

5. BULGARIAN NATIONAL BANK FORECAST OF KEY MACROECONOMIC INDICATORS FOR 2017–2019

The BNB forecast of key macroeconomic indicators is based on data published as of 19 December 2017. ECB, EC and IMF assumptions on global economic developments and dynamics of major commodity group prices in international markets as of 13 December 2017 were used.

Global economic growth is expected to accelerate in 2017 and 2018 and subsequently to stabilise in 2019. Faster economic growth will be observed in developing economies, while in developed countries it will accelerate in 2017 compared to 2016 and slightly slow down in 2018 and 2019.

Taking into account global economic growth forecasts, external demand for Bulgarian goods and services is expected to accelerate in 2017 compared to 2016. In 2018 and 2019 external demand growth is anticipated to moderate on 2017. In view of the favourable economic and political dynamics in Bulgaria's major trading partners uncertainty about global economic developments subsided from the previous forecast. Risks of deviation in external environment developments from the assumptions used in forecast are assessed as balanced.

Following a significant rise in energy and non-energy commodity prices in 2017 on 2016 due to exhaustion of excess supply in international markets, prices in US dollar are expected to increase further though at lower rates in the 2018–2019 period. Non-energy product prices in euro will decline slightly in 2018 compared to 2017.

Real GDP growth in Bulgaria is expected to reach 4.0 per cent in 2017 compared with 3.9 per cent in 2016. It is anticipated to accelerate slightly to 4.2 per cent in 2018 and to decline again to 4.0 per cent in 2019. Domestic demand is projected to have the major positive contribution to real growth in the 2018–2019 period, leading to an increase in imports of goods and services. A faster increase in imports than in exports of goods and services will result in a negative contribution of net exports to overall growth. Risks to the outlook for economic activity in the baseline scenario are assessed as oriented towards higher growth in 2017 and balanced for the 2018–2019 period.

In 2018 and 2019 inflation is expected to increase gradually in line with the assumptions of upward dynamics of international prices and an anticipated rise in core inflation due to the exhausted effect of country-specific factors in 2017. Administratively controlled prices are expected to make a positive contribution to the overall inflation, reflecting the projected increase in excise duty on tobacco products and water supply prices in the 2018–2019 period. There are risks of higher than projected inflation in case of unexpected rise in administratively regulated prices and higher than expected international oil and commodity prices, which would impact the other inflation components.

International Environment and Prices

The BNB forecast of Bulgaria's macroeconomic indicators is based on data published as of 19 December 2017. ECB, EC and IMF assumptions on the global economic developments and dynamics of major commodity group prices in international markets as of 13 December 2017 were used. On the basis of these assumptions global economic growth in 2017 is expected to accelerate compared to 2016. The expectations are further supported by the positive trends in global economic indicators, trade, industrial output and investment. Both higher economic activity in developing countries and cyclical growth improvement in developed countries will contribute to accelerated global growth in 2017. In 2018 global economic growth is expected to accelerate compared with 2017 and to remain at its 2018 level in 2019. In 2018 and 2019 growth in developing economies will accelerate from 2017, while in the euro area and in developed economies it will slightly slow down. The expected dynamics of global economic activity will contribute to rising external demand for Bulgarian goods and services, which following an accelerated increase in 2017 compared with 2016, will continue to grow steadily over the projection horizon albeit at a slower pace than in 2017.

Rebalancing of major commodity supply and demand was observed on the international markets in 2017 resulting in a rise in international energy prices and in most non-energy product prices. The extension of the agreement on oil production cuts between OPEK and other major oil producers until the end of 2018 coupled with strict adherence to agreement parameters were the main factors behind the decrease in excess supply of petroleum products and the significant rise in energy product prices accordingly. In 2018 and 2019 international prices of petroleum products are expected to increase further though at lower rates than in 2017.

As regards non-energy products, metal prices posted the strongest annual growth in 2017. A decline in supply due to closure of inefficient capacities in China, in an effort to reduce air pollution in 28 cities in the north of the country, contributed most to the increase in their prices. An important factor behind higher metal prices over the year was the increasing demand driven by higher growth of global industrial output in US dollar. International prices of non-energy products in US dollars are expected to rise further in the 2018–2019 period while those in euro will slightly fall in 2018 compared to 2017, with a new increase in 2019.

