5. Bulgarian National Bank Forecast of Key Macroeconomic Indicators for 2018–2020

The BNB forecast of key macroeconomic indicators is based on data published as of 15 June 2018. ECB, EC and IMF assumptions on the global economic developments and dynamics of major commodity group prices in international markets as of 22 May 2018 are used.

Based on the ECB, EC and IMF forecasts external demand for Bulgarian goods and services is expected to continue growing tending to slow down its growth rates. The baseline scenario of external demand neither takes into account the effects of the US foreign trade measures launched in the beginning of June 2018, nor a possible escalation of international trade conflicts during the forecast period. International prices are expected to increase significantly in 2018. In the 2019–2020 period non-energy product prices are expected to continue increasing, while petroleum prices are anticipated to slightly decrease due to projected global supply growth of petroleum products.

As regards the assumptions about external environment developments, there are risks of lower growth in external demand due to the uncertainty surrounding the assessments of the effects of the US trade policy on global trade developments and the uncertainty about the economic growth in some important for Bulgaria trading partners. Regarding the forecast of crude oil prices there are risks of a hike during the 2019–2020 period due to a possible decline in global oil inventories, lower than expected US oil production and worsening of the global geopolitical situation.

The improved global economic environment contributed to Bulgaria’s stable economic growth. According to the macroeconomic forecast between 2018 and 2020 the economic growth rate will be stable with a positive contribution of domestic demand (private consumption, private investment and a significant increase in public investment). Private consumption growth is supported by the improved labour market: the unemployment rate is decreasing against the background of an increasing economic activity rate, with relatively high growth of wages being a motivating factor for inclusion in the labour force. Increasing domestic demand pushed up the demand for import goods and services. As a result net exports will have a negative contribution to real GDP growth despite the expected steady growth in exports. These developments will change the current account balance from a surplus to a deficit in the 2019–2020 period, with inflows of capital transfers from the EU and from foreign direct investments exceeding significantly this deficit.

Inflation, influenced largely by international market price dynamics, is expected to accelerate its rate in 2018 and then to slow down and stabilise at 2 per cent annually.

Risks to the macroeconomic outlook are related mainly to the uncertainty of assumptions about the external environment. An internal factor creating uncertainty to the outlook is the public investment dynamics which is determined by the EU fund absorption rate.

Forecast

The BNB forecast of key macroeconomic indicators is based on data published as of 15 June 2018. ECB, EC and IMF assumptions on global economic developments and the dynamics of international prices of major commodity groups as of 22 May 2018 are used. Based on these assumptions global economic growth in 2018 and 2019 is expected to remain close to that reported in 2017 supported by still favourable funding conditions. Given the gradually weakening positive effect of current cyclical factors in advanced economies and exhaustion of the positive effect of US fiscal stimuli on growth at the end of the forecast horizon, global economic growth in 2020 is expected to slow down compared to 2019. In accordance with these forecasts for the 2018–2020 period external demand for Bulgarian goods and services will continue growing, the rate of growth gradually moderating, mostly in line with the projected lower growth in the EU Member States, Bulgaria's main trading partners. The baseline scenario of external demand neither takes into account the effects of the US foreign trade measures launched in the beginning of June 2018, nor a possible deepening of international trade conflicts over the projection horizon.

Year-on-year prices of energy products increased significantly in the first five months of 2018 in both US dollars and euro irrespective of the movements in the EUR/USD exchange rate. This reflected the lower supply due to temporarily discontinued oil extraction in the USA, Libya, Venezuela and in the North Sea and the stronger demand as a result of global economic growth. The average annual price of petroleum products in 2018 is expected to increase on 2017. Over the remaining projection horizon supply is anticipated to increase due to the agreement between OPEC and other oil producers on increasing oil production compared to the February 2018 commitment, which prompted a decline in international oil prices.

