Macroeconomic Forecast

June 2024

BULGARIAN NATIONAL BANK

145 YEARS

MACROECONOMIC FORECAST

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The BNB quarterly Macroeconomic Forecast provides annual projections of major macroeconomic indicators for Bulgaria in the current and next two years. The macroeconomic forecast is prepared by the BNB Economic Research and Forecasting Directorate and does not necessarily reflect the views of the members of BNB Governing Council about the prospects for the development of the Bulgarian economy. Information regarding the forecast preparation procedure, as well as technical details on the macroeconomic forecasting model can be found in BNB Forecasting Function section of Economic Review, issue 4/2015, p. 67–70.

The Macroeconomic Forecast publication (June 2024) was presented to the BNB Governing Council at its 16 July 2024 meeting. It employs statistical data and information available as of 26 June 2024. The estimates and projections published in this issue should not be regarded as advice or recommendation. The information in the publication should be used exclusively at the user's risk.

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Please address notes, comments and suggestions to the Bulgarian National Bank, Economic Research and Forecasting Directorate at 1, Knyaz Alexander I Square, 1000 Sofia.

1, Knyaz Alexander I Square
1000 Sofia, Bulgaria

Website: www.bnb.bg

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Abbreviations

BNB	Bulgarian National Bank
CPI	Consumer Price Index
ECB	European Central Bank
EU	European Union
EWRC	Energy and Water Regulatory Commission
HICP	Harmonised Index of Consumer Prices
NHIF	National Health Insurance Fund
NRRP	National Recovery and Resilience Plan

Summary

The BNB forecast of key macroeconomic indicators is prepared as of 26 June 2024 based on assumptions about global economic developments, commodity price dynamics in international markets and money market interest rates in the euro area as of 6 June 2024.

According to the technical assumptions, the growth of external demand for Bulgarian goods and services in 2024 will be lower than projected in the March 2024 macroeconomic forecast. External demand for Bulgarian goods and services is assumed to increase by 1.6 per cent in 2024, before accelerating to 3.5 per cent in 2025 and 2026. Market participants' expectations point to a year-on-year decline in energy prices in euro in international markets over the whole projection horizon. However, given the expected increase in the prices of non-energy commodities over the same period, euro commodity prices weighted by importance for Bulgaria's international trade are expected to increase by around 2.5 per cent in 2024 and at rates between 2.4 per cent and 3.9 per cent in 2025 and 2026. Market participants expect that euro area short-term interest rates will continue declining over the whole projection horizon.

Bulgaria's real GDP growth is expected to stand at 2.1 per cent in 2024, driven by the positive contribution of domestic demand, while net exports and changes in inventories are expected to make a negative contribution. Domestic demand is projected to be supported mainly by private consumption growth in the context of rising labour income in real terms and higher government consumption. A major factor behind the acceleration in real GDP growth compared with the previous year is the expected decline in the negative contribution of inventories as observed in 2023. Net exports dynamics reflects the projected higher growth in imports of goods and services than that in exports. Real GDP growth is projected to accelerate to 3.2 per cent in 2025 before moderating to 2.9 per cent in 2026, with this dynamics being largely driven by the set profile of public investment and related imports.

Annual inflation is projected to decelerate to 2.2 per cent at the end of 2024 and average annual inflation to stand at 2.5 per cent. The main factors behind the moderation in inflation are mainly related to base effects from significant price hikes in core components and food groups in 2023, as well as to energy price decline as a result of the fall in international oil prices. The factors that will continue to exert upward pressure on prices in both the short and medium term remain the projected high rates of growth in unit labour costs and private consumption. As a result, core components, followed by food, are expected to make the largest positive contribution to headline inflation in 2024-2026. The HICP growth rate is expected to stand at 2.8 per cent at the end of 2025 (against an average annual inflation rate of 2.7 per cent) and to decelerate to 2.6 per cent at the end of 2026 (against an average annual inflation rate of 2.7 per cent).

Risks to the real GDP growth forecast are assessed as balanced for 2024, while for 2025 and 2026, risks of lower growth compared to that in the baseline scenario prevail given the ongoing global geopolitical conflicts. In addition, there are significant internal risks of slower than projected implementation of investment projects financed by both national and EU funds.

As regards the inflation forecast, upside risks to the projected increase in consumer prices over the whole projection horizon prevail. Such risks stem from the potential materialisation of higher energy and non-energy commodity prices in international markets than those set out in the technical assumptions. The possible slower and limited pass-through of the assumed lower international energy commodity prices to final consumer prices amid strong consumer demand and persistent increase in firms' labour costs are a prerequisite for higher than projected inflation. Another risk of higher than projected inflation stems from the potential higher increases in administratively controlled prices than projected in the forecast.

Forecast of key macroeconomic indicators for 2024–2026

External Environment

The BNB forecast of key macroeconomic indicators is prepared as of 26 June 2024 based on assumptions about global economic developments, commodity price dynamics in international markets and money market interest rates in the euro area as of 6 June 2024.

