Financial market participants have revised their expectations for economic growth upward compared to the beginning of the year.

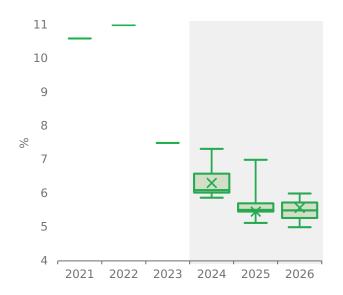


Figure 2.4.3. Actual real GDP growth (2021-2023) and the distribution of market participants' forecasts for 2024-2026

Source: NBG, financial market participants, GeoStat

a rate between 5% and 5.5%, which is similar to the previous guarter's expectations (see Figure 2.4.3).

Traditionally, in the second quarter of each year, when the official statistics for all three variables are made available on the websites of the National Bank of Georgia and GeoStat, the National Bank of Georgia announces the best forecaster organization based on the previous year's results. The indicator used to evaluate the accuracy of the forecasts is an average root mean square error (RMSE) and the organizations with the lowest RMSE are named the best forecasters. Having evaluated the results of 2023, the NBG revealed that the forecasts provided by TBC Capital were distinguished as having the smallest RMSE.

## BOX 2. STRUCTURAL CHANGES IN THE POST-PANDEMIC PERIOD AND THEIR IMPACT ON POTENTIAL GDP

Potential Gross Domestic Product (GDP), also known as natural GDP or full-employment GDP, is the level of output where the economy operates at full capacity without creating inflationary pressures. Assessing potential GDP is crucial for monetary policymakers. When aggregate demand exceeds the economy's potential, prices tend to rise, and vice versa. Since monetary policy aims to neutralize the impact of demand on inflation, deviations of aggregate demand from potential GDP (the output gap) are a key indicator for setting the monetary policy rate.

The biggest challenge in estimating potential GDP is its inability to be directly observed. Therefore, to estimate it economists rely on various data and models. The Cobb-Douglas production function—one of the mainstream approaches employed—is a model that breaks down economic output into its key components: productivity  $(A_t)$ , capital stock  $(K_t)^{13}$ , and employment  $(L_t)$ . We use this model to assess long-term economic potential.

The commonly accepted assumption is that these factors (capital, labor, and productivity) produce final output  $(Y_t)$  using the Cobb-Douglas function  $Y_t = A_t K_t^{\alpha} L_t^{(1-\alpha)}$ . Potential GDP is estimated based on observable data on investments (therefore, capital) and employment, using the Kalman filter. To ensure robust results, capital stocks are recalculated for different depreciation rates (4%, 5%, or 6%). This study presents the findings based on a 5% depreciation rate. In addition to estimating potential GDP and the output gap, the study analyzes the contributions of productivity, capital, and labor to potential GDP growth.

<sup>13</sup> Since capital stock data are not directly available, we estimate these using the perpetual inventory method, which relies on factual investment data. A detailed discussion of this method can be found in a 2017 edition of the National Bank of Georgia's journal Economics and Banking (Volume 5, No. 1). For the methodology used in this study, we refer to the paper "Assessment of Potential Growth for the Georgian Economy" by Akaki Liqokeli (2017).

<sup>14</sup> The equation  $Y_t = A_t K_t^{\alpha} L_t^{(1-\alpha)}$  represents the aggregate production function, where  $\alpha$  is the elasticity of output with respect to capital. We used different values of  $\alpha$  in the study: 0.3, 0.4, 0.5 and 0.6. In the baseline model,  $\alpha$  is set to 0.4.



Figure 2.4.4. (Logarithm of) Factual real GDP and potential GDP level

Source: GeoStat, NBG estimates

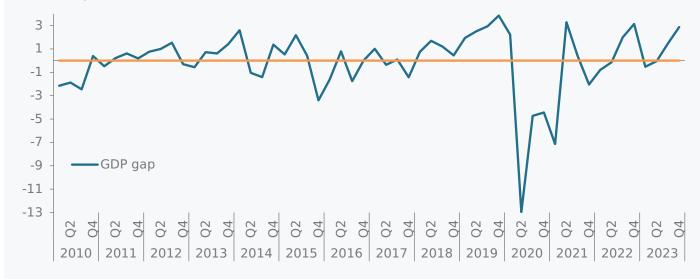


Figure 2.4.5. Real GDP gap (percentage deviation of real GDP from its potential level)

Source: GeoStat, NBG estimates

The COVID-19 pandemic was the first major economic shock in recent years that challenged the global economy. The restrictions imposed to contain the virus worldwide quickly reduced aggregate demand in Georgia as well. Along with this decline, the growth of the economy's overall potential slowed down for a range of reasons (see Figure 2.4.4). Disruptions in supply chains forced manufacturers to seek new trade routes and suppliers, causing significant delays and reducing productivity growth. Meanwhile protectionist policies and signs of de-globalization during this period may have further exacerbated production difficulties.<sup>15</sup>

The slowdown in potential growth was accompanied by declines in both employment and investments (and thus in capital accumulation). The COVID-19 restrictions hit the service sector hardest, resulting in significant disruptions to service production and job losses. Since a significant portion of Georgia's economy relies on services, the labor factor made a negative contribution to potential growth in 2020 (see Figure 2.4.6), while the contributions of productivity and capital were also quite low. However, while potential growth slowed, the shock to aggregate demand was much stronger, resulting in a significant output gap of -5% in 2020 (see Figure 2.4.5). This negative gap persisted until the second quarter of 2021. However, as restrictions eased, economic activity surged in the second quarter as a consequence of pent-up demand, thereby pushing the gap into positive territory.

<sup>15</sup> The European Central Bank also mentions similar challenges (source).



Figure 2.4.6. Decomposition of potential GDP growth

Source: GeoStat, NBG estimates

At the beginning of 2022, Russia's invasion of Ukraine triggered strong migratory flows to Georgia, which were followed by a gradual relocation of investments in the information and computer services (IT) sector. Additionally, relatively higher wages made employment in that sector more attractive in the post-pandemic period. Consequently, part of the workforce moved from less productive sectors to the higher-productivity IT sector. This shift significantly increased the overall production potential of the economy. The IT sector's growth was positively reflected in service export dynamics. Since early 2022, rising IT exports have helped narrow the current account deficit. This structural shift, driven by increased productivity (see Figure 2.4.6), has led to higher potential GDP growth. These structural changes have contributed to strong economic activity and productivity growth. However, while structural changes have significantly boosted potential GDP, this is only considered temporary and the long-term growth rate for the post-pandemic period is still estimated at around 5% annually.

Despite the higher growth potential of the overall economy in 2022-2023, actual demand increased even faster. In 2022, economic activity outpaced the potential level by approximately 1%, with this difference decreasing in 2023. It is anticipated that real economic activity will return to its potential level from 2024 onwards.