

# BULGARIAN NATIONAL BANK



## ECONOMIC REVIEW

3/2018



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The BNB quarterly Economic Review presents information and analysis of balance of payments dynamics, monetary and credit aggregates, their link with the development of the real economy, and their bearing on price stability. Processes and trends in the external environment are also analysed since the Bulgarian economy is directly influenced by them. This publication contains also quantitative assessments of the development in major macroeconomic indicators in the short run: inflation, economic growth, exports, imports, trade balance and BoP current account, foreign direct investment, monetary and credit aggregate dynamics.

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## ABBREVIATIONS

ABSP	Asset-Backed Securities Purchase Programme
APP	Asset Purchase Programme
APRC	Annual percentage rate of charge
BIR	Base interest rate
BOP	Balance of Payments
BTC	Bulgarian Telecommunications Company
b.p.	basis points
CBPP3	Covered Bond Purchase Programme
CEECs	Central and East European countries
CEFTA	Central European Free Trade Association
CFP	Consolidated Fiscal Programme
CIF	Cost, insurance, freight
CNY	Chinese Yuan
CPI	Consumer Price Index
DXY	an index measuring the exchange rate of the US dollar against the basket of six major currencies
EA	Employment Agency
EC	European Commission
ECB	European Central Bank
EIB	European Investment Bank
EMBI	Emerging Markets Bond Index
EONIA	Euro OverNight Index Average
EU	European Union
EURIBOR	Euro Interbank Offered Rate
EWRC	Energy and Water Regulatory Commission
FDI	Foreign Direct Investment
FOB	Free on Board
FRS	Federal Reserve System
GDP	Gross Domestic Product
GFMS	Gold Fields Mineral Services
HICP	Harmonized Index of Consumer Prices
HRW	Hard Red Wheat
HUF	Hungarian forint
IEA	International Energy Agency
IMF	International Monetary Fund
ISM	Institute for Supply Management
LEONIA	LEv OverNight Index Average
LIBOR	London Interbank Offered Rate
M1	narrow money
M2	M1 and quasi-money
M3	broad money
MF	Ministry of Finance
MFIs	Monetary Financial Institutions
mt	metric tons
NPISHs	Non-profit institutions serving households
NSI	National Statistical Institute
OPEC	Organization of Petroleum Exporting Countries
OTC	over-the-counter
PBoC	People's Bank of China
PMI	Purchasing Managers' Index
p.p.	percentage points
PPP	Purchasing Power Parity
PSPP	Public Sector Purchase Programme
RON	Romanian new leu
SITC	Standard International Trade Classification
WTI	West Texas Intermediate

# SUMMARY

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In the third quarter of 2018 global PMIs declined, signalling moderation in global economic activity growth in both industrial production and services sectors. Data on annual world trade growth also show a decelerating trend in the January to July 2018 period. This downward dynamics is probably due to the introduction of protectionist measures in international trade and expectations of further escalating trade conflicts. Global inflation remained close to the end-2017 level, reaching in August 2.4 per cent on an annual basis.

In the third quarter the ECB Governing Council left unchanged the euro area interest rate levels, while deciding to halve to EUR 15 billion the net monthly purchase volume under the Asset Purchase Programme (APP) in the fourth quarter of 2018. In line with market expectations, the US Federal Open Market Committee decided in September to raise by 25 basis points the federal funds rate corridor to 2.00–2.25 per cent.

Given the global economic environment, external demand for Bulgarian goods and services is expected to slow down in the fourth quarter of 2018 and first quarter of 2019. Factors that will contribute to this slowdown are related to the worsened economic situation in Turkey, protectionist international trade measures, and uncertainties over Brexit negotiations and Italy's political situation.

In the first seven months of 2018 the overall current and capital account balance was positive, indicating a lower surplus compared with the same period of 2017 as a result mainly of an increase in the trade balance deficit. For the last 12 months ending July 2018, the current and capital account surplus declined substantially year on year from the end of 2017, with expectations suggesting retention of this downward trend in the fourth quarter of 2018 and first quarter of 2019 under the influence of a continuing increase in trade deficit and a projected rise in net primary income deficit.

The sustained high inflow of attracted funds from residents in the banking system contributed to an acceleration of the annual growth rate of broad money. Bank credit to the non-government sector tended to accelerate further its growth rate. In the context of high banking system liquidity, deposit rates remained at low levels. Interest rates on newly extended loans tended to stabilise at historically low levels, whereby those on loans to non-financial corporations and on housing loans continued to decline gradually, while consumer credit rates recorded a slight increase.

In the fourth quarter of 2018 and first quarter of 2019 a further improvement in economic activity is expected to continue contributing to the upward trend in non-government sector's deposits. Growth in credit to corporations is anticipated to continue accelerating moderately in the context of a favourable macroeconomic environment and low lending rates. However, annual growth of household loans is projected to decelerate as a result of the increased negative contribution of loans extended under the Energy Efficiency of Multi-Family Residential Buildings National Programme.

In the second quarter of 2018 real GDP increased by 0.8 per cent from the previous quarter, with domestic demand components contributing most significantly to the improved economic activity, and net exports contributing negatively.

Unemployment (5.5 per cent in the second quarter) retained its downward trend, and nominal compensation *per* employee rose on average by 1.7 per cent on a quarterly basis.

The consumer confidence indicator continued increasing in the third quarter of 2018, sending out positive signals about domestic demand developments, unlike the overall business climate indicator which worsened. Wage growth and concurrent rises in disposable income of households, optimistic consumer



sentiment, persistently low interest rates and high capacity utilisation rates are expected to continue favouring growth in both private consumption and investment activity of corporations. Government investments are expected to be an additional factor stimulating economic activity, whereas the external environment will remain a source of uncertainty. As a consequence, we can expect that in the fourth quarter of 2018 and first quarter of 2019 real GDP will further increase on a quarterly basis at rates close to those recorded in the first half of 2018, but there are risks of lower than projected growth.

Over the first eight months of 2018 annual inflation in Bulgaria followed an upward trend to reach 3.7 per cent in August. It was mainly driven by services inflation accelerating in line with consumer demand increases and specific factors in some sub-groups of services. Another driver behind inflation acceleration was the 17.2 per cent increase of international oil prices in euro as of August 2018 compared to December 2017, exerting both direct effects on energy products inflation, as well as indirect effects on other HICP components through production costs of corporations and producer prices.

In the fourth quarter of 2018 the annual inflation rate is expected to remain close to that in the third quarter, driven largely by services' and energy products' prices. Reflecting the expected smaller increase in energy products' and administered goods and services' prices along with the temporary nature of price rises in some services, the annual inflation rate is projected to begin gradually decelerating over the first quarter of 2019.

# 1. EXTERNAL ENVIRONMENT

In the third quarter of 2018 global PMIs declined, signalling moderation in global economic activity growth in both industrial production and services sectors. Data on annual world trade growth also show a decelerating trend in the January to July 2018 period. This downward dynamics is probably due to the introduction of protectionist measures in international trade and expectations of further escalating trade conflicts. Global inflation remained close to the end-2017 level, reaching in August 2.4 per cent on an annual basis.

In the third quarter the ECB Governing Council left unchanged the euro area interest rate levels, while deciding to halve to EUR 15 billion the net monthly purchase volume under the Asset Purchase Programme (APP) in the fourth quarter of 2018.

In line with market expectations, the US Federal Open Market Committee decided in September to raise by 25 basis points the federal funds rate corridor to 2.00–2.25 per cent.

Given the global economic environment, external demand for Bulgarian goods and services is expected to slow down in the fourth quarter of 2018 and first quarter of 2019. Factors that will contribute to this slowdown are related to the worsened economic situation in Turkey, protectionist international trade measures, and uncertainties over Brexit negotiations and Italy's political situation.

## Current Business Situation

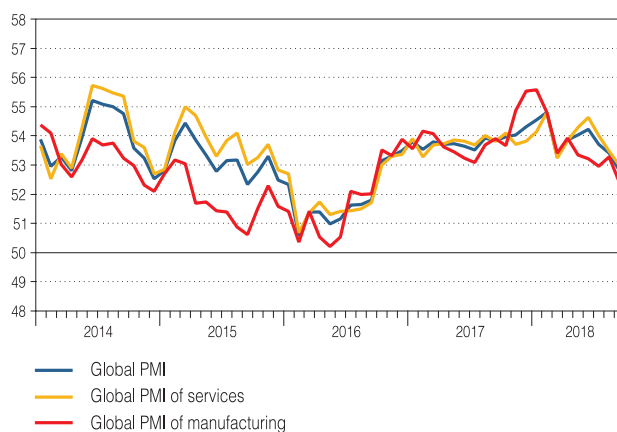
In the third quarter of 2018 the average value of global economic indicator (global PMI) continued to decline, albeit still staying above the neutral limit of 50. The PMI decline is likely to reflect the growing uncertainty about global trade resulting from the protectionist measures launched by the United States and the countermeasures announced by their major trading partners. Indicator's dynamics suggested a gradual slowdown in global economic activity, mainly driven by the industrial production index and, to a lesser extent, services index.

In the January to July 2018 period annual growth rate of world trade volumes<sup>1</sup> slightly slowed down compared to that recorded in 2017, which was most pronounced in the central and eastern European economies. In the first half of 2018 the euro area, which is the major trading partner of Bulgaria, posted also slower trade growth rates compared to the average for 2017. Over the same period the strongest growth was observed in trade volumes of emerging market economies in Asia<sup>2</sup>.

<sup>1</sup> CPB Netherlands Bureau for Economic Policy Analysis data as of 24 September 2018.

<sup>2</sup> CPB Netherlands Bureau for Economic Policy Analysis Classification by country group.

Global PMIs



Source: JP Morgan.

Since the year start global inflation remained close to the end-2017 level, reaching in August 2.4 per cent on an annual basis<sup>3</sup>. The inflation rate accelerated from December 2017 in developed countries, while slowing slightly in developing economies.

International Monetary Fund (IMF) projections, published in October 2018, also take into account the increased risks of global economic activity slowdown. The IMF revised downwards its global economic growth forecast for 2018 and 2019 by 0.2 percentage points to 3.7 per cent for the two years<sup>4</sup>. Worsened global economic growth prospects reflect several factors, among which lower than expected growth achieved in the first half of 2018, anticipated negative effects of global protectionist trade measures, deteriorated political situation in certain countries and higher petroleum product prices. By country, larger downward revision of IMF projections is recorded in growth of developing economies. This is mainly due to the expected negative effect of US protectionist measures against China and other developing economies in Asia. Outlooks in developed economies were also revised downwards, with euro area growth revised more significantly.

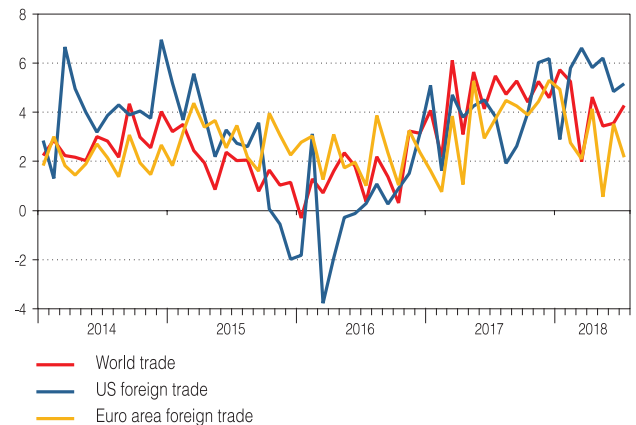
In line with these developments, external demand for Bulgarian goods and services is expected to slow down in the fourth quarter of 2018 and the first quarter of 2019 compared with the first half of 2018. Factors contributing to this slowdown are related to the worsened economic situation in Turkey, protectionist international trade measures, uncertainties over Brexit negotiations and concerns on Italy's political situation and its public finances sustainability. Possible further increasing impact of these factors has not been reflected in the forecast baseline scenario, thus posing risks to lower than expected global economic growth and weaker external demand for Bulgarian goods and services.

<sup>3</sup> Based on World Bank data as of 3 October 2018.

<sup>4</sup> IMF data: World Economic Outlook, October 2018.

## World Trade and External Trade in Selected Regions

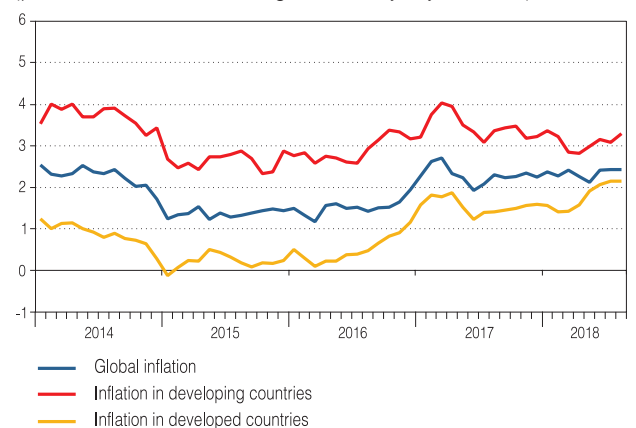
(annual rate of change in volumes, per cent)



Source: CPB Netherlands Bureau for Economic Policy Analysis.