Assumptions about developments in external demand for Bulgarian goods and services are based on the latest European Central Bank (ECB) forecast[1]. It considers that global GDP growth in 2024 and 2025 will slow down to 3.3 per cent given the materialisation of the effects of monetary policy tightening and the gradual cooling of the labour market in advanced economies. Global trade growth is expected to accelerate in the second half of 2024 as a result of the exhausted negative effects of the inventory cycle adjustment, weaker demand and conflicts in the Middle East, which had a restrive impact on global trade flows in 2023 and early 2024. According to the ECB's forecast, global trade growth will remain below historical averages, supported by heightened geopolitical tensions and ongoing processes of trade fragmentation. The growth of foreign demand for Bulgarian goods and services in 2024 is assumed to be lower than projected in the March 2024 macroeconomic forecast. The assumptions imply that foreign demand for Bulgarian goods and services will increase by 1.6 per cent in 2024, before accelerating to 3.5 per cent in 2025 and 2026.

The assumptions for the price change in energy commodities (crude oil, natural gas, electricity)[2] and non-energy commodities[3] (metals,[4] food[5] and other commodities[6]) take into account prices of futures contracts concluded in international markets as of 5 June 2024. In recent years, these prices showed high volatility. Market participants expect the year-on-year decline in euro energy prices[7] in international markets to continue over the projection horizon. However, given the expected hike in non-energy commodity prices over the same period, the euro commodity prices weighted by importance for Bulgaria's international trade are assumed to increase by 2.5 per cent in 2024 and at rates between 2.4 per cent and 3.9 per cent in 2025 and 2026.

Following the increase in crude oil prices in euro over the second quarter, in 2024 the price of crude oil is assumed to stabilise at a level close

[1] For further details, see ECB staff macroeconomic projections, June 2024. The ECB forecast includes information on the global economy development as of 15 May 2024 and information on dynamics of euro area economic activity as of 22 May 2024.

[2] The assumption about price dynamics of petroleum products for the whole projection horizon is based on data on futures contracts traded in international markets. For natural gas, prices for futures supply contracts are also used up to the second quarter of 2025 (inclusive), after which a technical assumption is made that the price remains unchanged at the level reached by the end of 2026. It is assumed that the electricity price remains unchanged from the average level reached in the second quarter of 2024, as no public information on a sufficient volume and number of futures transactions is available for the projection horizon.

[3] Futures contracts concluded for trading of relevant commodities in international markets are used, with data available until the end of the second quarter of 2025 (inclusive). For the remainder of the projection horizon, no public information on a sufficient volume and number of futures contracts for these commodities in international markets is available, and dynamics of prices is therefore assessed by taking into account their historical relationship with global trade developments set out in the external assumptions of the forecast.

[4] Including steel, copper, aluminium, lead, zinc, nickel and tin weighted in accordance with Bulgaria's foreign trade flows.

[5] Including pigmeat, coffee, wheat, maize, rice, soybeans, sugar, cocoa, milk and livestock weighted in accordance with Bulgaria's foreign trade flows.

[6] Including rubber, timber and cotton weighted in accordance with Bulgaria's foreign trade flows.

[7] The forecast of euro commodity prices is based on a technical assumption about the euro/US dollar exchange rate, which is fixed for the whole forecast horizon at its average value for the last ten days as of the cut-off date of the external environment assumptions (6 June 2024). As a result of this technical assumption, in 2024 the euro/US dollar exchange rate remains broadly unchanged from 2023.

to the previous year's level and consequently decline on an annual basis in the remainder of the projection horizon. These price developments are likely to reflect the expected lower oil demand as well as the decision of OPEC+ participants to phase out crude oil production cuts after the third quarter of 2024.[8] Market participants expect a decline in average annual gas prices in the European market in 2024. Following the stronger price fall at the beginning of the year, the prices are assumed to rise on a quarterly basis in the third and fourth quarters of 2024, reflecting various factors, including seasonal ones, as well as the uncertainty stemming from the war in Ukraine. A technical assumption is made that natural gas prices in the European market from mid-2025 until the end of the forecast horizon will remain unchanged at its level of the second quarter of 2025, while the electricity price is assumed to remain unchanged until the end of the projection horizon at its level of the second quarter of 2024.

International prices in euro of non-energy products are assumed to be higher on an annual basis, mostly in 2024 and to a lesser extent in 2025, than assumed in the BNB March 2024 forecast. The increase in euro prices of non-energy products over these two years is expected to be most pronounced in food and metals, with price increases in these groups focused mainly on the following products: coffee, cocoa, meat, copper ore and aluminium. As a result, euro prices of non-energy products in international markets are expected to rise by around 4 per cent in 2024 and 2025 and thereafter their growth rate will slow down slightly to around 3.3 per cent in 2026.

The assumptions underlying the forecast take into account market participants' expectations as of 6 June 2024 showing a continued gradual decline in short-term interest rates in the euro area over the whole projection horizon.

[8] For further details, see the OPEC press release of 2 June 2024.

