

MACROECONOMIC FORECAST

Autumn 2018

Ministry of Finance of the Republic of Bulgaria

The autumn macroeconomic forecast of the Ministry of Finance takes into account, actual at the time of its preparation, assumptions about the international environment in terms of external demand and prices. Compared to the spring forecast, the deceleration in the EU growth will be more pronounced in the current year, reflecting both a certain adjustment to long-term growth rates and a number of temporary factors in some countries. Despite the expectations for slower EU economic activity over the medium-term, the fundamentals for sustained growth remain in place.

During the first half of 2018 GDP growth increased by 3.4% in real terms, compared to expected annual increase of 3.9% in the spring forecast. Despite the favourable development of consumption and investment, the reported downward trend of exports resulted in lower economic growth and in revised expectations about the development of the Bulgarian economy in 2018. GDP growth is expected to reach 3.6% in 2018 driven by domestic demand. GDP will further increase by 3.7% in 2019 due to stronger public investment and public consumption. Meanwhile, private consumption will keep its relatively high growth rate. Export growth will accelerate to 2.8% following a weaker performance in 2018 due to worsened economic activity in Turkey, which is one of Bulgaria's main trading partners, along with some temporary trade slow down with other non-EU countries.

In 2018 the employment growth is estimated at 0.6% supported by the higher labour demand in industry and services. The unemployment rate will decrease to 5.4% and for the first time its value will be below the historical low record of 2008. The high levels of labour demand are expected to continue to be accompanied by limitations from the labour supply. This determines the expected slowdown of the employment growth in the medium term. For 2019 we expect the compensation per employee growth to gain momentum to 8.4%. Along with the envisaged higher expenditure in education and the minimum wage additional positive contributions are expected in line with the policy on broad wage increases in the public sector.

Inflation, measured by the HICP, has been revised upwards compared to the spring macroeconomic forecast due to higher international commodity prices. The new assumptions for crude oil international prices are higher throughout the forecasting period compared to the previous projection.

The main risks for the forecast are linked to the external developments, including international prices dynamics. ●

1. External environment

Expectations for the developments of the world economy remain unchanged compared to the spring macroeconomic forecast for 2018 and 2019, but are revised downwards in the mid-term horizon. The weaker-than-expected economic growth in the EU in the first half of the year led to lower projection for the whole 2018. The assumption for deceleration in the EU GDP growth is preserved over the upcoming years as growth rates are further reduced compared to the spring forecast.

In 2018, global growth is expected to continue to increase gradually, up by 3.9%, backed by increased economic activity in both developed and developing economies. At the same time, growth prospects are becoming more uneven among countries and regions and downside risks are rising, due to possible escalation of trade tensions, financial markets volatility and faster-than-expected tightening of financing conditions. The pace of global economic development will remain unchanged in 2019 and will gradually decline thereafter, restricted by moderate GDP growth in the advanced economies.

EU growth will begin to decelerate in the current year, reflecting both a certain adjustment to the long-term rate and a number of temporary factors in some countries. Despite the expected slowdown in near-term, fundamentals for sustained growth are preserved. Growth

in private consumption and moderate increase in wages, inflation and trade are expected.

The assumption for the BGN/USD exchange rate is based on the pegged exchange rate of the local currency vis-à-vis the euro and a technical assumption for the USD/EUR exchange rate. The latter is assumed to remain unchanged over the projection horizon at the average levels for the ten-working-day period ending on the cut-off date. In the current publication, actual daily data was available up until 13.09.2018.

The technical assumptions for the major commodity price indices are based on the expectations of the IMF and the World Bank, available at the time of preparation of the forecast. Given this information, the price of a barrel of Brent crude oil is assumed to rise by 31.4% to an average of USD 71.5 in 2018 as compared to the 17.6% increase expected in the spring macroeconomic forecast. These expectations are in line with robust global economy prospects, as well as the decision, reached among OPEC member states in June on stricter execution of the agreed production cuts, which pushed up crude oil prices in the second quarter of 2018. Expectations for shrinking of supply, after new US sanctions against Iran come into force in November, pushed prices higher in August and September. At the same time, the ongoing “trade wars” increased global uncertainty and

External assumptions. Difference from the previous forecast.