Non-energy product prices exhibited a divergent dynamics both in euro and US dollars in the first five months of 2018 reflecting the appreciated euro against the US dollar. Higher non-energy product prices in US dollars were a result of increased agricultural commodity and metal prices. Given the increased global demand for metals the upward price dynamics was underpinned by factors limiting supply such as China's measures intended to reduce air pollution implying contraction of some productions and US sanctions imposed on the second largest aluminium producer in April. Rebalancing of demand and supply in non-energy products is expected to continue to put upward pressure on prices in US dollars and euro over the projection horizon.

In 2018 economic growth in Bulgaria is expected to accelerate on 2017, with domestic demand contributing most substantially due to sustained private consumption growth and the anticipated acceleration of government consumption and gross fixed capital formation, including a sizeable increase in public investment. The negative contribution of net exports is expected to slightly increase compared with 2017, which will reflect accelerated imports amid high growth rates of exported goods and services.

In the 2019–2020 period real GDP growth in Bulgaria is expected to remain at around 4 per cent, with domestic demand being the main factor behind its dynamics. Private consumption growth in real terms will slightly slow down from 2017 but will continue to have a strong positive contribution to the overall economic dynamics. Household disposable income will further increase due to improved labour market conditions, which will result in lower unemployment rates and higher employment and wages. The expected slower rise in the number of employed due to demographic factors will be the reason behind the gradual private consumption slowdown until the end of the projection horizon. The positive sentiment of firms, expected enhanced demand for goods and services and high capacity utilisation rate create conditions for keeping the private investment growth rate high. Government consumption is also expected to increase in the 2019–2020 period mostly due to government's plans for wage increases in the education sector according to the latest revision of the medium-term budget projections. Following the expected significant increase in public investment in 2018 the forecast points to a further rise at a slower rate in the 2019–2020 reflecting the dynamics of costs under EU programmes. Projected growth of external demand combined with the increasing competitiveness of the Bulgarian economy will contribute to the acceleration of export growth. Given the expected significant increase in domestic demand the growth rate of imports of goods and services will outpace that of exports. Therefore, net exports will have a negative contribution to overall growth in the economy.

In 2018 growth in real exports of goods and services is anticipated to accelerate its rate compared to 2017, recovering growth in exports of services and slightly slowing down growth in exports of goods. The return to growth in exports of services in 2018 will be driven by the expected increase in exports of other services[95] and a further increase in revenue from tourism. Between 2019 and 2020 exports of goods are expected to gradually decelerate on 2017, reflecting the projected slowdown in external demand. Though at slower rates, exports of goods and services will continue increasing faster than

[95] Services other than transport, travel, manufacturing services on physical inputs and maintenance and repair services.

external demand due to competitive advantages of Bulgarian exporters, which will help increase Bulgaria's market share in the world trade. Imports of goods and services will accelerate their rate of real growth in 2018 in line with the projected domestic demand growth (in particular, the expected strong increase in government investment). In 2019 and 2020 growth in imports is anticipated to moderate on 2018 and to follow the domestic demand dynamics. As a result, net exports are expected to have a negative contribution to real GDP growth over the projection horizon, most notably in 2018.

In 2018 terms of trade (measuring the change in prices of exported goods against the change in prices of imported goods) for Bulgaria are expected to deteriorate, which coupled with faster real growth of imports than exports of goods will contribute to higher trade deficit as a share of GDP compared with 2017. The trade deficit will continue to increase until the end of the projection horizon, with the expected improvement in the terms of trade having a partially offsetting effect. The services trade balance in 2018 is anticipated to record a higher surplus as a share of GDP compared with 2017 due to the higher projected rise in exports than imports of services. Between 2019 and 2020 the surplus in services trade as a share of GDP is expected to stabilise. 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 2018 net transfers on the balance of payments secondary income account are projected to decrease as a share of GDP compared with 2017 and to remain at these levels in the 2019–2020 period. As a result of the component dynamics the surplus on the balance of payments current account will decrease as a share of GDP in 2018 compared with 2017, and in 2019 and 2020 the current account balance will turn from surplus to a gradually increasing deficit.

