on private consumption will also be smaller. Acceleration of private consumption on the other hand, will also contribute to the

Chart 11

Contribution of demand⁴ components to growth (percentage point)



Source: NSS, CBA estimates

³ For a detailed economic growth forecasts, see the “GDP Projection Probability Distribution”, Chart 26, Table 2.

⁴ Change in the stock of tangible current assets is not accounted in demand, because it is calculated by the RA State Revenue Service as a balancing item and does not reflect the real level of investments, so the economic growth calculated by supply and demand may differ. See: https://www.armstat.am/file/article/sv_04_19a_112.pdf

decrease of private savings due to the recovery of international tourism as a result of the worldwide lifting of the pandemic related lockdown. While the uncertainties ensuing from the Russian-Ukrainian conflict still persist, private investments are strongly accelerating, mainly due to the construction of residential buildings, which will continue to significantly pitch up economic growth during the year. The inflow of capital and labor deriving from international visitors will further contribute to the growth of the GDP potential during the year, mainly in terms of the expansion of IT services (see Box 1). Subsequently, economic growth in 2022 will be higher than previously projected (4.9%).

Economic growth in 2022 will be higher than previously projected (4.9%).

Compared to the previous program, the growth of economic activity in the medium-term horizon has been slightly revised upward due to the expected acceleration of investments, and at the end of the horizon, the GDP growth will be close to its long-term potential.

Box 1⁵

Economic Impacts of International Visitors and Financial Inflow

The Russian-Ukrainian conflict, sanctions applied to the Russian Federation and their extent caused certain changes in the behavior of Russian Federation households, as a result of which, starting from March 2022, a large inflow of international visitors and financial resources is observed in Armenia, which inter alia is reflected by cardinal appreciation of the Armenian dram. The CBA finds that the growth in international visitors and financial flows observed since March 2022 is mainly determined by the increase in external demand, which is expressed by the significant acceleration of the export of services from RA. This is evidenced by the official data of the NSC on international tourism, according to which the share of Russian citizens among tourists visiting Armenia in the first quarter of this year has significantly grown and totaled 43.7%, against 34.9% in the previous year (see Chart 12). High external demand is further evidenced by the high level of output of some services, as well as the steep rise of inflation in service segments with relatively rigid prices. For example, the output in the field of accommodation and catering in March-April is significantly higher compared to the same months of the previous year, as well as to the pre-crisis level (see Chart 13). At the same time, the actual apartment rents have grown sharply, which is a significant change compared to recent years (see Chart 14). Within export of services, the role of financial services is also significant, as evidenced by the sharp increase in non-deposit accounts of non-resident individuals in the commercial banks during March-April of the current year (see Chart 15).

Chart 12
Tourists visiting RA by citizenship (%)

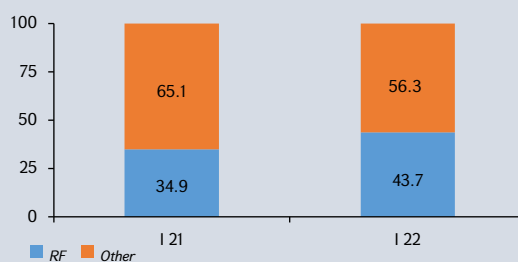


Chart 13
Accommodation and public catering sectors' output (AMD billion)

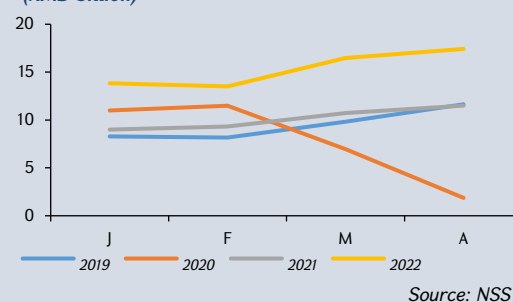
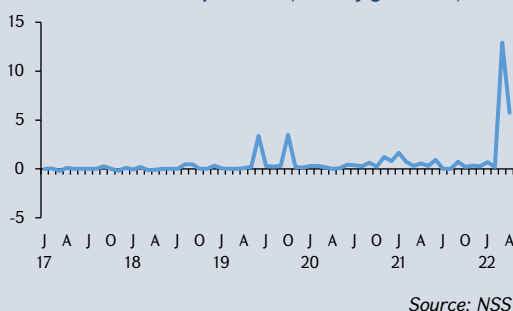


Chart 14
Actual rent for the apartment (monthly growth, %)



⁵ Prepared by Hayk Karapetyan, Hasmik Kartashyan and Hovhannes Alekryan.

On the other hand, in the observed period, the inflow of capital (FDI) and labor force was also recorded in RA, which, although relatively smaller in volume, directly contributed to the process of GDP formation due to rapid integration into the RA economy and labor market. Thus, since March, the State Register of Legal Entities of Armenia witnessed a sharp growth of newly created organizations by foreigners (see Chart 16). Notably, new organizations with foreign interest were created mainly in the IT sector, and registrations mostly took place in March, after which their number somewhat slowed down. On the other hand, according to the official data of the Ministry of Finance in April the output of "Information and Communication" segment grew sharply, which, when compared with the private companies newly established by foreigners, suggests that the growth in output is mainly due to the inflow of foreign capital and labor (see Chart 17).

As a result, the share of the above-mentioned inflow of capital and labor in the 2022 economic growth estimates will be around 0.4-0.5% mainly in terms of higher output of information and communication sector, while the larger part of the economic growth will be determined by external demand and export of services.

It is noteworthy that in the period from March to May 2022, the huge rise in the inflow of international visitors and external demand was accompanied by a significant appreciation of the Armenian dram in real and nominal terms. In particular, appreciation of the Armenian dram against the US dollar during that period totaled about 8.85%. Dynamics of the real effective exchange rate were comparable, recording a 4.88% appreciation in March - April⁶.

It should be noted that due to such financial inflows triggered by external demand, amid floating exchange rate regime, nominal exchange rate acts as a shock absorber (automatic stabilizer⁷) and softens the medium and long-term effects of the shock on the real economy.

Thus, for example, appreciation of nominal exchange rate accompanying the inflow of foreign currency leads to a relative growth of prices in foreign currency terms (when domestic prices are unchanged) for international visitors, creating a precondition for the further gradual and independent balancing of excess demand. The appreciation of dram nominal exchange rate is further manifested by a certain mitigation of inflationary effects from external demand for domestic consumers.

Referring to the inflation developments, the 12-month inflation rate has increased somewhat in recent months totaling 9.0% in May. Although the high inflation environment in Armenia is mainly due to the impact of general high inflationary background in global economy, notably, in April - May prices of domestic services skyrocketed, reflecting the increase in the inflow of international visitors, foreign demand and export of services (see Chart 18).

Chart 15

Accounts of non-resident individuals in RA banks (AMD thousand)

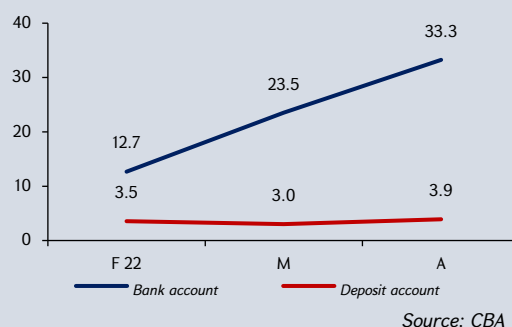


Chart 16

Entrepreneurships registered by citizens of Russia, Belarus and Ukraine in the RA State Register of Legal Entities

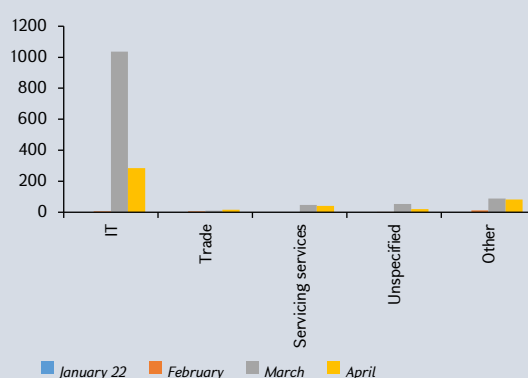


Chart 17

Information and communication sector output

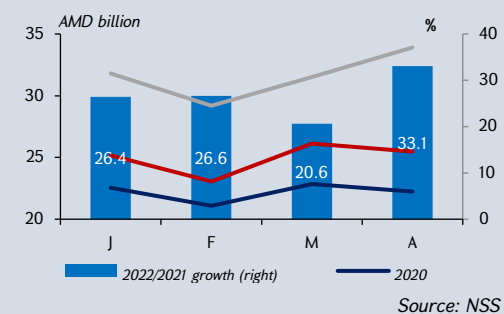
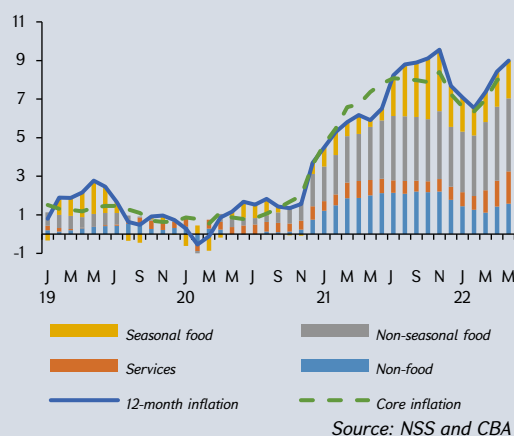


Chart 18

Contribution to inflation (pp)



⁶ Source: www.cba.am.

⁷ Friedman, Milton (1953). "The case for flexible exchange rates". In: Essays in Positive Economics. University of Chicago Press, 157-203.

It should further be noted that in March-May, partly as a result of the exchange rate appreciation, it was possible to partially offset the price growth transferred from external sector, especially in terms of food products of importance⁸ (see Table 1). According to the Central Bank projections, the impact of dram appreciation on 12-month inflation in the period under review is estimated at around 1.2 percentage points, which will remain in the future too reflected in inflation dynamics (see Table 2).

Table 1

Comparison of prices of selected basic products with international prices

Month	Flour		Butter		Sunflower oil		Sugar		Petrol	
	Domestic price	International price	Domestic price	International price	Domestic price	International price	Domestic price	International price	Domestic price	International price
A 21	-0.2	2.9	3.0	0.9	11.0	-2.4	7.5	5.9	3.6	-0.6
M	-0.4	5.8	2.5	2.3	6.0	0.7	1.9	5.6	3.0	5.0
J	-1.0	-3.9	1.3	-3.1	1.0	-18.2	-1.0	0.0	6.2	7.4
J	-0.7	3.1	0.4	-1.8	-7.0	-1.1	-2.1	2.6	2.3	1.8
Au	0.0	10.3	-0.4	1.9	-8.4	5.7	-1.5	10.3	2.2	-5.9
S	1.3	4.0	-0.1	6.8	-2.0	-3.4	5.5	0.0	0.8	6.5
O	1.5	5.1	0.0	15.6	-1.3	8.5	0.8	-1.3	1.2	12.1
N	3.6	7.0	0.5	8.1	-0.4	-0.3	2.3	1.3	3.2	-3.4
D	1.5	-0.7	-0.1	4.6	0.2	-3.8	2.2	-2.3	0.8	-8.0
J 22	0.6	-0.7	0.0	5.5	0.0	3.7	-0.1	-4.8	-2.1	15.1
F	0.5	4.3	-1.0	1.4	-3.5	6.2	-0.3	-1.6	-1.4	12.0
M	3.8	24.5	4.1	10.7	7.6	57.5	7.9	6.7	3.3	20.7
A	2.9	1.8	1.9	3.0	6.6	-3.6	-1.7	2.4	1.1	-8.5
M	1.1	5.5	3.4	4.3	3.4	-8.6	-3.0	-0.3	-0.4	6.2

Table 2

The impact of exchange rate appreciation in April-May 2022 compared to the conditional scenario assuming unchanged exchange rate

	Flour		Butter		Sunflower oil		Sugar		Petrol		Non-food products		Core inflation		Inflation	
	Actual inflation	Inflation at constant exchange rate	Actual inflation	Inflation at constant exchange rate	Actual inflation	Inflation at constant exchange rate	Actual inflation	Inflation at constant exchange rate	Actual inflation	Inflation at constant exchange rate	Actual inflation	Inflation at constant exchange rate	Actual inflation	Inflation at constant exchange rate	Actual inflation	Inflation at constant exchange rate
A 22	2.9	4.0	1.9	2.9	6.6	7.7	-1.7	-0.7	1.1	2.2	2.0	3.0	1.7	2.3	2.3	2.7
M 22	1.1	2.9	3.4	5.2	3.4	5.2	-3.0	-1.2	-0.4	1.4	1.0	2.8	0.9	1.9	0.1	0.9

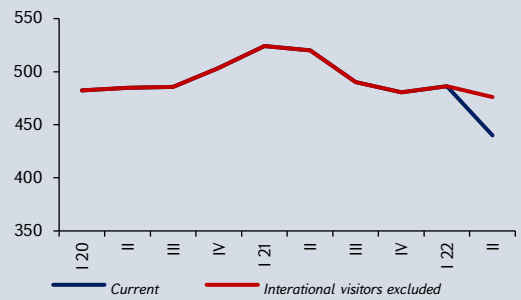
⁸ These projections were made given imperfections of commodity markets. It is likely that under shocks, such imperfections may grow substantially and exchange rate appreciation may not be reflected in pricing dynamics in the regular way.