Forecast

In 2017 real GDP growth is expected to accelerate from 2016 reaching 4.0 per cent on an annual basis. Growth will be largely due to domestic demand supported by its two components: consumption and gross fixed capital formation. As a result of growing demand for goods and services, imports are expected to accelerate their growth rate outpacing that of exports, with a negative contribution of net exports to overall growth.

By end-2019 real growth is projected to remain high, rising to 4.2 per cent in 2018, before slightly decelerating to 4.0 per cent in 2019. Domestic demand is expected to be the main engine of growth in 2018 and 2019. Private consumption will continue growing at a high rate driven by the increasing real disposable income of households and improving labour market conditions, thus retaining its significant positive contribution to overall growth until the end of the forecast horizon. The anticipated higher demand for goods and services, high capacity utilisation and optimistic business sentiment will contribute to the acceleration of private investment growth both in 2018 and 2019. Government consumption is also expected to increase in the 2018–2019 period mostly due to government's plans for wage increases, mainly in the education sector, according to the latest revision of the medium-term budget projections. Taking into account the relatively low levels of public investment in 2016–2017 and in line with the expectations for accelerated absorption of funds under EU programmes and reimbursement of national investment expenditure, the government investment dynamics would explain most of overall investment growth over the projection horizon. Therefore, government investment is expected to be the largest contributor to overall investment growth in 2018.

The rise in exports of goods and services in 2017 is expected to remain lower than in 2016 despite significantly higher external demand throughout the year. Slowdown in exports in 2017 is mainly due to services, where the high 2016 base played a key role because of the sizeable inflow of foreign tourists to Bulgaria. In 2018 real exports of goods and services are expected to accelerate its growth rate compared to 2017. This will be a result of recovered growth in exports of services driven by positive developments in global trade and economic activity of our major trade partners, and the exhausted base effect from the previous year. Concurrently, growth in exports of goods will moderate somewhat from 2017 in line with the anticipated slower growth of external demand. In 2019 real exports of goods and services are expected to decelerate on 2018 reflecting slower external demand. The rate of real growth in imported goods and services is anticipated to accelerate in 2017 and 2018 in line with growing domestic demand and, in particular, strengthening investment activity in Bulgaria. In 2019 growth in exported goods and services is projected to slow down following the external demand

dynamics. As a result, net exports are expected to have a negative contribution to GDP growth over the projection horizon, most notable in 2018.

If the forecast of higher growth rate in real imports of goods than that of exports of goods materialises and given the negative terms of trade for Bulgaria (measuring the change in prices of exported goods against the change in prices of imported goods) in 2017 and 2018, the balance of payments trade deficit is expected to increase as a share of GDP in the 2017–2019 period compared with 2016. The surplus in the services trade balance is expected to gradually contract as a share of GDP mainly as a result of higher growth in imports of services than that in exports of services. Enhanced economic activity in Bulgaria is expected to boost companies' profits which will result in a gradual increase in dividends paid to non-residents, and correspondingly, to a rise in the deficit of the balance of payments primary income account at the end of the forecast horizon. In the 2017–2019 period net transfers on the balance of payments secondary income account are projected to remain almost unchanged as a share of the GDP at a level lower than in 2016, reflecting the anticipated absorption of EU funds. As a result of the components dynamics the balance of payments current account will remain positive for the 2017–2019 period gradually contracting as a share of GDP.

In 2017 employment growth is expected to accelerate from 2016 reaching 1.5 per cent. The stronger increase in the number of self-employed in agriculture in the third quarter of 2017 will contribute to this effect. Due to continuous wage growth and favourable economic conditions in Bulgaria new persons are anticipated to continue joining labour force. By the end of the forecast horizon negative demographic trends are expected to have a downward effect on employment growth. The unemployment rate will decline further but at the end of the forecast period the decrease will slow down due to lower employment growth. Given the projected slow employment growth, labour productivity will largely follow the real GDP dynamics. The growth rate of real compensation *per* employee is expected to gradually approach labour productivity growth. As a result unit labour costs will grow at a rate between 2.5 per cent and 3.0 per cent over the forecast horizon.