External environment	AUTUMN FORECAST 2018				SPRING FORECAST 2018				DIFFERENCE FROM THE PREVIOUS FORECAST			
	2018	2019	2020	2021	2018	2019	2020	2021	2018	2019	2020	2021
World real GDP [%]	3.9	3.9	3.7	3.7	3.9	3.9	3.8	3.7	0.0	0.0	0.0	0.0
EU 28 real GDP [%]	2.1	2.0	1.8	1.7	2.3	2.1	1.9	1.8	-0.2	-0.1	-0.1	0.0
USD/EUR exchange rate	1.19	1.16	1.16	1.16	1.23	1.23	1.23	1.23	-0.05	-0.07	-0.07	-0.07
Oil price, Brent [USD/barrel]	71.5	70.8	67.7	65.0	64.0	59.8	57.0	55.5	7.5	11.1	10.7	9.5
Non-energy commodity prices [in USD, %]	2.6	-0.1	0.0	0.3	5.5	1.1	-0.6	-0.3	-2.9	-1.3	0.6	0.6

Source: MF, EC, IMF, WB

led to slight downward revisions of some international organizations' growth projections for 2019 for both advanced and emerging economies. Subsequently, OPEC lowered their forecasts about crude oil demand in the next year. In line with these expectations, Brent crude prices will stop increasing before the end of 2018 and decline by 0.9% in 2019. The downward trend will accelerate in the following years and at the end of the forecasting period the price will come down to 65 dollars per

2. Gross domestic product

On October 3, 2018, the National Statistical Institute published revised GDP figures for the period 2013-2017. The nominal value of GDP was increased by BGN 2.4 bn in 2017 while real GDP growth reached 3.8% being 3.6%, according to the preliminary annual data published on March 7, 2018. Higher GDP growth in 2017 was due to better export performance, while consumption and investment growth was slightly lower. The revisions also affected GDP dynamics in 2018 and were incorporated in the autumn macroeconomic forecast for the period 2018–2021.

Real GDP growth rose by 3.4% during the first half of 2018 compared to expected annual increase of 3.9% in the spring forecast. Despite favourable development of consumption and investment, the reported downward trend of exports resulted in lower economic growth and in revised expectations about the development of the Bulgarian economy in 2018. GDP growth is expected to reach 3.6% in 2018 driven by domestic demand. Final consumption will increase by 4.8%, while the growth of gross fixed capital formation will reach 8.9%. Private consumption reported strong performance during the first half of 2018 supported by income growth and an increase of credits to households, while higher government spending on wages and maintenance led to an increase of government consumption. Private consumption is expected to remain leading for GDP growth until the end of 2018, however, its growth rate will start to decelerate during the second half of the year. The in-

crease of gross fixed capital formation will be supported by both public and private investment. Net export had negative contribution to GDP growth over the first half of the year due to weak export performance and the pressure on import as a result of consumption and investment growth. The contribution of net export is expected to remain negative during the second half of the year but to decelerate compared to first six months of 2018 due to more favourable export dynamics and more limited increase of domestic demand.



