MACROECONOMIC FORECAST

Autumn 2017

Ministry of Finance of the Republic of Bulgaria

The Autumn macroeconomic forecast of the Ministry of Finance takes into account better performance of the Bulgarian economy in the first half of 2017 which resulted in upward revision of the expectations for the economic growth over the forecasting period 2017-2020.The forecast is based on most recent assumptions on international environment in terms of external demand and prices. The expectations for the development of the European and world economy are more positive in 2017 compared to the Spring forecast, while estimates for the dynamics of international prices of oil and non-energy commodities are slightly lower.

Real GDP growth in H1 2017 was 3.7% yoy and for the whole 2017 it is expected to reach 4.0%, driven by domestic demand and mostly private consumption (4.3%). The gross fixed capital formation will increase by 3.4% with expected favourable dynamics in both private and public investment. In the period 2018–2020 domestic demand will continue to be the main driver of the economic growth, which is expected to be 3.9% for the three years. The expectations for consumption and investment growth are higher compared to the Spring macroeconomic forecast while the contribution of net export will be lower. The tendency for higher growth of import compared to export will continue till the end of the forecasting period which will lead to a gradual increase in the trade deficit to 3% of GDP in 2020.

The upward revision in expectations for the economic growth led to more optimistic employment estimates for 2017 and 2018 in comparison with the Spring forecast, but the growth will decelerate in the following two years due to the fast shrinkage of the potential for increasing the employed numbers and the influence of demographic developments in the medium term. Inflation expectations remain positive, reflecting the assumptions for rising oil and non-energy commodity prices and increasing external demand. Private sector credit growth will continue to accelerate in line with the expectations for increased economic activity, including households' consumption and the pick-up in investment's growth and at the end of the forecasting period it will be close to 6.7%.

The main risks to the Autumn macroeconomic forecast are related to the external environment, international commodity prices dynamics, as well as the unfavourable demographic developments.

1. External environment

The assumptions for the development of the world economy in 2017 are revised slightly upward compared to the Spring macroeconomic forecast, but remain unchanged in the near-term horizon. Higher-than-expected economic growth in the EU in the first half of 2017 led to a significant upward revision in the expectations for the whole 2017. Positive, but lower effect will be also visible in 2018, while the assumptions for GDP growth in the EU in the near-term horizon remain the same as in the previous forecast.

World GDP growth will accelerate from 3.2% in 2016 to 3.5% in 2017 supported by stronger economic activity in both advanced economies and emerging markets. Economic growth in the EU will reach 2.2% in 2017 compared to an increase of 1.9% in 2016 mainly driven by domestic demand. US economy is expected to increase by 2.1% in 2017 (1.5% in 2016) due to the recovery of private investment and export. World GDP growth will continue to accelerate moderately to 3.7% in 2018, mainly as a result of the stronger economic activity in developing countries, while GDP growth in developed countries will slow down slightly. The moderate GDP increase in advanced economies will continue to be a drag on world economic growth until the end of the forecasting period.

The technical assumptions for the major commodity price indices are based on the expectations of the IMF, ECB 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 17.3% to an average of USD 51.8 in 2017 as compared to the 27.7% increase expected in the Spring macroeconomic forecast. Non-energy commodity prices are expected to step up by 7.7%, i.e. food prices to go up by 3.6%, and metal prices – by 21%. In 2018 the Brent price is projected to increase by 1.5%, while prices of non-energy commodities will go up only marginally – up by 0.4% in USD terms. All main commodity price indices are forecast to continue increasing in the period 2019–2020.

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[1]. •

External assumptions. Difference from the previous forecast.