The improvement in labour market conditions is expected to encourage the inclusion of the population in the labour force and growth in employment. However, this will be insufficient to fully offset the effect of negative demographic developments. Unemployment is expected to decrease over the review period but at a slower rate. Labour productivity growth will accelerate as a result of the expected slight rise in employment and relatively constant dynamics of real GDP. The compensation *per* employee will continue to increase at a relatively high rate as a result of constraints in labour supply. Faster growth of labour productivity than compensation *per* employee will prompt a gradual slowdown in unit labour cost growth over the forecast horizon.

The mid-2017 upward trend in international oil prices will be a factor behind higher harmonised index of consumer prices in the following months. Core inflation is also expected to follow a trend toward a gradual increase due mainly to service price developments, and to make a significant positive contribution to the overall inflation. Administratively controlled prices will be another group contributing positively to the overall inflation mainly as a result of raised tobacco products excise duties since early 2018 and higher prices of water supply services over the 2018–2019 period. In line with the expected stabilisation of international oil prices in 2019 and 2020, inflation is anticipated to fall slightly in the coming years.

As regards deposit dynamics in the Bulgarian banking system, their growth rate is expected to remain at around 6–7 per cent over the forecast horizon, reflecting employment and wage rises and further contributing to private consumption and savings growth. Expectations of sustained low deposit interest rates over the forecast horizon will reduce deposit growth. Interest rates on loans are anticipated to follow the euro area interest rate cycle, with market expectations for three-month EURIBOR level to remain broadly unchanged in 2018 and slightly increase in the 2019–2020 period. Strengthening of credit activity is expected in case of higher growth of loans to households in 2018 due to the institution reclassification effect[96]. The 2019–2020 growth rate of loans to non-financial corporations will

[96] As of April 2018 other monetary financial institutions sector includes BNP Paribas Personal Finance S.A. – branch Bulgaria, with balances reclassified from other financial intermediaries sector. The reclassification results from the transformation through merger of BNP Paribas Personal Finance EAD specialised in lending and reported to-date in other financial intermediaries sector for the purposes of monetary statistics.

exceed that of loans to households mainly as a result of the payment of loans extended under the National Program for Energy Efficiency of Multi-family Residential Buildings and significant decrease in the volume of new loans under this programme.

Forecast revisions

The projections for real GDP growth in 2018 have been revised downwards, while those for 2019 remain unchanged compared to the forecast published in the Economic Review, issue 4 of 2017.

The positive sentiment observed in the first half of 2018 coupled with improving labour market conditions resulting in expected employment and wage growth at comparatively high rates led to upward revision of private consumption for both 2018 and 2019. The anticipated growth of gross capital formation has also been revised upwards reflecting higher projected volume of government investment compared to the previous forecast. In line with the dynamics of domestic demand components, imports of goods and services are expected to grow at higher rates than estimated in the previous forecast. Expected growth rates of exports of goods and services in 2018 and 2019 remain similar to the previous ones, and, according to the revision, will result in more negative contribution of the net exports contribution to GDP growth over the forecast horizon.

Significant increases in international oil prices are the main reason behind the upward revision of inflation for 2018 and 2019. Private consumption and labour costs growth has been revised upwards over the forecast horizon suggesting higher inflation in services for the 2018–2019 period compared with the previous forecast. Expectations of higher food inflation reflect mainly the revised assumptions for growth of international food prices in euro.

GDP and Inflation Forecast Revisions (21 June 2018 *vis-à-vis* 28 December 2017)