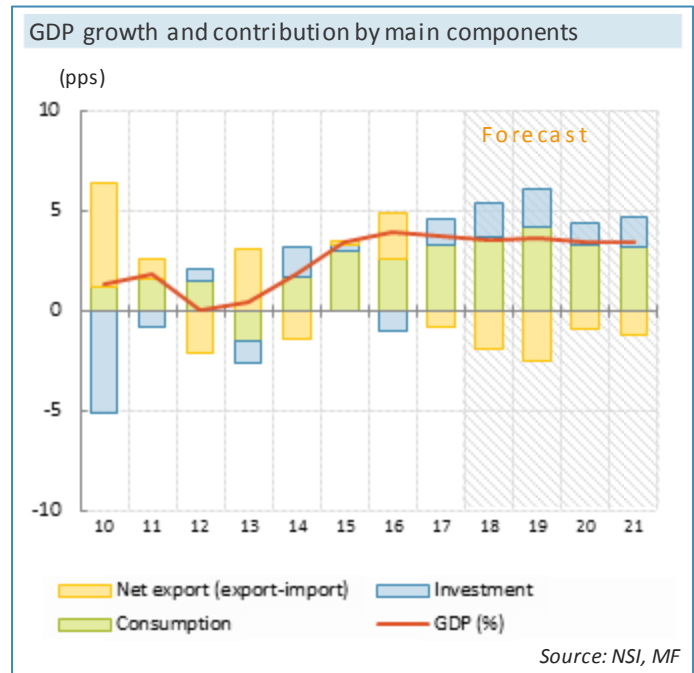
GDP growth will accelerate to 3.7% in 2019 supported by stronger public investment and public consumption. The increase of gross fixed capital formation is expected to reach 9.5%. Private consumption will keep its relatively high growth rate, however it will slightly decelerate compared to previous year due to more limited employment growth. Export will increase by 2.8%. At the same time, the acceleration of final demand will lead to higher import of goods and services. Thus, the negative contribution of net export to GDP growth will increase to 2.4 pps.

Economic growth is expected to reach 3.5% over the period 2020–2021. Domestic demand (both consumption and investment) will remain leading for GDP growth. While lower government spending on consumption and investment is expected to limit the increase of domestic demand in 2020, the growth of public expenditure will accelerate at the end of the forecast period and will result in higher increase of investment and domestic demand, respectively. The growth of private consumption will be limited during the upcoming years in line with the labour market developments which are related to lim-

3. Balance of payments

The Balance of payments forecast takes into account revised data for 2017- H1 2018, current dynamics as outlined by the short-term statistics and the latest assumptions about international prices and the external environment. The major changes in the forecast are related to the expectations for trade dynamics, mostly export, and growth rates in the forecast horizon are adjusted to better reflect base effects and additionally available information.

The strong rise in fuel prices (especially crude oil) on international markets in January-July, coupled with a more moderate increase in metal prices, was reflected in negative terms of trade. International economic institutions projections on price dynamics by the end of 2018 suggest a slight slowdown in export and import deflators in



ited opportunities for employment growth. The negative contribution of net export to GDP growth is expected to slow down to 1.1 pps on average during the period 2020–2021. •

the second half of the year, as negative terms of trade will be maintained.

Regarding growth in real terms, worsening of economic activity in Turkey, which is one of Bulgaria's main trading partners, together with some temporary trade slowdown with other non-EU countries, led to a decline in the overall export of goods in the first half of 2018. The expectations for the economic activity in the major trading partners and for dynamics among commodity group imply an increase in export of goods by the end of the year. Influenced by the reported decline in trade with third countries, the expected annual growth in export of goods is significantly lower than in the spring forecast. The slowdown in export and thereof in the demand for goods for export-oriented industries will have a restric-

tive effect on imports and its growth rate is also lower compared with the previous forecast.

Positive services dynamics will be preserved, supported by export of travel services. Nevertheless export of goods will determine the overall change in trade.