	AUTUMN FORECAST 2017				SPRING FORECAST 2017				DIFFERENCE FROM THE PREVIOUS FORECAST			
External environment	**2017**	**2018**	**2019**	**2020**	**2017**	**2018**	**2019**	**2020**	**2017**	**2018**	**2019**	**2020**
World real GDP [%]	3.5	3.7	3.7	3.7	3.4	3.6	3.7	3.7	0.1	0.0	0.0	0.0
EU 28 real GDP [%]	2.2	2.0	1.8	1.8	1.8	1.8	1.8	1.8	0.4	0.1	0.0	0.0
USD/EUR exchange rate	1.14	1.19	1.19	1.19	1.06	1.06	1.06	1.06	0.08	0.13	0.13	0.1
Oil price, Brent [USD/barrel]	51.8	52.6	53.1	53.7	56.4	56.9	58.3	59.7	-4.6	-4.3	-5.2	-6.0
Non-energy commodity prices [in USD, %]	7.7	0.4	1.2	1.0	8.6	1.6	1.4	1.4	-0.9	-1.2	-0.2	-0.4

Source: MF, EC, IMF, WB

[1] The cut-off date for the technical assumption for the exchange rate was 13 September 2017.

2. Gross domestic product

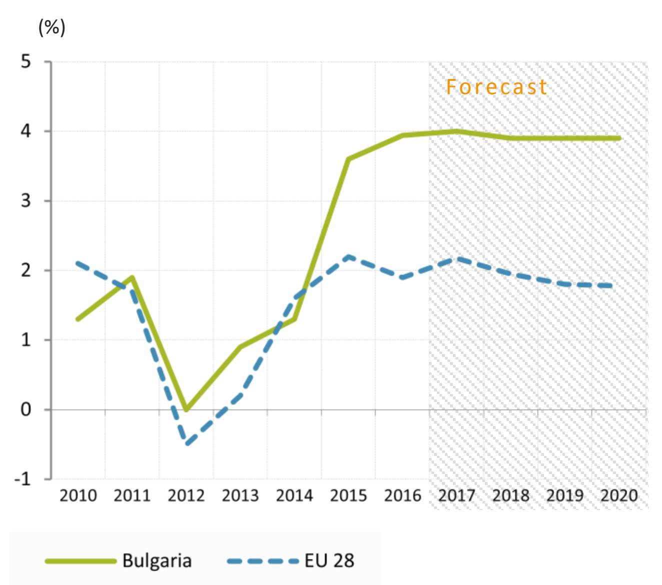
On 3 October 2017, the National Statistical Institute published revised GDP figures for 2016. According to them, the nominal value of GDP for 2016 was increased by BGN 1.5 bn compared to preliminary data, which corresponds to a real economic growth of 3.9% being 3.4% previously and reflects a more pronounced increase in both consumption and export. This information was incorporated in the Autumn macroeconomic forecast for the period 2017–2020.

Real GDP growth in H1 2017 reached 3.7% and exceeded the projected value of 3% in the Spring forecast. Increase in production was observed in the three main sectors: manufacturing, construction and services. The survey indicators for households' and business expectations have also followed an upward trend since the beginning of 2017.

The current more favourable development of the Bulgarian economy in the first half of 2017 has been reflected in an increase of the economic growth estimates over the entire forecasting period 2017–2020. According to MF estimates, the potential of the economy has increased, which also gives reason to expect stronger GDP growth for the period 2017–2020 compared to the previous projections.