Annual rate of change, per cent	Forecast as of 21 June 2018			Forecast as of 28 December 2017			Revision (percentage points)		
	2017	2018	2019	2017	2018	2019	2017	2018	2019
GDP at constant prices	3.6	3.9	4.0	4.0	4.2	4.0	-0.4	-0.3	0.0
Private consumption	4.8	4.5	4.4	4.3	3.6	3.5	0.5	0.9	0.9
Government consumption	3.2	3.5	2.6	3.2	3.1	2.6	0.0	0.4	0.0
Gross fixed capital formation	3.8	13.1	8.5	3.9	10.1	7.5	-0.1	3.0	1.0
Exports (goods and services)	4.0	5.5	5.4	5.2	5.6	5.4	-1.2	-0.1	0.0
Imports (goods and services)	7.2	8.2	6.7	6.2	6.3	5.7	1.0	1.9	1.0
HICP at end of period	1.8	2.6	2.2	1.8	1.9	2.0	0.0	0.7	0.2
Core inflation	0.3	1.9	2.8	0.3	1.8	2.1	0.0	0.1	0.7
Energy	6.9	11.1	-0.7	6.9	0.7	3.5	0.0	10.4	-4.2
Food	2.7	2.5	3.5	2.7	2.9	3.0	0.0	-0.4	0.5
Goods and services with administratively controlled prices and tobacco products	2.6	1.0	0.1	2.6	1.2	0.2	0.0	-0.2	-0.1

Source: the BNB.

Risks to the Forecast

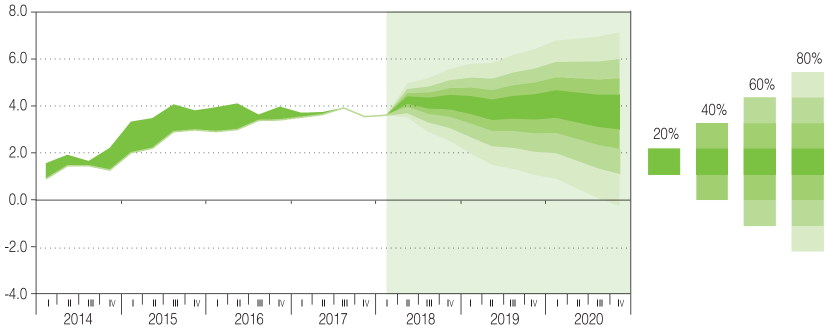
As regards the economic growth, there are risks of lower than expected GDP growth rate reflecting the uncertainty in the outlook for external environment and public investments.

As regards external environment, the following risks have been identified: higher than expected oil price rises due to supply lagging behind demand and decline in external demand reflecting the negative impact of US trade policy on global trade and worsened economic situation in some of Bulgaria's major trading partners. Despite the expected fall in oil prices in 2019 and 2020 it is possible to keep the upward trend in case of lower than expected US production, worsening of the global geopolitical situation and higher than projected decline in global oil inventories. The response of the parties concerned to the imposition of higher tariffs on certain imported goods and the implementation of other protectionist measures by the USA, could result in deceleration of global trade growth and decline in external demand for Bulgarian goods and services. The impact of this risk for Bulgaria could be significant if the growth of its major trading partners is affected. Heightened uncertainty surrounding Brexit along with potential deterioration of the economic situation in some of Bulgaria's major trading partners also represent a risk of decline in the external demand for Bulgarian goods and services.

Due to possible delay in government investment plans implementation in 2018 for administrative reasons there is a risk of lower growth of public investment with negative effect on real GDP growth.

The uncertainty over the outlook for a particular indicator may be graphically illustrated by means of the so-called fan chart. 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 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 the annual GDP growth shows that there is a 60 per cent probability for annual GDP growth to range from 3.4 to 4.6 per cent for 2018.

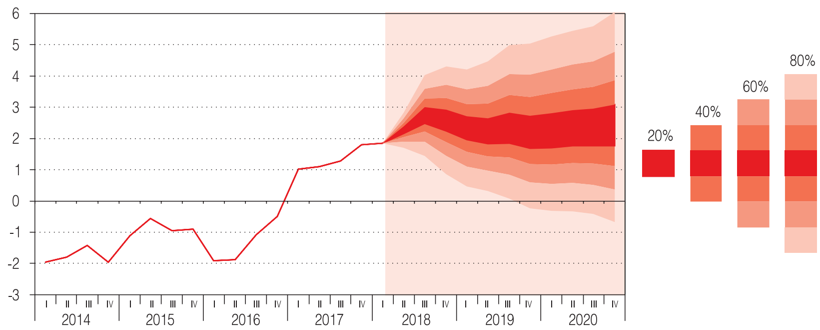
Expected Annual Rate of Change of Real GDP



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.