Economic Activity in Bulgaria

Available economic indicators[9] for April – May 2024 indicated some slowdown in the quarter-on-quarter growth of economic activity in Bulgaria in the second quarter of the year. Taking into account these data and the technical assumptions described above, we anticipate real GDP growth in Bulgaria to be 2.1 per cent in 2024 (compared to 1.8 per cent in 2023). Higher real GDP growth in 2024 will reflect mainly the contraction of negative contribution of changes in inventories[10], the continued growth of domestic demand at a rate similar to that of the previous year, as well as the shift of exports of goods and services from decline in 2023 to growth in 2024.[11] Household final consumption expenditure is projected to grow further, albeit at a slower pace, underpinned by growth in labour income in real terms, employment growth and by persistent increases in social transfers to households by the government. Other factors contributing to real growth in household spending are the continued strong lending activity and improved consumer confidence. Real growth in fixed capital investment is expected to slow down in 2024, reflecting the projected fall in public investment[12], due to the completion in 2023 of the implementation of pro-

[9] This refers to the following indicators: production indices in industry, construction and services; retail trade turnover index; unemployment rate; business climate and consumer confidence index; producer price index in industry; new loans to corporations and households; global PMI.

[10] The decrease in economic uncertainty as a result of the war in Ukraine, combined with declines in non-energy commodity prices and improvements in the functioning of global supply chains, led to a downward trend in accumulation of inventories in 2023 (a fall of 76.0 per cent in newly accumulated inventories in 2023 compared to growth of 297.6 per cent in 2021 and 28.9 per cent in 2022). While the macroeconomic forecast projects the size of the build-up of new inventories to continue declining in 2024, especially in the first half of the year, the negative contribution of this component to real GDP growth will be significantly lower than in 2023. For the 2025–2026 period, a technical assumption is made that the contribution of inventories to economic activity dynamics will be neutral.

[11] The shift from a decline to growth in exports of goods is expected mainly as a result of the exhausted negative effects of one-off country-specific factors limiting goods exports in 2023. The forecast includes a technical assumption of zero impact on production activity, volumes and prices of exports and imports of oil products, resulting from the decision of the Bulgarian Parliament to ban exports of petroleum products of Russian origin as of 1 January 2024 and imports and processing of Russian crude oil from 1 March 2024.

[12] The NSI does not provide official data on the breakdown of total investment into private and public investment in the economy. The series on private investment is constructed by the BNB as a difference between total investment and the estimated amount of public investment on an accrual basis in real terms. Public investment estimates for 2023 are based on quarterly non-financial accounts data on the general government sector as published by the NSI, while for the first quarter of 2024 data from the Consolidated Fiscal Programme (CFP) are used.

jects financed by EU funds during the 2014-2020 programming period and the start-up phase of the 2021-2027 programming period, characterised by a low absorption rate. At the same time, private investment is expected to grow in 2024, following a decline in the previous year, supported by the projected increase in final demand for Bulgarian goods and services, high level of capacity utilisation in some industrial sub-sectors and anticipated growth of credit to the private sector. Similar developments are projected for government consumption in real terms[13], which is also projected to shift from a decline in 2023 to an increase in 2024. Government consumption growth in 2024 is projected to be driven by higher government wage expenditure as set out in the forecast, in line with the information from the Convergence Programme of the Republic of Bulgaria for 2024–2027, as well as the BNB assumption for the growth of government intermediate consumption expenditure in 2024[14]. The contribution of net exports to economic activity in 2024 is expected to be slightly negative, owing to projected higher growth in imports compared to exports of goods and services. Growth of exports will be driven by the accelerated increase in external demand for Bulgarian goods as projected in the technical assumptions and by the exhausted negative impact of one-off country-specific factors limiting goods exports in 2023. The increase in imports will be determined by the projected growth of relevant components of final demand and BNB estimates of their import content, as the contraction of the negative contribution of changes in inventories, which are characterised by a high import content, will be essential for changing the imports dynamics compared to the reported downturn in 2023.

In 2025, real GDP growth is projected to accelerate to 3.2 per cent before moderating to 2.9 per cent in 2026. The economic activity dynamics will be driven by the profile of investment in fixed capital and related imports of goods and services, with investment projected to be supported in 2025 by the implementation of projects financed by EU funds, including under the National Recovery and Resilience Plan (NRRP)[15]. In addition, in the 2025–2026 period, government consumption growth in real terms is expected to continue albeit at a slower pace. The forecast of government consumption dynamics takes into account the information on intermediate consumption and wage expenditure projected in the Convergence Programme of the Republic of Bulgaria for 2024–2027. In 2025 and 2026, private consumption is expected to grow at rates similar to those of 2024, and this GDP component will continue to contribute most positively to the pick-up in economic activity. Labour market conditions play a leading role for projected dynamics of private consumption, as the expected increase in labour shortages for firms amid rising economic activity will continue to exert upward pressure on labour income growth at a rate which is higher than that of labour productivity and inflation. Despite the assumed improvement in external demand, the negative contribution of net exports is expected to increase in the period 2025–2026 as a result of higher imports of goods and services in line with the strong growth in fixed capital investment and final consumption expenditure, the latter being characterised by a high import content.