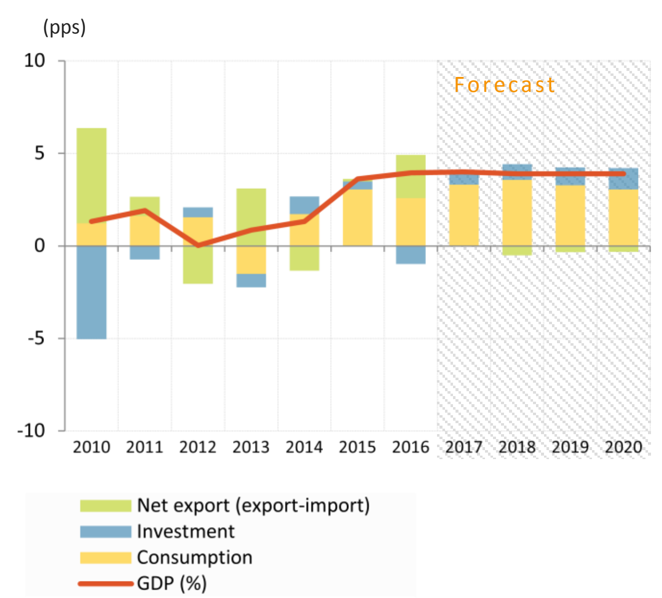
The Bulgarian economy is expected to increase by 4.0% in 2017, driven by domestic demand, mostly by private consumption. The increase in households' real disposable income and the positive development of the labour market in the first half of the year supported the growth of private consumption. Higher government spending on wages and maintenance was reflected in an increase in public consumption. It is expected that the favourable dynamics from the first half of 2017 will continue until the end of the year, with growth in private consumption slightly slowing down, resulting in growth of final consumption of 4.3%. In terms of gross fixed capital formation, growth is expected to be 3.4%, with a positive contribution from both public and private investment. The growth rate of export of goods will remain close to that recorded in 2016 and in the first half of 2017. At the same time, annual growth in export of services is expected to slow down compared to the previous year, which will lead to lower total export growth of 6.1%. Ex-

Real GDP growth



Source: Eurostat, MF

GDP growth and contribution by main components



Source: NSI, MF

pected dynamics of domestic demand by the end of the year will limit the rise in import and the negative contribution of net export to GDP growth.

Economic growth will slightly decelerate to 3.9% in 2018 due to weaker demand from our main trading partners. The latter will limit the growth of export of goods and services to 5.9%. At the same time, the upward dynamics of domestic demand will remain, supported by higher public expenditures. Final consumption will increase by 4.7%, while investment growth will accelerate to 4.3%. Higher domestic demand will lead to an increase in import to 7.1%. Thus, net export will have negative contribution to GDP growth of 0.5 pps.

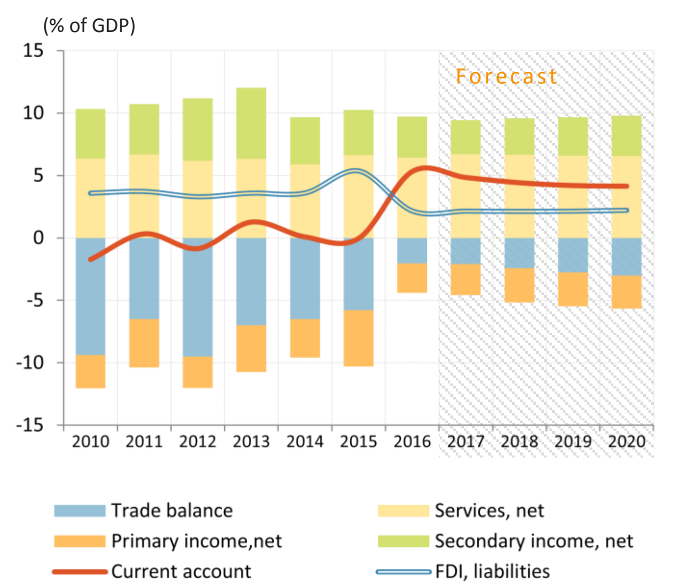
GDP growth is expected to remain unchanged at 3.9% over the period 2019–2020. Domestic demand (both consumption and investment) will be leading for the expected GDP increase. The growth of final consumption will slightly slow down at the end of the forecasting period, affected by lower growth of public consumption and constraints coming from the labour market developments. As a result, the negative contribution of net export will decrease to 0.3 pps.

3. Current Account

The current Balance of payments forecast takes into account the revised data for 2016 and H1 2017, the 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 in 2017, and growth rates in the forecast horizon are adjusted to better reflect base effects and additionally available information.