Given the importance of the inflow of international visitors on the economic development of RA, and emphasizing the clear communication of the Central Bank decision-making rationale to the society, a conditional scenario has been constructed below where the differences in the estimates of selected macroeconomic variables in the absence of economic effects from the influx of international visitors are presented. Results of the conditional scenario show that in the absence of foreign demand from international visitors and the inflow of capital and labor, economic growth and inflation would be lower in the short term, and appreciation of the nominal exchange rate would be lower (see Charts 19, 20, 21). In particular, in the absence of an actual inflow of international visitors, the economic growth estimate for 2022 would be 3.6% instead of 4.9% in the current scenario. At the same time, in the short term, the positive effect of appreciation on inflation would be absent on one hand, whereas the additional expansion of demand would not contribute to the acceleration of inflation on the other. As a result, short-term inflation would shape at a relatively lower level.

As for the medium-term period, in the absence of exchange rate appreciation as an external shock absorber, the adjustment of demand and inflation would have followed a slower trajectory in the medium-term horizon. Given the persisting high levels of domestic demand and inflation irrespective of the flow of international visitors, obviously a rather strict response of the monetary policy would be necessary in this situation, with the view to restraining demand and stabilizing inflation around its target. Summarizing, in any situation monetary policy pursues the price stabilization policy in the projected horizon, as a result of which differences in the inflation forecast under the actual and conditional scenarios are offset at the end of the projected horizon.

Chart 19

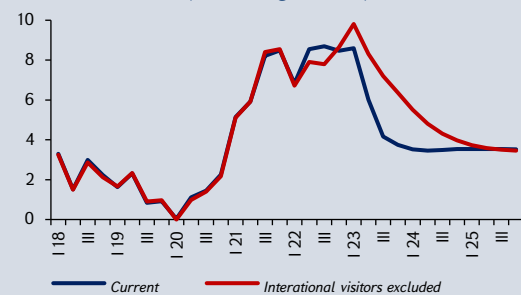
AMD/USD nominal exchange rate



Source: CBA estimates

Chart 20

Inflation forecasts (12-month growth, %)



Source: CBA estimates

Chart 21

Cumulative economic growth forecasts (%)



Source: CBA estimates

External Demand. Despite the continuing geopolitical uncertainties in the region, in 2022, certain positive developments in terms of exports of goods and especially services will take place due to the growth in international visitor flows. At the same time, as a result of the recovery of pent up domestic demand, and lifting restrictions by the European countries, a higher growth in imports of goods and services is projected compared to the previous scenario.

Thus, forecasts on real growth of exports of goods and services were revised upward, due to the rapid resumption of exports to Russia amid the rapid adjustment of the Russian ruble exchange rate. Given the sanctions applied to Russia, export opportunities from Armenia will relatively expand, also in view of the export potential developments. At the same time, exports of mineral industry will slow down. Concerning exports of services, positive developments in the export of tourism,

Telecommunications, computer and information services, as well as financial services are projected in the case of maintaining large inflow of international visitors. As a result, in 2022 5.1% real growth of export of goods and services is expected. Due to the rapid recovery of pent-up domestic demand at the expense of the accumulated savings and lifting restrictions by the European countries, a higher growth in real imports of goods and services is expected. In 2022, 8.3% real growth in imports of goods and services is expected.

After the high growth in the first half of the year, household remittances will slow down somewhat. Given the strong appreciation of the Russian ruble against the US dollar, US dollar equivalent of remittances is projected at a higher level than previous forecasts. Along with this, money transfers from the USA will slow down in line with previous expectations. Under these assumptions, net inflow of total remittances (including seasonal workers' incomes and private transfers) will drop by around 12% in 2022, compared to the 20% drop projected in the previous program.

Under this scenario of developments, in 2022, the share of current account deficit in GDP will grow to 5.2%.

In the medium term, mitigation of uncertainties, as well as the recovery of global and domestic economies will be reflected in the gradual recovery of investments, as a result of which the current account deficit/GDP indicator will stabilize in the estimated equilibrium range of 5.0-6.0%.

Fiscal Policy. The impact of fiscal policy on aggregate demand in 2022 was evaluated based on the indicators of 2022 State Budget Law, adjusted budget program⁹, current developments and the resulting Central Bank's estimates.

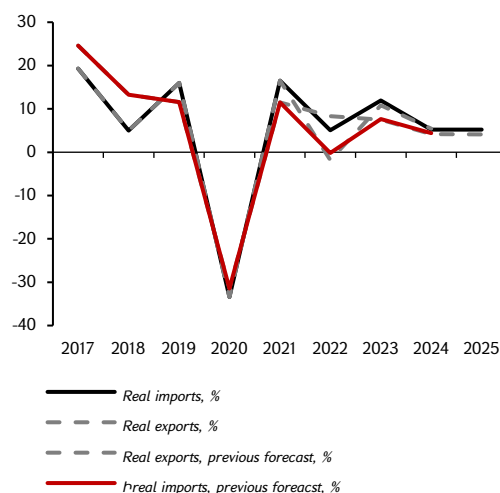
Given the rapid growth of economic activity in January-May 2022, a surpass of the semi-annual tax collection plan is expected, setting good prerequisites for the implementation of the annual tax revenue program of the state budget.

Based on the CBA estimates, in 2022, the share of taxes in GDP¹⁰ will grow by 0.8 percentage points compared to 2021.

As a result of the planned tax collections, other revenues being over the target, and certain shortfall of grants, the State revenues are expected to exceed the target set in the annual state budget by around AMD 17 billion. In view of the expected shortfall in foreign financing of capital expenditures and the resulting saving of the relevant government cofinancing, performance of expenditures is projected at 98.9%.

Chart 22

Flows of real exports and imports of goods and services in the medium term (%)



Source: NSS, CBA forecast

⁹ Quarterly and annual program adjusted by the current decisions of the government.

¹⁰ GDP indicators used in the program are the CBA projections.

According to the CBA estimates, in 2022, the share of expenditures in GDP will total 27.6%, dropping by 1.1 percentage points against the previous year. Deficit/GDP ratio will be 2.5%, down 2.1 percentage points from 2021.

As a result of adjusting government budget expenditures and revenues from flows that do not have an impact on gross demand, compared to 2021, 1.0 percentage contractionary effect of fiscal policy is expected in 2022. The latter will be due to almost neutral revenue impulse and slightly contractionary expenditure impulse.

In the medium term, the fiscal assessment has not changed from the previous forecast. Based on the 2022-2024 MTEFP, it is expected that in the medium term, along with the recovery of the economy, the Government will proceed to fiscal consolidation ensuring a gradual reduction of the budget deficit and debt burden due to the higher tax revenues and the improvement of the expenditure structure.

Labor Market. It is expected that in 2022, due to positive GDP gap and a high inflation environment, the growth of the nominal wages in the private sector will stay high at 11.7%. Along with the stabilization of inflation around its target in the medium term and neutralization of the GDP gap, the growth of nominal wages in the private sector will slow down to a certain extent and correspond to the productivity developments in the economy. As a result, a 7.5-8.5% growth of nominal wages in the private sector is expected in 2023, and at the end of the forecast horizon it will stabilize in the range of 6-7%.

Unemployment is expected to be below its medium-term level during 2022, mainly due to the positive aggregate demand environment persisting throughout the year. In 2022, the unemployment will be 14.8%, fluctuating in the medium term within 15-16%.

In 2022, as a result of the outpacing growth of private wages compared to productivity, unit labor costs of enterprises will grow to some extent, and will stabilize around its underlying target, i.e. inflation rate of 4% at the end of the forecast horizon. As a result, inflationary effects in labor market will persist in the short term and will gradually diminish in the forecast horizon.

2.2.3. Comparison with the Previous Projection

Projections of economic growth in 2022 have been revised upwards, but have not changed significantly along the forecast horizon.

Compared to 2021, 1.0 percentage contractionary effect of fiscal policy is expected in 2022.

Chart 23
Nominal wage growth in private sector, y/y (%)

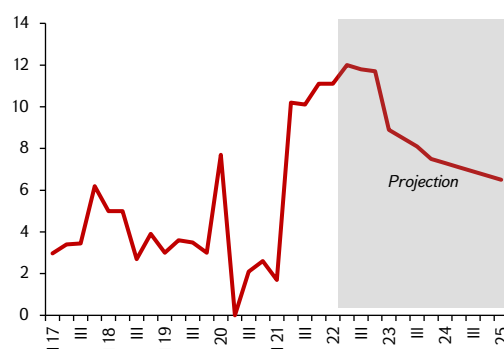
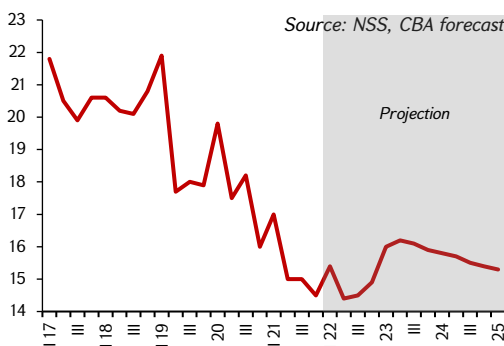
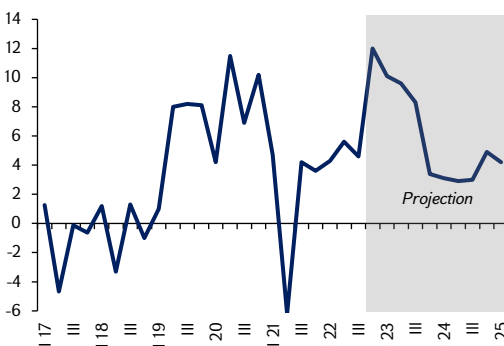


Chart 24
Level of unemployment (%)



Source: NSS, CBA forecast

Chart 25
Unit labor costs growth, y/y (%)



Source: NSS, CBA forecast

Compared to the previous forecast, economic growth in 2022 was revised upwards and is projected at around 4.9% instead of 1.6%. Compared to the previous program, the growth in almost all sectors has been revised upwards.

Services sector is the key factor for the economic growth revision, and its recovery was facilitated by the higher level of external demand due to the inflow of international visitors and the growth of their relative purchasing power due to certain strengthening of the Russian ruble. As a matter of fact, international visitors have a significant impact on the growth of activity in the financial and IT services sectors too (see Box 1).

The growth of the construction sector has been slightly revised upwards, mainly due to the expected growth in the volume of housing construction along with the acceleration of private investments.

As a result of the negative developments observed in the first half of the year in the agriculture, the growth in this sector will slightly slow down, however these factors are intermittent, and in case of favorable weather conditions, certain positive trends are expected until the end of the year.

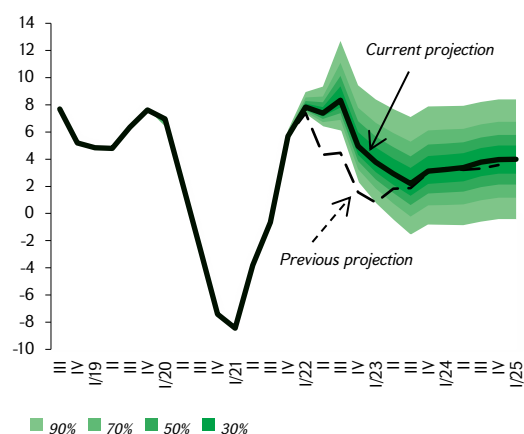
A smaller level of industrial sector decline is expected in 2022, mainly due to expected more positive developments in the manufacturing industry. Due to the appreciation of the Russian ruble, demand for goods exported to Russia has somewhat recovered in the second quarter, as a result of which the output of food and beverages will be close to the levels before the escalation of the conflict. If the existing problems in the mining industry persist, the ongoing negative developments there will contribute to its further decline.

The economic growth projection has not changed significantly over the forecast medium-term horizon, and it is expected to be close to its long-term steady state at the end of the horizon.

Compared to the previous forecast, economic growth in 2022 was revised upwards and is projected at around 4.9% instead of 1.6%.

Chart 26

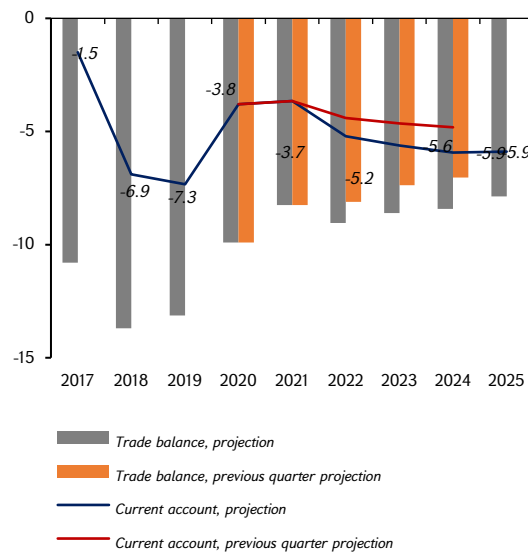
Real GDP growth (cumulative)¹¹ forecast probability distribution for 3-year horizon



Source: NSS, CBA projection

Chart 27

Current account/GDP medium-term projections (%)



Source: NSS, CBA forecast

Table 2

Probability Distribution of Real GDP Growth (Cumulative) Projection		
Period	30% Probability Interval	90% Probability Interval
2022 January-December / 2021 January-December	4.3 - 6.0	2.4 - 9.4
2023 January-December / 2022 January-December	2.2 - 4.2	(-0.9) - 7.9
2024 January-December / 2023 January-December	2.9 - 5.0	(-0.5) - 8.4

Source: NSS, CBA projection

¹¹ The growth rate of each quarter is calculated as the cumulative growth rate for the last four quarters.