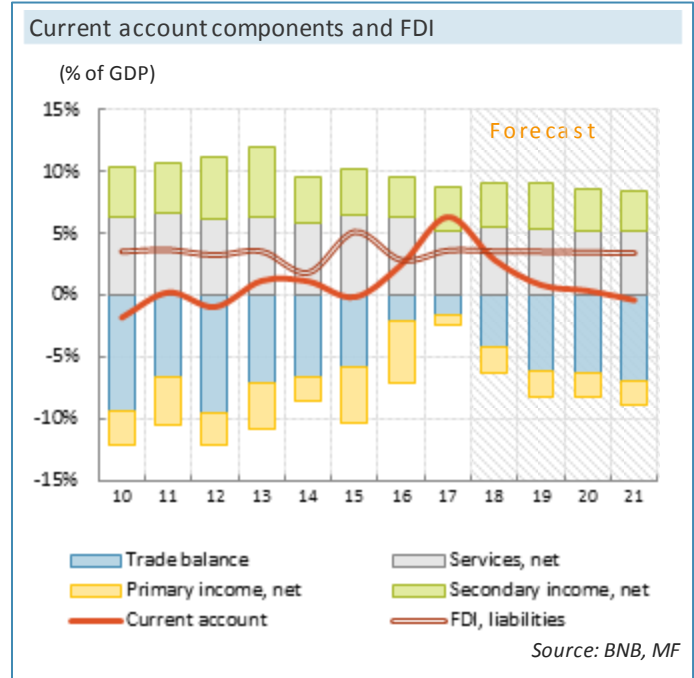
Nominal growth of goods and services import is expected to reach 7.3%, while export will go up by 3.7%. Both rates are lower compared with the spring forecast, but the expectation of higher import growth remains. The deterioration of the overall balance of trade in goods and services will be a major driver of the lower current account surplus in 2018 compared with 2017.

The ratio of primary income deficit to GDP will decline compared with 2017 reflecting the payout to non-resident investors, while the secondary income surplus will remain unchanged as a ratio to GDP, but will increase in value terms due to activation of projects and payments under operational programs. Current account surplus will shrink to 2.9% of GDP by the end of 2018.

A slight acceleration of foreign trade growth is expected in 2019. The negative impact of trade with third countries will be reduced and an increase in the overall real growth in exports of goods and services is expected. The acceleration of domestic demand and exports will also result in higher imports. In line with the previous forecast positive terms of trade are expected, but the dynamics in terms of volumes will determine the overall growths and the nominal annual growth of import (8.7%) will continue to outpace export (5.2%). There will be a more significant increase in the trade on goods def-

4. Labour Market and Incomes

In H1 2018 the employment dynamics remained close to expectations in the spring forecast, however the labour force reported a decline. Thus, the risk raised in the previous forecast that the economically active population might start decreasing as early as 2018 materialized, while previously we expected a gradual discontinuation



icit to 6.1% of GDP and as a result the overall balance of goods and services will also turn to a deficit of 0.7% of GDP. The change in the balance of income articles will be minimal and the surplus in the current account is expected to decrease to 0.9% of GDP.

In the period 2020–2021, as in the previous forecast, the nominal increase in import is expected to outstrip export, which will be a key factor for further shrinking of the current account surplus and a deficit of 0.3% of GDP in 2021.

FDI inflows will continue to increase steadily with a pace close to the nominal GDP growth. As a result, inward FDI will amount to around 3.5-3.6% of GDP per annum for the entire forecast period. ●

of the labour force increase after its significant enlargement in 2017. This reflected in lower participation and unemployment rates for the whole forecast horizon compared to the spring expectations.