The rise in international prices and the accelerated increase in domestic demand in the first half of 2017 predetermined the outpacing of nominal growth of import versus export and mostly accounted for the decrease in the current account surplus. Till the end of the current year, the yoy increase in international prices is expected to slow down, more pronouncedly for fuel prices. This, along with the projected depreciation of the dollar against the euro and the Bulgarian lev, respectively, will lead to lower trade deflators and better terms of trade. By the end of 2017 there will be similar annual changes in import and export deflators. Given the dynamics of prices and real growth, the average annual growth rates of import and export in 2017 will decelerate as compared to the first half of the year, but will remain significantly above those registered in 2016. The growth of export of goods and services will reach 9%, while import will go up by 8.8%. The ratio of primary income deficit to GDP will deteriorate slightly compared with 2016 reflecting the payout processes to non-residents. The surplus on secondary income will decrease as a result of the lower payments from EU funds in connection with the start of the new programming period. Taking into ac-

Current account components and FDI



Source: BNB, MF

count the dynamics of individual articles, the current account surplus will narrow to 4.8% of GDP by the end of 2017.

A reversal in the trend in foreign trade is expected in 2018. Nominal growth of import will outstrip the growth of export, reflecting both the acceleration in the import of goods in terms of quantity and the slight slowdown in export of goods affected by the worsening demand within the EU. At the same time, the expected slowdown in fuel prices growth will result in lower import deflator, rising export deflator and positive terms of trade. The upward trend in import over the export of goods will remain till the end of the forecasting horizon, which will result in a gradual increase in the trade deficit to 3% of GDP in 2020. The ratio to GDP of the balance of services will remain unchanged over the period, so the overall trade balance will gradually decline, driven by the trade in goods.

The acceleration of the gross operating surplus, along with the steady increase in FDI, will result in an increase in the investment income paid to non-residents and a rise in the primary income deficit to just over 2.5% of GDP in the period 2018–2020. The increase in incoming transfers to the General government is expected with the activation of projects and payments from the 2014–2020 programming period. However, the related increase in the secondary income surplus will be at a rate close to that of GDP. The ratio of its balance to GDP will remain almost unchanged in the range of 2.9-3.2%. As a result of the trends described, the current account surplus is expected to be around 4.4% of GDP in 2018 and then to decrease gradually. •

4. Labour Market and Incomes

The labour market developments in the first half of 2017 and the upward revision in expectations for the economic growth led to more optimistic employment estimates for 2017 and 2018 in comparison with the Spring forecast. At the same time, the employment growth for 2019 and 2020 is slightly weaker than previously expected due to the fast shrinkage of the potential for increasing the employed numbers and the influence of demographic developments in the medium-term. The latter will rapidly bring to a halt the labour force increase observed in 2017.

In the first half of 2017 the labour market evidenced stronger performance compared to a year earlier and despite the expected slowdown in the employment growth till the end of the year the average employment growth for the whole 2017 will accelerate to about 0.8%[2]. This will be supported by the positive dynamics in agriculture compared to the registered decrease in 2016 and the higher labour demand in industry which is expected to continue till end-2017 both in manufacturing and construction. The pace of job creation in services decelerated in the first six-month period of 2017 and the weaker employer's expectations for hiring labour as of mid-2017[3] gave reason to expect lower contribution of services to the overall employment dynamics as compared to 2016. The employment growth in 2017 will be accompanied by unemployment decrease to 6.5% and the labour force participation of population (15+) will increase to 54.4%.

The expected export growth slowdown in 2018 will contribute to a deceleration in the overall employment growth to about 0.6%. The weaker labour demand in manufacturing will be offset to a certain extent by the continuing employment recovery in construction, while the employed dynamics in services is expected to im-

[2] According to the ESA 2010 employment definition.

[3] According to the Business survey in the service sector carried out by the NSI.

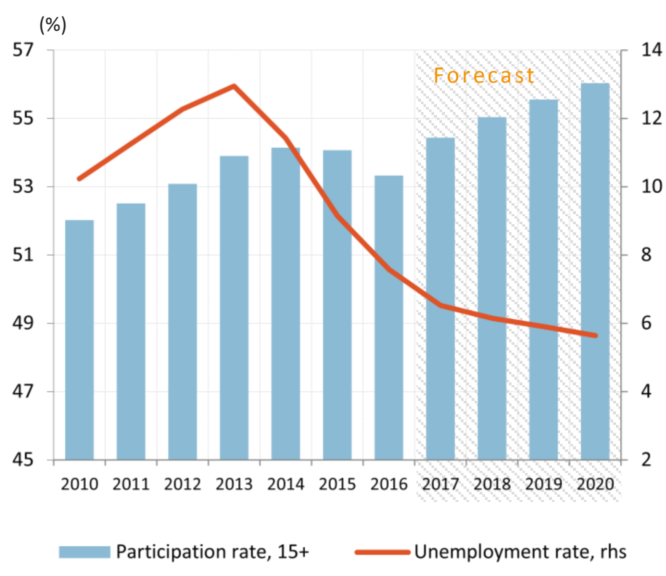
prove along with the positive developments of domestic demand and the weaker performance in services in 2017. The 2018 expectations also assume self-employment in agriculture to decrease due to the slow restructuring of the agricultural farms from small ones comprising predominantly family work force towards bigger farms hiring labour. In 2018 the unemployment rate is expected to decrease to 6.2%. The participation rate of population (15+) will increase slowly compared to 2017 due to the gradual decrease in the potential of the available labour resource to meet the demand for labour. Meanwhile, the pension and structural reforms on the labour market will contribute to the higher labour force participation.

The negative demographic trends and their implication on the labour supply will narrow the employment growth to 0.4 and 0.2% in 2019–2020. The unemployment rate will gradually decrease to reach 5.6% in 2020. At the end of the forecast horizon, the work force is expected to decrease; however, the labour force participation will keep its pace of increase.

Expectations for the medium-term income developments have been revised upward as compared to the Spring forecast following the observed dynamics since the beginning of the year along with the projected further improvement of the labour market and the overall economic conditions. In the first half of 2017 the compensation per employee grew faster than expected. The recent net employees' inflow pointed towards an increase in the number of jobs across the highly-skilled occupations, which also pushed the average wage levels up. However, on the account of the expected slightly lower employment demand in the second half of 2017 the compensation per employee growth is likely to remain close as compared to the first six-month period of the year. Thus, it is projected to increase by a nominal rate of 6.0% for the whole year, being 5.8% in 2016.

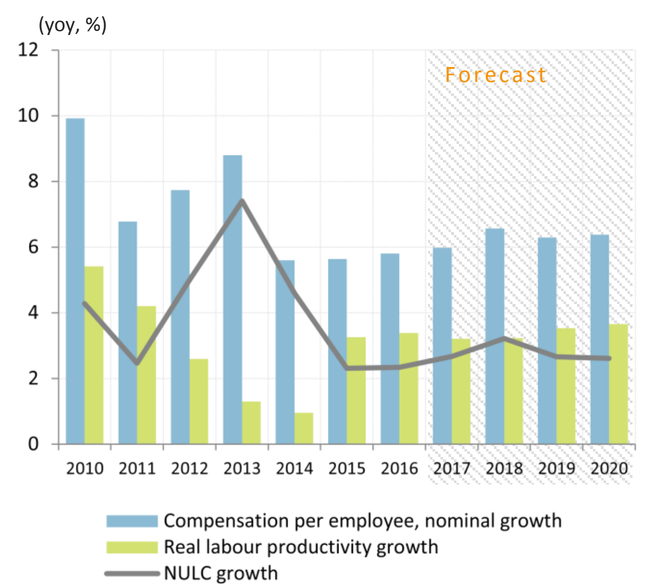
A more sizable increase in the indicator is expected in 2018 sustained by the upward trends in real productivity, consumer prices and labour demand. The compensation per employee growth will speed up to 6.6% with positive contributions coming also from the envisaged by the government higher expenditure on compensation of employees in education and minimum wages growth (up by 10.3%). At the end of the forecasting horizon, the compensation per employee growth is set to remain strong. However, it is projected to slow down its pace of

Unemployment and participation rates



Source: NSI,MF

Labour incomes, productivity and unit labour costs



Source: NSI,MF

increase to 6.3-6.4% in 2019–2020 reflecting the expected lower employment growth.

Throughout the entire forecasting period the expectations for real labour productivity growth are revised upward to an annual average rate of 3.4%. The relatively stronger wage growth compared to productivity would imply a gradual increase in the share of compensation of employees in gross value added, thus the nominal unit labour costs are projected to increase moderately, up by 2.8% on average in 2017-2020.

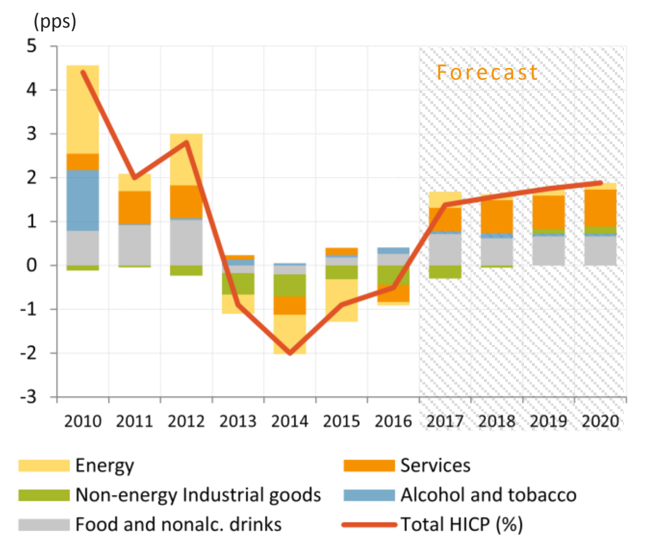
5. Inflation

Current HICP dynamics and latest assumptions for the major commodity price indices led to a slight downward revision in the inflation projections for 2017–2020. The annual average inflation rate in 2017 is expected to be 1.1%, while the end-of-period inflation rate will reach 1.4%. The anticipated increase in international commodity prices will result in higher domestic energy and food prices, which will have the highest positive contribution for the increase in the headline rate at the year-end. Services prices are expected to increase by 1.6% backed by the stronger domestic demand and the increase in food prices which led to higher catering services prices. Prices of non-energy industrial goods will continue on the decline, albeit at a slower rate. Thus core inflation is expected to have slightly positive contribution for the end-of-period inflation in 2017.

The HICP index is projected to go up by 1.4% on average in 2018, while the end-of-period inflation rate will reach 1.6%. The continuing increase in prices of food and energy as well as the higher core inflation in line with the strengthening domestic demand will account for the expected acceleration in the headline rate. The envisaged hike in excise stakes on tobacco in 2018 is expected to contribute by 0.1 pp to the change in the total index at the end of the year.

The annual average inflation rate is expected to accelerate to 1.7% in 2019 and to 1.8% in 2020 under the assumption for higher international prices of crude oil and major non-energy commodities, as well as higher domestic demand.

End-of-period inflation rate, total HICP and contribution by main components



Source: NSI, MF

6. Monetary sector

Private credit dynamics since the beginning of 2017, along with higher estimates of current and expected economic developments, led to an upward revision of the credit outlook compared to the 2017 Spring macroeconomic forecast.