## Inflation Measured through CPI

(per cent, annual rate of change, seasonally adjusted data)



Note: The World Bank measures the change of CPI in individual groups as a weighted average of CPI changes in the countries of the group. Real GDP based on purchasing power parity is used to calculate country weights. Groups include only World Bank Member States classified by the World Bank as developing and developed countries.

Source: the World Bank.

## Euro Area

In the second quarter, as in the first quarter of the year, the euro area real GDP grew by 0.4 per cent on a quarterly basis. Economic activity increased in all euro area countries, with growth in Germany accelerating from 0.4 to 0.5 per cent, in France and Spain retaining its level of 0.2 and 0.6 per cent respectively, and in Italy slowing down from 0.3 to 0.2 per cent. Investment, government and private consumption and inventories were the GDP components with positive contributions to euro area GDP growth on a quarterly basis. For a second consecutive quarter, net exports made a negative contribution to euro area real GDP growth.

The downward trend since the year start in euro area leading economic indicators, including PMI and European Commission (EC) indices, was sustained over the third quarter of 2018. This decrease suggests a moderated euro area economy growth compared to the relatively high rates recorded in 2017.

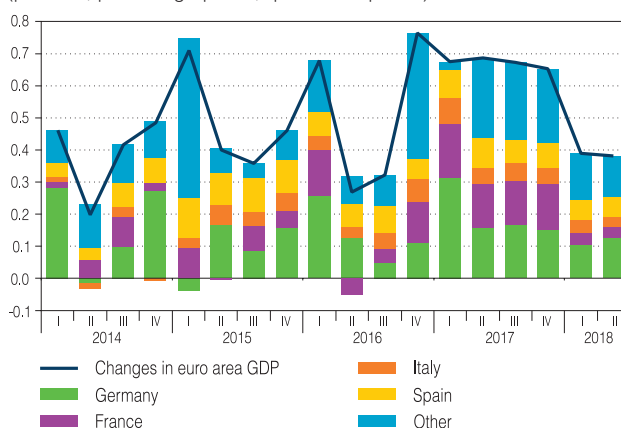
Labour market indicators continued to improve gradually, with the euro area unemployment rate reaching 8.1 per cent in August against 8.3 per cent on average in the second quarter. The expected unemployment level in the following 12 months, included in the EC consumer confidence index, shows slightly worsened consumer expectations about labour market developments.

Over the third quarter of 2018 the euro area inflation accelerated, with the HICP energy component contributing most strongly. In July the annual HICP change was 2.1 per cent, decreasing slightly to 2.0 per cent in August, and according to Eurostat's provisional assessment, the euro area annual inflation rate was 2.1 per cent in September.

In September the ECB revised downwards its euro area GDP growth forecast for 2018 and 2019 by 0.1 percentage point to 2.0 and 1.8 per cent respectively, retaining its growth expectations of 1.7 per cent for 2020. The downward revision reflects mainly the expectations of weaker external demand growth. Risks to euro area economic growth prospects are assessed as broadly balanced by the ECB. Concurrently, according to the institution risks associated with enhanced protectionist pressures, vulnerability

## Contribution to the Change in Real GDP in the Euro Area by Country

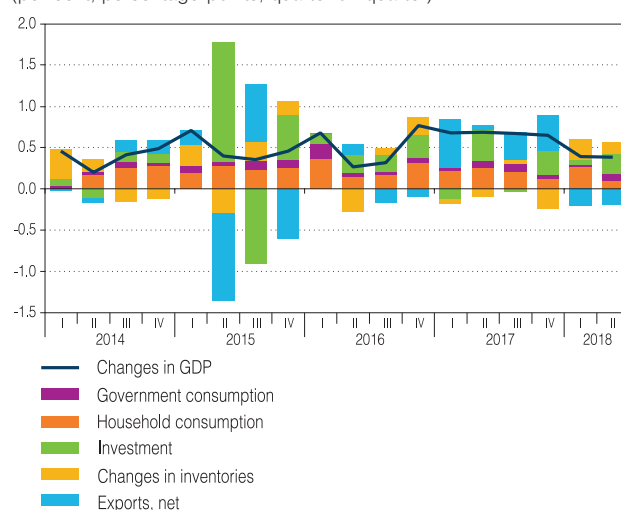
(per cent; percentage points; quarter-on-quarter)



Sources: Eurostat and BNB calculations.

## Contribution to the Change in Real GDP in the Euro Area by Component

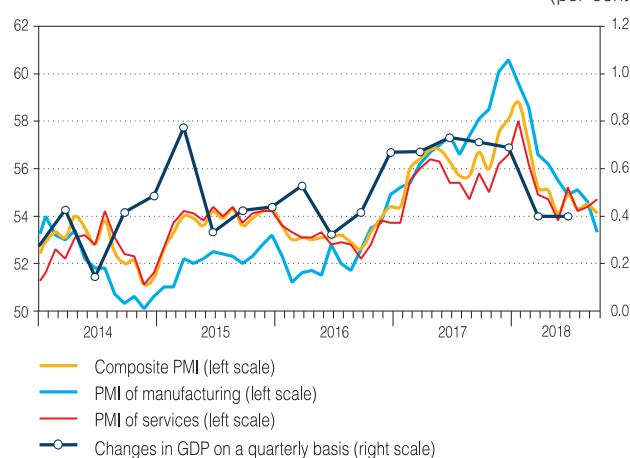
(per cent; percentage points; quarter-on-quarter)



Source: Eurostat.

## GDP Change and Manufacturing and Services PMIs in the Euro Area

(per cent)



Sources: Eurostat, Markit.



of emerging market economies and potential increase in financial market fluctuations, have heightened in the third quarter.

ECB inflation outlooks in the euro area for the 2018–2020 period remained unchanged. Core inflation forecast (excluding food and energy) for 2018 also remained unchanged, while for 2019 and 2020 it was revised slightly downwards. The institution anticipates that the core inflation will slightly increase by the end of 2018 and the overall inflation will remain around its September level. ECB accommodative monetary policy, economic growth sustainability in the euro area and wage growth acceleration are expected to be key factors for a core inflation increase in the medium term.

At its meeting of 13 September 2018 the ECB Governing Council made no changes to the reference interest rates and the forward guidance for changing them. As regards non-standard monetary policy measures the ECB Governing Council took the final decision to halve to EUR 15 billion the net monthly purchase volume under the Asset Purchase Programme (APP) in the fourth quarter of 2018 in line with the intentions stated after the June Governing Council meeting. ECB Governing Council members kept their expectations to discontinue net purchase under APP by the end of the current year provided that the incoming data are consistent with ECB forecast on the euro area medium-term inflation dynamics.

### Projections of the Annual Rate of Change of Euro Area Real GDP

(per cent)

Institution	Date of release	2018		2019		2020	
		latest	previous	latest	previous	latest	previous
ECB	IX.2018	2.0	2.1	1.8	1.9	1.7	1.7
EC	VII.2018	2.1	2.3	2.0	2.0	-	-

Sources: the ECB, the EC.

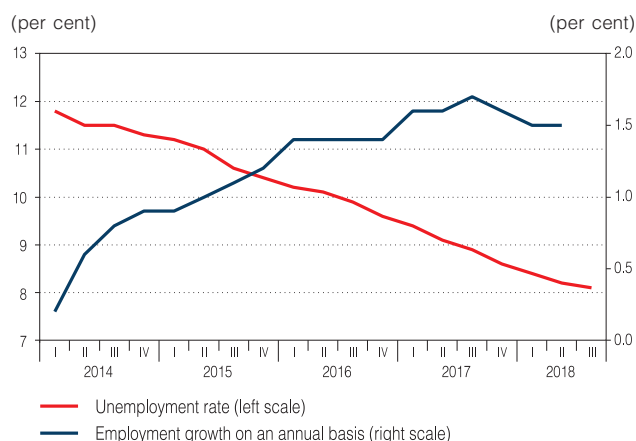
### Projections of Euro Area Annual Inflation Rate

(per cent)

Institution	Date of release	2018		2019		2020	
		latest	previous	latest	previous	latest	previous
ECB	IX.2018	1.7	1.7	1.7	1.7	1.7	1.7
EC	VII.2018	1.7	1.5	1.7	1.6	-	-

Sources: the ECB, the EC.

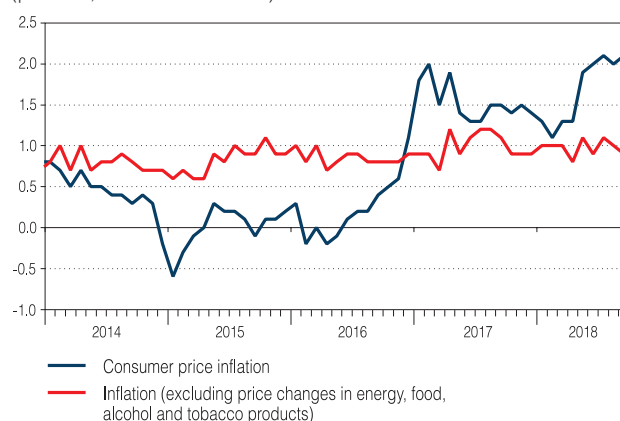
### Euro Area Unemployment Rate and Employment Growth



Source: Eurostat.

### Euro Area Inflation Rate

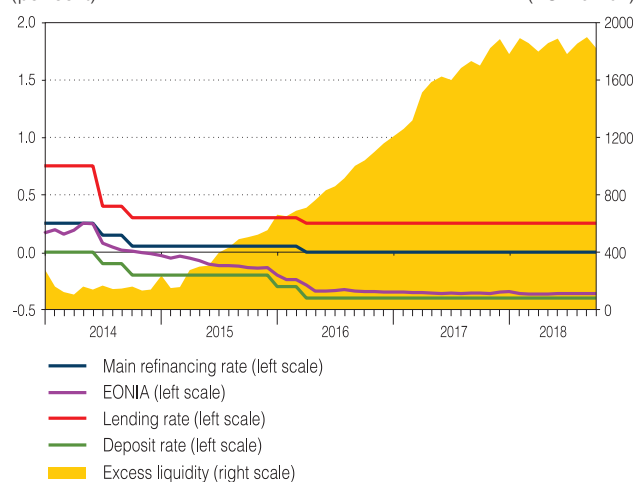
(per cent, on an annual basis)



Source: Eurostat.

### ECB Interest Rates, EONIA and Excess Liquidity in the Euro Area Banking System

(per cent) (EUR billion)



Note: Average EONIA data for the month.

Source: the ECB.

As of 28 September 2018 the cumulative amount of APP purchases totalled EUR 2532.1 billion, whereby under the four ECB programmes the purchased assets reached EUR 2075.5 billion under the Public Sector Purchase Programme (PSPP), EUR 259.3 billion under the Covered Bond Purchase Programme 3 (CBPP3), EUR 26.9 billion under the Asset-backed Securities Purchase Programme (ABSPP) and EUR 170.4 billion under the Corporate Sector Purchase Programme (CSPP) respectively. As of the same date the excess liquidity in the euro area banking system increased to EUR 1824.6 billion, from EUR 1781.2 billion by end-June, the Eurosystem balance sheet figure reaching EUR 4620 billion.

In the third quarter of 2018 average EONIA (the effective overnight reference rate) remained at -0.36 per cent. The volume of overnight deposits on the interbank market in the euro area decreased, with its daily average coming to EUR 3.8 billion in the third quarter of 2018 (EUR 4.1 billion in the second quarter of 2018). EURIBOR unsecured deposit rates remained unchanged or increased slightly in individual maturity sectors. As of 28 September 2018 one-month (-0.37 per cent) and six-month deposit rates (-0.27 per cent) remained at their end-June levels, whereas twelve-month rates rose to -0.16 per cent (+2 basis points from the end of June).

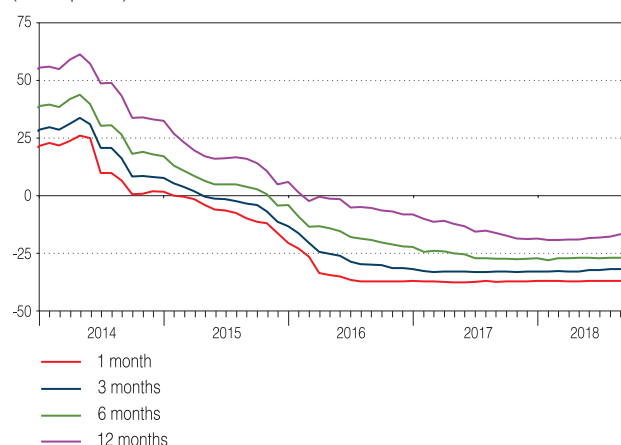
## United States

In the second quarter of 2018 US real GDP growth accelerated to 1.0 per cent on a quarterly basis from 0.5 per cent in the first quarter. Private consumption and, to a lesser extent, net exports and government consumption contributed most to economic activity growth. Concurrently, the inventories decline had a substantial negative contribution to real GDP growth in the second quarter. The positive contribution of net exports resulted from both exports increase and goods and services imports fall. Exports growth acceleration in the second quarter was mainly driven by temporary factors.