Compared to the previous projection, in 2022, current account deficit/GDP ratio will grow, mainly because of the growth in the trade balance deficit as a result of recovery of domestic demand.

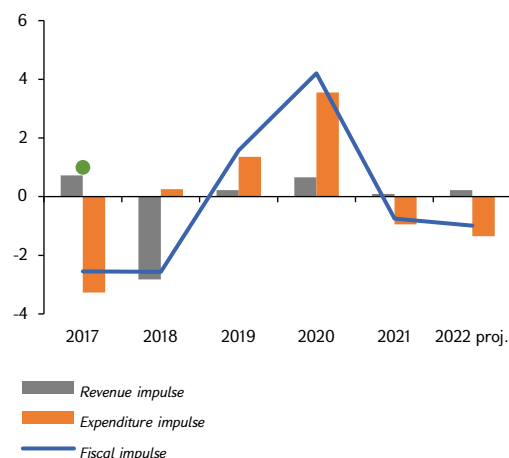
Compared to the previous projection, fiscal impulse will have a slightly more restraining effect of about 1 percentage point: in case of full implementation of the adjusted tax program and 98.9% (CBA projection) execution of the adjusted expenditure program, revenue-neutral and cost-restraint effects are projected.

According to the current projection, general inflation in the short run will be higher compared to the previous program, mainly due to the changes in seasonal agricultural prices. Core inflation will also be higher, under the on-going inflationary developments in international commodity markets, and inflationary pressures transmitted as a result of the growing foreign and domestic demand. Accordingly, in the short run, inflation will have a higher trajectory than projected in the previous program, and in the medium term, it will gradually decrease and stabilize around the target level in the forecast horizon (see Chart 1. Inflation Projection Probability Distribution).

Short-term inflation expectations will be somewhat higher than the previous forecasts as a result of spill-over inflationary effects transmitted from the external sector to the Armenian economy.

Chart 28

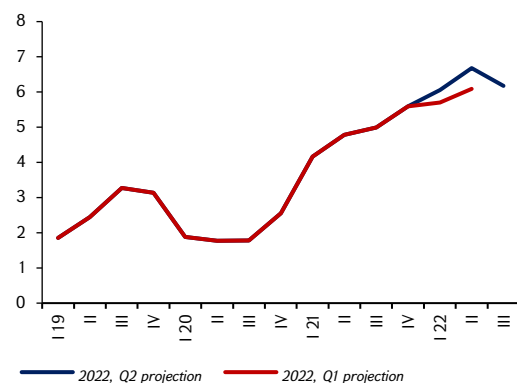
Fiscal impulse projection (percentage point)



Source: CBA forecast

Chart 29

Short-term inflation expectations (%)



Source: CBA estimates

2.2.4. Main Assumptions and Risks

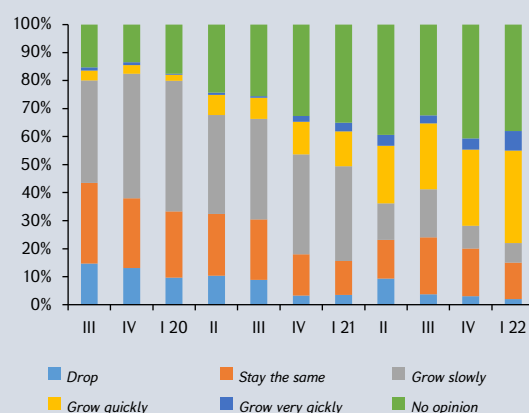
This section presents the main assumptions underlying the Monetary Policy Program for the second quarter of 2022, and the risks to implementation of the program coming from external sector developments, fiscal policy, emerging trends and short-term projections.

Box 2

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

According to a survey conducted by the Central Bank on households and financial sector organizations' expectations for a number of macroeconomic indicators in Q1 2022, inflation expectations were still growing. In particular, the share of households expecting high and very high inflation for the one-year horizon in the structure of the surveyed households has increased somewhat among the respondents. The results of the survey also show that in the first quarter, the uncertainty of the respondents regarding the expected inflation has lessened a bit, but still remains high.

Chart 30
Household inflation expectation surveys



Source: CBA

Projection Judgments

Table 3

Main Judgements and Assumptions	Possible developments if these assumptions prove to be correct
<p>Stringent sanctions imposed on Russia following the Russian-Ukrainian conflict will remain throughout the forecast horizon, and the problems relating to delivery and other supply chains or international trade flows will not be resolved in the short term.</p> <p>As a result of supply chain disruptions, in 2023 too, delays in product deliveries and shortages of certain products will be observed stemming from the economic restrictions applied in a number of industrial centers in China.</p> <p>Among the main partners of Armenia, the US FRS and the European Central Bank will conduct a tighter monetary policy, ensuring relatively smooth adjustment of inflation and the economy.</p> <p>High inflation will last longer, but it will be possible to avoid the risks of unanchoring long-term inflation expectations.</p> <p>Within the framework of the OPEC+, agreement on the extraction of larger volumes of oil could be realized in the coming months. Current levels of oil production in Russia will be preserved.</p>	<ul style="list-style-type: none"> ✓ Among the main trade partners of Armenia, economic growth in the USA (significantly) and the Eurozone will be slower; the economic decline in Russia will be deeper. ✓ Medium-term inflation expectations accelerated in all partner countries. In the USA and the EU, they are still assessed as moderate. ✓ The growth of uncertainty regarding monetary policy conducted by the central banks of developed countries will lead to a certain increase in financial markets volatility and adjustment of asset prices. ✓ Prices in international commodity markets will remain high.

Amid persisting regional instability/uncertainty and growing uncertainties regarding the US FRS's monetary policy, Armenia's country risk premium grew somewhat, but the long-term sustainable level remains unchanged.	✓ After the initial growth conditioned by escalation of the Russian-Ukrainian conflict, in the second quarter of the current year, Armenia's country risk premium somewhat stabilized, but then grew again as a result of growing volatility of financial markets caused by more stringent US monetary policy. Under the current scenario, it will still remain high in the short term, and then slowly approach the long-term sustainable levels.
In 2022, revenue neutral and expenditure contractionary effects of fiscal policy on the aggregate demand are expected.	✓ Given full implementation of the annual tax revenue program and 98.9% execution of the adjusted expenditure program, in 2022, about 1.0 percentage point contractionary effect of fiscal policy is estimated. In the mid-term, according to 2022-2024 MTEFP, a neutral effect of the fiscal policy is expected due to the gradual reduction of the budget deficit and the debt burden.
Certain changes in the structure of foreign trade of Armenia as a result of sanctions against the Russian Federation.	<ul style="list-style-type: none"> ✓ Relatively quick recovery of brandy production starting from the second quarter of 2022. ✓ High growth of information and communication sector will be preserved until the end of the year, with approximately 0.4-0.5% impact on 2022 GDP potential. ✓ Almost complete suspension of trade relations with Ukraine (both export and import) as a result of the conflict. ✓ Sanctions imposed on the Russian Federation financial system will not cause significant disruptions in Armenia's foreign trade relations. In particular, it is assumed that commercial transfers through Russian intermediary banks, can be replaced by other foreign intermediary banks, and commercial and non-commercial transfers with the Russian Federation will not be interrupted.
A certain negative contribution of the extractive industries to the growth of the GDP potential.	<ul style="list-style-type: none"> ✓ Monetary policy scenario does not incorporate operation of the Amulsar mine and the Alaverdu copper-molybdenum plant. Their potential impact is considered in forecast risks. ✓ Suspension of Teghut mine operations until the middle of the year, with the subsequent restoration of the previous level of production and export. The closure of the Teghut mine will have a 1.1% negative contribution to industry and a 0.23% negative contribution to economic growth in the second quarter.
A certain expansion of the deferred domestic demand during 2022, at the expense of savings accrued in previous years.	✓ As a result of the global alleviation of restrictions related to the pandemic, recovery of tourism imports from RA is expected at the expense of private savings.
Changes in excise and customs rates by 2023 deriving from the requirement to apply common rates in the EEU.	✓ The annual impact of the gradual excise tax change expected in 2021-2023 is estimated at about 0.4 percentage point, and the impact of the change in customs rates at 0.3 percentage point for each year.

Source: CBA

The impact of external demand shock on the economy under different macroeconomic policies

Small open economies sometimes face the phenomenon of exchange rate appreciation, which can take place under the impact of various economic factors. This could be the case when, for example, natural resource (oil, gas, etc.) are discovered in the country, the economic growth is higher than in the main partner countries, international preference for any product exported from the country grows, during large inflows of capital or international tourists, etc. In such cases, an influx of foreign currency takes place, as a result of which real exchange rate in the country appreciates.

The described phenomena are often of a sectoral nature and may indicate reorientation of the economy from traditional exporting sectors to others when the economy is just passing from one structural equilibrium to another. From the point of view of policy makers, this process, however, often causes concerns, as the opportunities for expansion of the "traditional" export sector decrease, and in some cases, risks may also arise in terms of long-term sustainable growth ("Dutch disease"¹³).

In the context of the external demand shock too, significant growth of external demand for goods produced in the country inevitably leads to an appreciation of the real exchange rate, because the latter reflects real price of exports, and if demand exceeds supply, the price must rise. Real exchange rate is a combination of the nominal exchange rate and price levels. Therefore, its appreciation is accompanied either by the appreciation of nominal exchange rate, or by inflation, or by any combination thereof. On the other hand, at the current stage of economic development, external demand has significantly grown (see Box 1) in the services sector, which is considered a relatively non-capital intensive sector, and where productivity is usually lower. Therefore, in this situation, an inefficient redistribution of resources may occur, which in the medium and long term may negatively affect economic growth (Dutch disease). Hence, in the context of macroeconomic policy, there may be a need to identify a toolkit, which in a situation of sectoral demand shock will help increase the overall productivity in the economy.

With a view to addressing this issue, within the framework of the Central Bank basic model, options and scenarios of monetary policy in an environment of external demand shock were considered (see Chart 31). In particular, in situations of external demand shocks, under a floating exchange rate regime, the exchange rate acts as a shock absorber, neutralizing mid-term and long-term effects of the shock on the real economy. Eventually, appreciation of the nominal exchange rate accompanying the inflow of foreign currency leads to a relative price

¹² Prepared by Haykaz Igityan and Vahagn Davtyan.

¹³ Corden W.M., Neary J.P. Booming Sector and De-industrialisation in a Small Open Economy. *The Economic Journal* 92 (December): 829-831, 1982.

growth in foreign currency terms for international visitors (when domestic prices do not change), creating grounds for further gradual and independent adjustment of demand. Therefore, monetary policy only manages "residual" risks/impacts related to the possible unanchoring of expectations. Given that appreciation can contribute to the mitigation of general inflationary background as well, monetary policy in such situation can consider the options of adopting relatively neutral path (see Chart 31).

Furthermore, while the tradable sector of the economy, for which a positive external demand has been shaped, observes a significant improvement, other tradable sectors may face temporary problems. To this end, the Central Bank may consider the option of neutralizing foreign exchange inflow with its relevant actions. However, under the ensuing smaller adjustment of the exchange rate, offsetting demand and savings for international visitors will occur through higher internal inflation, because for international visitors domestic prices in foreign currency terms matter. The resulting high inflation, on the other hand, needs to be managed with a relevant policy of interest rates restriction, placing the entire burden of adjustment on domestic demand and domestic consumers (see Chart 31).

Since in the given situation, the growth of external demand actually refers to a separate branch of the economy, a more targeted and sectoral fiscal policy in terms of optimal/best policy can more effectively deal with the possible problems.

In order to carry out the necessary analysis, a New Keynesian general equilibrium model¹⁴ of a small open economy was developed and calibrated for the RA economy. The model economy consists of two sectors: tradable and non-tradable. Households earn income by working in either of the two sectors, "supplying" capital to the tradable sector (as a capital-intensive segment). In addition, households own the firms, so they receive all the profits. Labor market is not completely flexible, and there are certain rigidities to move from one sector to another, so salaries are different in the two sectors. Households consume imported and local consumption and investment goods. Finally, households have free access to financial markets and can purchase both domestic and international bonds to smooth their consumption over time.

Firms are divided into three main groups: producers of tradable goods, producers of non-tradable goods and importers. Firms in the tradable sector produce consumption goods using labor and capital, part of which is consumed locally and the rest is exported. Firms in the tradable sector also produce investment goods. Non-tradable sector produces only consumption goods using labor, but, unlike standard models, we assume here that these goods can also be exported. Such an assumption is made because currently, due to the large flow of international visitors to Armenia, a significant growth of demand in the field of services is observed. This sector is traditionally considered non-tradable and while it has become tradable in the current situation, other structural changes,

¹⁴ For a detailed description of the model, see Lartey (2008), Acosta et al. (2009):

such as a significant increase in productivity or capital attraction from other sectors of economy, are missing.