Balance of Payments

The current account balance is expected to be negative, with the deficit amounting to 0.5 per cent of GDP in 2024, rising gradually to 1.1 per cent of GDP in 2026. The dynamics of current account flows over the projection horizon will be driven mainly by the widening of the trade balance deficit due to the expected higher growth of goods imports than exports. At the same time, the surplus on trade in services is expected to stabilise as a percentage of GDP over the projection horizon, given the full recovery in the number of visits of foreign nationals to Bulgaria compared to that recorded before the outbreak of the COVID-19 pandemic. The net primary income deficit is projected to gradually narrow as a percentage of GDP compared to 2023 in line with the expected decrease in euro area interest rates over the 2024–2026 period. Over the forecast horizon, the capital account surplus as a percentage of GDP is expected to increase grad-

[13] A breakdown of government consumption components for the first quarter of 2024 is not available as of the cut-off date of the forecast. The macroeconomic forecast uses an assumption for individual components based on information from the CFP.

[14] Public wage growth is also partly reflected in the forecast of the annual growth of the government consumption deflator, and therefore, higher wages contribute to a limited extent to the change in government consumption in real terms in 2024.

[15] The expected acquisition of new fighter planes for the Bulgarian Air Force is expected to be another factor supporting investment activity growth in 2025. In the forecast, this acquisition has a neutral contribution to real GDP growth, as the acquisition costs are equally accounted for in government investment and in goods imports.

ually owing to the assumption of higher incoming EU capital transfers (including under the NRRP).

Labour Market

In 2024, employment in Bulgaria is projected to increase by 0.5 per cent, which is in line with the increase in economic activity over this period. Despite the projected real GDP growth over the remainder of the forecast horizon, the number of employed is expected to increase slightly, by 0.1 per cent in 2025, and to remain at a similar level in 2026 as a result of the ongoing unfavourable demographic developments in the country leading to a decline in the labour force. At the same time, the unemployment rate will continue to gradually decrease from 4.4 per cent in 2024 to 3.6 per cent in 2026, reflecting both an increase in economic activity and a decline in the working age population. Real labour productivity growth is projected to reach 1.5 per cent in 2024, before increasing to 3.2 per cent in 2025 and 2.9 per cent in 2026, in line with stronger GDP growth, with an increasingly tight labour supply in Bulgaria. Despite the slowdown in consumer price inflation, nominal compensation *per* employee growth is expected to remain high at 10.2 per cent in 2024. Factors that will support wage growth over this period include the pick-up in economic activity, the 19.6 per cent increase in the minimum wage since the start of the year, the rise in public sector wages and the continuing trend towards an increase in the share of firms reporting labour shortages as a factor constraining their activity. As a result of tight labour market conditions and rising labour shortages, the growth rate of compensation *per* employee is expected to remain higher than the projected increases in labour productivity and consumer prices, to stand at around 7.5 per cent in 2025 and 2026. This trend will support growth in households' real disposable income and thus private consumption over the entire forecast horizon. At the same time, higher wages will translate also into higher unit labour costs. Nominal unit labour cost growth is projected to be 8.5 per cent in 2024 and to moderate to 4.2 per cent in 2025 and to be 4.4 per cent in 2026. This dynamics is in line with the expectations for the change in compensation *per* employee.

Monetary Sector

The ECB monetary policy tightening cycle from 2022 to 2024, along with the BNB's 2023 increase in the minimum reserve requirement rate to 12 per cent, have a limited effect on interest rates on deposits and loans in the household sector amid continued high inflows of attracted funds, high liquidity and strong competition in Bulgaria's banking sector. Taking into account market expectations of ECB's policy rate developments and the assumption that the conditions in the domestic banking sector will remain unchanged, a slight increase in interest rates on new time deposits is expected, which will continue until the end of 2024 and will be more moderate than that projected in the previous BNB forecast of March 2024. In 2025 and 2026, interest rates on new time deposits are expected to remain close to the levels reached at the end of 2024. According to the forecast, interest rates on new loans to households will follow a slight upward trend over the forecast horizon, while interest rates on new corporate loans are expected to decline between the end of 2024 and the end of 2026, following the dynamics of euro area short-term money market interest rates.

The annual growth of non-government sector deposits is expected to remain high amid continued household preference for savings in the form of bank deposits, but to slow down to 8.4 per cent at the end of 2024 and further to 7.6 per cent and 7.5 per cent at the end of 2025 and 2026, respectively, in line with the projected slowdown in wage growth. The annual growth of credit to the non-government sector is expected to slow down to 11.0 per cent at the end of 2024 and further to 8.5 per cent and 7.9 per cent in 2025 and 2026 respectively, taking into account the expected lower inflation, the slowdown in private consumption growth and the expected lower growth in house prices.