Assuming that the 2017 upward trend in international oil prices in euro continues in the next two years, HIPC is expected to follow the upward dynamics over the forecast horizon. Annual inflation is projected to be 1.9 per cent at the end of 2018 and to come to 2.0 per cent at the end of 2019. Core inflation is expected to follow a trend toward a gradual increase and to contribute positively to the overall inflation, which will largely reflect the exhausted effect of country-specific factors in 2017 due to cheaper telecommunication services and air transport in the context of strong price competition and the introduction of low-cost airlines. Administratively controlled prices are also expected to make a positive contribution to the overall inflation driven by the projected increase in excise duty on tobacco products and water supply services over the 2018–2019 period as announced by the Energy and Water Regulatory Commission (EWRC).

Over the forecast period funds attracted from the non-government sector in the banking system are expected to grow at a rate of around 6–7 per cent. These developments will reflect employment and wage growth expectations contributing to an increase in private consumption and savings. Concurrently, retention of deposit rates at relatively low levels will have a dampening effect on deposit growth. Lending rates will continue to reflect mainly the current interest rate cycle in the euro area and expectations of continuously subsiding uncertainty in the economy and the corresponding lower borrowers' risk profile. The growth rate of loans to non-government sector is expected to follow the trend toward a gradual acceleration. Relatively low lending rates and the continuous improvement of economic activity will support the demand for loans by corporations and households. Repayment by the government of loans extended under the National Programme for Energy Efficiency of Multi-family Residential Buildings will limit growth of credit to households.

Forecast Revisions

Real GDP growth is expected to be higher over the whole forecast horizon *vis-à-vis* the forecast published in the Economic Review, issue 2 of 2017. This is attributable to the changes in the assumptions about external environment developments and fiscal policy parameters, revisions of NSI national accounts data⁸⁸ and higher than expected growth of GDP domestic demand components by final use.

The upward revision of reported data on private consumption growth in the first quarter of 2017 and higher than expected rates of growth in the second and third quarters of the year determine to a large extent the upward revision for 2017. The positive consumer sentiment, growing real disposable income and continuous upward dynamics in consumption prompted also an upward revision in the expectations for the 2018–2019 period. Weaker growth of gross capital formation is projected as compared to the 2017 forecast, reflecting the expectations for lower government investment throughout the year. Gross capital formation growth is expected to rise in the 2018–2019 period due to the upward revision of government investment growth. In line with higher domestic demand, the forecast for an increase in imports of goods and services is revised upwards. The higher increase in exported goods and services for the 2017–2019 period as compared with the previous forecasts reflects the upward revision of external demand growth.

Inflation expectations for the 2018–2019 period are revised upwards. A faster than expected decline in core HICP components deflation at the end of 2017, due mainly to the services group, is the reason behind the upward revision of core inflation forecast for 2018 and 2019.⁸⁹ Expectations of higher food price inflation in the next two years reflect the revised assumptions of international food prices over the forecast horizon. In addition the current forecast is impacted by the increase in some administratively controlled prices since the beginning of 2018, for which no data were available as of June 2017.

GDP and Inflation Forecast Revisions (28 December 2017 *vis-à-vis* 20 June 2017)

Annual rate of change, per cent	Forecast as of 28 December 2017				Forecast as of 20 June 2017				Revision (percentage points)			
	2016 ¹	2017	2018	2019	2016 ²	2017	2018	2019	2016	2017	2018	2019
GDP at constant prices	3.9	4.0	4.2	4.0	3.4	3.6	3.4	3.5	0.5	0.4	0.8	0.5
Private consumption	3.6	4.3	3.6	3.5	2.1	3.5	2.8	2.9	1.5	0.8	0.8	0.6
Government consumption	2.2	3.2	3.1	2.6	0.6	1.9	2.1	1.9	1.6	1.3	1.0	0.7
Gross fixed capital formation	-6.6	3.9	10.1	7.5	-4.0	6.2	6.3	6.7	-2.6	-2.3	3.8	0.8
Exports (goods and services)	8.1	5.2	5.6	5.4	5.7	5.1	5.3	5.3	2.4	0.1	0.3	0.1
Imports (goods and services)	4.5	6.2	6.3	5.7	2.8	5.4	5.3	5.4	1.7	0.8	1.0	0.3
HIPC at the end of period ³	-0.5	1.8	1.9	2.0	-0.5	1.5	1.6	1.7	0.0	0.3	0.3	0.3
Core inflation ³	-2.1	0.3	1.8	2.1	-2.1	0.1	1.5	2.0	0.0	0.2	0.3	0.1
Energy ³	-0.2	6.9	0.7	3.5	-0.2	3.6	1.7	3.0	0.0	3.3	-1.0	0.5
Food ³	0.9	2.7	2.9	3.0	0.9	3.3	2.3	2.1	0.0	-0.6	0.6	0.9
Goods and services with administratively controlled prices and tobacco products ³	1.4	2.6	1.2	0.2	1.4	1.9	0.9	0.0	0.0	0.7	0.3	0.2