In the third quarter of 2018 US leading economic indicators showed mostly positive movements. During most of that period, ISM-PMI manufacturing and services indices mainly increased, with

## EURIBOR Dynamics

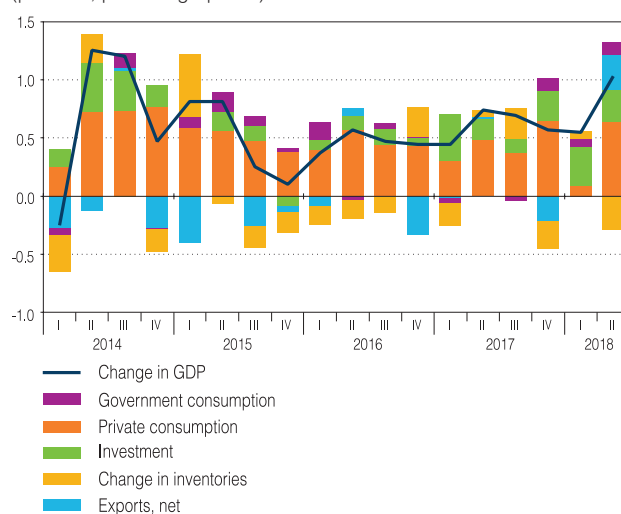
(basis points)



Source: the ECB.

## Contribution to US GDP Growth by Component (Quarterly)

(per cent; percentage points)



Source: Bureau of Economic Analysis.

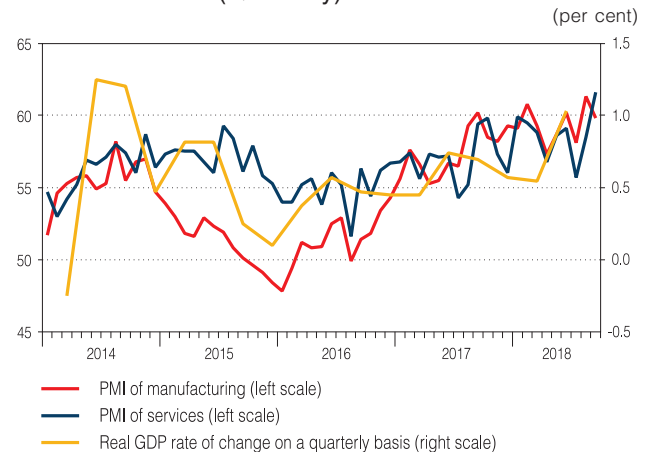
manufacturing index reaching in August its highest level since May 2004 and services index attaining in September its peak since August 1997 to date. Consumer confidence indicators showed similar changes in the third quarter, also reaching historic highs. Positive trends have been identified in monthly data on US household consumption and retail sales, showing relatively high growth in the July to September 2018 period. According to the latest data, construction indicators reported some slowdown in the sector activity compared to the beginning of the year. Overall, US economic data released in early October indicate that US GDP remained robust in the third quarter.

Following accelerated rise in the second half of 2017 and the first five months of 2018, the price index of personal consumption expenditure (PCE) stabilised in the May to August period. The inflation measured by this index reached 2.2 per cent on an annual basis in August. Core inflation (excluding food and fuels prices) was 2.0 per cent on annual basis in August, remaining unchanged for a fourth consecutive month. The consumer price index (CPI) also showed similar dynamics. According to this index in August 2018 the overall inflation was 2.7 per cent (2.1 per cent at the end of 2017), and the core inflation 2.2 per cent (1.8 per cent at the close of 2017). September data on expectations of consumer price changes one to five years ahead, which are part of the University of Michigan consumer confidence index, showed a decline in both long-term and short-term inflation expectations.

US labour market indicators underwent no essential changes in the third quarter of 2018. The average quarterly number of new employees in the US non-farm sector declined from the second quarter. On the other hand, in September the US unemployment rate dropped to 3.7 per cent, the lowest level recorded since December 1969. The leading economic activity indicators suggest that US labour market conditions will remain favourable.

Based on reported and expected US labour market and inflation indicators, at its 25 and 26 September meeting, the Federal Open Market Committee (FOMC) took a decision to raise by 25 basis points the federal funds rate

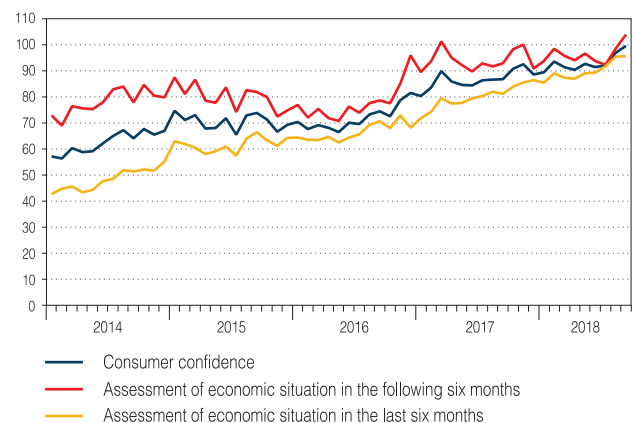
## US Manufacturing and Services ISM-PMIs and GDP Growth (Quarterly)



Source: Institute for Supply Management, Bureau of Economic Analysis.

## US Consumer Confidence Indices

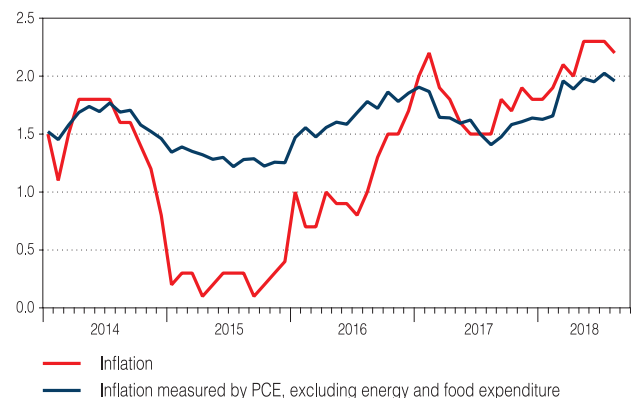
(2000 = 100)



Source: The Conference Board.

## US Inflation Rate

(per cent; on an annual basis)



Note: Inflation is measured by the personal consumption expenditure deflator.

Source: Bureau of Economic Analysis.

corridor to 2.00–2.25 per cent. The wording that Federal Reserve's 'monetary policy remains accommodative' was removed from the press release on FOMC decisions. FOMC members' economic forecasts, summarised and published after the meeting, did not differ substantially from June forecasts, with members' expectations for 2021 included for the first time in the document. The economic processes identified following the June meeting, led FOMC members to retain their forecasts of further target range increases: one more until the end of 2018, three in 2019 and one in 2020. FOMC's projections for 2021 do not foresee any renewed increase in the target range. The forecast of the long-run equilibrium level of federal funds rate was revised upwards from 2.90 per cent to 3.00 per cent.

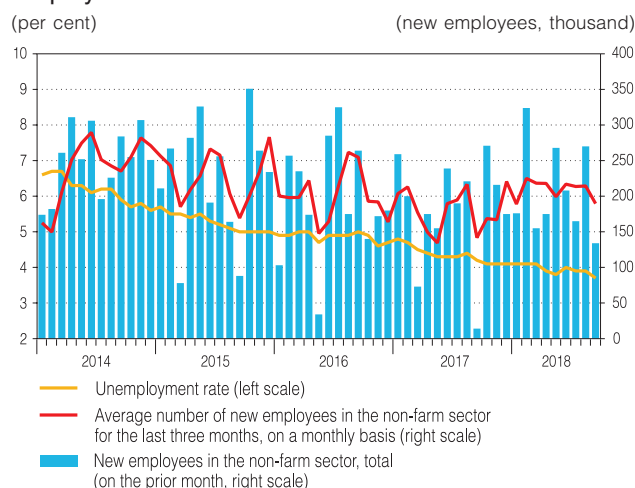
## China

In the third quarter of 2018 the average values of services and manufacturing PMI in China declined, signalling a possible slowdown in economic growth in the second half of 2018. Between June and September 2018 the new export orders index, which is a sub-component of manufacturing PMI, fell under the neutral limit of 50 points. The decrease is likely to reflect the uncertainty and the unfavourable effects on China's economic activity as a result of US trade policy measures, involving duties on certain imports from China since early 2018.

In the first eight months of 2018 the long-term downward trend in the annual growth rate of total investment in China's economy was sustained, mainly as a result of the weaker increase in infrastructure investment. Measures undertaken by central authorities to reduce gradually the excessive indebtedness in the economy are the major factor behind the observed dynamics in investment.

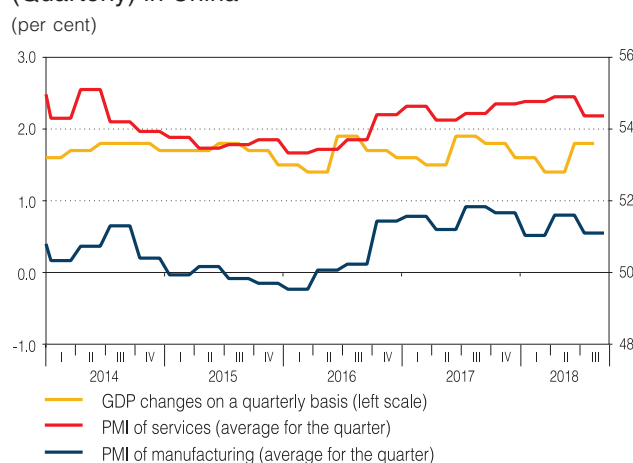
In the third quarter of 2018 inflation in China continued to accelerate slowly, reaching 2.3 per cent on an annual basis in August. In 2018 the upward dynamics of Chinese CPI was largely driven by accelerated growth in food prices. Following the significant increase in producer prices recorded in 2017, in the first eight months of 2018 they tended to slow down mainly reflecting the commodities price

## US Unemployment Rate and Number of New Employees in the US Non-farm Sector



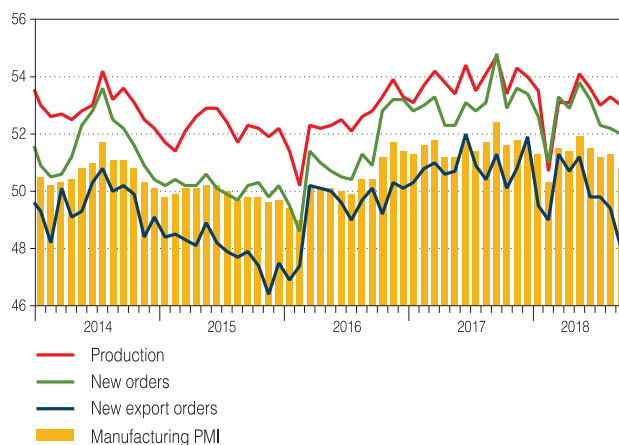
Source: Bureau of Labour Statistics.

## Manufacturing and Services PMIs and GDP Growth (Quarterly) in China



Sources: National Bureau of Statistics of China and China Federation of Logistics and Purchasing.

## Manufacturing PMI in China and Major Components

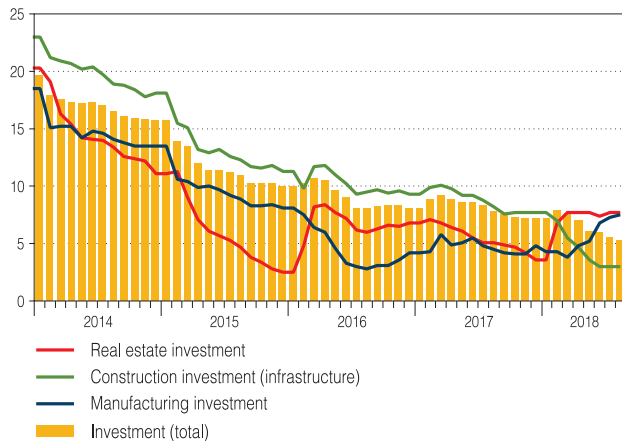


Source: China Federation of Logistics and Purchasing.