Inflation

The projected inflation dynamics over the 2024–2026 period depends largely on the underlying technical assumptions for international prices of major energy and agricultural commodities, the projected degree and speed of their pass-through to final consumer prices of services and food, as well as on the effects of discretionary fiscal measures taken. While preparing the forecast information available as of 26 June 2024 is used for the following government measures: increases in excise rates on tobacco products as per the Law on Excise Duties and Tax Warehouses for 2024–2025[16]; termination of the reduced tax rates on the supply of bread and flour and on restaurant and catering services (0 per cent and 9 per cent VAT, respectively) and restoration of the standard VAT rate of 20 per cent as of 1 January 2025.[17]

Annual inflation is projected to slow down to 2.2 per cent at the end of 2024 and average annual inflation is expected to reach 2.5 per cent in 2024. In the short run the deceleration in inflation is expected to be driven mainly by the base effect of the high growth rates of prices in 2023 mainly in the services and food groups. Another factor that will contribute to the moderation in headline inflation is the projected decline in energy prices as a result of the forecast's technical assumptions for the decline in the international oil price. In line with the projected strong consumer demand and rising unit labour costs, food prices are expected not to follow closely international commodity price developments and to be passed on with a lag to services prices, leading to an acceleration in food and services inflation towards the end of 2024. As a result, the food group is expected to make the largest positive contribution to headline inflation in late 2024, followed by services. The group of goods and services with administratively controlled prices and tobacco products is also expected to have a comparatively high positive contribution to inflation at the end of 2024 due to projected price increases in electricity[18], water supply and sewerage services of some companies and in excise duties on tobacco products in accordance with the approved excise calendar. Nonetheless, the positive contribution of administered prices at end-2024 is anticipated to be significantly lower than that at end-2023, reflecting falls in the prices of some medicinal products[19] and a projected drop in heating prices[20] for households.

The rate of increase in consumer prices is projected to accelerate to 2.8 per cent at end-2025 and to stand at 2.6 per cent at end-2026, with average annual inflation expected to be close to these values at 2.7 per cent. The inflation forecast reflects both technical assumptions for international food and energy price dynamics and expectations of domestic pro-inflationary factors coming from the labour market and rising labour costs of firms. Core components and food are expected to contribute most positively to headline inflation in the medium term, in line with the projected ongoing pressure on firms' costs stemming from rising unit labour costs and a low propensity to pass on the falls in international energy commodity prices to domestic final consumer prices in the context of strong consumer demand. For 2025–2026, an assumption is made that administered prices will rise in line with the projected dynamics of firms' labour costs, with an exception to this approach for regulated central gas supply prices[21] and those of tobacco products and water supply and sewerage services[22]. The growth rate of administratively controlled prices thus obtained is increased further on an expert basis to include the average estimated error observed historically in the group's inflation[23].

[16] The excise duty calendar was adopted by the Law on Amendment to the Tax and Social Insurance Procedure Code (published; Darjaven Vestnik, issue 100 of 16 December 2022 , available only in Bulgarian).

[17] The period of validity of the reduced VAT rates for the supply of bread and flour (published; Darjaven Vestnik, issue 42 of 14 May 2024) and the supply of restaurant and catering services (published, Darjaven Vestnik issue 106 of 22 December 2023) were extended until 31 December 2024 in the Law on Value Added Tax (available only in Bulgarian). The forecast assumes that, in the event of a restoration of the standard VAT rate, the effect of the increase would be fully passed on to final consumer prices in the relevant sub-groups.

[18] The proposal for the electricity price (available only in Bulgarian) for the new regulatory period was published by the EWRC on 13 June 2024, subject to confirmation on 30 June 2024. The forecast foresees a price increase of 1.39 per cent on average for Bulgaria, expected to enter into force from 1 July 2024.

[19] On 7 March 2024, the Supervisory Board of the National Health Insurance Fund (NHIF) approved (available only in Bulgarian) a change in reimbursement levels for certain medicinal products included in the positive drug list. This Decision was approved on 21 March 2024 by the National Council on Prices and Reimbursement of Medicinal Products and entered into force on 1 April 2024; the complete list of medicines and co-payments for various medicines by the NHIF were published by the Ministry of Finance (available only in Bulgarian).

[20] The proposal for the heating price (available only in Bulgarian) for the new regulatory period was published by the EWRC on 13 June 2024, subject to confirmation on 30 June 2024. The forecast foresees a price decrease of 8.44 per cent on average for Bulgaria, expected to enter into force from 1 July 2024. The forecast assumes that a larger part of the price decrease would be reported in November 2024 with the start of the heating season.

[21] The forecast includes a technical assumption that the price of central gas supply would follow dynamics of the natural gas price in international markets.

[22] The forecast envisages increases from 1 January 2024 in water supply and sewerage services prices approved by EWRC's Decision of 22 December 2023 on changes of services prices in the business plans of 26 water supply and sewerage companies in Bulgaria. Regarding Sofia Water Supply and Sewerage EOOD, an exception is made along with an assumption that the approved increase in services prices would enter into force in the third quarter of 2024. The set price increase in water supply and sewerage services for 2025 is in line with the prices for household customers, as projected in the business plans of these companies.

[23] See the highlight 'Assessment of the Size and Factors Behind the Errors in the Inflation Forecasts in the Post-COVID-19 Pandemic Period', published in the June 2023 Macroeconomic Forecast.