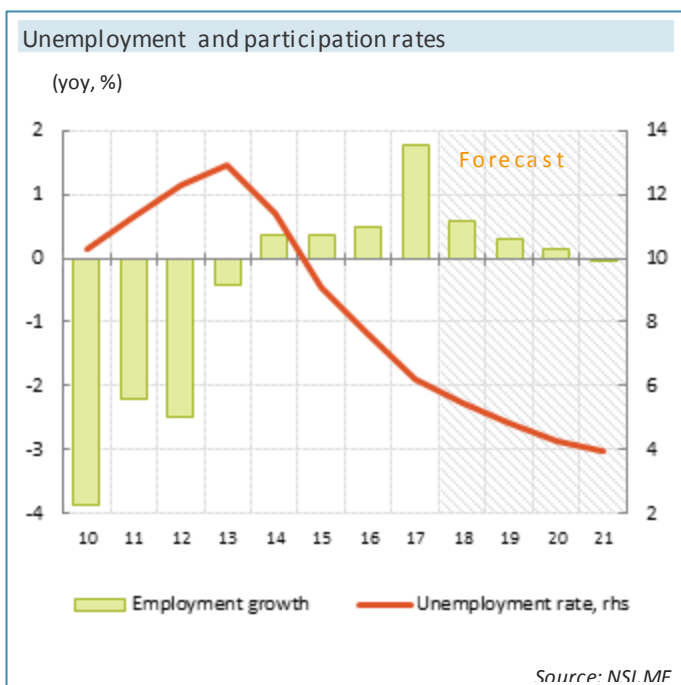
In the beginning of 2017 the employment growth decelerated to 0.7%¹ restricted by the negative dynamics in agriculture, while demand of labour in industry and services remained robust. This profile of the employment performance by economic sectors is expected to continue in H2 2018. Agricultural employment will further contribute negatively in the context of GVA decline in H1 2018 and taking into account the double-digit employment growth in H2 2017. At the same time, in line with the positive development in the domestic demand, the contribution of services will be close to H1 2018. The expected slight deceleration in the manufacturing employment performance will be offset by the high growth rate in construction, as construction employment started to recover hardly in end-2017. For the whole 2018 the employment growth is expected to be 0.6% supported by the higher labour demand in industry and services. The unemployment rate will decrease to 5.4%² and for the first time its value will be below the historical low record of 2008, while the participation rate increase will be weaker compared to 2017 due to the labour force decrease.

The high levels of labour demand are expected to continue to be accompanied by limitations from the labour supply, as since 2017 the labour shortages seen as an obstacle for the business activity steadily exceeded their pre-crisis levels in all the sectors under survey³. These developments determined the expected slowdown of the employment growth in the medium term.

In 2019 the employment growth will decelerate to 0.3% on the account of both industry and services. Agricultural employment is supposed to continue decreasing due to the high share of self-employed and the restructuring of the agricultural farms from small ones comprising self-employed toward larger ones hiring employees. The smaller labour supply will be influenced by the working-age population decline and the depletion of the potential labour resource of unemployed and inactive (mostly discouraged). The unemployment rates is expected to decrease to 4.8% in 2019 and the participation rate will keep the pace of increase from the previous year, as the rate of the labour force decrease will not exceed that of population. The latter will remain as a trend till the end of the forecast horizon.

In 2020–2021 the employment growth will decelerate to 0.2% towards stabilization in 2021, with a tendency to decline, while the unemployment rate will gradually decrease to 4% in the end of the forecast period.

In comparison to the spring forecast more sizable differences in income developments are expected in 2018 and 2019. The growth of the indicator has been revised downwards in 2018, while the estimate for 2019 will outstrip the expectation from the spring forecast. Due to the upward adjustment of 2017 preliminary data, compensation per employee reported a lower nominal rate of increase in H1 2018 and this trend is likely to remain in H2. Thus, the value of the indicator is projected to reach 6.6% for the whole year, down from 10.5% in 2017. As opposite to 2017, the recent net employees' inflow pointed towards a substantial increase in the



¹ According the ESA 2010 definition.

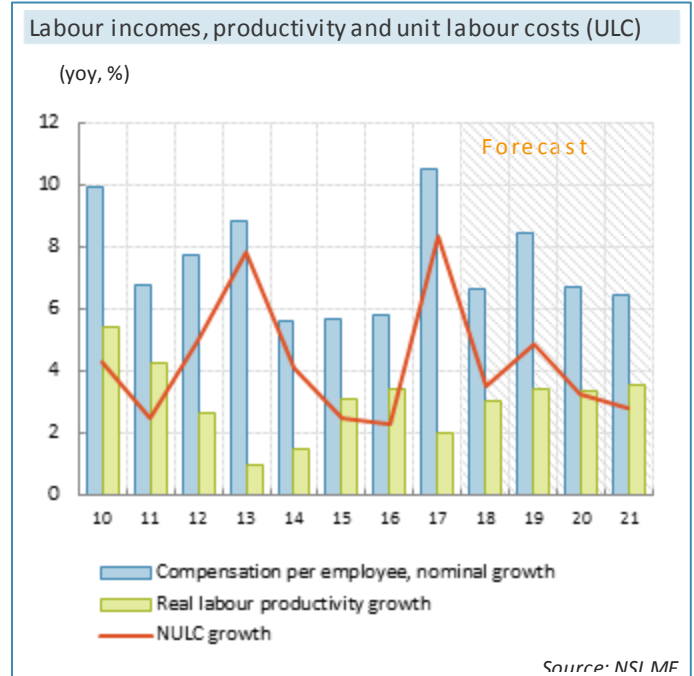
² According the definition of the Labour force survey.