## Investment in Fixed Capital (Total) and in Selected Sectors in China

(per cent; on an annual basis)



Source: National Bureau of Statistics of China.

dynamics over the period. In August producer prices increased by 4.1 per cent on an annual basis, reaching 4.9 per cent by end-2017. Over the third quarter of 2018 house prices in China started increasing gradually on an annual basis as a result of house price growth in smaller cities (group 2), while house prices in larger cities (group 1) remained close to the levels of end-2017.

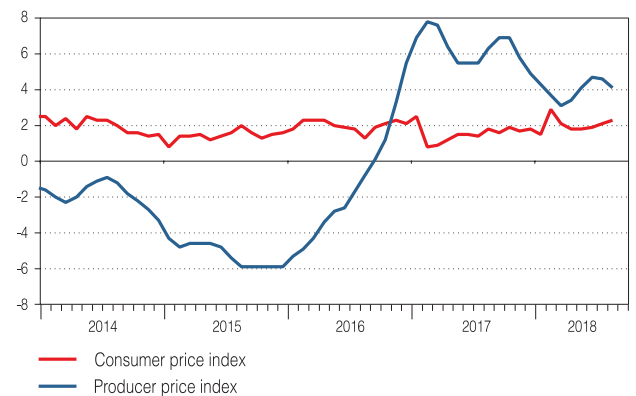
In the third quarter of 2018 the People's Bank of China cut the rate of minimum required reserves of the largest banks by 100 basis points to 14.5 per cent as of 15 October. According to the institution, this measure will release some CNY 750 billion (around USD 109 billion<sup>5</sup>) to be used for lending to small and medium-sized enterprises and for repayment of loans in the amount of CNY 450 billion, maturing on 15 October 2018, extended by the central bank to commercial banks through a medium-term lending facility.

Over the third quarter China's international reserves decreased by USD 25 billion to USD 3.09 trillion. According to the State Administration of Foreign Exchange (SAFE) this decline was due to financial asset revaluation as a result of the depreciation of the yuan against the US dollar, coupled with the increasing external uncertainty surrounding the world trade.

<sup>5</sup> Hereinafter referred to as the US dollar.

## China's Inflation Rate

(per cent, on an annual basis)



Source: National Bureau of Statistics of China.

## House Prices in China

(per cent; on an annual basis)



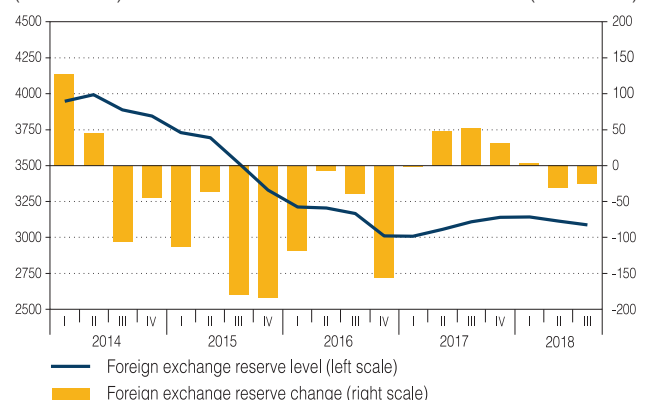
Note: Group 1 includes the four largest cities: Beijing, Shenzhen, Guangzhou, and Shanghai. Group 2 includes the capitals of the rest provinces.

Source: National Bureau of Statistics of China.

## China's Foreign Exchange Reserves

(USD billion)

(USD billion)



Source: People's Bank of China.

## International Commodity Prices

### Crude Oil

The upward trend in oil prices since end-2016 was sustained in the first three quarters of 2018. Since the year start Brent crude oil price rose significantly, reaching USD 78.9 *per barrel* in September from USD 62.4 *per barrel* in December 2017. The major factors behind the price developments observed since the start of the year included higher demand for crude oil, higher oil cuts than agreed by OPEC and other major oil producers at end-2016 (*i.e.* outperformed OPEC+ agreement), and Venezuela's oil production decline. US sanctions against Iran over Tehran's nuclear programme and ensuing expectations of reduced oil supply had an additional impact.<sup>6</sup>

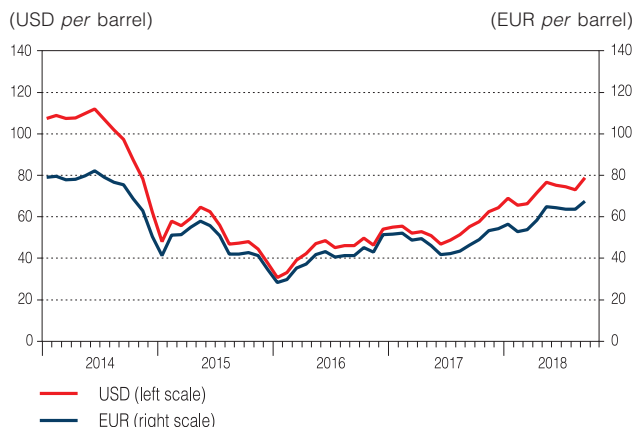
International Energy Agency (IEA) data showed a global balance of oil supply and demand in the first half of 2018 unlike in the last three quarters of 2017 when demand exceeded supply. The trend to balancing crude oil market is taken into account by market participants, whose expectations of oil price fall in the fourth quarter of 2018 and the first quarter of 2019, are embedded in futures prices. In September, however, the expected price by the markets over the projection horizon was higher than that anticipated in June 2018 due to the forthcoming expiry of the transition period, after which Iran's oil exports will be limited. Possible deterioration of the situation in Venezuela also impacted market participant expectations of oil and oil product supply. In September market expectations of crude oil prices point to around of USD 78 *per barrel* in the fourth quarter of 2018 and first quarter of 2019.

### Commodity and Food Prices

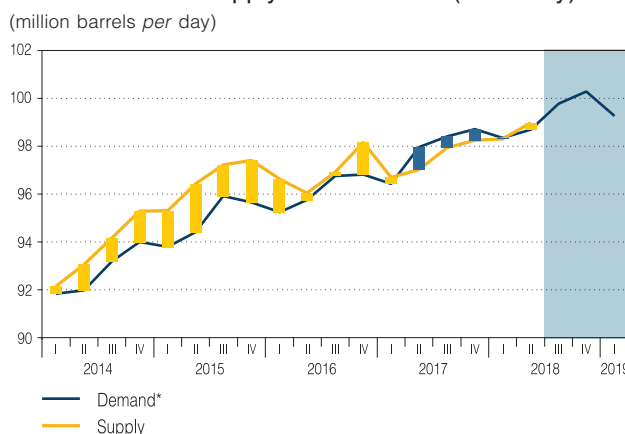
Over the first eight months of 2018 metal prices in US dollars continued to decline, which could be explained by the trade conflict between the USA and China, concerns about slower global industrial output growth and increased world metal production. By sub-component, the strongest decline was recorded in prices of copper,

<sup>6</sup> On 4 November 2018 the 180-day transitional period expired after which oil imports from Iran to US are prohibited.

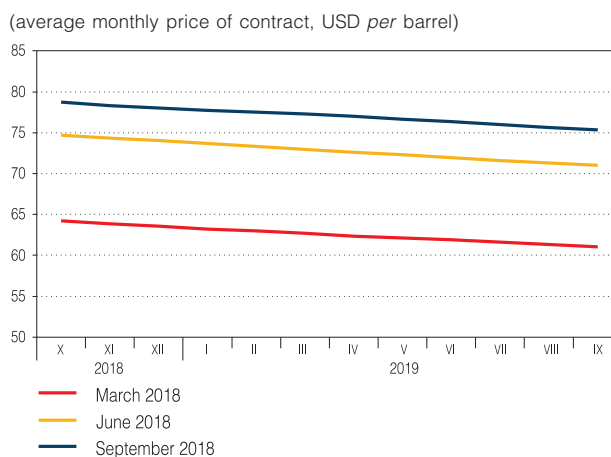
### Brent Crude Oil Price



### World Crude Oil Supply and Demand\* (Quarterly)



### Brent Crude Oil Futures Prices



which is of key importance for Bulgaria's goods exports. Recovery of production in copper ore mines in Chile, Indonesia and Australia, and China's lower imports of copper ore added to the copper price fall over this period. Decline in aluminium prices reflected the increased exports and recovered production in China. Nickel prices also dropped on a quarterly basis in July and August driven by the growing production in Indonesia and China.

Despite the decline in metal prices recorded in the first eight months of 2018 their average price in US dollars remains higher (by 8.1 per cent), compared with the average for the same period of 2017, reflecting the appreciation of the US dollar against the euro.

Metal prices are expected to fall on an annual basis in dollars and euro<sup>7</sup> in the fourth quarter of 2018 and the first quarter of 2019 in line with the anticipated slower growth rate of global industrial output and restrictions on international trade as a result of protectionist measures launched by the USA and China. Possible further deterioration of international trade terms that would increase the risk of lower global economic growth may result in a stronger decline in metal prices.

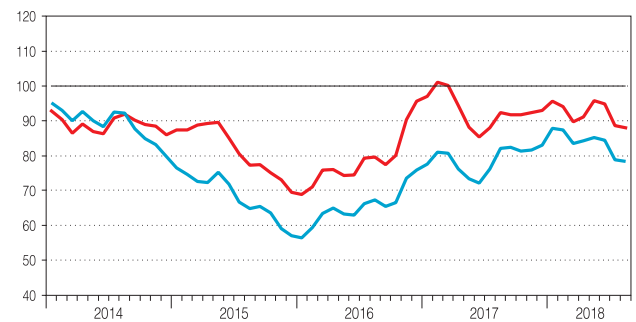
In the January to August 2018 period on average, the global food price index in US dollars and euro decreased from the corresponding period of 2017, with a larger fall in euro prices than those in dollars due to the appreciation of the US dollar against the euro. There was a divergent dynamics across index sub-components. Maize prices dropped on an annual basis driven by expectations of record high harvest in the USA. Prices of wheat, which is essential for the Bulgarian exports of goods, rose in US dollars and euro on an annual basis. The price increase reflected expectations of lower harvest worldwide as a result of adverse weather conditions and a decline in sown areas in non-EU countries. Market expectations of wheat yields

<sup>7</sup> The euro price forecast is based on the technical assumption about the euro/dollar exchange rate. It is fixed at the average value for the last ten days by 15 September 2018, the date when the assumptions were made. In line with the technical assumption, the euro/dollar exchange rate will decrease in the fourth quarter of 2018 and the first quarter of 2019 compared with the corresponding periods of the previous year.

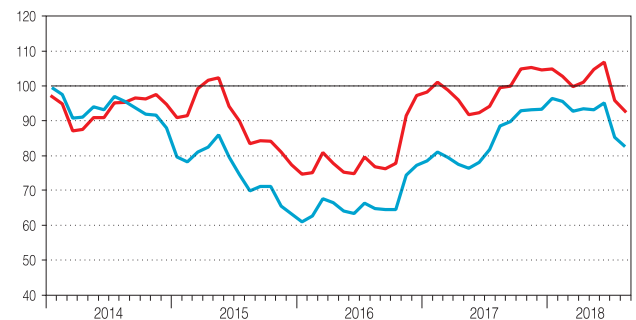
## Price Indices of Major Raw Materials and Commodity Groups

(2013 = 100)

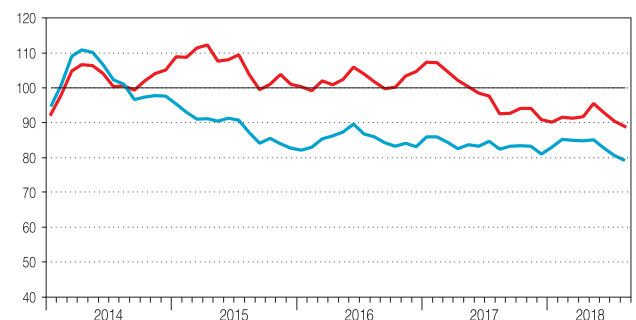
### Metals



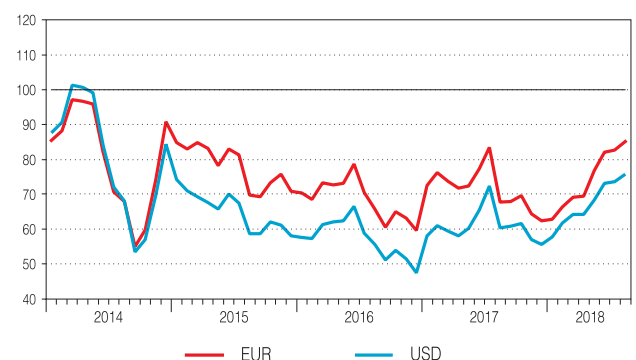
### Copper



### Food



### Wheat



Sources: the ECB and BNB calculations.

in Russia, EU, Argentina, Australia, Canada, Kazakhstan, *etc.* were lowered in 2018.