¹ Reported data on GDP were published on 3 October 2017.

² Reported data on GDP were published on 7 March 2017.

³ Reporting data for 2017.

Sources: the NSI, the BNB.

⁸⁸ Revisions were published on the NSI website on 3 October 2017 according to the NSI schedule for statistical survey results and refer to the period from the first quarter of 2016 to the second quarter of 2017. The revisions relate to additional data inputs within the comprehensive annual statistical reporting.

⁸⁹ For further information on core inflation dynamics, see Chapter 4.

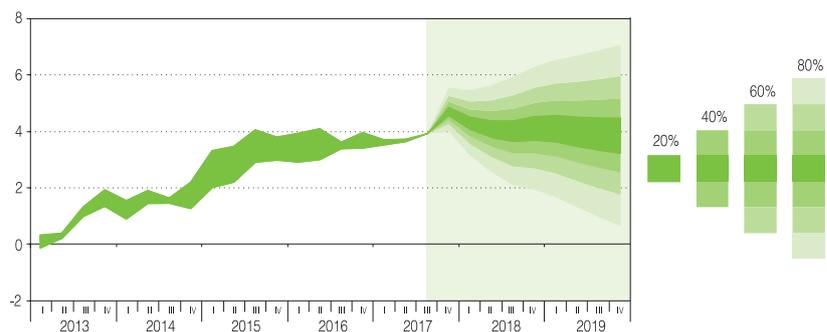
Risks to the Forecast

Risks to economic growth outlook are associated with higher than expected growth for 2017 and are assessed as balanced for the 2018–2019 period. In view of the favourable economic and political dynamics in Bulgaria's major trading partners uncertainty of global economic development outlook declined on the previous forecast. Risks related to external environment are assessed as balanced. Negotiations over Brexit remain the main source of uncertainty over the external environment after an agreement for forming a government in Germany was reached in the beginning of 2018. There is a risk of higher than expected growth of private consumption and correspondingly higher growth of domestic demand in 2017. As a result annual real growth of the economy could be higher than the projected one. For the remaining forecast horizon risks to the outlook of domestic demand components are assessed as balanced.

The uncertainty over the outlook for a particular indicator may be graphically illustrated by means of the so-called fan chart. Chart bands with specific colour set an interval in which with a certain probability the projected value is expected to fall (for further details see the note to the chart on GDP growth). Each interval widens with the increase in the forecast horizon, reflecting the increasing uncertainty further into the future. The fan chart on annual GDP growth shows that there is 60 per cent probability for annual GDP growth to range from 3.8 to 4.6 per cent for 2017.

There are risks of higher than projected inflation in case of unforeseen rises in administratively controlled prices and international oil and commodity prices. Higher than expected oil prices presuppose a faster than projected rise in fuel prices along with an appreciation of other components of the consumer basket as a result of higher production costs. Risk to the outlook arises from a potentially stronger-than-expected pass-through of higher labour costs to inflation driven by the ongoing labour market improvement. The balance of risks regarding inflation is shown in the fan chart below. The fan chart on inflation shows that there is 60 per cent probability for annual HIPC growth to range from 0.57 to 3.47 per cent at the end of 2018.