³ According to the business surveys of the NSI among employers.

number of jobs across the low and medium-skilled occupations, which also limited the average wage growth.

Following the expected upward trend in real productivity and consumer prices the compensation per employee growth will speed up to 8.4% in 2019. Along with the envisaged higher expenditure on compensation of employees in education and the minimum wage additional positive contributions are expected in line with the policy on broad wage increases in the public sector. The nominal growth of the indicator is expected to be higher by about 1.5 pps as compared to the spring forecast. Afterwards, the compensation per employee growth is set to slow down and it is projected to reach 6.4% in 2021. Similar to the spring forecast, the latter reflects the expected moderate employment increases and smaller effects from social security contributions. The impact of public sector wages is expected to remain lower as well.

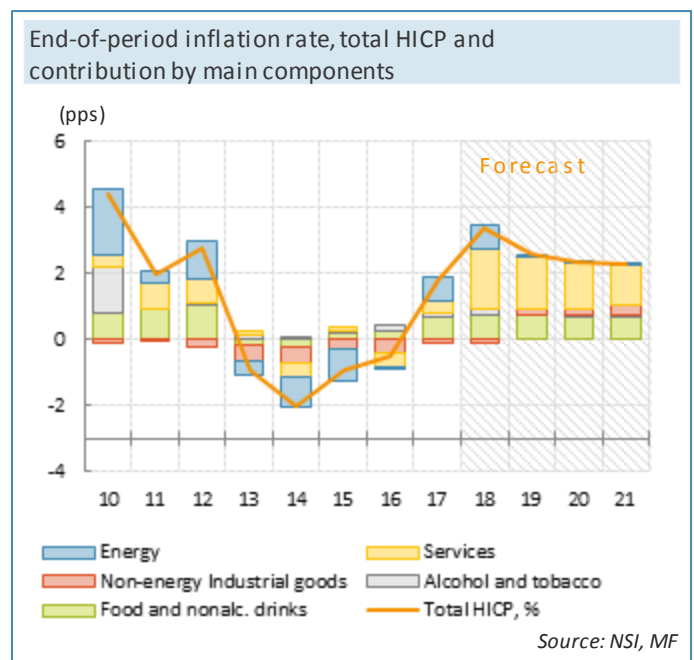
Throughout the entire forecast period the expectations for real labour productivity growth remain close to the spring forecast at an annual average rate of 3.3%. Similarly, the relatively stronger wage growth expectations compared to productivity are not modified as well. The



upward trend in nominal unit labour costs (NULC) growth up to 2019 will be partially offset by its deceleration at the end of the forecast period. Thus, NULC are projected to grow by an annual rate of 3.6% on average in 2018–2021.

5. Inflation

HICP inflation has been revised upwards compared to the spring macroeconomic forecast. Taking into account current HICP dynamics and latest assumptions on commodity prices, the average annual inflation rate in 2018 is expected to be 2.7%, given that the sharpest increases in international prices occurred during the second half of 2017 and the first half of 2018. End-of-period inflation rate will reach 3.4%, led by higher prices of services, transport fuels and food. The increase of services prices will accelerate to 5.9% backed by strengthening of domestic demand, second-round effects of higher oil and food prices on transport and catering services respectively. The anticipated increase in international crude oil prices will result in higher energy prices, thus domestic prices for transport fuels will rise by 7.9% at the end of 2018. Prices of non-energy industrial goods will continue



on the decline, but at a slower rate. The positive contribution of core inflation (total index excluding energy, food, alcohol and tobacco) to the end-of-period inflation will strengthen.