Importers import both consumption goods that are substitutable for domestic tradable goods and investment goods. Firms in all three sectors produce differentiated products and have some market power in setting prices. Prices in all three sectors have rigidities, that is, in response to shocks, not all firms working in the same sector are able to set a new price, therefore, there is a certain lag in price dynamics.

Monetary policy follows Taylor's rule: it reacts to the inflation deviation from its target indicator and GDP gap through interest rate.

The government implements sectoral policies in such a way as to have a balanced budget. The goal of fiscal policy is to prevent or mitigate the occurrence of "Dutch disease" and, as a tool, it can tighten policy in one sector and alleviate in another.

Chart 31

Economy Response to External Demand Shock (under floating and regulated exchange rates)¹⁴

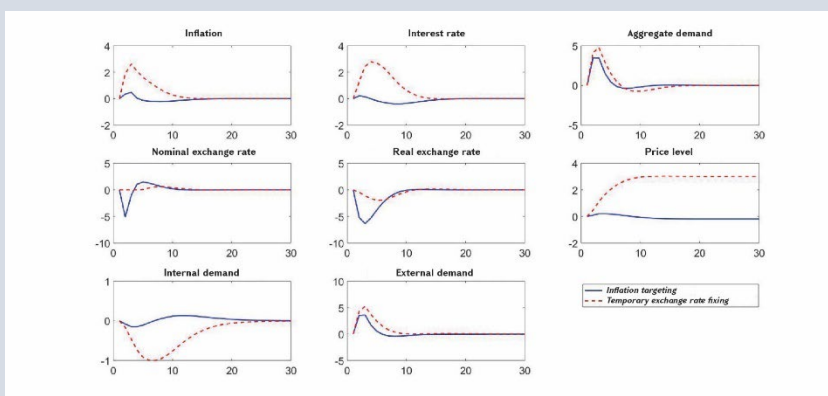
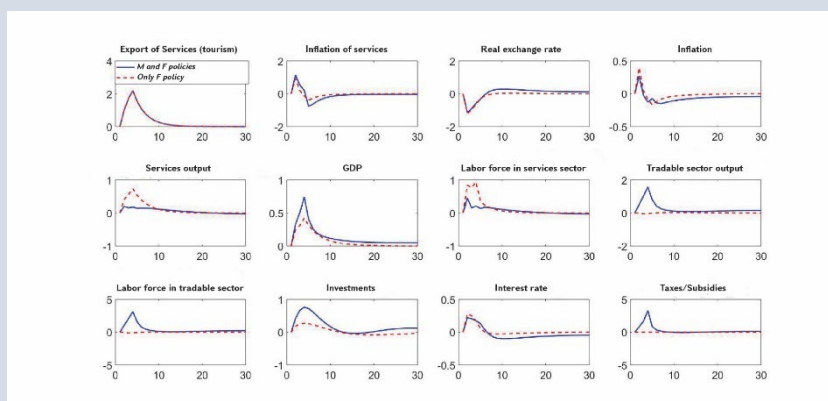


Chart 32

Fiscal Policy Response to External Demand Shock

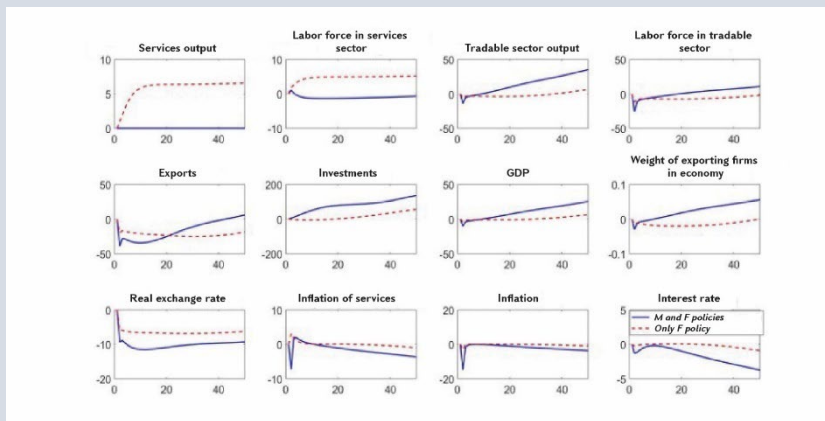


In this case, while external demand for services grows at the same rate, the level of output in this sector grows less, because relatively tight fiscal policy pursued for the given sector makes it costly to attract labor (see Chart 32). On the other hand, since fiscal policy is balanced, policy in the

¹⁵ In all charts presented in the box, the horizontal axis is the quarterly frequency, and the vertical axis is the percentage deviation of the variables from the steady state.

other sector becomes relatively softer and, as a result, we witness a significant growth in the labor force and output in the tradable sector. Moreover, since it is considered a more productive and capital-intensive sector, the overall level of output and investment is also higher. It is noteworthy that in any case, naturally, appreciation of the real exchange rate is being considered, and the above-presented inflation-exchange rate dilemma of monetary policy continues to be relevant. Therefore, in implementation of targeted fiscal policy, it is important that monetary policy does not deviate from its main goal and reacts to the shock, ensuring price stability.

Chart 33
Economy's Response to Long-Term Capital Inflows



Next is the scenario of economic development based on the long-term inflow of capital, which as a rule goes together with an increase in the income level in the country and an appreciation of the real exchange rate. In such a situation, however, an optimal and targeted fiscal policy can provide for sectoral redistribution of capital flows, ensuring a more efficient structure of the economy in terms of long-term productivity growth.

To this end, an optimal and targeted fiscal policy here can focus on sectoral redistribution of capital flows, ensuring a more efficient structure of the economy in terms of long-term productivity growth. Thus, in case of effective fiscal policy implementation, addressing the same target function as in the previous simulation and having the same toolkit, capital flows are completely directed to the more productive sector. As a result, in the long run, we experience higher economic growth, larger investments and expansion of the tradable sector in contrast to a situation where fiscal policy is not directed to managing capital inflows (see Chart 33). It is noteworthy that in case of a neutral (non-responsive) fiscal policy, appreciation of the real exchange rate accompanying capital inflows creates certain problems in exports sector and relatively high inflation in the short term. Meanwhile, targeted fiscal policy, using targeted sectoral tools, can redistribute capital inflows to a more productive sector. In such a scenario, due to higher future productivity, real exchange rate immediately appreciates to a greater extent. The latter creates certain short-term problems in terms of exports, but in the medium and long run, recovery is proceeding with greater momentum.

Summarizing, results of the performed work show that in the event of an external demand shock, irrespective of the policy conducted by the Central Bank, the real sector and, subsequently, the real exchange rate, exhibit equivalent dynamics and in terms of sectoral effects sector-specific policy plays crucial role. This confirms again that monetary policy has common effects on the economy, while fiscal policy, having a wider set of tools, can implement a sector-specific policy. Finally, where long-term trends for capital flows are available, depending on the form of fiscal policy intervention, the real sector can develop in quite different directions in the long run. In this case too, we witness the same dilemma of choosing monetary policy strategies, and should focus on ensuring the goal of price stability.

Forecast Risks

Russian-Ukrainian conflict and the resulting large-scale sanctions against Russia have fueled geopolitical uncertainty in the region. Along with the negative effects of the recent pandemic, the latter poses additional risks and challenges to stability of global economy, international commodity markets and finance, as well as the recovery and stability of the disrupted supply chains.

Amid persisting global inflation, which is significantly above the target levels, risks of unanchoring of long-term inflation expectations are gradually augmenting. To this end, central banks of many countries are conducting or outlining a policy of quick tightening of monetary conditions. In this context, the growth of uncertainties regarding the speed of monetary policy tightening by the US Federal Reserve is of particular interest, as it leads to higher volatility in global financial markets and a strong adjustment of asset prices.

These developments obviously create high uncertainty and significant risks for the RA economy as well, still manifested through wider ranges of ambiguity around the forecasts of the central points of inflation and other key macro-indicators (See Chart 1. Inflation Projection Probability Distribution and Chart 2. GDP Real Growth Projection Probability Distribution). Accordingly, amid high uncertainties, only the most significant risks around the baseline scenario are presented below.

In terms of aggregate demand, the following risks stand out:

- Foreign demand risks are mainly related to the extent of waning economic growth or decline in partner countries as a result of the Russian-Ukrainian conflict, overloading of traditional trade channels due to structural transformations in the Russian economy and foreign trade, possible disruption of business relations and delivery contracts, and general rearrangements in market structure.

- In the context of current regional geopolitical developments, there are mainly positive demand risks in terms of sustainability and volume of the expected inflow of international visitors and financial flows and their contribution to the national economy.
- Slowing down of seasonal migration from Armenia due to the unfavorable economic environment in the Russian Federation and restrictions on capital flows.
- If the risks of continued inflationary shocks and unanchoring long-term inflationary expectations materialize, the US Federal Reserve will have to implement a much tighter monetary policy compared to the current scenario, in order to stabilize inflation and inflationary expectations, which will lead to a significant slowdown of the economic growth to the point of temporary recession.
- Impact of fiscal policy on aggregate demand in 2022 largely depends on the implementation of the annual state budget plan: there are risks, especially in terms of expenditure shortfall. According to the Central Bank's estimates, in the first half of 2022, the state budget was in surplus due to expenditure savings, and in the event of its continuation, as well as the shortage of external financing sources, shortfall of expenditures may continue causing a stronger contractionary effect. Notably, in 2022, state budget law provides rather large state capital expenditures particularly in terms of public capital expenditures, hence their shortfall will cause certain risks in terms of the economic growth both in the short-term and long-term perspective.

In terms of supply, the following inflationary risks stand out:

- In view of disproportionate restriction of expansionary policies in the advanced economies, there are risks of an increase in the risk premium and especially inflationary risks.
- In view of overloading regional freight routes and growth of transportation costs, there are bilateral risks (deflationary in terms of exported goods, and inflationary in terms of imported goods).
- Risks pertaining to commodity price projections related both to the scale of the global economic growth slowdown, and the possible disruptions in supply chains and supply volumes in international markets as a result of the on-going Russian-Ukrainian conflict and sanctions applied to Russia.
- Commodity market imperfections and distorted inflation and exchange rate expectations bring about risks of inflationary nature relating to disproportionate pass-through of dollar appreciation to prices of imported goods.

As a result, risks of inflation deviation from the forecast in the medium term are estimated to be balanced, and still high quantitatively (see Chart 1. Inflation Projection Probability Distribution).

Further to the above-mentioned inflation risks, there are other potential medium-term risks in term of economic growth of bilateral nature, where upward risks somewhat prevail. In particular, risks are related to the following internal and external factors:

- Uncertainties related to the development of the Amulsar mine and Alaverdi copper smelter, which pose an upward risk.
- Significant difficulties and disruptions in the activities of local companies with Russian capital, which will have a negative impact on the economic growth in Armenia.
- Negative risks associated with the spread of new waves of pandemic and its economic implications.
- Both positive and negative risks related to the nature, size, duration of capital-financial flows to the RA economy and the possible transformation of the economy.
- Risks related to the effectiveness of execution of capital expenditures outlined in the medium-term budget expenditure plan.
- Implementation of the € 2.6 billion EU Eastern Partnership assistance package implying an upward risk (annual GDP growth of 0.9-1.0%).

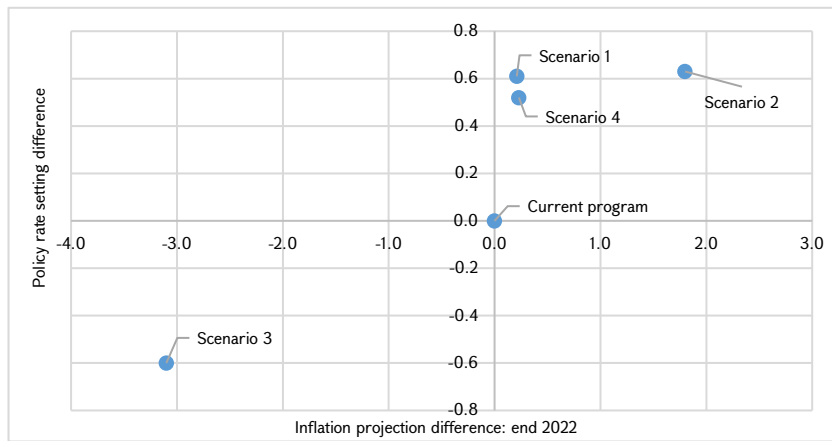
In general, as significant uncertainties remain related to geopolitical situation, coronavirus, international value chain rearrangements and possible financial and economic developments, the Central Bank seeks to reduce the potential risks arising from these uncertainties by modeling and evaluating different scenarios of further developments. In particular, given the peculiarities of the current stage and the possible emergence of various types of risks, several scenarios of economic development have been considered in greater detail:

- a much tighter response from the FRS amid possible unanchoring of inflation expectations in the US (Scenario 1).
- continuous, significant influx of international visitors from Russia throughout the forecast horizon in the context of the Russian-Ukrainian conflict (Scenario 2).
- large-scale, long-term inflow of capital and labor into the RA economy ensuing from the restriction of Russia's access to global financial markets (Scenario 3).
- lack of downward adjustment of prices of imported goods context of dram appreciation (Scenario 4).

Under these scenarios, the options of respective policy response were reconsidered, in order to take commensurate action at the very first evidence of their emergence.

Chart 34

Scenarios of economic development in the current situation



Source: CBA forecast

3. ACTUAL DEVELOPMENTS IN Q1, 2022

3.1. Inflation

3.1.1. Fulfillment of the Inflation Target

The program for the 2nd quarter of 2021, prepared at the outset of the relevant period, outlined the main judgments of monetary policy scenario, according to which the trends of faster recovery of economic activity and aggregate demand observed at the beginning of the year would continue in the coming quarters.

During the reporting period, more positive macroeconomic developments were shaped in both the global and RA economies compared to the forecast. Along with this, under the rapid growth of demand and a number of supply factors, inflationary environment has also expanded. Subsequently, inflation in each subsequent quarter has exceeded the expected level, and in light of this the projected short-term inflation trajectory to reach the target in each subsequent quarter of the reporting year was adjusted upwards.

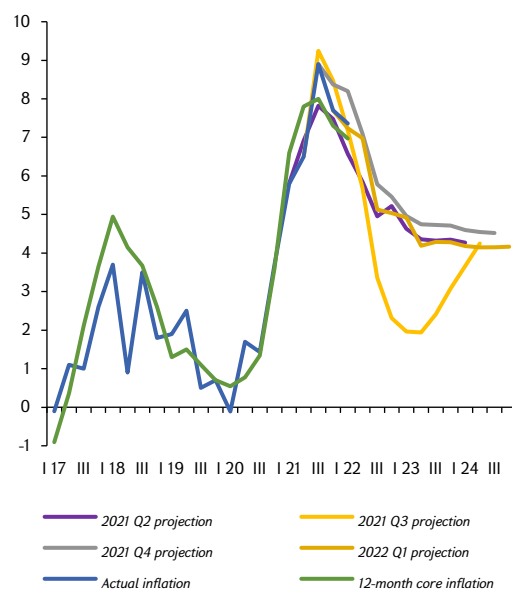
Thus, as a result of the widespread use of coronavirus vaccination, a faster recovery of global economic activity and foreign demand was observed. Under the influence of a number of supply factors manifested against the background of positive demand developments (forecasts of low supply of new crops, increase in freight costs, disruption of production chains), significant inflationary developments were observed in the international commodity markets. This was also reflected in the formation of a high inflationary environment in the main partner countries of the Republic of Armenia, under which inflationary pressures were transmitted to the economy of the Republic of Armenia through a number of imported food products. In parallel, domestic demand factors also contributed to the inflation from the second quarter due to the outpacing growth of private consumption over the expansion of output capacities. The latter was mainly due to the sharp increase in household consumption expenditures at the expense of the accumulated savings, as well as the large inflow of remittances from abroad.

Amid the inflationary developments described above at the beginning of the year, the Central Bank continued to pursue a policy of tightening monetary conditions, gradually reducing and neutralizing the expansionary monetary stance. Thus, in the second quarter of 2021, the Central Bank raised its policy rate by 1.0 percentage point.

In the second half of 2021, domestic price changes were mainly affected by external demand factors in the domestic services sector due

Chart 35

12-month inflation projection for the reporting period (2021 Q2 – 2022 Q1) was periodically revised upward



Source: NSS, CBA

to higher tourism growth rates. At the same time, in the third quarter, substantial uncertainties related to the economic and geopolitical perspective were reflected in the higher public inflation expectations. In view of these developments, the Central Bank raised the refinancing rate additionally by 0.75 percentage points in the second quarter.

Despite the slight decline of 12-month inflation rates in the fourth quarter, inflation factors persisted under inflationary spill-over effects from the external sector (persisting high energy prices and disruptions in production chains) and positive demand environment. At the same time, the impact of current inflation factors and expected changes in the prices of regulated services in the fourth quarter was reflected in the higher public inflation expectations. In view of these developments, the Central Bank raised the refinancing rate additionally by 0.5 percentage points in the fourth quarter.

In the first quarter of 2022, macroeconomic environment in Armenia, particularly inflationary developments were strongly affected by the Russian-Ukrainian conflict that escalated since the end of February, various sanctions applied to the Russian economy and the unprecedented uncertainties derived thereof. The latter were reflected in the significant slowdown of the growth rates in Armenia's main partner countries, and the extremely high inflation in international energy and food markets caused by the disruptions of value chains. In the short term, these developments exerted negative impact on the domestic economy mainly by certain attenuation of economic activity, and on the commodity market in terms of high prices for some imported goods. Another factor of inflationary environment was the inflow of international visitors creating a certain acceleration of demand in the domestic economy. The escalation of the Russian-Ukrainian conflict, at the end of the first quarter has in turn strongly contributed to volatility of the RA financial market and the country risk premium, fueling inflationary expectations. In this situation, the Central Bank raised policy rate by 1.5 percentage points in the first quarter.

To sum up, policy rate in the reporting period grew by 3.75 percentage points in overall, and was set at 9.25% in March 2022.

As a result, in line with the forecast, the 12-month inflation grew in the first part of the reporting period, from 5.8% in March 2021 to 9.6% in November 2021, after which, due to spill-over effects of previous monetary policy actions, a decrease was recorded: in February 2022, it was 6.5%, and in March rose again to 7.4%. It is projected that inflation will gradually decrease due to the implemented consistent monetary policy, approaching the 4% target in the medium-term horizon.

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3.1.2. Prices

Inflation has accelerated since the beginning of 2021, and, as projected, inflation environment in the reporting period remained high.

Thus, growth of inflation at the beginning of the period, in general, was determined by the acceleration of core inflation, particularly imported food and non-food products. The latter was affected by both the prices of food products in international markets and the short-term depreciation of dram. Thus, spill-over effects from international markets resulted in a sharp growth in the prices of “Bakery and Cereals”, “Meat Products”, “Oils and Fats” and “Sugar” commodity groups in the domestic economy. In general, strong inflationary dynamics was inherent in imported food products throughout the reporting period as their prices have grown by more than 10%. The growth of international energy prices affected domestic fuel prices. The sharp growth of international freight prices is also notable as it had a direct impact on inflation of imported goods (in particular, electrical appliances, clothing and footwear, as well as personal care items).

Inflationary effects of the above-mentioned factors have weakened since the end of 2021 in line with the estimates. However, at the end of the first quarter of 2022, amid the escalation of the Russian-Ukrainian conflict, sanctions applied against Russia and the ensuing uncertainties, inflationary trends augmented. The aforementioned factors have had a significant inflationary impact, especially in terms of basic goods. At the same time, due to the factor of international visitors, acceleration of the domestic demand has put strong inflationary pressures in terms of locally produced goods and services as well, under which the prices of a number of services with relative price rigidities (apartment rent, restaurants and hotels, hairdressing, financial services) were adjusted.

Growth of prices of “Tobacco” and “Alcoholic Beverages” product groups, in line with the estimates, continued to be affected by inflationary impact of the change of excise tax rates at the beginning of the year.

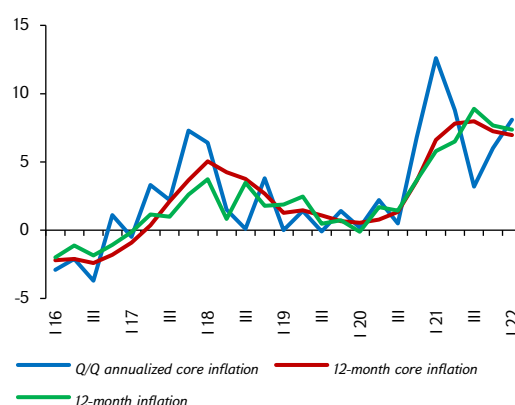
In addition to the above-mentioned factors, low deflation of seasonal food products, not typical for the season, has in turn significantly contributed to the acceleration of inflation in the second and third quarters of 2021. In particular, the low deflation of vegetable prices was mainly caused by bad weather conditions, reduction of sown areas of certain products and the growth of exports. The impact of these factors persisted throughout the entire horizon of the reporting period.

Tariffs for regulated services in the first quarter of 2022 expanded the inflationary environment due to the increase in water supply tariffs since January and electricity tariffs since March.

In general, strong inflationary dynamics was inherent in imported food products throughout the reporting period as their prices have grown by more than 10%.

Chart 36

High inflationary environment persisted throughout the reporting period



Source: NSS

Table 4

Consumer price inflation by commodity items as key contributors			
Designation	Weight	12-month inflation as of March 2022	Contribution to inflation
Core inflation	75.1	7.0	5.2
Bread and cereals	8.1	13.3	1.1
Meat	9.0	9.7	0.9
Oils and fats	2.6	7.8	0.2
Sugar	0.5	24.7	0.1
Alcoholic beverage	2.4	6.4	0.2
Tobacco	1.4	8.8	0.1
Clothing	1.3	6.9	0.1
Footwear	0.8	7.8	0.1
Household appliances	0.6	7.7	0.0
Medicines and health products	3.6	-0.8	0.0
Fuel	6.8	5.9	0.4
Air passenger transportation services	0.6	-11.2	-0.1
Hospital services	2.7	0.9	0.0
Actual rent paid by the lessee for additional accommodation	1.0	17.8	0.2
Bread and cereals	1.0	5.5	0.1
Imported food	14.8	11.8	1.8
Seasonal food	9.4	16.8	1.6
Eggs	1.3	-12.5	-0.2
Fruits	3.2	-3.8	-0.1
Vegetables	4.9	40.8	2.0
Regulated services	15.5	3.6	0.6

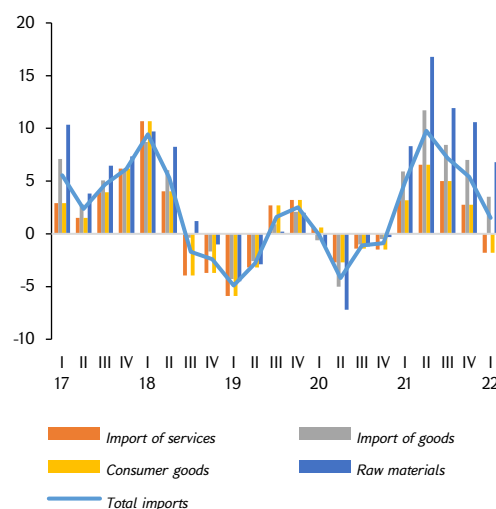
Source: NSS

Import prices. In the first quarter of 2022, a certain acceleration of food prices was observed worldwide, reflected in Armenia by the growth of import prices in USD terms. Higher growth of prices on intermediate consumption goods was to a certain degree offset by a drop in prices of final consumption goods. During the first quarter, USD prices of RA imports grew by 0.6% compared to the previous quarter, as a result of which the growth of prices compared to the same period of the previous year totaled 1.5% y/y. During the first quarter, dollar prices of intermediate consumption goods grew, while those of final consumption goods dropped somewhat.

Compared to the same period of the previous year, the main contributors of inflation were the prices of oil, wheat and sugar,

Chart 37

In 2022 Q1, the growth of dollar prices for imports of goods and services slowed down compared to the same quarter of the previous year, %



Source: CBA estimates

furthermore prices of almost all imported intermediate consumption goods grew. Decrease in USD prices of consumer goods compared to the same quarter of the previous year was mainly conditioned by high depreciation of Russian and Turkey national currencies against the US dollar.

3.2. Economic Developments

3.2.1. Economy Position

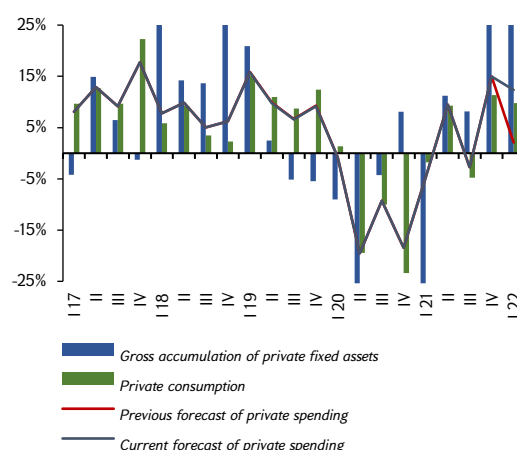
During the reporting period, the GDP gap remained in the positive range. In the first quarter of 2022, economic growth was 8.6% (see section 3.2.3), fairly above than the Central Bank's previous forecast. The higher-than-expected growth was driven by the service sector, as well as private spending and external demand for domestic services. Subsequently, GDP gap remained in the positive range and grew to a certain extent compared to the previous quarter, contributing to the expansion of inflationary environment during the reporting period. The Growing exports of services, on the other hand, contributes to the appreciation of dram, and presumably will have a positive impact in the near future in terms of adjusting the demand, closing the GDP gap, and subduing the domestic inflationary environment.