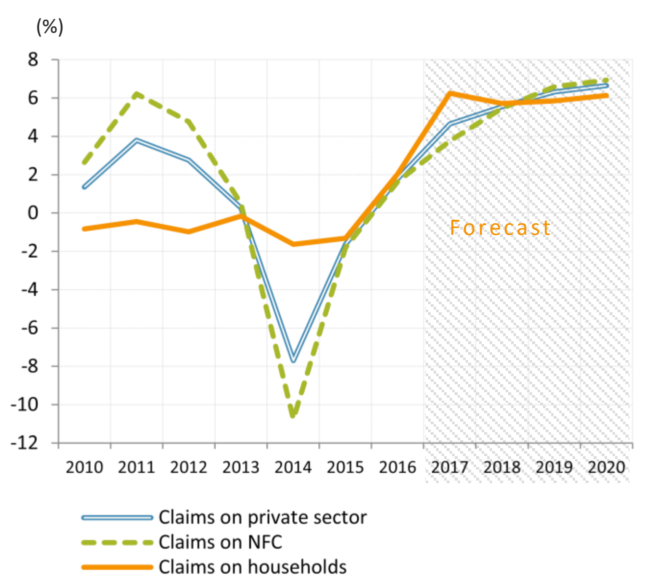
Money supply growth is forecasted to slow down to 6.3% yoy in 2017 vs. 7.6% at the end of 2016 on the account of the current developments of deposits in the banking system, mainly due to the dynamics of FX deposits with agreed maturity up to 2 years and those redeemable at notice up to 3 months. The growth rate of deposits with agreed maturity will start to accelerate gradually after 2018, and this trend will continue until the end of 2020. In the period 2018–2020 BNB international reserves and non-government sector deposits in the banking system will continue to increase. By the end of 2019 and 2020, the growth of broad money will accelerate to 6.6% and 6.8%, respectively.

At the end of July claims on private sector posted a positive annual growth of 4.8% vs. 1.8% at the end of 2016. Private credit growth accelerated since the beginning of 2017 and reached 4.7% yoy at the end of May, then slightly slowed down and at the end of July stood at 4.5% vs. 1.5% yoy at end-2016. Loans to households contributed more to the positive growth of private sector credit and accelerated from 2% yoy at the end of 2016 to 5.5% yoy in July. Dynamics of both main components – loans to households and loans to non-financial corporations, was driven on one hand by a sustainable upward trend of regular loans, and on the other – by a decrease in bad and restructured credits.

Claims on private sector are expected to grow by 4.7% at the end of 2017 with a higher growth of 6.3% of claims on households. The acceleration till the end of the year will continue to be driven by both better demand-side and supply-side environment.

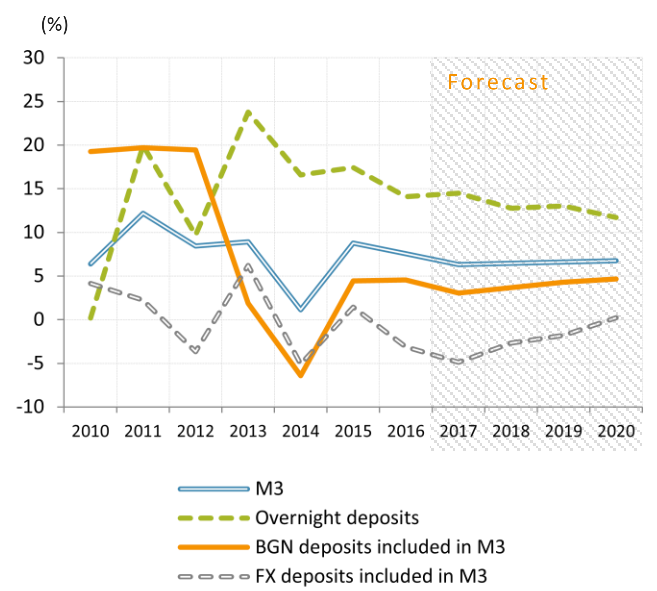
Private credit growth will continue to accelerate in the period 2018–2020 in line with the expectations for improved economic activity, increase in households' consumption and acceleration of investments' growth. Claims on the private sector are expected to increase by 5.6% yoy at the end of 2018, driven mainly by the growth of claims on non-financial corporations which will reach 6.9% by the end of 2020. •

Claims on private sector



Source: BNB, MF

Money supply and deposits



Source: BNB, MF

7. Risks

The main risks to the Autumn macroeconomic forecast are related to the external environment, international commodity prices dynamics, as well as the unfavourable demographic developments.