Annual average HICP increase is projected to be 3.0% in 2019, while end-of-period inflation will slow down to 2.6%. Core inflation will be the main contributor to the increase of total index influenced by the expected solid domestic demand growth. International prices will have

6. Monetary sector

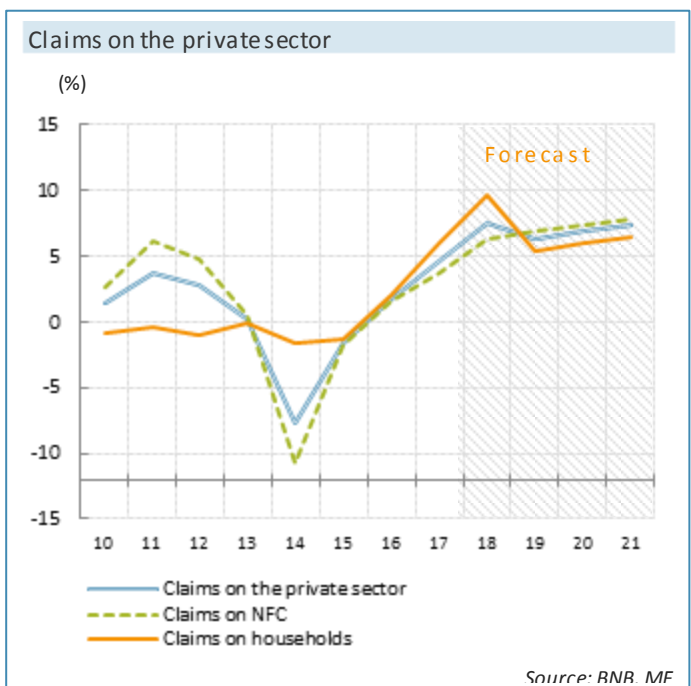
In the period 2018-2021, private sector credit will continue to grow in line with expectations for favorable economic activity, relatively high growth of households' consumption and positive labor market dynamics. Attracted deposits in the banking system are expected to continue to grow for the entire forecast period, as well. Their pace of growth will at the same time reflect labor market developments, in particular dynamics of employment and incomes growth.

Compared to the spring forecast, the annual growth of private sector credit for 2018 is revised upwards. This was on the account of current dynamics and, in particular, significant acceleration in households' credit driven by consumer and loans for house purchases. By the end of 2018 claims on private sector are expected to accelerate to 7.5% yoy. Credit to non-financial corporations accelerated with a slower pace during the year and registered 4.2% yoy at the end of August. Claims on companies are projected to increase by 6.3% yoy by the end of 2018, while those on households to be up by 9.6% yoy.

After 2018, credit to non-financial corporations will continue to accelerate gradually and will have higher contribution to the overall growth of private sector credit by the end of the forecast horizon. Annual growth of credit to households will slow down in 2019 mainly due to ef-

minimal effect on the headline rate as they are not expected to change significantly in the next year. 12-month average inflation rate will continue to decrease in 2020 and 2021, down to 2.5% and 2.3% respectively, driven exclusively by the core inflation. Consumer prices of transport fuels are projected to remain little changed towards the end of the forecast period reflecting the assumptions for the crude oil international prices' dynamics. •

fects coming from government residual repayments on loans extended under the National Programme for Energy Efficiency of Multi-Family Residential Buildings. As a result, growth of claims on private sector is expected to slow down to 6.4% yoy by the end of 2019. Additional factor in this direction could be potential actions by banks to improve the quality of their balance sheet assets. In 2020 and 2021, claims on private sector will accelerate to 6.9% yoy and 7.3% yoy, respectively. •