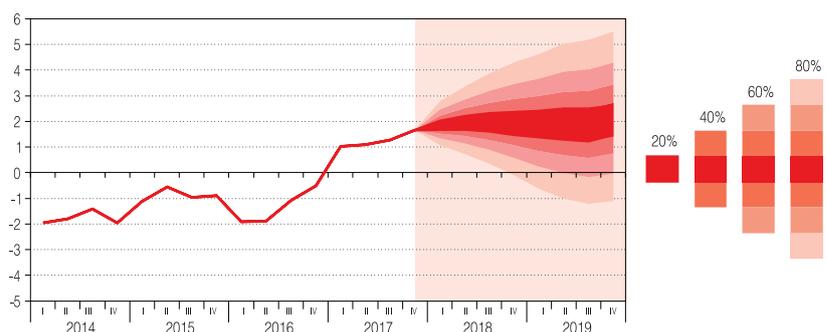
Fan Chart of the Expected Annual Rate of Change of Real GDP



Note: The fan chart shows the expert views of the forecasters on the uncertainty around the projected value based on probability distribution. The reporting period shows revisions of GDP growth estimates. 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.

Sources: the NSI, the BNB.

Fan Chart of the Expected Annual Rate of Change in Inflation at the End of the Period



Note: The fan chart shows the expert views of the forecasters on the uncertainty around the projected value based on 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.

Sources: the NSI, the BNB.

Risks to our balance of payments outlook are assessed as balanced. A key source of uncertainty is the external environment and, in particular, international commodity price dynamics which could have a significant effect on the trade balance and current account through the terms of trade.

Risks to the outlook of non-government sector deposit growth in the banking system are balanced. In terms of credit dynamics, uncertainty over the outlook stems from the pace at which the government will repay loans extended under the National Programme for Energy Efficiency of Multi-family Residential Buildings, taking into account the significant effect of these loans on the overall dynamics of loans to households. Additional risk to the outlook of credit growth relates to potential sales of loans and writing-off of non-performing loans from banks' balance sheets.

Forecast of Key Macroeconomic Indicators for 2017–2019

(per cent)

	2015	2016	2017	2018	2019
<i>Annual rate of change</i>					
GDP at constant prices	3.6	3.9	4.0	4.2	4.0
Private consumption	4.5	3.6	4.3	3.6	3.5
Government consumption	1.4	2.2	3.2	3.1	2.6
Gross fixed capital formation	2.7	-6.6	3.9	10.1	7.5
Exports (goods and services)	5.7	8.1	5.2	5.6	5.4
Imports (goods and services)	5.4	4.5	6.2	6.3	5.7
HIPC at the end of period ¹	-0.9	-0.5	1.8	1.9	2.0
Core inflation ¹	-0.3	-2.1	0.3	1.8	2.1
Energy ¹	-10.5	-0.2	6.9	0.7	3.5
Food ¹	0.9	0.9	2.7	2.9	3.0
Goods and services with administratively controlled prices and tobacco products ¹	-0.7	1.4	2.6	1.2	0.2
Employment	0.4	0.5	1.5	0.6	0.4
Unit Labour Costs	2.3	2.3	5.2	2.9	2.6
Labour productivity	3.3	3.4	2.4	3.6	3.6
Unemployment rate (share of labour force)	9.1	7.6	6.4	5.8	5.4
Claims on non-government sector ¹	-1.6	1.8	4.6	4.9	5.6
Claims on corporations ^{1,2}	-1.6	0.6	1.5	4.6	6.1
Claims on households ¹	-1.3	2.0	6.0	5.2	4.3
Deposits of the non-government sector ¹	10.6	7.0	6.1	6.8	7.2
<i>Share of GDP</i>					
Balance of payments current account	0.0	5.3	4.7	2.8	2.0
Trade balance	-5.8	-2.0	-2.7	-3.1	-3.1
Services, net	6.6	6.4	6.2	6.1	6.0
Primary income, net	-4.5	-2.4	-1.6	-3.1	-3.7
Secondary income, net	3.6	3.3	2.9	2.9	2.8
<i>Annual rate of change</i>					
External assumptions					
External demand	2.2	3.3	6.0	5.0	4.1
Average annual Brent oil price (in USD) ¹	-47.1	-15.9	23.5	4.4	1.7
Average annual price of non-energy products (in USD) ¹	-16.5	-3.9	7.9	2.3	2.6
Brent oil price at the end of period (in USD) ¹	-42.9	15.3	22.7	-5.2	1.9
Price of non-energy products at the end of period (in USD) ¹	-18.9	7.4	6.6	1.3	2.8

¹ Reporting data for 2017.

² Data refer to non-financial corporations.

Source: the BNB: