

# 5. Bulgarian National Bank Forecast of Key Macroeconomic Indicators for 2016–2018

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The BNB forecast of key macroeconomic indicators is based on the information published as of 17 June 2016. ECB, EC and IMF assumptions on the global economic developments as of 8 June 2016 were used. Results of the UK's EU membership referendum in favour of Brexit increases the overall uncertainty in the external and internal environment, creating additional risks that have not been quantitatively accounted for in the macroeconomic projection. The analysis of risks to the projection, however, includes a qualitative assessment of their impact on the Bulgarian economy.

Global economic growth is expected to accelerate in 2016 from 2015, given the recovery in economic activity in a number of developing countries and the continued gradual increase in US and euro area growth. Based on latest ECB and IMF forecasts of global economic developments, external demand for Bulgarian goods and services between 2016 and 2018 is expected to be in line with the projected acceleration in the economic activity of Bulgaria's major trading partners. Despite the first signs of rebalancing in world demand for and supply of commodities, their average prices in 2016 are expected to remain lower than in 2015 due to the high level of inventories and output worldwide. International commodity prices are likely to begin rising from 2017.

Domestic GDP growth in 2016 and 2017 is expected to moderate from the growth rate in 2015. Government investment will have the largest contribution to this moderation over the two years, whereas growth acceleration is expected in the remaining components of domestic demand. With increased government investment in 2018, growth is projected to reach 3.1 per cent. Risks to the economic activity projection in the baseline scenario are assessed as balanced for 2016, unlike 2017–2018 when some risks of lower than expected growth may arise.

Reflecting global price developments, domestic inflation will remain negative in 2016. Specific factors, as price decreases in some services and further declines in durable goods prices, will also act in the same direction. If global price rise assumptions materialise, inflation in 2017–2018 is projected to be positive and begin to increase slowly. There are risks for inflation to be lower than projected if our expectations of international price dynamics do not materialise or administrative cuts occur in some services prices, reflecting indirectly fuel prices.

## Forecast

Given the signals of a slowdown in global economic activity in early 2016, previous forecasts of global economic growth in a number of international institutions, such as the ECB, the IMF and the EC, were revised downwards for 2016 and 2017. Despite the revisions, global economic growth is expected to accelerate compared with 2015 in line with the recovery of economic activity in a number of developing countries and the ongoing gradual acceleration of growth in the USA and the euro area. Based on latest ECB and IMF forecasts of global economic developments, external demand for Bulgarian goods and services between 2016 and 2018 is expected to be in line with the projected acceleration in the economic activity of Bulgaria's major trading partners.

In the second quarter of 2016 the first signs of demand and supply rebalancing occurred in international commodity markets. Over this period prices (in US dollars) of petroleum and non-energy commodities started to increase on a quarterly basis. However, they remained below the levels of the corresponding period of 2015. The main factors contributing to the quarterly price hike were related to temporary declines in supply (mostly in petroleum and food) and depreciation of the US dollar *vis-à-vis* the euro. Until end-2016, prices are expected to significantly decrease their rate of quarterly growth and,

amid high levels of global inventories and output, to remain below the 2015 level. More notable rebalancing of demand and supply in commodity markets, which may lead to a rise in energy and non-energy product prices on an average annual basis may be expected in 2017.

In 2016 and 2017 Bulgaria's GDP growth is expected to be lower than that in 2015. Economic activity dynamics is anticipated to be driven mainly by the components of domestic demand. Growth of final consumption components is expected to accelerate over the whole forecast horizon. Private consumption will become the major factor behind the increase in economic activity and will accelerate its growth as a result of higher real disposable income against the background of improved labour market situation and household sentiment. Concurrently, the high production capacity utilisation, increased demand for goods and services and improved business environment support the assumption for a reversal of the downward trend in private investment in 2016, and for an increase over the forecast horizon. These positive effects of accelerated final consumption and private investment are expected to be limited by lower government investment than in 2015, which have been revised for the projection horizon in line with Bulgaria's Convergence Programme for the 2016–2019 period published in April 2016. The expected private investment growth in 2016 and 2017 will be insufficient to compensate for the lower volume of government investment and will therefore lead to a decline in gross fixed capital formation in real terms over this period. In 2018 this effect will fade away, and total investment will increase due to both continuing growth in private investment and increased government investment.

In the 2016–2018 period the positive contribution of net exports to GDP growth will gradually contract compared with its relatively high level in 2015. Real export growth in 2016 is anticipated to slow down compared with the previous year before it starts to accelerate consistent with the assumption for the dynamics of external demand for Bulgarian goods and services. Growth in imports of goods and services will also slow down in 2016, reflecting the contraction in government investment, and it will be lower than growth in exports. Subsequently, the growth rate of real imports will accelerate over the projection horizon along with gradually accelerating domestic demand and exports.

Given the above assumptions, real GDP growth is expected to moderate to 2.2 per cent in 2016 and to accelerate again to 2.5 per cent in 2017 and 3.1 per cent in 2018.

If the forecast of international price dynamics materialises, the terms of trade (measuring the change in export prices against import prices) are expected to remain favourable for Bulgaria through most of the forecast period, which along with the anticipated faster growth of real exports compared with imports will lead to lower balance of payments trade deficit between 2016 and 2018. In 2016 services trade balance is expected to decrease as a percentage of GDP compared with its 2015 level, due to a stronger increase in services imports against exports, and to stabilise in 2017 and 2018. Lower growth of services exports in 2016 reflects to a large extent the weaker increase in earnings from tourism due to still subdued economic activity in countries important for Bulgaria's tourism. Concurrently, services imports are expected to gradually increase driven by the improving economic activity, employment and incomes in Bulgaria. The improvement of the economic activity in Bulgaria is expected to boost companies' profits which will lead to a gradual increase in payments of dividends and distributed profit to non-residents, and correspondingly to a rise in the deficit of the BOP primary income account at the end of the forecast horizon. Between 2016 and 2018 net transfers are expected to decline as a percentage of GDP compared with the 2015 level, reflecting still low inflows of EU funds for the 2014–2020 programming period. As a result of these developments, in the 2016–2018 period the current account balance will remain positive, and by the end of the projection horizon will gradually contract as a percentage of GDP.

Employment will continue to increase in 2016 at a rate close to that in 2015. Despite positive labour market developments in the first quarter of 2016, companies will remain cautious in opening new jobs, while optimising their labour costs. In 2017 and 2018 employment growth is expected to slightly accel-

erate. In 2016–2018 the unemployment rate is expected to decline further. Given the expected slow employment growth, labour productivity will largely follow the real GDP dynamics. The growth of compensation *per* employee is expected to gradually approach labour productivity growth. As a result, unit labour costs will grow by over 2 per cent over the forecast horizon.

The significant drop in global oil and commodity prices in early 2016 will be a factor for retaining the negative rate of change in the consumer price index, with annual inflation expected to reach -0.8 per cent at the end of 2016. This trend will be further influenced by indirect effects of lower fuel prices on transportation and administratively controlled services prices along with specific factors relating to lower prices of some services, as telecommunications, and continuing declines in durable goods prices. In line with international price dynamics, inflation in Bulgaria is expected to be positive over 2017, further accelerating slowly until the end of 2018. Goods and services with administratively controlled prices will have a positive contribution to inflation, reflecting more expensive road fees since early 2016, higher tobacco excise duties in 2016–2018 and increased transport tickets in Sofia since June 2016. Core inflation is anticipated to reverse its deflationary trend in the second half of 2017, driven by higher consumer expenditure of households in the context of ongoing labour market improvements and increased real disposable income. Catering and transportation services inflation reflecting indirectly domestic food and fuel prices will follow the expected upward tendency in these groups' prices.

Over the projection horizon, funds attracted from the non-government sector will continue to rise, remaining a driver for high liquidity in the banking system despite the expectations of retaining a downward trend in deposit interest rates throughout 2016 and their relative stabilisation in 2017–2018 at the attained low levels. Loans to non-financial corporations and households are likely to gradually increase in line with continuous positive developments in regular loans over the recent months. Another factor for credit growth will be the recovery in private consumption and private investment, with further declines in lending interest rates also likely to exert a positive effect.

## Forecast Revisions

Compared to the forecast published in Economic Review, issue 4 of 2015, real GDP growth has been revised upwards for 2016 and downwards for 2017. Forecast revisions are largely due to changes in model-external assumptions.

By final use component, more significant revisions relate to the gross fixed capital formation, particularly government investment, which is revised for the whole projection horizon in line with Bulgaria's Convergence Programme for the 2016–2019 period published in April 2016. Compared to the previous forecast, a higher volume of government investment is projected for 2016 and a lower volume for 2017. The downward revision in external demand assumptions entails lower growth of goods and services exports for 2016 and 2017 *vis-à-vis* the previous forecast. This dynamics suggests also a lower increase in goods and services imports.

Our expectations of inflation in 2016–2017 have been revised downwards. The projected lower inflation for 2016 reflects stronger than expected energy price declines in the first five months of the year and the assumption that domestic fuel prices will begin to follow the gradual upward trend in global oil prices since the second half of 2016. In April–May 2016 enhanced deflation in core HICP components, arising from a decrease in some services prices, as telecommunications, which are expected to continue containing consumer price rises, results in a downward revision in core inflation over the current and following year.<sup>1</sup> June 2016 forecast includes lower administrative prices of heating and natural gas since 1 April 2016 and slower than anticipated increase in tobacco product prices.

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<sup>1</sup> For more information on core inflation dynamics, see Section 4, Inflation.

## GDP and Inflation Forecast Revisions (23 June 2016 *vis-à-vis* 15 December 2015)

(annual rate of change)

	Forecast as of 23 June 2016		Forecast as of 15 December 2015		Revision (percentage points)	
	2016	2017	2016	2017	2016	2017
GDP at constant prices	2.2	2.5	2.1	2.8	0.1	-0.3
Private consumption	2.5	2.6	2.3	2.4	0.2	0.2
Government consumption	1.3	2.0	1.4	2.1	-0.1	-0.1
Gross fixed capital formation	-1.2	-0.2	-2.2	3.1	1.0	-3.3
Exports (goods and services)	3.0	4.1	3.7	4.3	-0.7	-0.2
Imports (goods and services)	2.1	3.3	2.3	4.0	-0.2	-0.7
HICP at end of period	-0.8	1.2	1.0	1.6	-1.8	-0.4
Core Inflation	-1.8	0.4	0.2	1.0	-2.0	-0.6
Energy	-3.9	8.7	5.1	7.7	-9.0	1.0
Food	-0.2	1.3	0.5	0.9	-0.7	0.4
Goods and services with administratively controlled prices and tobacco products	1.6	1.0	1.8	1.3	-0.2	-0.3

Source: BNB.

### Risks to the Outlook

Risks to the economic growth outlook are balanced for 2016 and shifted downwards for 2017–2018. As regards the world economy, risks for the whole projection horizon are related to slower developments compared to the baseline scenario. Balanced risks to government investments are anticipated. Within a short-term horizon, positive current developments in economic indicators in 2016 are likely to materialise into more dynamic increases of private components of domestic demand *vis-à-vis* the baseline scenario. In the 2017 to 2018 period the enhanced uncertainty of the external environment is expected to exert a limiting effect on investment decisions of firms and consumer sentiment of households.

Lower than expected economic growth would be mainly driven by possible unfavourable developments in the external environment, increased geopolitical tensions, heightened uncertainty around discussions and pending negotiations over Brexit, worsened investment conditions in the private sector and lower than anticipated volumes of government investments. Higher growth may be achieved if domestic demand grows at a higher than projected pace, reflecting both the stronger increase in private consumption and private investment, and a possible lower decline in public investment over 2016 and 2017. In case of international environment improvements, lower geopolitical tensions, or higher growth in the euro area and developing countries compared to the assumptions, higher than expected economic growth may be reached.

The uncertainty over the outlook for a particular indicator may be graphically illustrated by means of the so-called fan chart.<sup>2</sup> Chart bands, depicted in a particular 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 fan chart on GDP growth). Each interval widens by an increase in a projected horizon, reflecting an increasing uncertainty regarding a more distant future. The fan chart on the annual GDP growth shows that real GDP growth is less likely to exceed 4 per cent in 2016. The chart shows higher than 50 per cent probability for annual GDP growth to range from 1 to 3 per cent that year.

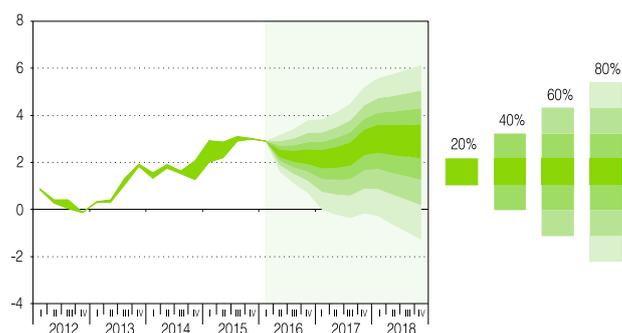
<sup>2</sup> The use of fan charts is discussed in details in the box entitled *Measurement and Presentation of Uncertainty in Forecasting Economic Indicators*, Economic Review, 1/2012.

