საქართველოს ეროვნული ბანკი
National Bank of Georgia

Macroeconomic Forecast 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) welcomes this amendment and believes that it 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 IFRS 9 by financial institutions, starting from 2018 the NBG regularly publishes macroeconomic and financial forecasts and risk scenarios. The estimates provided within these scenarios can be used 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. Forecast scenarios are thus very likely to change when new information becomes available. The dynamics of the variables presented in the forecast 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.

The forecast horizon is three-four years and the scenarios are updated twice a year. The scenarios describe the macroeconomic situation in the country and cover all of the main macroeconomic variables. However, not all of these variables require inclusion in the credit loss assessment model.

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 is based on the latest issue of the Monetary Policy Report, economic activity remains at the current trend in the following years. The balance of trade in goods and services continues to improve and it is expected to contribute positively to real GDP growth. Domestic demand is also expected to catch up due to accelerated fiscal spending on infrastructure projects. However, the positive impacts of improvements in net exports and strong fiscal stimulus are partially offset by tightened monetary policy amid rising inflation. According to the baseline forecast, real GDP annual growth will be 4.5% in 2020. Over the medium term, as the impact of the external shocks fades and the monetary policy rate declines to its neutral level, the growth is expected to improve and reach 5% (see Diagram 2). The higher economic growth will cause unemployment to fall.

The baseline scenario assumes gradual convergence of headline inflation to its target. Headline inflation will remain above the 3% target in the first half of 2020 due to higher contributions of imported inflation and intermediate costs stemming from the recent exchange rate depreciation. Afterwards, inflation is expected to decrease below its target in response to tightened monetary policy. In the medium term, improved economic activity together with dissipated pressures from the effective exchange rate will support close-to-target inflation rate (see Diagram 1). Real estate prices in GEL will rise proportionally to inflation.

In this scenario, the US dollar LIBOR rates remain unchanged during 2020. In the longer run, the FED Funds Rate is expected to increase only by 0.75 percentage points. The scenario also considers a delayed policy normalization by the European Central Bank as a response to weaker confidence. Correspondingly, the ECB policy rate is expected to remain unchanged during 2020 and increase thereafter by 1 pp throughout 2021-2022.

In the baseline scenario, the nominal effective exchange rate remains at its current level in the following years (see Diagram 3). GEL/USD exchange rate will also stay stable.

Monetary policy remains tight in the baseline scenario. In order to curb increased inflation expectations, the NBG has increased the monetary policy rate to 9%. The increased expectations are driven by nominal effective exchange rate depreciation and increased pass through of exchange rate to inflation in recent periods. In accordance with the current macroeconomic forecast, the tightened monetary policy is deemed to drive inflation back to the target and the policy rate is expected to go back to its neutral level in the medium term (see Diagram 4).

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 on expert judgement. The upside scenario considers a more rapid recovery of the economy compared to the baseline scenario, while the adverse scenario focuses on negative shocks. It should also be noted that the alternative scenarios do not consider risks associated with fiscal and/or other macroeconomic policies.

Upside Scenario

The upside scenario considers faster economic growth compared to the baseline, which is mainly due to stronger demand. The growing demand is predominantly driven by increasing export of goods and services. Consequently, the current account improves considerably as the exports and international travel receipts exhibit higher growth compared to the baseline scenario. Domestic demand also increases in light of improvements in business and consumer sentiment.

In line with stronger demand, real GDP growth is high and unemployment is declining. The negative output gap closes at a faster pace due to higher than potential economic growth and, and thus it creates moderate inflationary pressures. However, this impact is partially dampened by lower pressure on import prices and intermediate costs driven by improved external balance.

In the upside scenario, FED and ECB policy rates follow their baseline trajectories. GEL effective exchange rate as well as the bilateral GEL/USD exchange rate tend to appreciate due to the improvements in current account and overall market sentiment. Given the anticipated increase in foreign currency inflows in 2020, the GEL gains in value against the US dollar by 5%, and then by another 5% in 2021.

In order to reduce the inflationary pressure caused by the strong demand, monetary policy remains tight for a longer period compared to the baseline scenario. In the medium term, the policy rate returns to its neutral level as the inflationary pressure dissipates.

Adverse Scenario

The adverse scenario considers increased political and economic tensions in the region coupled with global growth slowdown. The recently heightened tensions in the Middle East result in increased risks in the region. This may cause a repricing of risks and subsequent reversal in capital inflows. In addition, the tension-fueled oil-price swings can adversely affect domestic prices, especially in oil-importing countries. On the global front, continued trade tensions among the world's largest economies and policy uncertainty in developed countries can cause further slowdown in global growth. Emerging markets are particularly vulnerable to this scenario as they face risk repricing and corresponding reversal of capital flows. Against the backdrop of stalled monetary policy normalization in developed countries, risk-free interest rates are not expected to increase. However, financial conditions can still tighten in the region mostly due to increased risk premia.

