საქართველოს ეროვნული ბანკი
National Bank of Georgia

Macroeconomic Scenarios for IFRS 9

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Within the International Financial Reporting Standards (IFRS9) framework, credit risk assessments should incorporate forward-looking analysis. In particular, when assessing expected credit losses, the analysis of macroeconomic and financial factors, expected risks and dynamics should all be taken into account. The National Bank of Georgia (NBG) believes this amendment will facilitate timely recognition of credit risks and will therefore have a positive impact on financial stability.

To ensure transparent, consistent and efficient implementation of IFRS9 by financial institutions, starting from 2018 the NBG regularly publishes macroeconomic and financial forecasts and risk scenarios. The purpose of these scenarios is to provide financial institutions with consistent quantitative estimates of key macroeconomic variables to use them for expected credit loss calculations.

The baseline scenario relies on the NBG's Forecasting and Policy Analysis System (FPAS), while the alternate scenarios are based on a macro-financial model for risk scenario analysis. Additional estimations (satellite models) are used for those variables that are not directly derived from the models. The scenarios also incorporate additional analysis and expert judgement.

The scenarios are based on the data available at the moment of analysis and use the appropriate assumptions on exogenous variables. Scenarios are thus very likely to change when new information becomes available. The dynamics of the variables presented in the scenarios should not be perceived as NBG objectives (e.g., the interest rate, the exchange rate, etc.).

The baseline scenario reflects the most probable state of the economy balanced by risks from both sides, while the alternative scenarios consider different types of shocks (both positive and negative). The shocks are selected based on their relevance to current circumstances and on expert judgement. It should be noted that although the adverse scenarios reflect negative shocks, these scenarios are less severe than those used in stress testing.

In the current issue of the scenarios, the main drivers of the encompassing macroeconomic variables are the assumptions related to the duration of the ongoing regional conflicts worldwide, along with the globally tightened financial conditions. In the baseline scenario, the leading drivers of economic growth include increased domestic and external demands stemming from accelerated credit activity and enhanced service sector productivity. According to the upside scenario, economic activity is more sustainable compared to the baseline scenario, which is related to the expansion of the country's transit potential and the reduction of global inflationary pressures on food products due to a quicker resolutions to regional conflicts. The adverse scenario encompasses fundamental changes in the global markets due to the escalation of regional conflicts around the world and the global tightening of trade and financial conditions. It should be noted that uncertainty and risks regarding the future period are elevated.

The forecast horizon is three-four years and the scenarios are updated twice a year. In case of any significant changes in the macroeconomic environment, the scenarios will be updated more frequently. The scenarios describe the macroeconomic situation in the country and cover all of the main macroeconomic variables. However, not all of these variables are required to be included in the credit loss assessment model. The macroeconomic variables in the scenarios are provided at annual frequency. If an expected credit loss assessment model utilized by a financial institution is based on data of a higher frequency, the variables can be converted into the desired frequency by using linear interpolation. This way annual changes in the selected macroeconomic variables will be evenly distributed over the chosen higher frequency.

For credit loss assessment, 50% probability should be assigned to the baseline scenario, while the upside and adverse scenarios should both be given 25%-25% probabilities. It should be noted that as Georgia is a small open economy it is highly vulnerable to shocks. Thus, it is essential to consider the non-linear relation between macroeconomic scenarios and credit risk. Therefore, it is necessary to evaluate the expected credit loss for each of the scenarios, and only then weight them with the corresponding probabilities.

It should also be noted that the macro scenarios published by the NBG should not be perceived as the only correct version. Financial institutions may add an alternative scenario and/or change it. However, in such cases it is necessary for the financial institution to understand the relevance of the corresponding scenario and the linkages between the different macroeconomic variables within each scenario. If necessary, the financial institution should be able to prove the reasonability of any changes made to a scenario and/or justify the introduction of new scenarios.