3.2.2. Expenditure Aspect of the Economy

In the first quarter of 2022, GDP growth totaled 8.6% due to the strengthening of both domestic and foreign demand. In terms of domestic demand, growth of private spending has had a rather large positive contribution to economic growth, while the expected role of public spending surpassed the expectations. The growth of private spending was driven by the growth of both private consumption and private fixed assets, totaling 9.6%. Thus, in the reporting quarter, growth of private fixed assets was rather high at 39.3%, reflecting the persistent growth of the construction sector and gaining momentum of import of investment goods. The growth of private consumption was also much higher than expected - 9.8%, which, according to estimates, is due to the recovery of international tourism under the gradual global relaxation of pandemic related restrictions. The growth of international visitors to Armenia has in turn strongly contributed to the growth, resulting in higher exports of services.

In the first quarter of 2022, GDP growth totaled 8.6% due to the strengthening of both domestic and foreign demand.

Chart 38
Private spending structure (y/y growth)



Source: NSS, CBA estimates

Under the more positive than expected developments of global and domestic economies in the first quarter of 2022, the real growth rates of exports and imports of goods and services exceeded expectations. Recovery of imports of goods and services was especially high. Demand restrained in the previous years, and acceleration of domestic demand resulted in higher growth of imports of goods and services. At the same time, the easing of tourism restrictions by European countries has been reflected in a faster recovery of tourism imports. Thus, real exports of goods and services grew in the first quarter of 2022 by 17.6% and real imports by 26.6% y/y.

Summing up, negative contribution of net real export to GDP in the first quarter was higher than expected.

According to projections, in the first quarter of 2022, net remittances of individuals (including income of seasonal workers and personal transfers) in USD terms will decrease less than forecast in the CBA program of the previous quarter, totaling around 12.0% y/y. Under the acceleration of inflationary expectations in Russia, in the first quarter of 2022, a shift of domestic consumption to the first quarter was observed, resulting in high income in non-tradable sector. This in turn led to higher level of remittances to Armenia.

Fiscal Policy¹⁶. Actual budget revenues¹⁷ in the first quarter of 2022, shifted more in the direction of overperformance and expenditures – the shortfall. As a result, given 1.2 percentage point expansionary effect projected for the first quarter, the impact of fiscal policy on aggregate demand was essentially neutral.

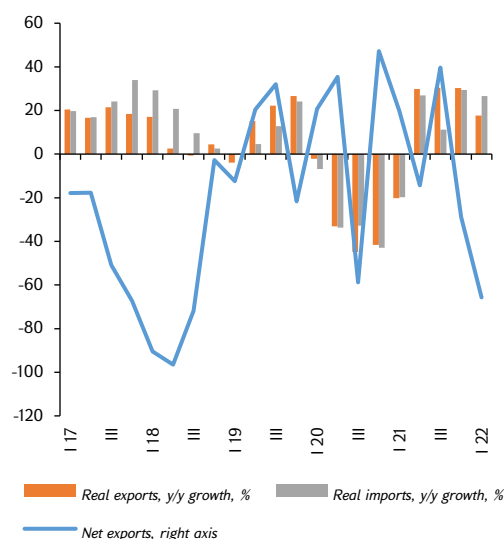
Budget revenues in the first quarter of 2022 accounted for 101.5% of the adjusted plan due to the surplus of other revenue collection. Other revenues exceeded the program by about 1.4 times, mainly due to higher interest revenues received from the use of temporary free funds of the budget. Due to the higher growth of economic activity, tax revenues of the state budget have slightly exceeded the plan.

As a result, revenue impulse, in line with the forecast, was 0.3 percentage point expanding.

State budget expenditures in the first quarter totaled 95.5% of the Central Bank forecast, net lending, as well, fell short of the projected figure. As a result, the expenditures' impulse was neutral instead of the projected 1.2 expanding. Within the state budget expenditures, both public consumption and expenditures on non-financial assets were fell short of the plan. However, compared to the CBA estimates, lower

Chart 39

In 2022 Q1, net exports position deteriorated (net real exports, y/y, %, positive sign - improvement)

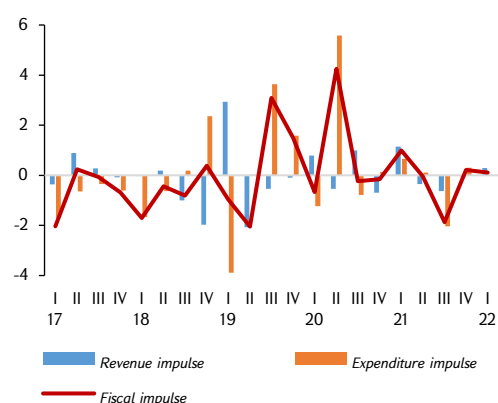


Source: NSS

As a result, compared to 1.2 percentage point projected for the quarter, the impact of fiscal policy on aggregate demand was almost neutral.

Chart 40

Fiscal policy in the first quarter of 2022 had a neutral impact over the previous quarter



Source: CBA estimates

¹⁶ The review of the fiscal sector was based on the actual consolidated budget indicators at the first quarter.

¹⁷ Revenue program is based on the current 2022 Government adjusted program. Expenditures are the CBA estimate.

performance was observed, especially in terms of expenditures implemented with external support.

As a result, due to the above-mentioned developments (revenue performance outpacing expenditures with the larger fiscal space of internal financing sources), the state budget recorder AMD 28.7 billion surplus in the first quarter. At the same time, consolidated budget surplus totaled around AMD 40.0 billion.

During the first quarter of 2022, within AMD 41 billion credit funds received from external sources AMD 34.7 billion were budget support loans from the International Monetary Fund, and the remaining 6.3 billion drams were received through targeted credit programs, making up only 26% of the Government's planned indicator. Within internal sources net income from state bonds prevailed, totaling AMD 73.2 billion.

To summarize, in terms of fiscal policy, in the first quarter of 2022, compared to the planned expanding, a neutral effect was recorded in terms of demand and inflation.

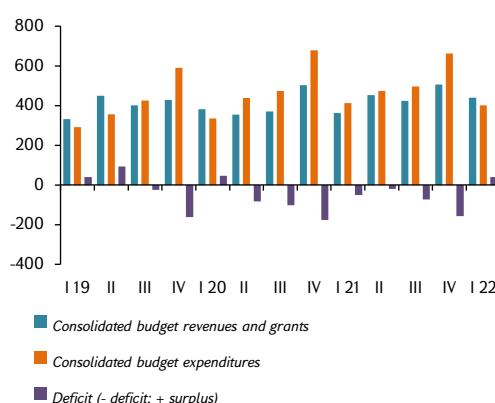
3.2.3. Output Aspect of the Economy

Economic growth in the first quarter of 2022 exceeded expectations and was mainly due to the high growth of the services sector, which totaled 11.8%. The latter was driven both by the strengthening of domestic demand due to the decrease in private savings, and particularly by higher external demand due to the influx of international visitors. In line with the expectations, the construction sector too, recorded a high growth of 10%.

The high growth in the sector continues mainly due to the construction carried out at the expense of organizations, which are mostly directed to the field of real estate. Growth in the industrial sector was weaker than expected at 3.5%, mainly due to problems in the mining sector. As for the processing industry, developments there were more positive than expected, especially in terms of production of food and basic metals. A certain decrease in the production of beverages related to the production of cognac, but in comparison with the previous projections, the decline there was smaller. In the reporting quarter, developments in the agricultural sector were also more negative, due to the decline in both livestock and plant breeding sectors. These developments are a consequence of the reduction in the livestock of farm animals, as well as the cleaning of greenhouses, in the plant breeding branch. The latter is a short-term factor and will not affect the sector during the year.

Chart 41

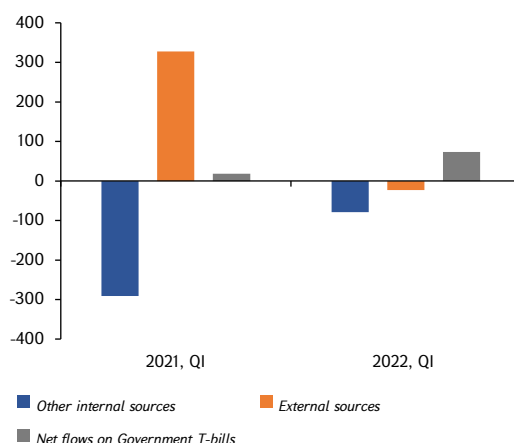
In the first quarter of 2022, a surplus of the state budget was formed (AMD billion)



Source: NSS

Chart 42

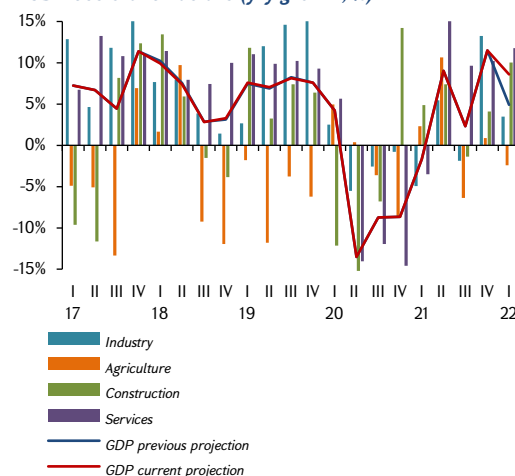
As a result of budget revenues outpacing the expenditures the state budget reordred surplus resulting in larger fiscal space of internal financing sources) (AMD billion)



Source: MoF

Chart 43

GDP Sectoral Structure (y/y growth, %)



Source: NSS, CBA estimates

3.2.4. Labor Market

In the first quarter of 2022, the growth rate of nominal wages in the private sector were higher than the Central Bank's forecasts totaling 11%, due to a higher-than-expected growth of economic activity. The latter is mainly due to the acceleration of private wage growth in the service sector, as a result of both private spending and higher external demand. The growth of real wages in the private sector totaled around 4.0% in the first quarter.

Due to a higher level of economic activity, the unemployment rate in the first quarter of 2022 is estimated at 15.4%, which is lower than the previous projection of the Central Bank. The high growth of private wages and the low level of unemployment during the reporting period, show certain signs of heated labor market, which is also consistent with the projected positive GDP gap in the economy.

During the reporting period, the growth of unit labor costs of enterprises somewhat accelerated to 4.3%, reflected in the outpacing growth of private wages over growth of output by unit labor cost. As a result, inflationary pressures from the labor market remained.

Chart 44

Private nominal wages (y/y growth, %)

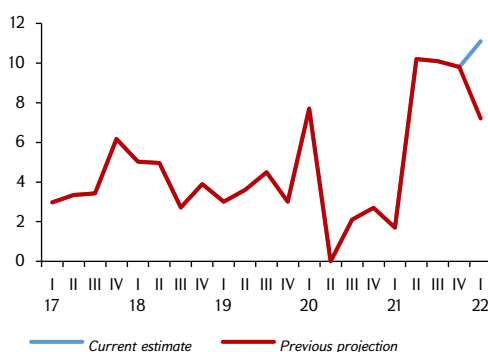
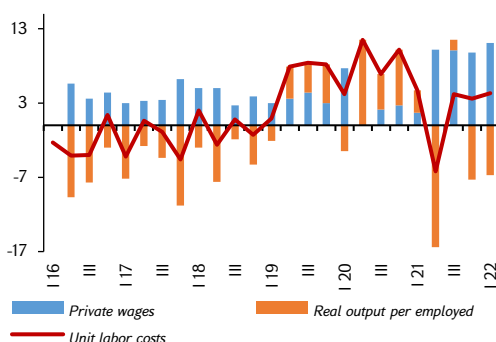


Chart 45

Unit labor costs (y/y growth, %)



3.3. Financial Market Developments

In the first quarter of 2022, the Central Bank Board raised the refinancing rate by 1.5 percentage point setting it to 9.25%.

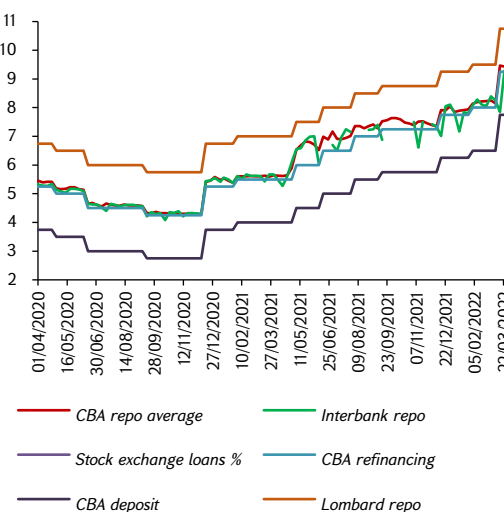
Given the high inflationary environment transmitted from the external sector and persisting in the domestic economy and projections on inflation expectations, as well as emphasizing the consistency of the Central Bank's actions, at the beginning of February, the Board of the Central Bank made a decision to raise refinancing rate by 0.25 percentage points.

Under geopolitical developments resulting from the Russian-Ukrainian conflict and the sanctions applied to Russia, since the end of February, inflation both at the global and national level surpassed the expectations. Central banks of the partner countries mainly reverted to the tightening of monetary policy, in some cases taking extraordinary decisions on raising policy interest rate with an unprecedentedly large step. At the regular session on March 15, the Central Bank Board made a decision to raise policy rate by another 1.25 percentage points, given

In the first quarter of 2022, the Central Bank Board raised the refinancing rate by 1.5 percentage point setting it to 9.25%.