The continued economic instability in the region can cause current account deterioration as the major sources of inflows including travel receipts, export of goods and foreign direct investment will be affected negatively. This impact can be amplified by lower demand from other external markets due to global growth slowdown. Accordingly, the adverse scenario assumes GEL depreciation against US dollar by 15% throughout 2020-2021. Along with economic recovery starting from 2022, the GEL depreciation is revered by 5%. The depreciation of nominal effective exchange rate is relatively moderate as the exchange rates of the trading partners are also affected by the adverse regional developments. In the adverse scenario, increased risks in the region and significantly deteriorated macroeconomic fundamentals cause an upward revision in the country risk premium by 3 pp in the following years.

The external shocks considered in the adverse scenario would cause a deceleration of real GDP growth by 4 pp relative to the baseline throughout 2020-2022. CPI inflation will remain above the target due to higher import prices including oil products and also increased foreign currency debt service costs caused by the exchange rate depreciation. However, the increase in inflation is partially muted by weak demand. In order to anchor inflation expectations, monetary policy remains tightened for longer compared to the baseline. In the adverse scenario, lower expected rent income associated with the reduced number of international visitors as well as a weaker performance of the overall economy would cause real estate prices expressed in GEL to remain at the current level during 2020 and then increase gradually in the following periods. Over the medium term, flexibility of the exchange rate facilitates economic recovery by improving the current account position.

Summary of Macroeconomic Forecast Scenarios

Scenario	Baseline	Upside (Strong Demand)	Adverse (Negative External Shock)
FED Funds Rate	2020: +0.0 pp 2021: +0.25 pp 2022: +0.5 pp	2020: +0.0 pp 2021: +0.25 pp 2022: +0.5 pp	2020: +0.0 pp 2021: +0.0 pp 2022: +0.25 pp
ECB Policy Rate	2020: +0.0 pp 2021: +0.5 pp 2022: +0.5 pp	2020: +0.0 pp 2021: +0.5 pp 2022: +0.5 pp	2020: +0.0 pp 2021: +0.0 pp 2022: +0.5 pp
Change in Country Sovereign Risk Premuim*	2020: +0.0 pp 2021: +0.0 pp 2022: +0.0 pp	2020: -0.5 pp 2021: +0.0 pp 2022: +0.0 pp	2020: +2.0 pp 2021: +1.0 pp 2022: +0.0 pp
GEL/USD Nominal Exchange Rate	2020: Unchanged 2021: Unchanged 2022: Unchanged	2020: Appreciation 5% 2021: Appreciation 5% 2022: Unchanged	2020: Depreciation 10% 2021: Depreciation 5% 2022: Appreciation 5%
Change in Real Estate Prices (expressed in GEL, YoY)	2020: 4.5% 2021: 2.5% 2022: 3.0%	2020: 4.5% 2021: 3.5% 2022: 3.0%	2020: +0.0% 2021: +3.0% 2022: +3.0%
Real GDP Growth (YoY)	2020: 4.5% 2021: 5.0% 2022: 5.0%	2020: 5.5% 2021: 6.0% 2022: 5.0%	2020: 2.5% 2021: 3.5% 2022: 4.5%
Change in Unemployment Rate	2020: +0.0 pp 2021: -0.3 pp 2022: -0.3 pp	2020: -0.5 pp 2021: -0.7 pp 2022: -0.3 pp	2020: +1.0 pp 2021: +1.0 pp 2022: +0.0 pp
CPI Inflation (YoY)	2020: 4.5% 2021: 2.5% 2022: 3.0%	2020: 4.5% 2021: 3.5% 2022: 3.0%	2020: 7.0% 2021: 5.0% 2022: 3.0%
Monetary Policy Rate (%)	2020: -1.0 pp (compared to the current level) 2021: -1.5 pp 2022: -0.5 pp	2020: -1.0 pp (compared to the current level) 2021: -1.0 pp 2022: -0.5 pp	2020: + 0.5 pp (compared to the current level) 2021: -1.0 pp 2022: -1.0 pp
Nominal Effective Exchange Rate (NEER)	2020: Unchanged 2021: Unchanged 2022: Unchanged	2020: Appreciation 3% 2021: Appreciation 3% 2022: Unchanged	2020: Depreciation 6% 2021: Depreciation 3% 2022: Appreciation 3%

Note: Current level corresponds to the end of December 2019.