Food price projections in euro point to an increase on an annual basis in the fourth quarter of 2018 and the first quarter of 2019, unlike the expected decline in US dollar as a result of US dollar appreciation against the euro.<sup>8</sup>

If market expectations of international fuel, commodity and food price dynamics materialise, the terms of trade in Bulgaria are expected to remain as a whole unfavourable in the fourth quarter of 2018 and the first quarter of 2019.

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<sup>8</sup> See footnote 7.



## 2. FINANCIAL FLOWS, MONEY AND CREDIT

In the first seven months of 2018 the overall current and capital account balance was positive, indicating a lower surplus compared with the same period of 2017 as a result mainly of an increase in the trade balance deficit. For the last 12 months ending July 2018, the current and capital account surplus declined substantially year on year from the end of 2017, with expectations suggesting retention of this downward trend in the fourth quarter of 2018 and first quarter of 2019 under the influence of a continuing increase in trade deficit and a projected rise in net primary income deficit.

The sustained high inflow of attracted funds from residents in the banking system contributed to an acceleration of the annual growth rate of broad money. Bank credit to the non-government sector tended to accelerate further its growth rate. In the context of high banking system liquidity, deposit rates remained at low levels. Interest rates on newly extended loans tended to stabilise at historically low levels, whereby those on loans to non-financial corporations and on housing loans continued to decline gradually, while consumer credit rates recorded a slight increase.

In the fourth quarter of 2018 and first quarter of 2019 a further improvement in economic activity is expected to continue contributing to the upward trend in non-government sector's deposits. Growth in credit to corporations is anticipated to continue accelerating moderately in the context of a favourable macro-economic environment and low lending rates. However, annual growth of household loans is projected to decelerate as a result of the increased negative contribution of loans extended under the Energy Efficiency of Multi-Family Residential Buildings National Programme.

### External Financial Flows

In the January–July 2018 period the balance on the current and capital account was positive at EUR 1191.0 million, with the surplus posting a decrease compared with the corresponding period of 2017.<sup>9</sup> The main factor behind this was the higher trade balance deficit<sup>10</sup> as a result of higher real growth of imports of goods on an annual basis than that of exports, and worsened terms of trade for Bulgaria over the review period. The lower capital account surplus contributed to a significantly lower degree to the decreased overall current and capital account balance. The net secondary income item reported a slight decrease on the corresponding period of 2017, reflecting mainly the Bulgaria's larger contribution to the EU budget for the first seven months of the year.

<sup>9</sup> The analysis of balance of payments flows employs information from its analytical reporting. Data are preliminary. With the publication of balance of payments reported data for July 2018, data for the January 2014–June 2018 were revised. A table containing data revisions for 2016 and 2017, and annual data as of June 2018 are displayed in the table on the following page.

<sup>10</sup> For a more detailed analysis of foreign trade flows, see Chapter 3, the Exports and Imports of Goods and Services Section.

### Flows on Major Balance of Payments Accounts

(EUR million)

	2016	2017	On an annual basis as of July 2018
<b>Current account</b>	<b>1 244.0</b>	<b>3 367.9</b>	<b>2 134.5</b>
Trade balance	-984.4	-765.8	-2 373.5
Services, net	3 060.4	2 765.2	3 072.2
Primary Income, net	-2 416.5	-496.0	-421.5
Secondary income, net	1 584.6	1 864.5	1 857.2
<b>Capital account</b>	<b>1 070.9</b>	<b>529.7</b>	<b>512.4</b>
<b>Financial account</b>	<b>667.6</b>	<b>2 260.1</b>	<b>2 809.0</b>
<b>Change in reserves</b>	<b>3 467.3</b>	<b>-98.9</b>	<b>81.4</b>

(per cent of GDP)

	2016	2017	On an annual basis as of July 2018
<b>Current account</b>	<b>2.6</b>	<b>6.5</b>	<b>4.0</b>
Trade balance	-2.0	-1.5	-4.5
Services, net	6.4	5.4	5.8
Primary Income, net	-5.0	-1.0	-0.8
Secondary income, net	3.3	3.6	3.5
<b>Capital account</b>	<b>2.2</b>	<b>1.0</b>	<b>1.0</b>
<b>Financial account</b>	<b>1.4</b>	<b>4.4</b>	<b>5.3</b>
<b>Change in reserves</b>	<b>7.2</b>	<b>-0.2</b>	<b>0.2</b>

Source: the BNB.

The higher surplus on the net services trade item and lower deficit on the net primary deficit income, to a lower extent, limited the decrease in the current and capital account surplus. The significantly higher surplus recorded on the net services trade item in the January–July 2018 period compared with the corresponding period of prior year reflected higher earnings from exports of tourist and transport services. The deficit under the net primary income item decreased on the corresponding period of 2017 due to lower dividends paid to non-residents.<sup>11</sup>

As a result of the movements of flows under individual current and capital account items since early 2018, in July 2018 the total surplus accumulated on the current and capital accounts for the last 12 months decreased markedly compared to December 2017<sup>12</sup>, which was mostly attributable to higher trade deficit.

In the fourth quarter of 2018 and the first quarter of 2019 the year-on-year total current and capital account surplus<sup>13</sup> as a share of GDP is expected to retain its downward path driven by further growing trade deficit and a projected increase in the net primary income deficit due to accelerated growth in gross operating surplus in the economy in the first two quarters of 2018 and a possible increase in reinvested earnings. Concurrently, the improved absorption of funds under EU-funded operational programmes for the 2014–2020 programming period is expected to result in increased EU fund inflows and higher annual capital account surplus as a share of GDP compared with the end of the first half of 2018.

Between January and July 2018 the financial account was positive which reflected the stronger increase in foreign assets (by EUR 2481.1 million) compared with that of foreign liabilities of Bulgarian residents (by EUR 850.9 million). Banks' transactions<sup>14</sup> contributed most significantly to the increased assets on the financial

## Revisions in Flows on Main Balance of Payments Accounts Published in September 2018

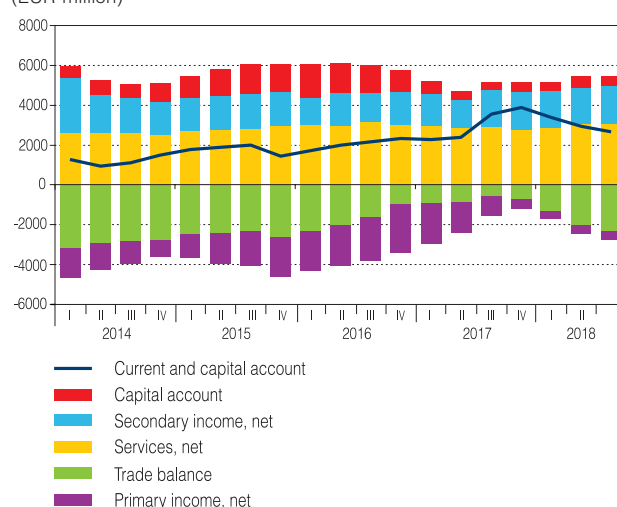
(difference in EUR million against data published prior to the revision)

	2016	2017	On an annual basis as of June 2018
<b>Current account</b>	<b>152.9</b>	<b>1 099.0</b>	<b>703.2</b>
Trade balance	0.0	1 308.3	806.2
Services, net	123.6	-250.7	-150.9
Primary Income, net	29.3	38.1	19.6
Secondary income, net	0.0	3.3	28.3
<b>Capital account</b>	<b>0.8</b>	<b>3.9</b>	<b>-6.5</b>
<b>Financial account</b>	<b>70.2</b>	<b>4.5</b>	<b>-69.7</b>
<b>Change in reserves</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Source: the BNB.

## Current and Capital Account Dynamics and Contributions of Individual Components (on an Annual Basis)

(EUR million)



Note: For each quarter, the chart shows item balances accumulated in the last four quarters. July 2018 data on the chart are accumulated for the last 12 months.

Source: the BNB.

<sup>11</sup> Preliminary data subject to revision; revisions usually show an increase in outflows to residents.

<sup>12</sup> The decrease is expressed in million levs and as a share of GDP.

<sup>13</sup> It should read the balance on the account for the last four quarters.

<sup>14</sup> For a more detailed analysis of bank operations, see Chapter 2, the Monetary and Credit Aggregates Section.

account, followed by those of other sectors<sup>15</sup>. The increase in foreign assets of other sectors reflected mainly growth in foreign direct investment. Between January and July 2018 other sectors reported the strongest increase in foreign liabilities on the financial account.

As a result of described flow movements in financial account components the balance for the last 12 months was positive in July 2018 posting an increase from December 2017 due to a stronger rise in foreign assets compared to foreign liabilities.

Between January and July 2018 foreign direct investment liabilities (reporting FDI inflows into Bulgaria) decreased from the corresponding period of 2017 to EUR 494.3 million (against EUR 679.3 million in the January–July 2017 period).<sup>16</sup> The strongest foreign direct investment inflows came from the Netherlands, Russia and Germany. As a result of lower flows in early 2018, in July 2018 inflows of funds on foreign direct investment liabilities in Bulgaria accumulated for the last 12 months declined from December 2017.

Reflecting net current, capital and financial account flows, Bulgaria's gross international reserves<sup>17</sup> increased by EUR 144.1 million in the January–July 2018 period. In July 2018 the international reserve coverage of the average nominal imports of goods and non-factor services for the last 12 months remained high (8.3 months against 8.7 months in December 2017).

In July 2018 Bulgaria's gross external debt increased from the end of 2017 for all economic sectors except for the general government sector. The share of long-term debt in Bulgaria's total gross external debt accounted for 76.5 per cent and remained almost unchanged from December 2017. The new external debt taken up by Bulgarian residents increased in the January–July 2018 period compared with the corresponding period of 2017 due almost entirely to the higher new external debt of other sectors.

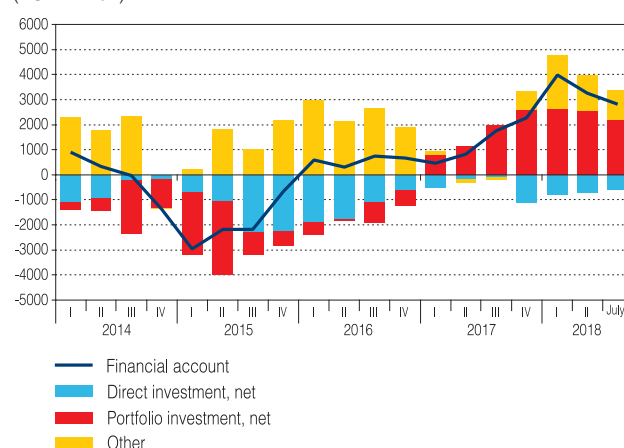
<sup>15</sup> Sectors other than central banks, other monetary financial institutions and the general government.

<sup>16</sup> Preliminary data subject to revision. Revisions usually show an increase in foreign direct investment liabilities.

<sup>17</sup> Valuation adjustments and price revaluation excluded.

## Financial Account Dynamics and Contribution by Component (on an Annual Basis)

(EUR million)

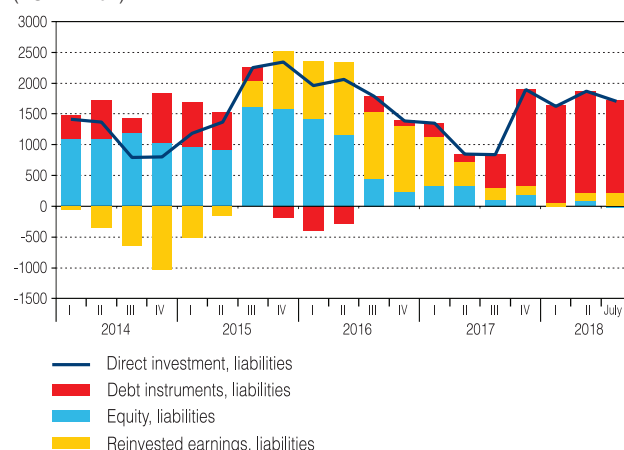


Notes: The Other item includes Other Investments, Net, and Financial Derivatives (Other than Reserves) and Employee Stock Options, Net. For each quarter, the chart shows item balances accumulated in the last four quarters. July 2018 data on the chart are accumulated for the last 12 months.

Source: the BNB.

## Direct Investment, Liabilities by Type of Investment (on an Annual Basis)

(EUR million)



Notes: For each quarter, the chart shows item balances accumulated in the last four quarters. July 2018 data on the chart are accumulated for the last 12 months.

Source: the BNB.

## Gross External Debt in July 2018

(EUR million)

	Amount	Change	
		Since December 2017	For the last 12 months
General government	5 653.2	-66.0	-397.8
Central bank	0.0	0.0	0.0
Banks	4 511.0	232.2	167.9
Other sectors	10 695.5	14.8	36.0
FDI – intercompany loans	12 788.3	69.6	366.0
<b>Total</b>	<b>33 648.0</b>	<b>250.6</b>	<b>172.0</b>

Note: For further details on the individual institutional sectors see BNB website under Statistics, the External Sector/Gross External Debt Section.