Baseline Scenario

According to the baseline scenario, which reflects the forecasts published in the May 2024 issue of the Monetary Policy Report, the Georgian economy continues to grow at a stable rate this year. A small increase in oil prices is expected in 2024, stemming from the ongoing conflict in the Middle East. At the same time, the increase in the production and consequently, the supply of oil products from non-OPEC+ countries contributes to the stability of oil prices. Newly formed supply channels, reduced demand and increased stocks has stabilized the natural gas market. Considering the above, the risks that the possible escalation of the conflict in the Middle East will have on the prices of energy carriers are noteworthy. Furthermore, due to geopolitical tensions and climate conditions, the existing food price dynamics contain inflationary risks.

Recently, a stronger-than-expected domestic demand in the US backed by increased employment and accumulated savings has fostered economic activity. Tighter financial conditions have led to price decreases, however, inflation remains above target. Amid these circumstances along with the existing geopolitical tensions the uncertainty on the global markets is increased, resulting in US inflation expectations remaining above target this year, which is reflected in the delay of the monetary policy easing by the Fed.

In contrast to the US, some disruptions in the manufacturing sector were evident in the EU, which, amid tighter financial conditions and geopolitical fragmentation, had an overall negative impact on economic growth. Moreover, considering the expected stabilization of natural gas prices, an additional decrease in inflation is expected, which will bring it closer to the target rate. As a result, the ECB is expected to maintain a faster pace of monetary policy loosening compared to the Fed.

Inflation remains above target levels in most of Georgia's trading partner countries. With global financial conditions remaining tightened for relatively longer period, which mostly relates to the expectations regarding the Fed's policy, and the deterioration of trade potential, the trade and financial flows of Georgia's trading partner countries will be fairly limited. This, in turn, will lead to a slight depreciation of the local currencies of the mentioned countries against the US dollar, which will prolong the inflationary environment and, therefore, will delay the monetary policy normalization. Maintaining tightened financial conditions will also hinder their economic activity.

This will exacerbate the already declining demand on exports of Georgian goods, which started in the previous year. At the same time, the ongoing structural changes in the country are becoming increasingly visible, as evidenced by the rapid growth of the service sector in Georgia, particularly in the information and communications sector. Due to such circumstances, over the forecast horizon, the increased volume of service exports will balance the reduced demand for goods exports. These changes in the structure of total exports outweighed the effect of the phasing-out stage of the previous migration inflows; subsequently, this led to a reduction in the current account deficit in 2023 and in early 2024, as well as an additional strengthening of the nominal effective exchange rate.

In the current year, the sovereign risk premium of Georgia will remain close to the 2023 average level and will gradually return to its equilibrium level over the medium term. Following the stabilization of external factors and strong economic activity, in the medium turn, no significant changes are expected for the nominal exchange rate of GEL, both effective and against the US dollar (see Figure 3).

Along with the increase in productivity in the information and communications sector, the reduction of the unemployment rate to a historical minimum also indicates the ongoing structural changes in the country, leading to the acceleration of the potential economic growth rate in the short term. Due to these changes, along with the significantly increased lending activity, further supported by the easing of monetary policy in the recent period, the economic growth of Georgia, this year, will be higher than previously anticipated. In the medium term, the growth of economic activity will stabilize around 5 percent (see Figure 2). Acceleration of potential growth this year and ongoing fundamental and cyclical changes in the economy will significantly reduce the unemployment rate compared to the 2023 average and bring it closer to the natural level in the medium term.

The strengthened exchange rate outweighed the pressure of increased domestic demand, which resulted in inflation falling and remaining below target, at the beginning of 2024. According to the baseline scenario, the acceleration of economic growth in 2024 follows its potential rate and, thus, does not carry an inflationary pressure. However, high inflationary expectations in trading partner countries, along with the stability of the GEL exchange rate, will push local prices upward and lead inflation towards the target level (see Figure 1). Meanwhile, the monetary policy rate will continue to decrease by small steps and will stabilize around its neutral level, currently estimated at 7 percent (see Figure 4). As the effect of strong demand wears off and the exchange rate stays stable, in the medium term, inflation will remain close to the target of 3 percent.