Forecast revisions

Compared to the March 2024 macroeconomic forecast, current expectations are for slightly lower real GDP growth in 2024–2025 and higher growth in 2026. The main drivers for the revision in the GDP forecast and its main components are related to incoming additional reporting data on economic activity in the first quarter of 2024 and in April–May 2024, taking into account information from the published Convergence Programme of the Republic of Bulgaria for 2024–2027 and changes in the technical assumptions for the external environment.

For 2024, real GDP growth is revised downwards by 0.1 percentage points, driven by the projected lower positive contribution of domestic demand compared to the March 2024 forecast and the anticipated negative contribution of inventories against a neutral contribution in the previous forecast. This revision is only partly offset by an expected less negative contribution of net exports of goods and services. As regards domestic demand components, revisions have been made towards lower growth in fixed capital investments, but with higher growth in private consumption compared to the March 2024 forecast. These developments are largely affected by new incoming data on the economic development in Bulgaria. The revised contribution of net exports to GDP changes in 2024 is determined by lower growth of imports of goods and services resulting from weak reporting data for the first quarter of 2024, as well as by the revision of domestic demand components and inventories changes in the economy, taking into account BNB's estimates of their import content. At the same time, the effect of projected weaker imports growth is partly offset by expected lower growth of exports of goods and services in 2024 compared to the previous macroeconomic forecast.

Real GDP growth in 2025 is revised downwards by 0.1 percentage points, due to projected lower increase in fixed capital investments and higher services imports. The public sector contributed to the revision of fixed capital investments, mainly as a result of the projected

GDP and Inflation Forecast Revisions
(June 2024 Forecast *vis-à-vis* March 2024 Forecast)

Annual rate of change, per cent	Forecast as of June 2024				Forecast as of March 2024				Revision (percentage points)			
	2023	2024	2025	2026	2023	2024	2025	2026	2023	2024	2025	2026
GDP at constant prices	1.8	2.1	3.2	2.9	1.8	2.2	3.3	2.6	0.0	-0.1	-0.1	0.3
Private consumption	5.4	4.0	4.0	3.9	5.4	3.6	4.0	3.9	0.0	0.4	0.0	0.0
Government consumption	-0.4	2.9	2.5	2.4	-0.4	2.9	2.7	2.4	0.0	0.0	-0.2	0.0
Gross fixed capital formation	3.3	0.5	8.5	3.5	3.3	2.9	8.6	3.0	0.0	-2.4	-0.1	0.5
Exports (goods and services)	-1.9	2.3	3.7	3.6	-1.9	2.9	3.6	3.6	0.0	-0.6	0.1	0.0
Imports (goods and services)	-6.3	2.7	5.6	4.5	-6.3	4.5	5.2	4.6	0.0	-1.8	0.4	-0.1
HICP at end of period	5.0	2.2	2.8	2.6	5.0	2.3	2.7	2.7	0.0	-0.1	0.1	-0.1
Core inflation	5.3	2.3	3.3	2.9	5.3	3.3	3.2	3.1	0.0	-1.0	0.1	-0.2
Energy products	-0.6	-2.5	-1.0	-0.9	-0.6	-2.2	-1.0	-0.9	0.0	-0.3	0.0	0.0
Food	6.0	3.2	3.4	3.3	6.0	3.1	3.3	3.4	0.0	0.1	0.1	-0.1
Goods and services with administratively controlled prices and tobacco products	5.4	2.4	2.2	2.1	5.4	0.8	2.2	2.1	0.0	1.6	0.0	0.0

Source: BNB.

lower nominal amount of EU funds, expected to be used under the NRRP, reflecting delays observed so far in its implementation. An additional factor behind the projected lower growth of general government investments in real terms over 2025 is the expected higher growth of investment goods prices.

Economic activity growth in 2026 has been revised positively by 0.3 percentage points compared to the March 2024 macroeconomic forecast. This revision largely reflects the change in BNB's assumptions for the implementation of government investments under the NRRP. Although their projected nominal amount is lower for each year of the forecast horizon, the decline is more pronounced in 2025, leading to a base effect and a higher nominal growth rate of government investments in 2026 compared to the previous macroeconomic forecast.

The inflation forecast has been revised slightly towards lower growth of consumer prices at the end of 2024 (by -0.1 percentage points). By HICP sub-components, more significant revisions are made, which are broadly offset. An essential revision to a higher rate of increase in consumer prices (by 1.6 percentage points) is made in the group of goods and services with administratively controlled prices and tobacco products, reflecting latest reporting data and new information on heating and electricity supply prices for the new regulatory period. At the same time, core inflation has been revised towards lower price growth at the end of 2024 (by -1.0 percentage point) due to a faster-than-expected slowdown of inflation in the services sub-group, according to incoming data up to May 2024. As regards energy products, a slight revision has been made towards a larger decline in prices (by -0.3 percentage points) as a result of new reporting data up to May 2024. The revised forecast for inflation in the food group (by 0.1 percentage points at the end of 2024) is mainly due to the change in international food price assumptions and the assessment of the speed of their pass-through to final consumer prices in Bulgaria. Average annual inflation in 2024 is also revised downwards (from 3.0 per cent to 2.5 per cent), reflecting downward revisions in services and food prices due to incoming data, while administratively controlled price inflation is revised upwards.