Chart 46

During the quarter, short-term interest rates stayed around the CBA policy rate



¹⁸ Productivity In unit labor costs is represented by a negative contribution.

the projected significant growth of country risk premium under high uncertainty, the expected acceleration of inflation and higher inflation expectations. Furthermore, the Central Bank Board signalled possible tightening of monetary policy with a view to ensuring the goal of price stability, in the event risks of inflationary expectations persist amid the economic outlook uncertainty.

Table 5

Average quarterly interest rates in Armenia's financial market								
Indicators	05.05.21-15.06.21	16.06.21-03.08.21	04.08.21-14.09.21	15.09.21-02.11.21	03.11.21-14.12.21	15.12.21-01.02.22	02.02.22-15.03.22	16.03.22-03.05.22
Central Bank refinancing rate (end of quarter)	6.0	6.5	7.00	7.25	7.25	7.75	8.00	9.25
Central Bank repo rate	6.7	6.97	7.34	7.55	7.44	7.93	8.20	9.46
Interbank repo rate (up to 7-day)	6.59	6.9	7.14	7.84	7.05	7.68	8.14	9.39
Yield of government securities on a yield curve (as of end-quarter)								
Treasury bills (1 year)	7.15	7.59	8.18	8.58	8.84	9.02	9.08	10.13
Notes (5 year)	8.37	8.75	9.37	9.71	9.82	9.90	9.93	10.97
Bonds (30-year)	9.45	9.55	10.03	10.14	10.08	10.17	10.25	11.20

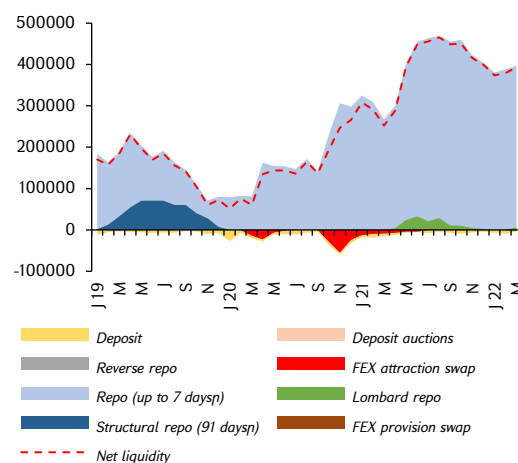
Source: CBA

Despite the developments in the financial market during the first quarter of 2022, mostly related to the growing currency market volatility and the high level of uncertainty ensuing thereof, financial system sustained a high level of liquidity and capital, and there was no significant disruption in markets. There wasn't any significant change in the level of short-term liquidity provided by the Central Bank to commercial banks: the amount of dram liquidity provided through the main instrument of 7-day repo was within the scope of the forecast.

During the quarter, government bonds market responded to policy interest rate changes by raising interest rates. The growth of yield was higher in the short-term sector, particularly for bonds with up to 3 months' maturity. In February, there was almost no change in the yield curve compared to December 2021, and at the end of March, amid the increased uncertainties and as a result of the Central Bank's policy actions, growth in yields along the entire length of the curve was observed. Compared to December, at the end of March, the yield curve moved up, on average, by 1.17 percentage points. In fact, inflationary expectations of market participants remained relatively anchored,

Chart 47

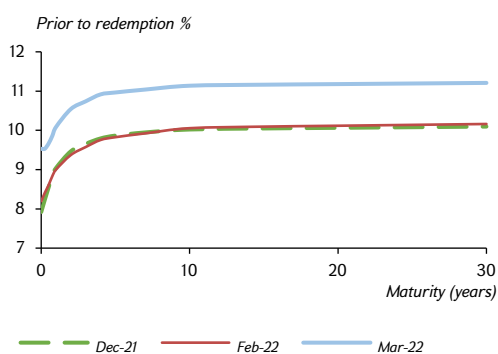
Liquidity absorbed and injected through CBA transactions average monthly stock, AMD million)



Source: CBA estimates

Chart 48

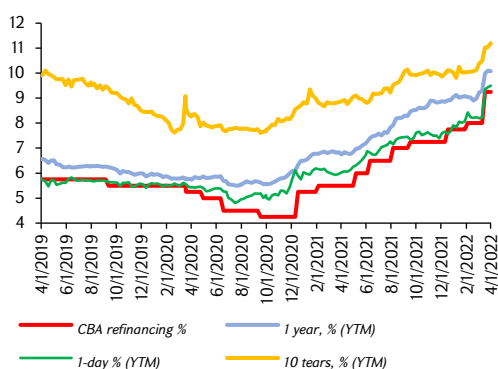
In 2022 Q1, government bond yields grew both along all segments of the curve



Source: CBA

Chart 49

In 2022 Q1, government bond yields grew both along all segments of the curve (%)



Source: CBA

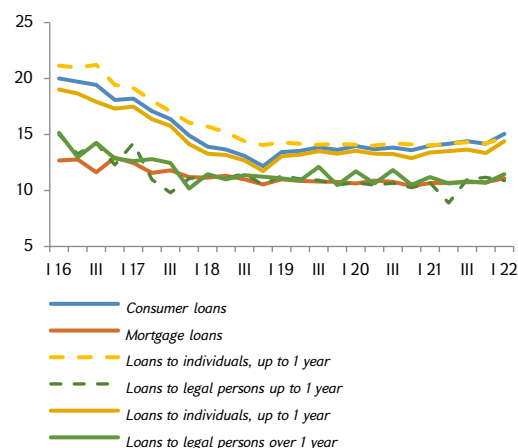
which was reflected in relatively slower changes of long-term interest rates.

During the first quarter of 2022, no significant alleviation of lending terms occurred, and interest rate terms on almost all types of loans were tightened.

According to the lending conditions survey, during the quarter, high level of uncertainties and expectations of economic activity slowdown, as well as the increase in the cost of the resources involved, had a restraining effect on lending conditions of banks and credit organizations. Despite the certain increase in the volume of lending compared to the previous quarter, in March 2022, its total volume decreased by 1.0% on a 12-month basis. Relatively positive mortgage lending dynamics continued. During the quarter, the implications of the Russian-Ukrainian conflict were most vividly manifested in foreign exchange market, with the increase in the volatility of AMD/USD exchange rate amid the arising uncertainties. The large inflow of international visitors and remittances to Armenia since the middle of March contributed to the on-going appreciation of the AMD/USD exchange rate. Given the situation, the Central Bank refrained from intervening in currency market. As a result, in the first quarter of 2022, the average AMD/USD exchange rate depreciated over the previous quarter s onl by 1.2%. During the period under review, appreciation of the Armenian dram against the Russian ruble totaled 14.7% due to the sharp depreciation of the ruble against the US dollar in the Russian currency market.

Chart 50

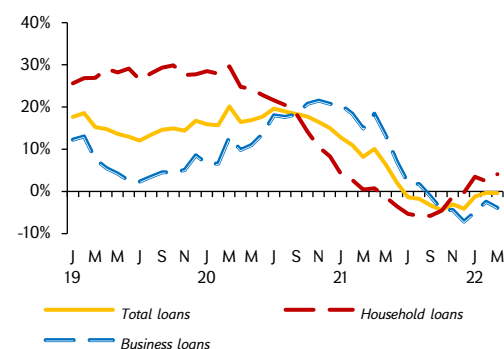
In the first quarter of 2022, growth in lending rates was observed in almost all types of loans (%)



Source: CBA

Chart 51

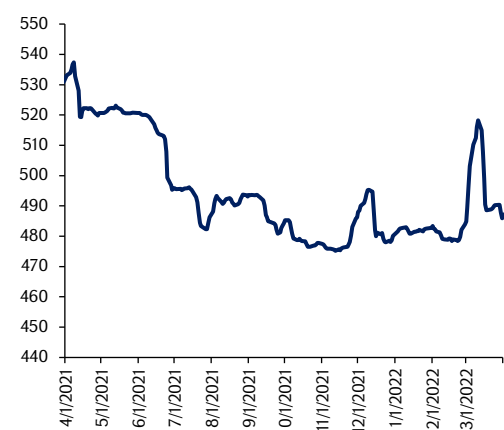
12-month dynamics of banks' lending



Source: CBA

Chart 52

USD/AMD exchange rate dynamics in April 2021 – March 2022



Source: CBA

4. SUMMING UP

According to the monetary policy program of the Central Bank of Armenia for the second quarter of 2022, 12-month inflation will remain above the target level in the near future, gradually decreasing and stabilizing around the 4% target from the second half of 2023.

In the short term, impacts of global inflation and external demand prevail within the inflation factors, which will weaken in the future under the parallel appreciation of the Armenian dram, neutralizing the risks related to inflation and inflationary expectations. In view of the above and the fact that the previous tightening of monetary terms by a relatively large step was a sufficient response to mitigate the high inflation environment, the Central Bank has left policy rate unchanged at this stage. At the same time, the Central Bank will consistently ensure stabilization of inflation and mitigate any risk of unanchoring inflation expectations with adequate actions. Inflation will gradually decrease in the medium term due to the implemented monetary policy, and will ***stabilize around the target of 4% starting*** from the second half of 2023.

The risks of deviating from the projected inflation trajectory in the forecast horizon are balanced, and in case of their emergence the Central Bank stands ready to respond adequately, in order to ensure the achievement of the medium-term price stability objective.

BOARD MEETING OF THE CBA

MINUTES (14.06.2022)

On the Refinancing Rate

The CBA Board Meeting of June 14, 2022 attended by CBA Governor M. Galstyan, Deputy Governors N. Yeritsyan and H. Khachatryan, and Board Members A Stepanyan, H. Ghahramanyan, D. Nahapetyan, A. Manukyan and L. Sahakyan

The Board meeting opened with a report of the situation as of June 14. It addressed the developments on inflation, external environment, and real, fiscal, financial and monetary sectors of the economy. The key topics of discussion were the ongoing Russian-Ukrainian conflict, the various sanctions applied to the Russian economy, and the estimates of the directions, size, and duration of the possible effects on the main partner countries of Armenia, especially on the economy of Armenia, as well as on financial markets.

As noted, in May 2022 0.1% inflation was recorded, as opposed to 0.4% deflation in the same month of the previous year. The month's inflation was mainly contributed by the growth of prices of non-food products and services by 0.6% and 0.8%, respectively, while food prices dropped by 0.6%. A particularly large increase was recorded in the prices of products of "Transport", "Recreation and Culture", "Household Items, Household Appliances and Daily Apartment Care Activities" and "Housing services" subgroups - a total of 4.4%, which, according to estimates, was the result of a significant growth of demand in the services sector. High inflation was also recorded in the prices of "Oils and Fats" and "Tobacco Products" subgroups, 3.4% and 3.0%, respectively. During the month, prices of "Vegetables", "Fruit" and "Dairy products, cheese and eggs" sub-groups decreased by 5.4%, 0.7% and 2.7%, respectively. ***As a result of these changes, the 12-month inflation grew and reached 9.0% at the end of the month. The 12-month core inflation grew as well, totaling 8.4%.***

Current developments in the external sector were presented. It was noted that under the impact of the Russian-Ukrainian conflict, sanctions applied to the Russian economy and the high uncertainty derived thereof, trends of economic slowdown continue in the main partner countries of Armenia. At the same time, as a result of the sustained disruptions of value chains, inflationary environment in international commodity markets, as well as partner countries, has

been constantly expanding. Accordingly, the US Federal Reserve and the ECB plan to conduct a stricter monetary policy with a view to reverting inflation to the target level in the medium term and managing the risks of unanchoring inflationary expectations. In Russia, as a result of the RCB's sharp reaction and tightening of capital and monetary conditions at the initial stage of the escalation of the conflict, inflation and inflation expectations have significantly decreased, which allows the RCB to continue loosening monetary conditions, contributing to the smooth process of further structural transformations of the economy.

The Board reviewed developments of the RA economy and noted that in the second quarter of 2022, trends of extensive economic activity continue due to the high growth of services and construction. The growth of the service sector continues to be enhanced by the large-scale inflow of international visitors and financial resources to Armenia amid the on-going Russian-Ukrainian conflict. Within the structure of aggregate demand, acceleration of domestic demand is observed due to the recovery of the *deferred* private spending growth. Furthermore, it was noted that the assessment of fiscal policy impact on domestic demand in 2022, as outlined in the first quarter program of the monetary policy, has been still contractionary.

The developments of the RA financial market were discussed and it was noted that in the second quarter, short-term market interest rates were shaped around the policy rate. At the same time, due to the significant increase in the demand (external demand) for domestic services by international visitors and the large inflow of financial transfers from abroad, an appreciation of the dram in RA currency market has been observed. At the same time, in order to neutralize the short-term disruptions and problems observed in the currency market under such large-scale flows, the Central Bank conducted a small-scale situational intervention in the currency market, contributing to smooth operation of financial market.

Referring to the existing inflationary environment and inflationary expectations, the Board recorded that in the second quarter inflationary environment has expanded, in line with which inflationary expectations have accelerated to a certain extent. It continues to be fueled by the inflationary effects transferred to domestic prices through a number of imported products from international commodity markets as a result of disruptions in global value chains. Inflation is further driven by the positive developments in aggregate demand, especially in the services sector, however, it is estimated that the prices of some “*rigid*” services have already been significantly adjusted in the first quarter, hence the further price adjustment in that sector will be somewhat slower. On the other hand, it is expected that appreciation of

the dram will gradually have a positive effect in terms of adjustment of external demand, mitigation of the domestic inflationary environment and subduing inflationary expectations.