The acceleration of the economic potential, reduction of the unemployment rate and easing of the monetary policy are all factors that boost the demand for real estate, creating an upward pressure on real estate prices. According to the baseline scenario, under these conditions and a stable exchange rate, this year, real estate prices will rise proportionally to nominal economic growth in the medium term.

There is a high uncertainty around the baseline scenario due to geopolitical and domestic conditions. In particular, in the coming years, Georgia's economic activity will significantly depend on the disruptions of trade relations on the global and local markets due to the geopolitical fragmentation aggravated by the possible escalation of existing regional conflicts, as well as the resulting formation of new equilibrium state on the global market. This process has a significant impact on the expectations of the global trade and financial markets and increases the pressure from the external sector on Georgia. The following alternative scenarios consider these sources of uncertainty and discuss the possible alternative developments of events.

Alternative Scenarios

In contrast to the baseline scenario, which is balanced by risks from both sides, the alternative scenarios examine various exogenous shocks that are chosen based on their relevance to current circumstances and expert judgement.

In particular, the upside scenario discusses the reduction of global inflationary pressures on food products following the faster resolution of regional conflicts, along with the expansion of Georgia's trade potential, while the adverse scenario focuses on the escalation of regional conflicts around the world, the tightening of global trade and financial conditions and the subsequent fundamental changes in global markets. It should also be noted that the alternative scenarios do not consider risks associated with fiscal and/or other macroeconomic policies.

Upside Scenario

The threat of a large-scale food crisis as a result of the Russia-Ukraine war emphasized the importance of the development of agricultural sectors. According to the upside scenario, as a result of the increase in investment in this area, production has increased significantly and the efficiency of the production process has improved. This will significantly reduce the prices of food products globally. Meanwhile, there will be no further escalations of the conflict in the Middle East and it will be resolved by the end of 2024. As a result, from the beginning of the next year, global transportation costs will decrease and trade flow will increase.

According to the upside scenario, the easing of supply disruptions in the world and the stabilization of commodity prices on international markets happen faster than in the baseline scenario. A faster-than-expected decline in global inflation will reduce the need for central banks to maintain a tight monetary policy regime, thus easing global financial conditions. This will improve the pace of recovery of global economic activity.

In the upside scenario, due to a less inflationary environment compared to the baseline scenario, in the medium term, the US Federal Reserve System and the European Central Bank exit the tight monetary policy regime relatively quickly. Although, the higher-than-expected economic activity in the US already recorded at the beginning of this year will last throughout 2024 and will become a bearer of inflationary risks. Due to the risk, initially, the Fed continues to exit the strict monetary policy more cautiously compared to the ECB. Consequently, the US dollar is strengthening against the currencies of emerging markets and developing economies, reducing the demand for US exports, as well as the initially elevated inflationary expectations. Following this, the Fed will continue to reduce the monetary policy rate towards the neutral level at a relatively fast pace in the following years.

In emerging markets, the initial depreciation of local currencies encourages exports and generates inflationary pressures, offsetting the effects of already tightened monetary policies in these countries. Considering the above, against the background of geopolitical fragmentation of markets, in emerging markets and developing economies the reduction of inflation, and consequently, the exit from the tightened monetary policy regime, is taking place at a slower pace compared to the developed countries.

According to the upside scenario, starting from the following year, the reduction of regional risks will improve the market sentiment, which will lead to an increase in economic activity, as well as trade and investment flows in the majority of Georgia's trading partner countries. Subsequently, external demand for Georgia's exports will be solid, which will facilitate economic activity. Considering the geographical location of Georgia along with the completion of infrastructure projects aimed at increasing the country's cargo turnover, Georgia is strengthening its transit role in the region and is able to significantly increase the trade flows. The growth of trade and the utilization of new markets strengthen Georgia’s position in the region. Consequently, Georgia's sovereign risk premium will stabilize at a lower level compared to the baseline scenario. The reduction of the country's riskiness becomes a pretext for attracting new foreign investments, which becomes a prerequisite for a slight strengthening of the exchange rate both nominal effective, as well as against the US dollar.

Amid the increased external demand due to the recovery of economic activity in trading partner countries and the increase in Georgia's trade potential, Georgian economy is growing at a higher rate compared to the baseline scenario. Following the utilization of the transit and production potentials, the potential growth rate of the economy will also increase. In the process of utilizing the new potential, the economic growth will initially be higher than the potential and will stabilize around 5.5 percent in the medium term. Considering the existing macroeconomic stability in the country and the improved expectations regarding economic growth, the real estate prices expressed both in GEL, and in the US dollars, are rising faster than in the baseline scenario.

Following the higher than potential economic growth, the unemployment rate in the country is decreasing faster compared to the baseline scenario. A reduction in unemployment will increase spending by both companies and households, and generate inflationary pressure, which will be balanced by an improvement in economic growth potential. Additionally, the inflationary pressure due to the increase in external demand will be largely offset by the strengthening of the exchange rate and the increase in trade potential next year. Considering the recovery of global economic activity, stable macroeconomic environment in the country and balanced inflationary expectations, the monetary policy exits from the tightened stance similarly to the baseline scenario.

Adverse Scenario

According to the adverse scenario, the escalation of the conflict in the Middle East, along with the Russia-Ukraine war, will lead to an additional disruption of trade flows, as well as a sharp increase in oil prices and transportation costs. To ensure national security and supply-chain resilience, the restrictions deliberately imposed by countries and the resulting geoeconomic fragmentation will further limit the international flow of goods, services, capital and labor. This, in the medium term, will have a significant adverse impact on the productivity and efficiency achieved as a result of specialization, competition and economies of scale.

In the meantime, the materialization of risks in China's real estate market will lead to a sharp and prolonged decline in real estate investment, which will reduce market sentiment, create expectations of further price declines, and weaken demand. In the wake of rising public debt, the scope for fiscal support is limited. Hence, undesirable fiscal tightening may further impede economic activity. As a result, China's weak demand for goods and services of its trading partners causes a deterioration of their current account balances. Considering the scale and scope of the countries affected by the first round effects, the impact of the shock will transmit on the rest of the countries through the global supply chains. Additionally, the materialization of recessionary risks in China will somewhat dampen the initial increase in prices of oil products.

Given the risks, the Fed and ECB will keep the monetary policy unchanged by the end of 2024, and will tighten further the following year in response to rising inflation expectations. The maintenance of tightened global financial conditions for such a long time will facilitate the so-called neutral level to rise to a new, relatively high level. Such fundamental changes will lead to significant alterations in the potential for global economic growth, which will be reflected in a medium-term decline in global activity.

The ongoing structural changes and increased uncertainty in international markets will lead to risk reassessments by investors, which will lead to outflow of capital from emerging markets and developing economies, and placement in relatively less risky, more reliable assets. Increased interest rates in developed countries also contribute to the outflow of capital from the mentioned countries. The tightening of global financial conditions, the reorganization of trade flows caused by geopolitical factors, and the reduction of market efficiency will have an adverse impact on the economies of Georgia's trading partner countries, as well as Georgia.

Considering the deterioration of activity in trading partners, along with the arising obstacles regarding the trade flows, a decrease in external demand, as well as exports are expected, which will increase the Georgia's current account deficit. In the background of high uncertainty globally, along with the decreased trade inflows, additional foreign investments in Georgia are unlikely for the rest of this year, and the ongoing fundamental changes in trade and financial relations in the world will cause capital outflows from Georgia in the next year. As a result, Georgia's sovereign risk premium is increasing, and the local currency is depreciating, both against the US dollar and the currencies of trading partners. Due to the still high dollarization of loans, following the depreciation of the GEL and the prolongation of globally tightened financial conditions, the debt burden for foreign currency borrowers is increasing and their solvency is decreasing.

As a result of the depreciated local currency, deficits in various goods arising from trade restrictions, and increased prices for oil products, inflation will significantly increase in Georgia towards the end of 2024, which will further intensify in 2025, due to the maintenance of trade restrictions, along with capital outflows. In the wake of increased inflation and inflationary expectations, the National Bank will tighten the monetary policy this year. It will continue the tightening next year and will remain in a tightened state in the medium term.

Given the increased uncertainty regarding ongoing events, along with worsening expectations both globally, and in the country, the domestic demand in Georgia will decrease by the end of 2024. Additional pressure on domestic demand resulting from high inflation and tightened financial conditions, along with declining external demand, will significantly hinder economic activity. The suspension of foreign investment inflows in the country, together with the outflow of capital in the coming year will impair the production potential of the country. Both reduced demand and, due to limited access to funding sources, higher operating costs increase business vulnerability. Those less diversified companies, which mainly depend on the markets of the countries involved in conflicts and are under their direct influence, are particularly vulnerable. Against the backdrop of high uncertainty and deteriorating financial conditions, some businesses with solvency issues are reducing their production scale, while others are ceasing their operations and closing down. Both of these circumstances significantly increase the level of unemployment in the country, which further reduces the domestic demand and worsens the expectations of the medium term recovery of the business sector.

As a result, a large part of households and companies will have difficulties in servicing their existing debt, which will lead to an increase in credit risk. This will deteriorate the stability of the domestic financial system. Against the backdrop of existing risks and deteriorating expectations of economic recovery in the medium term, financial companies will tighten credit conditions, which will limit the issuance of new debt. Given the volatile environment in the country, high unemployment and tighter credit conditions, real estate activity will decrease in the medium term. At the initial stage, due to the increase in intermediate costs, real estate prices will also increase. However, the attractiveness of Georgian real estate as an investment asset is decreasing, which will significantly increase the demand-supply mismatch in the real estate market. As a result, real estate prices expressed in GEL will increase due to high inflation, whereas the prices expressed in US dollars will fall due to large depreciation. This will affect the balance sheets of financial institutions, and if the impact turns out to be substantial, then the recovery of the economy will be delayed even more.

Summary of Macroeconomic Scenarios

Scenario	Baseline	Upside (Improved Domestic and International Environments)	Adverse (Fundamental Changes in the Global Markets)
Fed Funds Rate	2024*: -0.25 pp (compared to the current level) 2025: -1.0 pp 2026: -1.0 pp	2024*: -0.5 pp (compared to the current level) 2025: -1.0 pp 2026: -1.25 pp	2024*: +0.0 pp (compared to the current level) 2025: +0.5 pp 2026: -1.0 pp
ECB Policy Rate	2024*: -0.5 pp (compared to the current level) 2025: -0.75 pp 2026: -0.5 pp	2024*: -0.75 pp (compared to the current level) 2025: -1.0 pp 2026: -0.5 pp	2024*: +0.0 pp (compared to the current level) 2025: +0.75 pp 2026: -0.5 pp
Change in Country Sovereign Risk Premuim**	2024: +0.0 pp (compared to 2023) 2025: +0.15 pp 2026: +0.25 pp	2024: -0.1 pp (compared to 2023) 2025: +0.0 pp 2026: +0.0 pp	2024: +0.4 pp (compared to 2023) 2025: +1.5 pp 2026: -0.5 pp
GEL/USD Nominal Exchange Rate	2024*†: Unchanged 2025††: Unchanged 2026: Unchanged	2024*†: Appreciation 5% 2025††: Appreciation 2% 2026: Unchanged	2024*†: Depreciation 10% 2025††: Depreciation 12% 2026: Appreciation 5%
Nominal Effective Exchange Rate (NEER)	2024*†: Unchanged 2025††: Unchanged 2026: Unchanged	2024*†: Appreciation 3% 2025††: Appreciation 1% 2026: Unchanged	2024*†: Depreciation 6% 2025††: Depreciation 8% 2026: Appreciation 3%
Real GDP Growth (YoY)	2024: 5.6% 2025: 5.0% 2026: 5.0%	2024: 6.0% 2025: 7.0% 2026: 5.5%	2024: 5.0% 2025: -2.0% 2026: 3.0%
Change in Unemployment Rate	2024: -1.9 pp 2025: +0.0 pp 2026: +0.0 pp	2024: -2.4 pp 2025: -1.0 pp 2026: +0.0 pp	2024: -1.4 pp 2025: +4.0 pp 2026: +0.0 pp
CPI Inflation (YoY)	2024: 1.5% 2025: 4.0% 2026: 2.6%	2024: 2.0% 2025: 4.0% 2026: 3.0%	2024: 3.5% 2025: 8.0% 2026: 7.0%
Change in Real Estate Prices (expressed in GEL, YoY)	2024: 7.5% 2025: 7.0% 2026: 5.5%	2024: 8.0% 2025: 10.0% 2026: 7.0%	2024: 6.5% 2025: 6.0% 2026: 5.0%
Monetary Policy Rate (%)†††	2024*: -0.2 pp (compared to the current level) 2025: -0.6 pp 2026: -0.5 pp	2024*: -0.25 pp (compared to the current level) 2025: -0.5 pp 2026: -0.75 pp	2024*: +0.25 pp (compared to the current level) 2025: +1.75 pp 2026: -0.5 pp

Note: Current levels correspond to the publication date of these scenarios. The numbers represent annual average changes, unless otherwise specified.

* The assumption is made for the remaining period of the year.
** JPMorgan EMBI Global Georgia Sovereign Spread; Source: Bloomberg.
† Average level prevailing in the two-week period ending on the cut-off date of 27 June 2024.
†† Compared to the December average of the previous year.
††† The assumption shows the change over the course of the year.

Appendix

Dynamics of Main Domestic Variables

Figure 1. CPI Inflation (YoY, %)

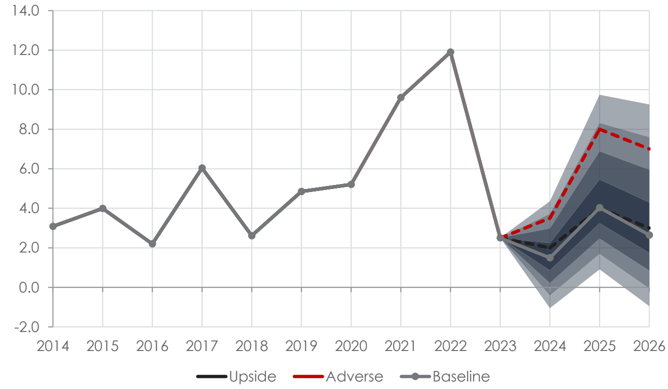


Figure 2. Real GDP Growth (YoY, %)

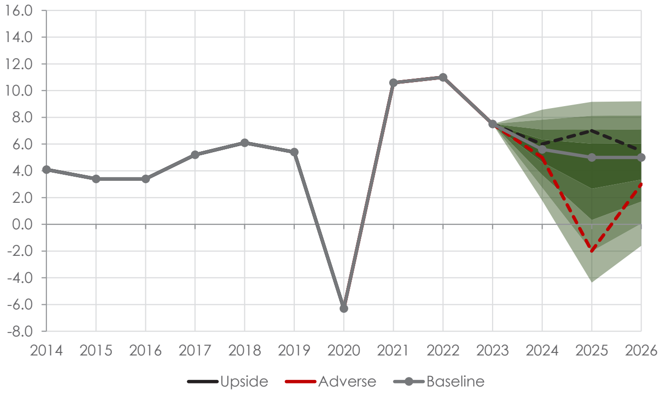
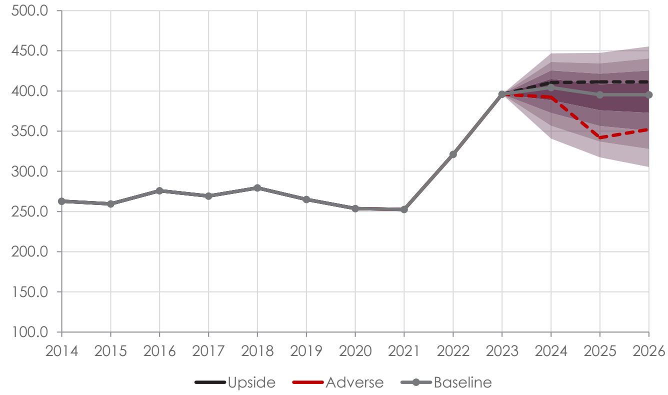
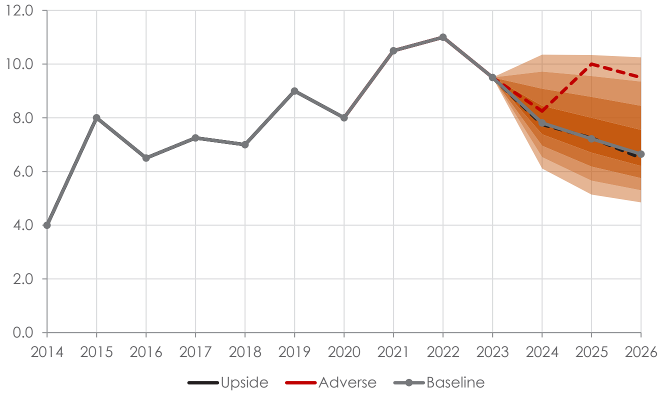


Figure 3. Nominal Effective Exchange Rate, NEER**



** 1995=100; Increase means appreciation

Figure 4. Monetary Policy Rate* (%)



	Hystory													Scenario								
														Baseline			Upside			Adverse		
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2024	2025	2026	2024	2025	2026
CPI Inflation (YoY, %)	8.7	-0.9	-0.5	3.1	4.0	2.2	6.0	2.6	4.9	5.2	9.6	11.9	2.5	1.5	4.0	2.6	2.0	4.0	3.0	3.5	8.0	7.0
Monetary Policy Rate (%) *	6.75	5.25	3.75	4.0	8.0	6.5	7.25	7.0	9.0	8.0	10.5	11.0	9.5	7.8	7.2	6.7	7.75	7.25	6.5	8.25	10.0	9.5
Real GDP Growth (YoY, %)	7.9	6.6	5.1	4.1	3.4	3.4	5.2	6.1	5.4	-6.3	10.6	11.0	7.5	5.6	5.0	5.0	6.0	7.0	5.5	5.0	-2.0	3.0
Nominal Effective Exchange Rate, NEER (1995=100)	238.4	254.1	254.0	262.9	259.5	275.9	269.3	279.4	265.0	253.8	252.6	321.1	395.9	404.4	395.4	395.4	410.4	411.3	411.3	392.3	341.9	352.2

Note: Data is annual average unless otherwise indicated.

The scenarios are based on the latest available data and the corresponding assumptions on exogenous variables. Thus, during each update, as new information becomes available scenarios are expected to change. The dynamics of the variables presented in the scenarios should not be perceived as the target of the National Bank of Georgia (e.g., the interest rate, the exchange rate, etc.).

* The numbers show the end-of-year values.