Source: the BNB.

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.

Source: the BNB.

There are risks of higher than projected inflation to occur in case of unforeseen rises in administratively controlled prices and international oil prices. Higher than expected oil prices presuppose a faster than projected rise in fuel prices along with other groups of goods and services which are indirectly affected by fuel prices (transport services, natural gas and heating prices). A risk of higher than projected inflation arises from the possibility of higher than expected increase in unit labour costs and the pass-through on final prices and in particular on services. The balance of risks regarding inflation displayed in the fan chart below shows that there is a 60 per cent probability for annual HIPC growth to be from 1.5 to 3.7 per cent at the end of 2018.

A key source of uncertainty related to the balance of payment projection is the external environment: external demand and international commodity price dynamics which could have a significant effect on the trade balance and current account accordingly. If any of the described risks regarding the external environment materialises, a higher than projected trade balance deficit and consequently current account balance deterioration could be expected.

As regards credit aggregates and deposits, there is a risk that credit growth proves to be lower than projected. Lower than expected external demand will result in a decline in the domestic demand for loans due to the high degree of openness of the Bulgarian economy. Additional risk of slowdown in credit growth stems from the uncertainty regarding bank policies to sell credit portfolios and write-off non-performing loans. Uncertainty is also reported in respect of the future impact of National Programme for Energy Efficiency of Multi-family Residential Buildings on the growth rates of household loans.

Forecast of Key Macroeconomic Indicators for 2018–2020

(per cent)

	2016	2017	2018	2019	2020
Annual rate of change					
GDP at constant prices	3.9	3.6	3.9	4.0	4.0
Private consumption	3.6	4.8	4.5	4.4	4.2
Government consumption	2.2	3.2	3.5	2.6	2.6
Gross fixed capital formation	-6.6	3.8	13.1	8.5	8.5
Exports (goods and services)	8.1	4.0	5.5	5.4	5.3
Imports (goods and services)	4.5	7.2	8.2	6.7	6.5
HICP at end of period	-0.5	1.8	2.6	2.2	2.4
Core inflation	-2.1	0.3	1.9	2.8	3.0
Energy	-0.2	6.9	11.1	-0.7	0.3
Food	0.9	2.7	2.5	3.5	3.5
Goods and services with administratively controlled prices and tobacco products	1.4	2.6	1.0	0.1	0.1
Employment	0.5	1.8	1.2	1.0	0.8
Unit labour costs	2 3	5.7	5.4	4.4	4.5
Labour productivity	3.4	1.7	2.8	3.0	3.1
Unemployment rate (share of labour force)	7.6	6.2	5.2	4.7	4.3
Claims on non-government sector	1.8	4.5	7.3	6.9	7.8
Claims on corporations[1]	0.6	1.5	5.5	7.0	8.2
Claims on households	2.0	6.0	9.3	5.8	6.5
Deposits of the non-government sector	7.0	6.2	6.0	7.0	7.2
Share of GDP					
Balance of payments current account	2.3	4.5	0.3	-0.6	-1.6
Trade balance	-2.0	-4.1	-6.6	-7.1	-7.7
Services, net	6.1	6.0	6.2	6.0	6.0
Primary income, net	-5.1	-1.1	-2.7	-2.8	-3.0
Secondary income, net	3.3	3.7	3.4	3.2	3.1
Annual rate of change					
External assumptions					
External demand	3.3	6.2	5.5	4.3	3.9
Average annual Brent oil price (in USD)	-15.9	23.5	33.2	-5.1	-1.5
Average annual price of non-energy products (in USD)	-4.0	7.9	8.9	2.0	2.8
Brent oil price at the end of period (in USD)	15.3	22.7	19.8	-6.2	-2 3
Price of non-energy products at the end of period (in USD)	7.2	6 4	10.0	0.1	3.7

[1] Data refer to non-financial corporations.

Source: the BNB.