Following a discussion of the situation report and external and domestic macroeconomic developments, the Board proceeded to addressing the monetary policy directions and making decision on the policy rate. The Forecasting team presented to the Board a scenario of future macroeconomic developments and monetary policy tightening in the above-mentioned environment. Individual members of the Board agreed that inflationary factors and the emerging risks future prevail, therefore consistent tightening of monetary policy and raising policy rate was necessary. However, majority of the Board members were of the opinion that within the factors of current inflation the effects of global inflation and external demand prevail, which will moderate in the near future under the parallel appreciation of the Armenian dram, neutralizing the risks related to inflation and inflationary expectations. In view of these judgments and the fact that the previous tightening of the monetary terms by a relatively large step was a sufficient response for mitigating the highly inflationary environment, they deemed it feasible to refrain from changing the interest rate. Ultimately, ***the Central Bank Board decided to leave the refinancing rate unchanged by the majority of votes***. To this end, the Board emphasized its tenacity in ensuring stabilization of inflation with adequate actions and neutralizing any risk of unanchoring inflationary expectations. Under such policy measures, the 12-month inflation would gradually decrease, approaching the target of 4% in the forecast medium-term horizon.

The CBA Board further stated that the uncertainty related to the macroeconomic perspective due to geopolitical developments still persists. At the same time, there are risks of deviation of inflation from the forecast direction, which are mostly balanced. They mainly come down to the problems related to transportation of goods for export and import to Armenia by land route, global effects of disruptions in international value chains, as well as transmission channels of dram appreciation to inflation. In case of risk materialization in any direction, the Board stands ready to respond accordingly in fulfilment of the price stability objective.

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

THE CENTRAL BANK OF THE REPUBLIC OF ARMENIA

BOARD DECISION

ON ESTABLISHMENT OF INTEREST RATES OF MONETARY POLICY INSTRUMENTS OF THE CENTRAL BANK OF ARMENIA AND PRESS RELEASE ON REFINANCING RATE

By virtue of Article 2(3), Article 20 “c” and “e” points of the law “On the Central Bank of the Republic of Armenia”, and provisions of the Republic of Armenia law “On Normative Legal Acts”, the Board of the Central Bank of the Republic of Armenia, herewith enacts:

1. Set the refinancing rate of the Central Bank of the Republic of Armenia at 9.25%.
2. Set the Lombard repo facility rate offered by the Central Bank of the Republic of Armenia at 10.75%.
3. Set the deposit facility rate offered by the Central Bank of the Republic of Armenia at 7.75%.
4. Approve the press release on the refinancing rate of the Central Bank of the Republic of Armenia (attached).
5. This decision shall enter into force on the day following the day of its publication on the website of the Central Bank of the Republic of Armenia.

Martin Galstyan,
Governor of the Central Bank
June 14, 2022

At June 14, 2022 meeting, the CBA Board decided to leave the refinancing rate unchanged, at 9.25%.

In May 2022, 12-month inflation grew to 9.0%. Meanwhile, the 12-month core inflation grew as well, making 8.4%. The Russian-Ukrainian conflict continues to have a negative impact on the economic and financial market developments in Armenia's' main partner countries. Continuing disruption of the global value chains and the rise in prices in international commodity markets is leading to an expansion of global inflationary environment. Central banks of the advanced economies have been tightening monetary policy conditions at a relatively faster pace. As a result, inflationary impact on the Armenian economy from the external sector still persists.

In the second quarter of 2022, the Armenian economy stayed exceedingly active. Substantial influx of international visitors and the augmented domestic private spending have been contributing to the growth of the services sector and the aggregate demand. This resulted in an expansion of general inflationary environment and higher inflation expectations. The significant growth of services exports and financial inflows also contribute to the appreciation of the Armenian dram in foreign exchange markets. It is expected that in the near future the latter will have a positive impact on mitigation of the domestic inflationary environment.

In view of the above, the Board judges appropriate to leave the policy rate unchanged. The CBA Board will be committed to take adequate measures to control inflation and neutralize any risk of deanchoring of inflation expectations. In the medium term, the 12-month inflation is projected to gradually decline to a 4% target.

The CBA Board considers that as a result of the geopolitical developments, the uncertainty of macroeconomic perspective still persists. At the same time, the risks of inflation deviation from the projected trajectory are mostly balanced. Should the risks materialize in any direction, the Board stands ready to respond accordingly in fulfilment of the price stability objective.

CBA Public Relations Service

ARMENIA: SELECTED MACROECONOMIC INDICATORS

Indicators	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	actual	actual	actual	actual	actual	actual	actual	program	program	program	program
External sector											
USA economic growth (% <i>real growth</i>)	2.7	1.7	2.3	2.9	2.3	-3.4	5.8	1.7	1.2	2.6	3.0
Eurozone economic growth (% <i>real growth</i>)	1.9	1.8	2.7	1.9	1.3	-6.5	5.4	3.0	1.4	0.5	1.1
Russia economic growth (% <i>real growth</i>)	-1.9	0.2	1.8	2.8	2.0	-2.9	4.7	-7.4	-0.9	2.4	1.7
USA inflation (<i>average</i> , %)	0.1	1.3	2.1	2.4	1.8	1.2	4.7	8.5	5.7	2.3	1.5
Eurozone inflation (<i>average</i> , %)	0.0	0.2	1.5	1.7	1.2	0.3	2.6	7.6	5.6	2.5	1.4
Russia inflation (<i>average</i> , %)	14.4	6.8	3.6	2.8	4.4	3.3	6.7	15.1	7.9	6.1	4.8
Oil price (US\$/barrel)	53.5	45.0	54.6	71.4	64.1	42.5	71.0	103.3	103.9	105.1	107.4
Copper price (US\$/barrel)	5497.4	4867.6	6201.5	6544.7	6024.1	6191.2	9314.7	10214.2	11010.5	11502.7	12018.5
FAO index	93.0	91.9	98.0	95.9	95.0	98.0	125.7	157.5	162.7	165.5	169.7
Domestic economy											
Prices											
Inflation (y/y, <i>end of period</i> , %)	-0.1	-1.1	2.6	1.8	0.7	3.7	7.7	8.5	3.6	4.0	4.0
Consumer price index (y/y, <i>average</i> , %)	3.7	-1.4	1.0	2.5	1.5	1.2	7.2	8.1	5.6	3.7	4.0
Core inflation (y/y, <i>average</i> , %)	5.1	-2.0	0.8	4.0	1.2	1.3	7.2	8.0	5.9	4.1	4.0
Gross product											
GDP (<i>billion Armenian dram</i>)	5043.6	5067.3	5568.9	6017.0	6543.3	6181.9	6983.0	7834.2	8401.1	9083.3	9805.6
GDP (% <i>real growth</i>)	3.2	0.2	7.5	5.2	7.6	-7.2	5.7	4.9	3.1	4.0	3.8
Supply											
Industry (% <i>real growth</i>)	6.2	7.7	11.7	4.9	12.0	-1.4	3.5	-1.0	3.5	4.1	4.5
Agriculture (% <i>real growth</i>)	13.2	-5.0	-5.1	-6.9	-5.8	-3.7	-0.6	2.7	2.9	3.2	2.8
Construction (% <i>real growth</i>)	-3.1	-14.1	2.8	0.6	6.5	-5.9	3.1	8.9	5.7	4.6	4.7
Services (% <i>real growth</i>)	1.6	3.2	10.6	9.1	10.0	-9.6	7.9	7.5	2.6	3.9	3.7
Taxes, net (% <i>real growth</i>)	-5.1	-3.7	9.7	8.0	7.1	-9.9	7.4	4.0	3.3	4.2	3.5
Demand											
Consumption (% <i>real growth</i>)	-6.0	-2.1	11.6	3.8	11.7	-10.9	4.2	3.5	2.0	3.5	3.4
Public consumption (% <i>real growth</i>)	4.7	-2.4	-2.1	-3.0	12.9	9.2	8.4	-6.8	-2.2	5.8	3.7
Private consumption (% <i>real growth</i>)	-7.5	-2.1	14.0	4.8	11.5	-14.0	3.4	5.9	2.9	3.1	3.3
Gross accumulation of fixed assets* (% <i>real growth</i>)	2.5	-11.4	9.7	4.8	4.4	-1.5	6.3	17.5	5.6	3.9	3.8
Public investment** (% <i>real growth</i>)	13.6	5.0	31.7	-37.4	31.1	16.2	-9.9	31.5	7.6	4.2	3.5
Gross accumulation of private fixed assets (% <i>real growth</i>)	1.2	-13.9	6.2	19.6	-0.5	-5.7	11.2	14.1	5.2	3.8	3.9
Export of goods and services (% <i>real growth</i>)	4.9	21.3	19.3	5.0	16.0	-33.4	17.1	5.1	11.9	5.2	5.2
Import of goods and services (% <i>real growth</i>)	-15.3	6.3	24.6	13.3	11.6	-31.4	12.5	8.3	7.5	4.2	4.1
Current account											
Balance of trade ((<i>million US dollar</i>))	-1186.4	-976.9	-1400.9	-1724.4	-1727.9	-1356.2	-1577.5	-1959.1	-1747.5	-1767.5	-1783.0
Balance of services ((<i>million US dollar</i>))	-96.4	70.4	159.4	24.7	-66.9	100.1	422.8	386.0	210.5	207.0	207.0
Remittances ((<i>million US dollar</i>))	1098.3	1009.4	1179.3	1136.2	1143.8	1040.2	1287.1	1137.5	1002.4	930.8	868.2
Current account ((<i>million US dollar</i>))	-284.7	-107.9	-173.9	-875.9	-1002.3	-478.7	-511.3	-906.0	-1004.9	-1100.0	-1178.1
Balance of trade (<i>share in GDP</i> , %)	-12.2	-8.6	-10.8	-13.7	-13.1	-9.9	-8.3	-9.0	-8.6	-8.4	-7.9
Balance of services (<i>share in GDP</i> , %)	-0.9	0.7	1.4	0.2	-0.5	0.8	3.0	2.2	1.2	1.1	1.0
Remittances (<i>share in GDP</i> , %)	10.4	9.5	10.2	9.1	8.4	8.2	9.2	6.5	5.6	5.0	4.3
Current account (<i>share in GDP</i> , %)	-2.7	-1.0	-1.5	-7.0	-7.3	-3.8	-3.7	-5.2	-5.6	-5.9	-5.9

Items	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	actual	actual	actual	actual	actual	actual	actual	program	program	program	program
Public sector***											
Revenues and grants (<i>billion Armenian dram</i>)	1167.7	1171.1	1237.8	1341.7	1559.1	1560.4	1683.8	1968.3	1966.7	2148.3	-
Tax revenues (<i>billion Armenian dram</i>)	1067.9	1079.7	1158.0	1258.1	1464.3	1385.2	1586.9	1844.4	1889.9	2084.0	-
Expenditures (<i>billion Armenian dram</i>)	1409.0	1449.1	1504.8	1447.1	1623.0	1894.3	2004.3	2161.0	2135.5	2312.0	-
Deficit (<i>billion Armenian dram</i>)	-241.3	-278.0	-267.0	-105.4	-63.9	-333.9	-320.5	-192.7	-168.8	-163.7	-
Revenues and grants (<i>share in GDP, %</i>)	23.2	23.1	22.2	22.3	23.8	25.2	24.1	25.1	23.4	23.7	-
Tax revenues (<i>share in GDP, %</i>)	21.2	21.3	20.8	20.9	22.4	22.4	22.7	23.5	22.5	22.9	-
Expenditures (<i>share in GDP, %</i>)	28.0	28.6	27.0	24.1	24.8	30.6	28.7	27.6	25.4	25.5	-
Deficit (<i>share in GDP, %</i>)	-4.8	-5.5	-4.8	-1.8	-1.0	-5.4	-4.6	-2.5	-2.0	-1.8	-
Monetary sector											
Broad money (<i>y/y, end of period, %</i>)	10.8	17.5	18.5	7.5	11.2	9.0	13.1	-	-	-	-
Dram broad money (<i>y/y, end of period, %</i>)	5.2	24.8	28.9	13.2	21.5	14.8	12.8	-	-	-	-
Loans to economy (<i>y/y, end of period, %</i>)	-3.3	6.0	16.5	17.2	18.5	14.3	-3.9	-	-	-	-
USD/AMD (<i>Armenian dram for one US dollar</i>)	477.9	480.5	482.7	483.0	480.4	489.0	503.8	-	-	-	-
<p>* Hereinafter, the Central Bank will only present the indicator of the aggregate fixed asset accumulation instead of the aggregate accumulation, since the change in tangible working capital inventories is considered by Armenia's Statistics Committee as a balancing item and it does not show the true level of the aggregate accumulation. See https://www.armstat.am/file/article/sv_04_19a_112.pdf.</p> <p>** Actual indicators of public investment are capital expenditures of the consolidated budget, and the forecasts are based on the currently revised macro framework for 2022-2024.</p> <p>*** Indicators of the 2022 budget are those of the law "On 2022 State Budget of the Republic of Armenia". The indicators for 2023-2024 are presented from the revised macro framework.</p>											

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