7. Risks

The main risks from the external environment are related to the volatile geopolitical situation and the growing number of protectionist measures introduced by some countries. The violation of generally recognized economic agreements restricts foreign trade and adversely affects investment activity, which may lead to serious negative consequences for certain economic sectors, regions and/or countries, depending on the degree of economic confrontation. As the EU and other major trading partners of Bulgaria are part of these processes, increasing uncertainty or spreading protectionist policies can significantly affect both Bulgaria's export and the ability to provide the necessary quantity and quality of imported raw materials - both would negatively affect the economic activity in the country. The prolonged depreciation of the new Turkish lira led to a negative balance of foreign trade with the country. The lack of clear and predictable expectations about the exchange rate of the Turkish currency makes it difficult to conclude long-term contracts and limits the competitiveness of Bulgaria's export. A new devaluation of the lira or a slowdown in Turkey's economic growth would have a negative effect on Bulgaria's export. Uncertainty about the way the United Kingdom will exit the EU, and in particular the difficult negotiations under the trade agreement, could further shrink the growth of export. The realization of these risks would increase the negative contribution of net export to the economic growth and lead to a larger increase in the current account deficit.

Main risk for the realization of the inflation forecast is linked with the assumptions regarding international prices. To a certain extent they are based on expectations for negative effects from the US "trade wars" on the world economy which could result in lower demand and decline of energy commodity prices. In the event of a resolution of trade disputes and removal of imposed extra tariffs it is likely that commodity prices would resume their upward dynamics supported by the positive medium term global growth perspectives. On the crude oil supply side the risk concerns the US sanctions towards Iran's exports and the uncertainty whether the shortages in supply would be compensated by other producers.

Investment dynamics in the forecast depends largely on the expected implementation of government capital expenditures in 2019. As a result, weaker public expenditures would limit the investment growth for the year and their positive effects would shift to the next years of the forecast period. ●

MAIN ECONOMIC INDICATORS	ACTUAL DATA*		PROJECTIONS			
	2016	2017	2018	2019	2020	2021
International Environment						
World real GDP [%]	3.2	3.8	3.9	3.9	3.7	3.7
EU28 real GDP [%]	1.9	2.4	2.1	2.0	1.8	1.7
USD/EUR exchange rate	1.11	1.13	1.19	1.16	1.16	1.16
Crude oil, Brent [USD, bbl]	44.0	54.4	71.5	70.8	67.7	65.0
Non-energy commodity prices [in USD, %]	-2.6	4.4	2.6	-0.1	0.0	0.3
Gross Domestic Product						
Nominal GDP [mln BGN]	94 130	101 043	108 141	116 412	124 627	132 884
Real GDP growth [%]	3.9	3.8	3.6	3.7	3.5	3.5
Consumption	3.3	4.3	4.8	5.4	4.2	4.1
Gross fixed capital formation	-6.6	3.2	8.9	9.5	5.1	6.7
Export of goods and services	8.1	5.8	2.3	2.8	2.8	2.7
Import of goods and services	4.5	7.5	5.3	6.7	4.1	4.6
Labour Market and Prices						
Employment growth [SNA, %]	0.5	1.8	0.6	0.3	0.2	0.0
Unemployment rate [LFS, %]	7.6	6.2	5.4	4.8	4.3	4.0
Compensation per employee [%]	5.8	10.5	6.6	8.4	6.7	6.4
GDP deflator [%]	2.2	3.4	3.3	3.8	3.4	3.0
Annual average HICP inflation [%]	-1.3	1.2	2.7	3.0	2.5	2.3
Balance of Payments						
Current account [% of GDP]	2.5	6.4	2.9	0.9	0.4	-0.3
Trade balance [% of GDP]	-2.0	-1.5	-4.1	-6.1	-6.2	-6.9
Foreign direct investments [% of GDP]	2.9	3.7	3.6	3.6	3.5	3.5
Monetary Sector						
Money M3 [%]	7.6	7.7	8.1	8.2	8.3	8.3
Claims on enterprises [%]	1.6	3.8	6.3	6.9	7.4	7.8
Claims on households [%]	2.0	6.1	9.6	5.4	6.1	6.4

* The forecast is based on statistical data up to 19 September 2018, unless otherwise noted

Source: IMF, EC, WB, MF, NSI, BNB