Risks for the external sector forecast stem from the possible deviation of the external demand from expectations. Despite the positive developments observed in the current year, the external environment remains volatile. This forecast follows a more conservative scenario, but the increased geopolitical tension in some of the EU's major trading partners and the uncertainty about the negotiations and how Brexit will actually take place, could lead to economic activity slowdown in Bulgaria's trading partners. These factors will further limit the export growth and, consequently, would lead to a worsening of the country's current account.

Risks to the inflation forecast are mainly related to commodity price developments. Given the current juncture on the international crude oil market, any unanticipated supply disruptions in the short or medium-term could distort the market balance and thus will have an impact on prices either on the upside or on the downside. Meanwhile, unfavourable weather conditions could support higher-than-expected food price increases on the global scale. Furthermore, international commodity prices have a direct impact on changes in export and import in nominal terms. Weaker-than-expected domestic demand growth remains among the domestic risks to the inflation outlook as it could result in more subdued core inflation.

The technical assumption for the exchange rate also could affect the expectations for the external sector indicators and domestic price dynamics. Currently, the risks of its deviation from forecast are balanced.

In terms of growth drivers' estimation, the main risk for the labour market forecast stems from the demographic influence on the labour force. The latter increased in 2017, while the fast reduction of the unemployed and discouraged during the last three year restrains the potential for the employment growth. As a result, the recent increase in the labour force is expected to gradually come to a halt and turn to a decrease toward the end of the forecasting horizon. However, demographic developments could lead to a decrease in the work force as early as 2018 which will limit the growth of both employment and economic activity. Thus, an eventually lower contribution of labour might be accompanied by a lower productivity increase compared to expectations which might also narrow the potential growth in the mid and longer term. Such a tendency coupled with a stronger income dynamics stemming from the insufficient labour supply will result in additional pressure for raising the unit labour costs. •

MAIN ECONOMIC INDICATORS	ACTUAL DATA*		PROJECTIONS			
	2015	2016	2017	2018	2019	2020
International Environment						
World real GDP [%]	3.4	3.2	3.5	3.7	3.7	3.7
EU28 real GDP [%]	2.2	1.9	2.2	2.0	1.8	1.8
USD/EUR exchange rate	1.11	1.11	1.14	1.19	1.19	1.19
Crude oil, Brent [USD, bbl]	52.4	44.2	51.8	52.6	53.1	53.7
Non-energy commodity prices [in USD, %]	-15.0	-1.7	7.7	0.4	1.2	1.0
Gross Domestic Product						
Nominal GDP [mln BGN]	88 571	94 130	99 624	105 609	112 134	119 193
Real GDP growth [%]	3.6	3.9	4.0	3.9	3.9	3.9
Consumption	3.8	3.3	4.3	4.7	4.3	4.0
Gross fixed capital formation	2.7	-6.6	3.4	4.3	4.9	5.9
Export of goods and services	5.7	8.1	6.1	5.9	5.9	6.0
Import of goods and services	5.4	4.5	6.5	7.1	6.8	6.9
Labour Market and Prices						
Employment growth [SNA, %]	0.4	0.5	0.8	0.6	0.4	0.2
Unemployment rate [LFS, %]	9.1	7.6	6.5	6.2	5.9	5.6
Compensation per employee [%]	5.6	5.8	6.0	6.6	6.3	6.4
GDP deflator [%]	2.2	2.2	1.8	2.0	2.2	2.3
Annual average HICP inflation [%]	-1.1	-1.3	1.1	1.4	1.7	1.8
Balance of Payments						
Current account [% of GDP]	0.0	5.3	4.8	4.4	4.2	4.1
Trade balance [% of GDP]	-5.8	-2.0	-2.1	-2.4	-2.8	-3.0
Foreign direct investments [% of GDP]	5.4	2.2	2.1	2.1	2.1	2.2
Monetary Sector						
Money M3 [%]	8.8	7.6	6.3	6.5	6.6	6.8
Claims on enterprices [%]	-1.8	1.6	3.8	5.5	6.6	6.9
Claims on households [%]	-1.3	2.0	6.3	5.7	5.8	6.1

* *The forecast is based on statistica data up to 19 September 2017, unless otherwise noted*