The inflation forecast at end-2025 and at end-2026 has been slightly revised: to a higher increase (by 0.1 percentage points) and a lower increase (by -0.1 percentage points), respectively, in prices, mainly due to changed estimates of the magnitude and speed of the pass-through of wage growth and international agricultural commodity price increases to consumer prices of services and food.

Risks to the forecast

The baseline scenario of the forecast is characterised by high uncertainty about external developments due to ongoing military conflicts and increased geopolitical tensions globally. Taking into account the assumptions underlying the baseline scenario, risks to the real GDP growth forecast are assessed as balanced for 2024, while for 2025 and 2026, risks of lower real GDP growth in Bulgaria prevail.

The risks of lower economic activity stem from both global and domestic macroeconomic environment. As regards the international environment, these risks are associated mainly with the likelihood of a weaker foreign demand for Bulgarian goods and services amid further increasing global economic uncertainty, as well as higher than projected international commodity prices. Bulgaria's main domestic risk to the economic activity forecast stems from the possibility of a slower than projected implementation of investment projects financed by both national and EU funds. Risks of higher real GDP growth in Bulgaria are mainly associated with the likelihood of higher than projected private consumption growth, if households' propensity to consume is stronger than projected and in the event of higher than expected credit growth.

The uncertainty of the forecast for a particular indicator may be illustrated graphically by means of a fan chart. Chart bands of a particular colour indicate an interval within which the forecast value is expected to fall with a certain probability[24] (for more details, see the notes to the charts).

[24] The fan chart is constructed on the basis of the so-called asymmetric exponential distribution. To present the forecasting team's estimate of the uncertainty of projected values, it is necessary to estimate the general uncertainty of the forecast (by determining the dispersion σ of the distribution) and the so-called balance of risks (by determining the asymmetry parameter ν of the distribution), which indicates the direction in which the realised value is more likely to deviate from the projected value. The balance of risks is determined subjectively by the forecasters on the basis of possible changes in the structure of the economy, inaccuracies in the information available at the time of the forecast production, imperfections in forecasting methods employed, forthcoming economic policy decisions, *etc*. Historical data on the average forecast error made by the BNB experts when preparing previous forecasts are used to determine the general uncertainty to the forecast. For more details on the construction of the fan chart, see the highlights entitled Measurement and Presentation of Uncertainty in Forecasting Economic Indicators, Economic Review, issue 1 of 2012.

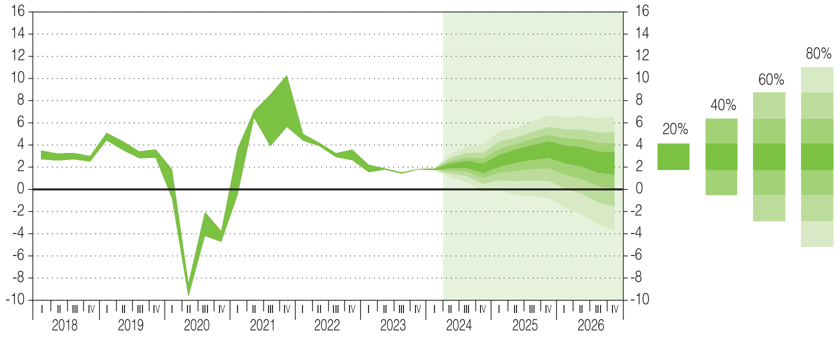
Usually, each interval widens with the increase in the forecast horizon, reflecting the increasing uncertainty further into the future. The middle band of the chart depicted in the darkest colour, includes the baseline scenario of the annual rate of change of real GDP and the probability distribution shows a 20 per cent probability for the actual value to fall within this band in each of the quarters. According to the chart the probability distribution for 2024 shows a 60 per cent probability for the real GDP annual rate of change to fall within the range from 1.2 per cent to 2.9 per cent.

Risks to the inflation forecast over the whole forecast horizon are assessed as oriented towards a stronger increase in consumer prices compared to the baseline scenario. These risks relate to the dynamics of external assumptions of energy and agricultural commodity prices in international markets underlying the forecast. A possible slower and limited pass-through of the assumptions of lower international energy commodity prices to final consumer prices amid strong consumer demand and a significant increase in firms' labour costs are a prerequisite for higher inflation. In addition, more frequent and stronger indexation of wages and social benefits would boost private consumption growth, prompting a pro-inflationary effect, in particular in the group of services. In the medium run, a risk of higher inflation in the group of goods and services with administratively controlled prices stems from the likelihood of the reversal of some of the approved price reductions for some medicinal products and the possibility of higher than projected increases in the baseline scenario in the regulated prices for water and sewerage services, natural gas, electricity and heat for household consumers.