Risks to the inflation forecast are shifted to lower inflation compared with the baseline scenario. Major risks stem from global crude oil and food price developments and the degree of their pass-through into domestic fuel and food prices. Uncertainty about the inflation forecast stems also from possible changes in some administrative prices (heating and gas supply), reflecting also indirect effects of lower oil prices. The balance of risks regarding inflation is graphically shown in the fan chart.

The external environment, and notably the economic activity in Bulgaria's major trading partners, remains the major source of uncertainty to the balance of payments projection. If external demand for Bulgarian goods and services is lower than projected, a higher trade balance deficit and lower services surplus may be expected, leading to a lower current account surplus.

Risks to the monetary sector outlook relate to a slower than anticipated recovery of private consumption and investment and continuing optimisation of bank portfolios. A possible materialisation of the above discussed risks would delay the recovery of credit to the non-government sector.

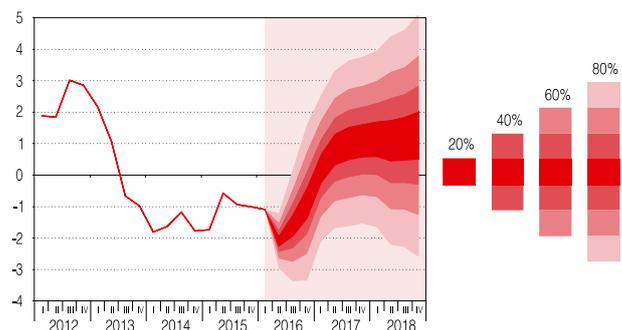
### Fan Chart of the Expected Annual Rate of Change in Real GDP



Note: The fan chart shows the expert views of the forecasters on the uncertainty surrounding the projected value based on a 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 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 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 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 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 2016–2018

(per cent)

	2014	2015	2016	2017	2018
<i>Annual rate of change</i>					
GDP at constant prices	1.5	3.0	2.2	2.5	3.1
Private consumption	2.7	0.8	2.5	2.6	2.7
Government consumption	0.1	0.3	1.3	2.0	2.3
Gross fixed capital formation	3.4	2.5	-1.2	-0.2	4.0
Exports (goods and services)	-0.1	7.6	3.0	4.1	4.6
Imports (goods and services)	1.5	4.4	2.1	3.3	4.4
HICP at end of period	-2.0	-0.9	-0.8	1.2	1.4
Core Inflation	-1.6	-0.3	-1.8	0.4	1.4
Energy	-13.9	-10.5	-3.9	8.7	4.5
Food	-0.7	0.9	-0.2	1.3	1.0
Goods and services with administratively controlled prices and tobacco products	1.2	-0.7	1.6	1.0	0.9
Employment	0.4	0.4	0.4	0.5	0.5
Unit labour costs	4.4	-0.7	2.3	2.4	2.3
Labour productivity	1.2	2.6	1.7	2.0	2.6
Unemployment rate (share of labour force)	11.4	9.1	8.0	7.7	7.4
Claims on non-government sector	-7.7	-1.6	0.2	1.6	2.9
Claims on corporations	-12.0	-1.6	-0.3	1.7	3.1
Claims on households	-1.6	-1.3	0.5	1.6	2.8
Deposits of non-government sector	1.5	10.6	5.7	5.6	5.7
<i>Per cent of GDP</i>					
Balance of payments current account	0.9	1.4	1.9	2.4	2.2
Trade balance	-6.5	-4.3	-2.9	-2.4	-2.0
Services, net	5.9	6.1	5.7	5.6	5.6
Primary income, net	-2.3	-4.1	-3.9	-4.1	-4.6
Secondary income, net	3.8	3.7	3.0	3.3	3.2
<i>Annual rate of change</i>					
External assumptions					
External demand	3.3	1.3	2.4	3.8	4.1
Average annual Brent oil price (in USD)	-9.1	-47.1	-16.2	19.0	8.1
Average annual price of non-energy products (in USD)	-8.7	-19.9	-4.1	3.3	4.5
Brent oil price at end of period (in USD)	-30.5	-42.9	11.7	13.4	3.5
Prices of non-energy products at end of period (in USD)	-13.3	-20.3	7.4	2.3	5.2

Source: BNB.