*JPMorgan EMBI Global Georgia Sovereign Spread; Source: Bloomberg

Appendix

Forecast Dynamics for Main Domestic Variables

Figure 1. CPI Inflation (YoY, %)

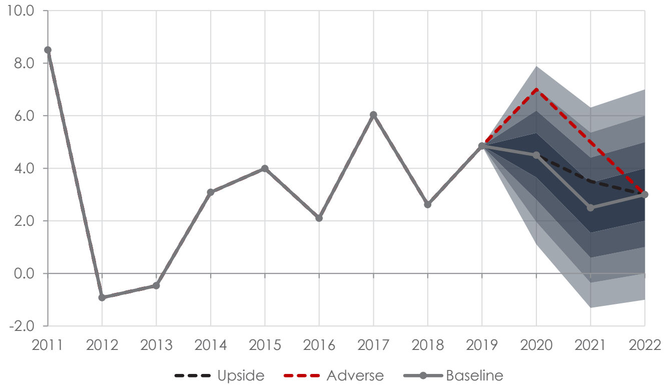


Figure 2. Real GDP Growth (YoY, %)

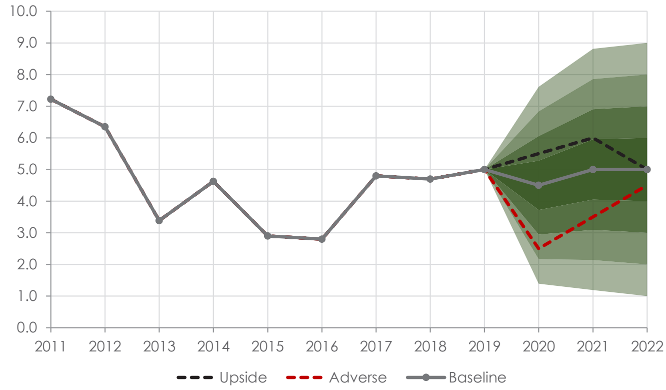
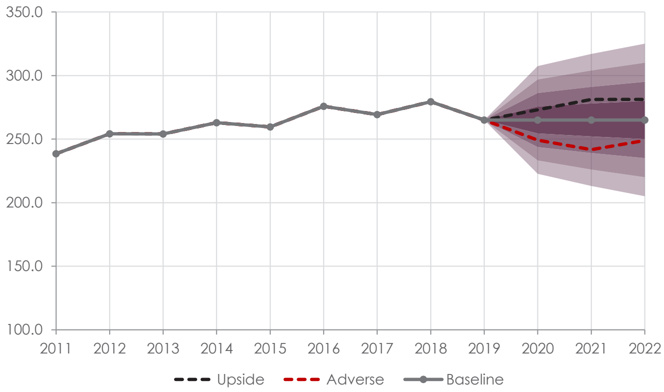
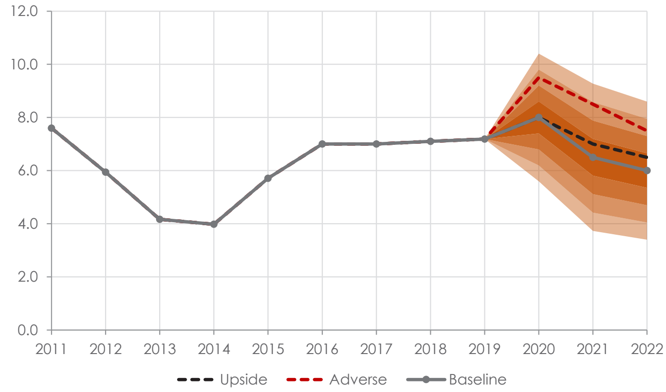


Figure 3. Nominal Effective Exchange Rate, NEER*



* 1995=100; Increase means appreciation

Figure 4. Monetary Policy Rate (%)



	History									Forecast Scenarios								
										Baseline			Upside			Adverse		
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2020	2021	2022	2020	2021	2022
CPI Inflation (YoY, %)	8.5	-0.9	-0.5	3.1	4.0	2.1	6.0	2.6	4.9	4.5	2.5	3.0	4.5	3.5	3.0	7.0	5.0	3.0
Monetary Policy Rate (%)	7.60	5.9	4.2	4.0	5.7	7.0	7.0	7.1	7.2	8.00	6.5	6.0	8.00	7.00	6.50	9.50	8.50	7.50
Real GDP Growth (YoY, %)	7.2	6.4	3.4	4.6	2.9	2.8	4.8	4.7	5.0	4.5	5.0	5.0	5.5	6.0	5.0	2.5	3.5	4.5
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	265.0	265.0	265.0	273.0	281.2	281.2	249.1	241.7	248.9

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 forecast scenarios should not be perceived as the target of the National Bank of Georgia (e.g., the interest rate, the exchange rate, etc.).