The fan chart of inflation suggests that with a probability of 60 per cent annual inflation in consumer prices is expected to range between 0.5 per cent and 4.3 per cent at the end of 2024.

Fan Chart of the Expected Annual Rate of Change in Real GDP

(per cent)

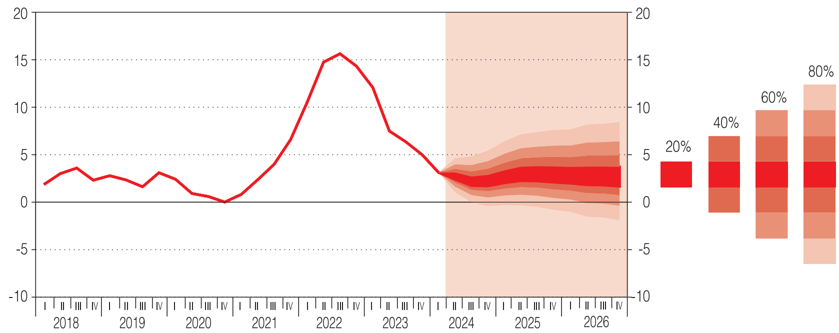


Notes: The chart provides historical series and annual real GDP growth forecast according to non-seasonally adjusted data. The fan chart shows expert views of the forecasters on the uncertainty surrounding the projected value based on a probability distribution. The reporting period includes revised GDP growth estimates, with the latest reporting periods revised on fewer occasions, thus narrowing the band. The middle band of the projected horizon chart, depicted in the darkest colour, includes the central projection and the probability distribution shows a 20 per cent probability for the actual value to fall in this band in each of the quarters. If neighbouring bands (in the same brighter colour) are added to the middle band, there would be a 40 per cent coverage of the probability mass. Thus, by adding each same colour couple of bands, the probability for the value to fall there would be increased by 20 percentage points to reach 80 per cent. The probability for the value to remain outside the coloured part of the chart is 20 per cent based on the distribution chosen.

Source: BNB.

Fan Chart of the Expected Annual Inflation at the End of the Period

(per cent)



Notes: The fan chart shows expert views of the forecasters on the uncertainty surrounding the projected value based on a probability distribution. The middle band of the chart, depicted in the darkest colour, includes the central projection and the probability distribution shows 20 per cent probability for the actual value to fall in this band in each of the quarters. If neighbouring bands (in the same brighter colour) are added to the middle band, there would be a 40 per cent coverage of the probability mass. Thus, by adding each same colour couple of bands, the probability for the value to fall there would be increased by 20 percentage points to reach 80 per cent. The probability for the value to remain outside the coloured part of the chart is 20 per cent based on the distribution chosen.

Source: BNB.

Forecast of Key Macroeconomic Indicators for 2024–2026

(per cent)

	2023	2024	2025	2026
Annual rate of change				
GDP at constant prices	1.8	2.1	3.2	2.9
Private consumption	5.4	4.0	4.0	3.9
Government consumption	-0.4	2.9	2.5	2.4
Gross fixed capital formation	3.3	0.5	8.5	3.5
Exports (goods and services)	-1.9	2.3	3.7	3.6
Imports (goods and services)	-6.3	2.7	5.6	4.5
HICP at end of period	5.0	2.2	2.8	2.6
Core inflation	5.3	2.3	3.3	2.9
Energy products	-0.6	-2.5	-1.0	-0.9
Food	6.0	3.2	3.4	3.3
Goods and services with administratively controlled prices and tobacco products	5.4	2.4	2.2	2.1
Employment	1.0	0.5	0.1	0.0
Unit labour costs	12.3	8.5	4.2	4.4
Labour productivity	0.9	1.5	3.2	2.9
Unemployment rate (share of labour force, %)	4.4	4.4	3.9	3.6
Claims on the non-government sector	12.2	11.0	8.5	7.9
Claims on corporations[1]	7.6	7.1	5.3	5.5
Claims on households	15.9	15.3	12.4	10.6
Deposits of the non-government sector	9.5	8.4	7.6	7.5
Share of GDP				
Balance of payments current account	-0.3	-0.5	-0.8	-1.1
Trade balance	-3.9	-4.8	-5.4	-5.7
Services, net	7.1	7.6	7.6	7.7
Primary income, net	-5.0	-4.6	-4.3	-4.2
Secondary income, net	1.5	1.3	1.4	1.1
Annual rate of change				
External assumptions				
External demand	0.6	1.6	3.5	3.5
Average annual Brent oil price (in USD)	-17.2	-0.4	-6.2	-4.1
Average annual price of non-energy products (in USD)[2]	-5.0	4.1	3.8	3.2
Brent oil price at the end of period (in USD)	-4.9	-5.0	-5.0	-3.7
Prices of non-energy products at the end of period (in USD)	1.3	6.9	3.4	3.1

[1] Data refer to non-financial corporations.

[2] Prices of non-energy products are weighted according to the structure of Bulgarian imports of goods.

Source: BNB.

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The sculptural composition by Kiril Shivarov depicting Hermes and Demeter on the southern façade of the Bulgarian National Bank building is used in cover design.