Source: the BNB.

The first seven months of the year saw a decline in foreign debt interest payments compared with the corresponding period of 2017, which signalled that terms for servicing external obligations of Bulgarian residents remained favourable.

## Monetary and Credit Aggregates

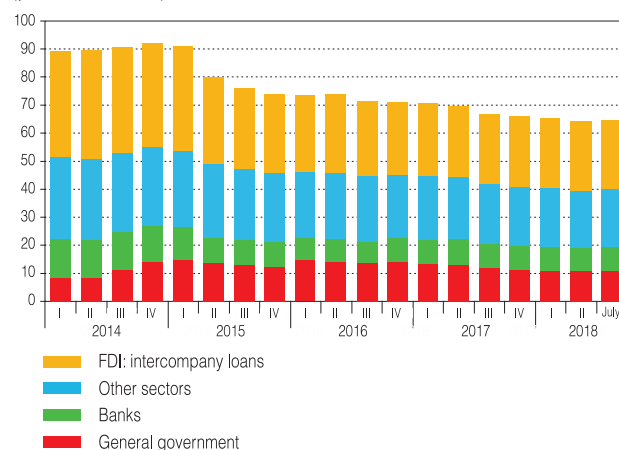
In the first eight months of 2018 the continuing strong inflow of funds attracted from residents in the banking system contributed to the accelerated annual growth rate of broad money. In August the M3 monetary aggregate rose by 9.6 per cent on an annual basis (7.7 per cent at the end of 2017), with overnight deposits contributing most significantly to this dynamics. In the context of continued improvements in the macroeconomic environment and low deposit rates both companies and households preferred to save in demand deposits providing easier access to saved funds. Accelerated credit growth probably also added to stronger growth of deposits on an annual basis. Following the negative contribution of quasi-money to M3 annual growth observed since the second quarter of 2017, the January–August 2018 period saw a positive and gradually increasing contribution mainly attributable to deposits with an agreed maturity of up to two years. Concurrently, between January and August 2018 the contribution of money outside MFIs almost matched end-2017 levels.

Non-government sector's deposits continued to occupy the bulk of the total amount of funds attracted by banks, their share reaching 87.0 per cent on average for the first eight months of the year. Overall annual growth of non-government sector's deposits<sup>18</sup> in the banking system accelerated to 8.0 per cent in August (6.2 per cent at the end of 2017) due mainly to deposits of households. At the end of August household deposits reached BGN 49.6 billion and their annual growth gradually accelerated to 7.6 per cent (from 5.4 per cent at the end of 2017). Deposits of non-financial

<sup>18</sup> Non-government sector's deposits include deposits of households, non-financial corporations and financial corporations. Deposits of households and non-financial corporations (96.3 per cent on average for the last 12 months as of August 2018) comprise the major share of all non-government sector's deposits, and the analysis therefore is focused on these two sectors.

## Gross External Debt as a Share of GDP

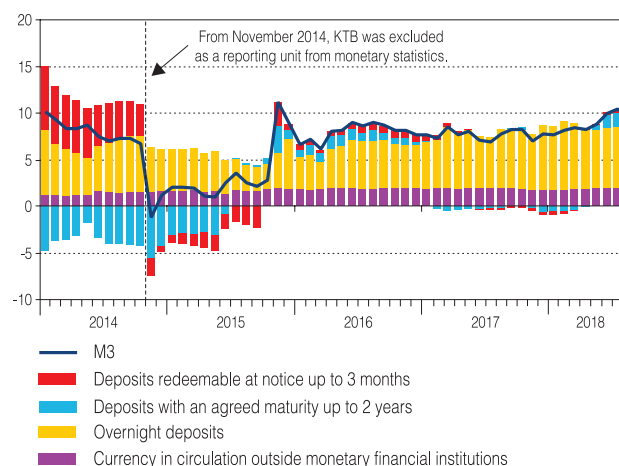
(per cent of GDP)



Source: the BNB.

## Annual Rate of Change in M3 and Contribution by Component

(per cent, percentage points)

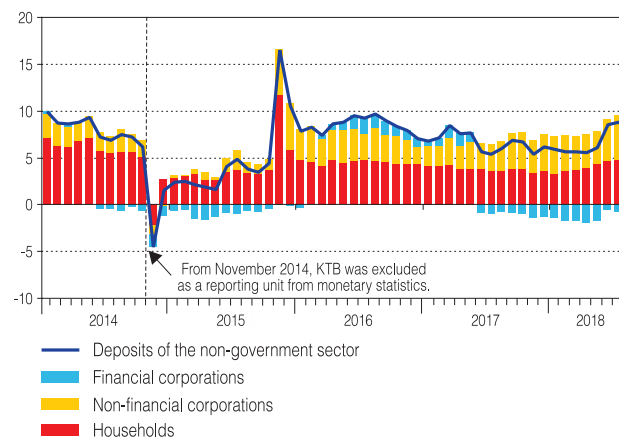


Note: The marketable instruments component is not shown on the chart due to its insignificant contribution to broad money growth.

Source: the BNB.

## Annual Growth of Non-government Sector's Deposits and Contribution by Sector

(per cent, percentage points)



Source: the BNB.



corporations grew annually at a rate close to that reported at the end of the previous year. In August 2018 their annual growth accounted for 14.0 per cent and their total amount reached BGN 23.8 billion. Financial corporations' deposits tended to decrease further and in August they fell by 22.5 per cent on an annual basis. In terms of currency structure, lev-denominated deposits retained their high share. At the end of August they accounted for 61.7 per cent of all non-government sector's deposits.

In the first eight months of 2016 the effective implicit rate of minimum required reserves<sup>19</sup> remained at levels similar to the previous year's average levels, reflecting the retained high inflow of funds attracted from residents in the banking system. In August it amounted to 9.39 per cent (9.41 per cent on average for 2017) with bank deposits with the BNB comprising 8.32 percentage points in the fulfilment of minimum required reserves, and the remaining 1.07 percentage points being formed by recognised cash balances.

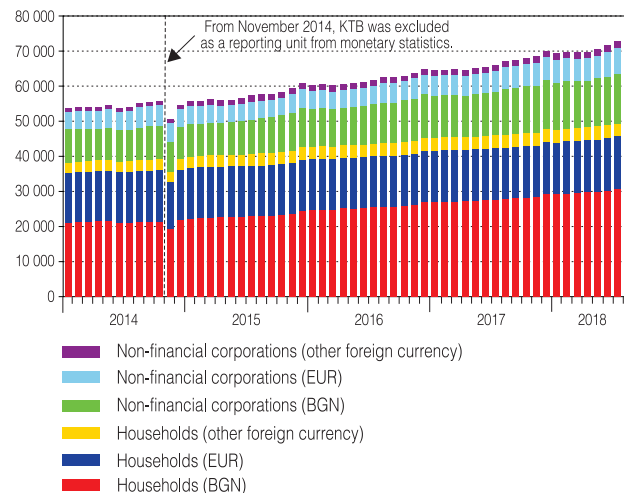
At the end of August reserve money exhibited a year-on-year decline of 2.3 per cent (against a 3.5 per cent increase at end-2017) due to the fall in banks' deposits at the BNB. The contribution of currency in circulation to the total monetary base dynamics in the first eight months of 2018 remained relatively stable, with year-on-year growth in August accounting for 11.1 per cent (11.0 per cent at the end of 2017). The relatively high growth rates of currency in circulation reflected again the strong private consumption, low deposit rates and economic agents' preferences to hold cash.

At the end of the first eight months of the year bank deposits with the BNB fell by 15.7 per cent on an annual basis, which was entirely attributable to a decrease in their excess reserves with the BNB. The strong decrease in bank excess reserves with the BNB (by 51.3 per cent on an annual basis at the end of August) continued to reflect the effect of the changed methodology for setting interest rates

<sup>19</sup> According to Article 3 of BNB Ordinance No 21 on the Minimum Required Reserves Maintained with the Bulgarian National Bank by Banks, the rate of minimum required reserves on funds attracted from residents is 10 per cent of the deposit base, from non-residents 5 per cent and from the state and local government budgets 0 per cent.

## Currency Structure of Deposits of Non-financial Corporations and Households

(BGN million)

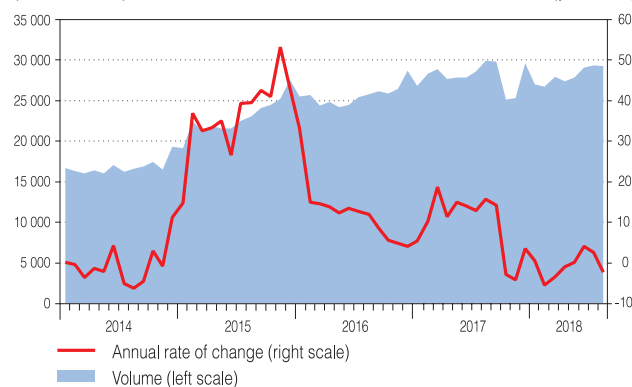


Source: the BNB.

## Reserve Money

(BGN million)

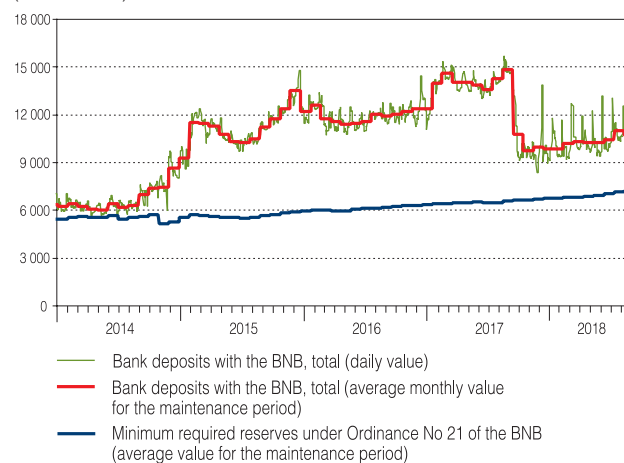
(per cent)



Source: the BNB.

## Bank Loans with the BNB

(BGN million)



Source: the BNB.

on accounts with the BNB, effective from October 2017<sup>20</sup>, on banks' behaviour. As of August 2018 the excess funds on banks' accounts with the BNB over the required minimum under Ordinance No 21 amounted to 33.0 per cent of the minimum required reserves on an average daily basis (against 115.6 per cent in August 2017 and 44.9 per cent in December 2017). The decrease in bank deposits with the BNB, as a result of excess reserve declines, was partially offset by the increased minimum required reserves on an annual basis and the rise in bank funds in TARGET2.

Under the currency board arrangement, foreign currency trade with the BNB is the main tool to manage bank liquid resources. In August 2018 the BNB net purchases of euro from banks amounted to EUR 314 million on an annual basis.

Bank assets grew 7.3 per cent on an annual basis at the end of August 2018. Foreign assets and claims on the non-government sector contributed most substantially to growth of bank assets. Concurrently, bank deposits with the BNB and claims on the general government sector reported a decline.

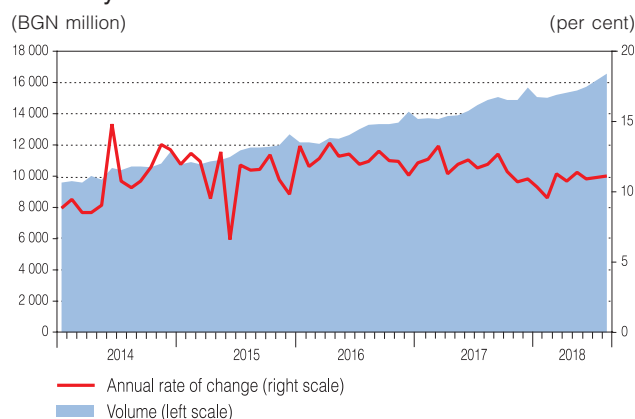
The favourable macroeconomic environment and low lending rates contributed to gradually accelerating annual growth rates of credit to non-financial corporations and households<sup>21</sup>, accounting for 6.5 per cent at the end of August (3.3 per cent at the end of 2017).

Annual growth of loans to non-financial corporations accelerated to 4.2 per cent in August 2018 compared with 1.6 per cent at the end of the previous year. This dynamics was mainly driven by loans, excluding overdraft, and to a lesser

<sup>20</sup> On 4 October 2017 changes in the methodology for setting interest rates on accounts with the BNB came into force. Changes in the methodology refer to the interest rate on excess reserves of banks with the BNB, which was reduced 20 basis points under the ECB deposit facility rate.

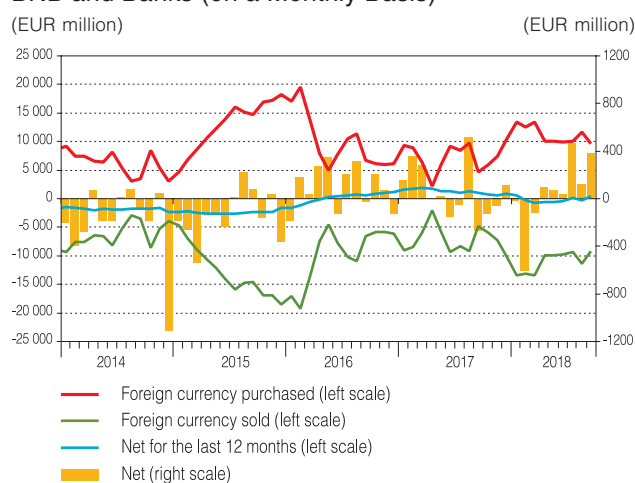
<sup>21</sup> Loans represent the bulk of bank claims on the non-government sector with a share of 98.0 per cent on average for the last 12 months as of August 2018, and the analysis is therefore focused on them. In addition to loans, claims include also repurchase agreements, securities other than shares, and shares and other equity instruments. Loans to the non-government sector, in turn, include loans to households, loans to non-financial corporations and loans to financial corporations. The share of loans to households and non-financial corporations in total loans to the non-government sector accounted for 95.7 per cent on average in the last 12 months as of August 2018, and therefore developments in these two sectors are addressed.

## Currency in Circulation



Source: the BNB.

## Foreign Currency Purchases and Sales between the BNB and Banks (on a Monthly Basis)

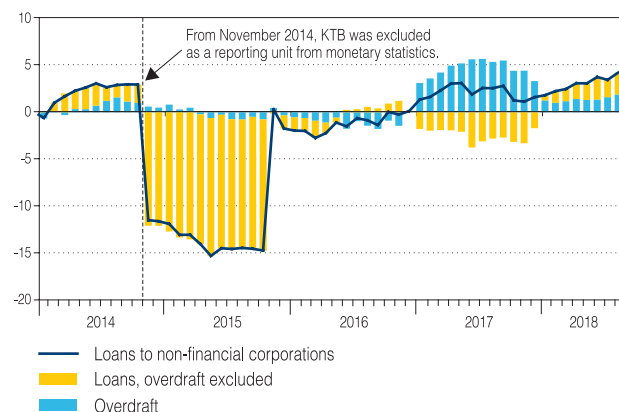


Notes: Net means currency purchased minus currency sold by the BNB. Data refer to all bank transactions in foreign currency including liquidity management operations related to the transfer of own funds from lev accounts with the BNB to own accounts with the BNB in euro and *vice versa*.

Source: the BNB.

## Annual Growth of Loans to Non-financial Corporations and Contributions of Individual Types of Loans

(per cent, percentage points)



Source: the BNB.

extent by overdraft. The volume of new loans<sup>22</sup> to non-financial corporations slightly increased in the first eight months of 2018 compared with end-2017.<sup>23</sup> The share of new corporate loans in levs decreased on average by 2.4 percentage points for the last 12 months to 52.9 per cent compared with December 2017. New corporate loans in euro rose 2.7 percentage points and accounted for 45.2 per cent, while those in US dollars matched their share of end-2017 and comprised 1.9 per cent of all new loans to non-financial corporations in August 2018.

Annual growth in loans to households also accelerated in the first eight months of 2018, accounting for 10.2 per cent in August (6.0 per cent by end-2017). A stronger annual increase compared with the end-2017 was reported in both consumer and housing loans, while the contribution of other loans to overall dynamics of household loans was negative. Accelerated growth of consumer loans (15.4 per cent in August 2018) was strongly influenced by the inclusion of a new reporting unit in the scope of monetary statistics from April 2018<sup>24</sup>. Loans extended under the National Programme for Multi-Family Residential Building Energy Efficiency (energy efficiency programme) reported a decrease on an annual basis. This was attributable to the larger amount of government payments on these loans as compared with volumes of new loans under the programme. Over the first eight months of 2018 newly extended consumer loans exhibited an upward dynamics, while new housing loans to households almost matched end-2017 levels.

Summarised results of the BNB bank lending survey<sup>25</sup> for the second quarter of 2018 sug-

<sup>22</sup> The terms 'new' and 'newly extended' hereinafter referred to as the statistical category 'new business'.

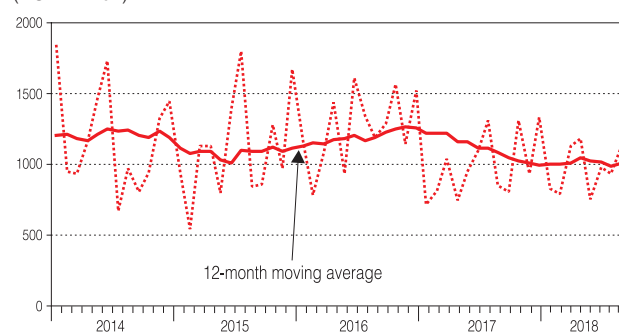
<sup>23</sup> Based on 12-month moving average.

<sup>24</sup> As of April 2018 the other monetary financial institutions sector includes BNP Paribas Personal Finance S.A., Bulgaria Branch, with balances reclassified from the other financial intermediaries sector. The reclassification results from the transformation through merger of BNP Paribas Personal Finance EAD specialised in lending and reported until March 2018 in the other financial intermediaries sector for the purposes of monetary statistics.

<sup>25</sup> Summarised results of the bank lending survey are presented through weighting bank responses by their market share in the relevant credit segment.

## New Loans to Non-financial Corporations (Monthly Volumes)

(BGN million)

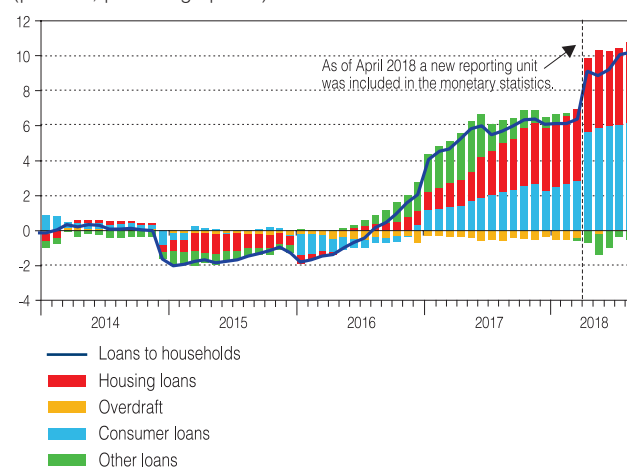


Note: For data characterised by significant volatility, additionally moving averages computed for suitably selected periods are provided, in order to smooth the fluctuations in corresponding time series and present the trends in their development.

Source: the BNB.

## Annual Growth of Household Loans and Contributions of Individual Types of Loans

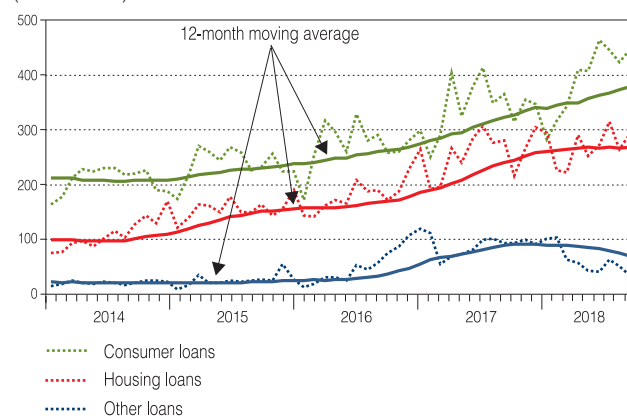
(per cent, percentage points)



Source: the BNB.

## New Loans to Households (Monthly Volumes)

(BGN million)



Source: the BNB.

gest that credit standards<sup>26</sup> in approving credit applications by corporations experienced no essential changes. Household credit standards slightly tightened for consumer loans and retained unchanged for housing loans. Concurrently, banks reported further easing of credit conditions<sup>27</sup> for corporations and households in terms of interest rates and the interest rate spread. The strong competition in the banking sector and lowered risk assessment were the main factors contributing to loosening of banks' lending policy (lending standards and conditions) for corporations and households over the quarter. The overall improvement of macroeconomic environment, higher solvency assessment of borrowers and favourable housing market outlooks played a major role in risk assessment. Concurrently, banks' lower risk appetite militated in favour of a tighter corporate lending policy over the quarter. Between July and September 2018 banks' expectations are for keeping lending standards for corporations and consumer loans unchanged and for a slight tightening of standards regarding housing loans.

In the second quarter of 2018 banks reported a stronger demand for loans by both corporations and households, with the largest growth recorded in consumer loans. According to the weighted balance of opinions, low interest rates contributed most markedly to the higher demand for bank funds by corporations over the quarter. Demand for funds for purchasing working capital and inventories, for investment purposes, refinancing, restructuring or renegotiating debt, and for mergers and acquisitions also contributed significantly to the higher demand for corporate loans. Major factors encouraging household demand for consumer loans included positive consumer assessments of the macroeconomic environment, low interest rates and demand for funds to purchase goods intended for current consumption and durable goods.

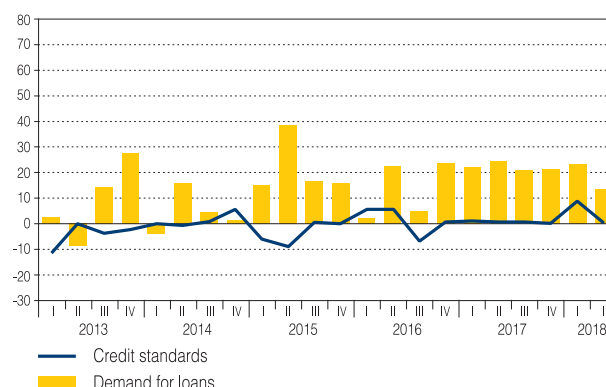
<sup>26</sup> 'Credit standards' are understood as internal bank guidelines or criteria for loan approvals established prior to negotiating the terms of extended loans. Credit standards determine the type of the loan and collateral considered admissible by banks, taking into account specific priorities by sector, etc. Credit standards specify also all relevant conditions to be met by a borrower.

<sup>27</sup> 'Credit conditions' typically involve the reference interest rate surcharge *vis-à-vis* the reference rate, the loan amount, conditions for its utilisation and other conditions such as fees and commissions, collateral or guarantees to be provided by a borrower.

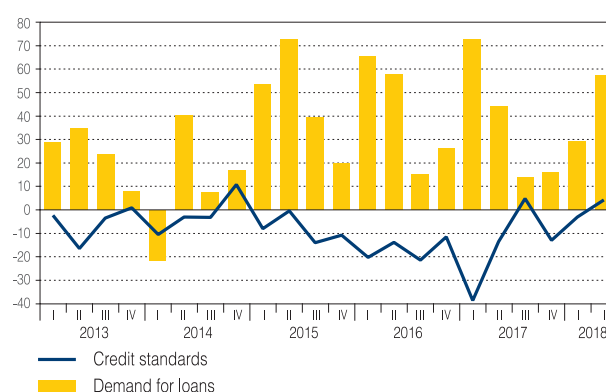
## Changes in Demand and in Credit Standards

(balance of opinions; percentage points)

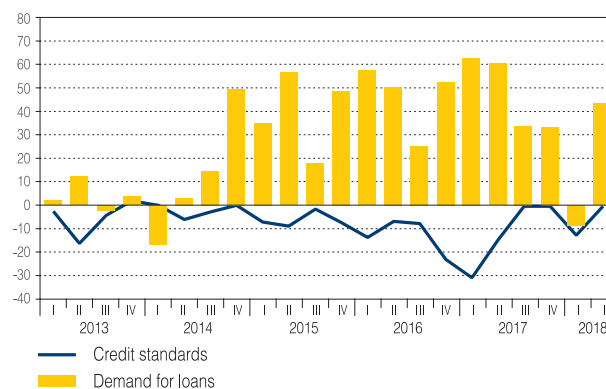
### a) corporate loans



### b) consumer loans



### c) housing loans



Notes: As regards credit standards, charts present banks' balance of opinions defined as a difference in percentage points between the percentage of banks responding 'tightened' ('considerably' and 'somewhat'), and the percentage of banks responding 'eased' ('considerably' and 'somewhat'). As regards credit demand, the balance of opinions is defined in percentage points as a difference between the percentage of banks responding 'increased' ('considerably' and 'somewhat') and the percentage of banks responding 'reduced' ('considerably' and 'somewhat'). All opinions are weighted by the bank's market share in the relevant credit segment.

Source: the BNB.

In addition to low interest rates, the favourable housing market outlook also contributed substantially to the stronger demand for housing loans over the quarter. Bank expectations for the July–September 2018 period show that demand for corporate and household loans will further increase.

In the fourth quarter of 2018 and the first quarter of 2019 continuously improving economic activity will help retain the upward trend in non-government sector's deposits. Over the projection horizon annual growth of deposits may slow down compared with that reported in the first eight months of the year due mainly to the effect of one-off factors. Taking into account data available as of end-September corporate loans are expected to continue accelerating moderately amid favourable macroeconomic environment and low lending rates. Assuming continued government repayments on energy efficiency loans and decreased volumes of new loans under this programme compared with the end of 2017 and early 2018, the negative contribution of loans under this programme to annual growth of household loans will increase. As a result it may be expected a slower annual increase in household loans as compared with the reported rates until the beginning of the third quarter of 2018. Factors likely to limit additionally credit growth in the fourth quarter of 2018 and the first quarter of 2019 are maintenance of bank policies to write-off non-performing loans from balance sheets and possible sales of credit portfolios.

## Interest Rates

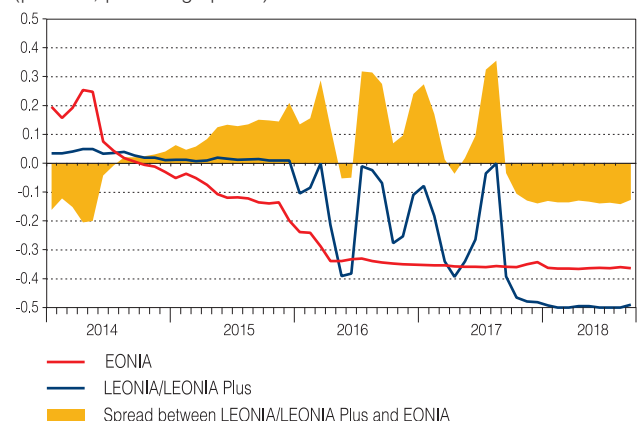
LEONIA Plus index<sup>28</sup> remained relatively stable in the first nine months of 2018 and in September accounted for -0.49 per cent (down 1 basis point on December 2017). The spread between LEONIA Plus and EONIA also remained almost unchanged and stood at -13 basis points in September. Volumes on the lev interbank money market declined in the third quarter to reach BGN 1.6 billion in September (against BGN 4 billion on average in the first half of 2018).

<sup>28</sup> LEONIA Plus (LEv OverNight Interest Average Plus) is a reference rate of unsecured overnight deposit transactions in Bulgarian lev on the interbank market.

## Interbank Money Market Rates (Average Monthly Value)

### Overnight deposits

(per cent, percentage points)



Note: With effect from 1 July 2017, LEONIA Plus index replaces LEONIA. LEONIA Plus monthly values are calculated as an arithmetic average for those days when overnight unsecured lending transactions are concluded in the interbank market in lev.

Sources: the BNB, the ECB.



The trend to stabilisation of interest rates on time deposits at historically low levels, which started in 2017, was sustained in the first eight months of 2018. Major factors, which continued to favour this dynamics, involved strong growth of funds attracted from residents and high banking system liquidity. In August the average weighted interest rate on new time deposits of non-financial corporations and households was 0.3 per cent, remaining broadly unchanged from previous year's average. Interest rates on non-financial corporations' deposits posted an increase of 15 basis points to 0.4 per cent since the year start, while interest rates on household deposits exhibited a slight decrease by 2 basis points to 0.2 per cent over the same period. Interest rates on new time deposits in levs and euro declined, and those on deposits in US dollars increased on December 2017.

In August the breakdown of average weighted interest rates on new household time deposits in levs by bank showed an increase from June 2017 in the number of banks with average interest rates ranging from 0.25 to 0.50 per cent at the expense of the reduced number of banks with rates ranging from 0.50 per cent to 0.75 per cent. Variation of interest rates offered by banks on new time lev deposits of households remained low.

After the BNB had discontinued from 1 July 2018 the activities in relation to the calculation and publication of the SOFIBOR index<sup>29</sup>, banks in Bulgaria changed their reference interest rates on lev-denominated household and corporate loans<sup>30</sup> on which this index was used as a reference rate. The review of banks' interest rate policy suggests that most banks have decided

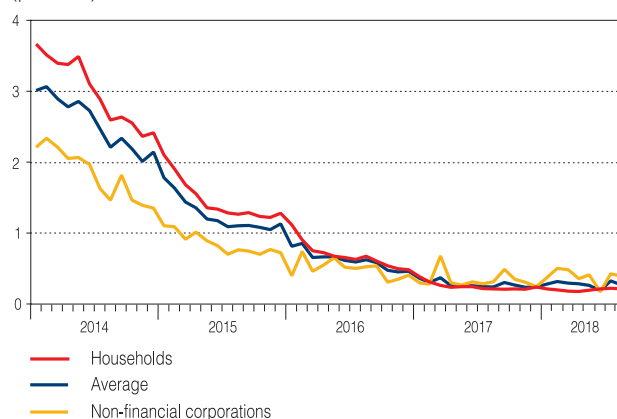
<sup>29</sup> According to the BNB Governing Council decision of 16 March 2017 the BNB discontinued the activities in relation to the calculation and publication of the SOFIBID and SOFIBOR reference rates as from 1 July 2018. For further details, see the BNB press release of 16 March 2017 (<http://www.bis.org>). [http://www.bnb.bg/PressOffice/POPressReleases/POPRDate/PR\\_20170316\\_EN](http://www.bnb.bg/PressOffice/POPressReleases/POPRDate/PR_20170316_EN)

<sup>30</sup> In accordance with the Law on Consumer Credit a 'reference interest rate' shall be the interest rate used as a basis for calculating the variable interest rate applicable to a loan agreement. It shall be a benchmark rate under Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014, or index and/or indicators published by the BNB and/or the NSI, or a combination thereof.

## Interest Rates on New Time Deposits

### a) by sector

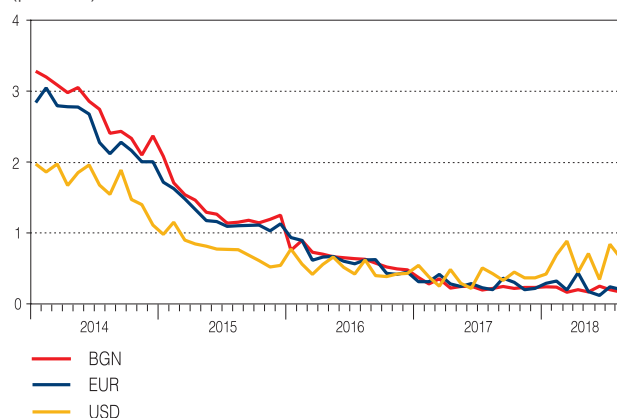
(per cent)



Notes: The average interest rate is calculated for all sectors, maturities and currencies weighted by the relevant volumes of new deposits. Average deposit rates for non-financial corporations and households are based on interest rates for all maturities and currencies weighted by relevant volumes of new business.

### b) by currency

(per cent)



Note: The average interest rate by currency is based on rates for all sectors and maturities weighted by relevant volumes of new business. Source: the BNB.

to use as a reference interest rate on lev loans the BNB interest rate statistics indicators on various types of deposits. Some banks have chosen EURIBOR as a reference interest rate and other banks the base interest rate. Among banks, which have decided to use as a reference interest rate the BNB interest rate statistics indicators on various types of deposits, banks choosing to apply interest rates on balances prevail, while several banks prefer interest rates on new business.

Between March and August 2018 interest rates on newly extended loans tended to stabilise at historically low levels, whereas those on new loans to corporations and on new housing loans continued to decline gradually, while consumer credit rates recorded a slight increase. According to the results of the BNB quarterly bank lending survey, major factors affecting the interest rate dynamics were enhanced competition and lowered risk assessment. The overall improvement of macroeconomic environment, higher solvency assessment of borrowers and favourable housing market outlook for Bulgaria were the main factors behind the lower risk assessment.

In August 2018 interest rates on new loans to non-financial corporations decreased on December 2017 by 11 basis points for BGN-denominated loans, 71 basis points for EUR-denominated loans and 108 basis points for USD-denominated loans. In August interest rates on new loans to non-financial corporations in the three major currencies were 3.9 per cent in lev, 3.2 per cent in euro and 3.4 per cent in US dollars.<sup>31</sup>

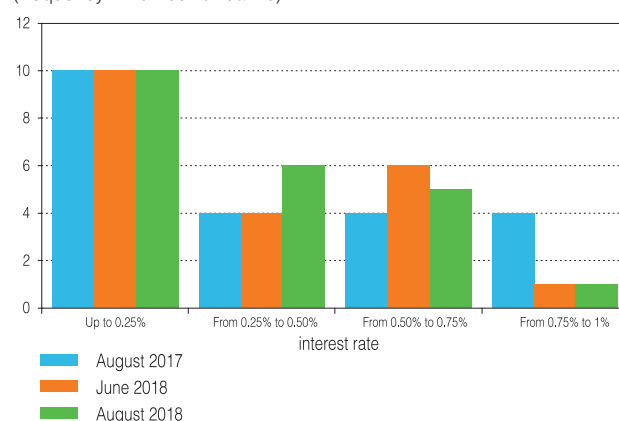
The annual percentage rate of charge (APRC) on housing loans to households retained its downward trend, while it posted a slight increase on consumer loans. In August 2018 the APRC on housing loans fell by 35 basis points to 4.1 per cent compared to December 2017, while that on consumer loans increased by 27 basis points to 10.4 per cent<sup>32</sup>. The APRC decline in housing loans was mainly driven by the downward dynamics of the interest rate component of costs, while the APRC rise in

<sup>31</sup> The above values of interest rates on loans to non-financial corporations are weighted averages on a 12-month basis.

<sup>32</sup> Values indicating the APRC and interest rates are weighted averages of the interest rates on household consumer and housing loans on a 12-month basis.

## Distribution of Interest Rates on New Household Time Deposits in Levs

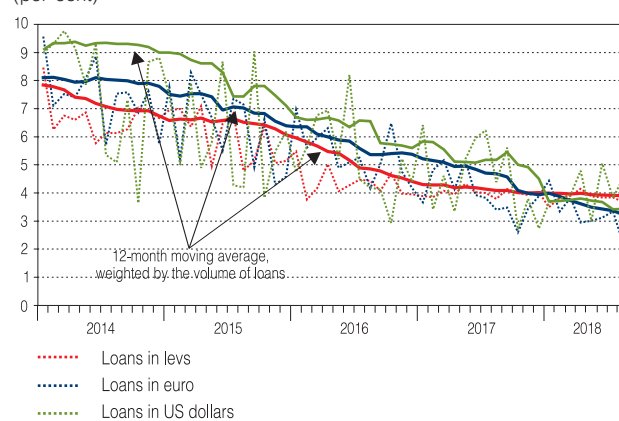
(frequency – number of banks)



Source: the BNB.

## Lending Rates on New Loans to Non-financial Corporations by Currency

(per cent)



Source: the BNB.

consumer loans was due to the increase in the interest rate component and, to a lower degree, to the higher implicit rate of non-interest service charges.

In August the bank breakdown of average weighted interest rates on new housing euro loans showed ranges of 3.0 to 4.0 per cent in most banks. In August the standard deviation increased by 9 basis points to 1.05 per cent compared with June 2018. Over the same period the average interest rate on new housing euro loans increased by 10 basis points to 3.88 per cent.

The spreads between lending rates on corporate and housing loans in Bulgaria and the corresponding interest rates in the euro area continued to decrease, reaching historically low levels.<sup>33</sup> The spread between interest rates on corporate loans reached 208 basis points and on housing loans 178 basis points, indicating a decrease on the end of 2017 by 32 per cent and 35 basis points respectively.

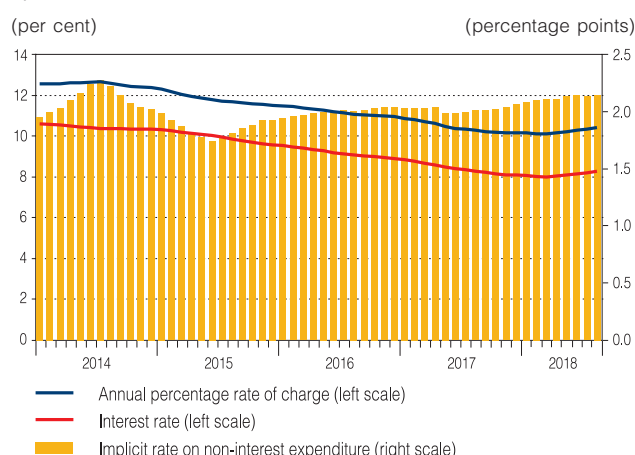
In the fourth quarter of 2018 and the first quarter of 2019 interest rates on new loans and deposits are expected to remain largely unchanged as compared with the levels reported in the first eight months of 2018. The low interest rate levels will continue to be driven by internal factors related to the strong inflow of attracted funds in the banking system and the competition in the sector. The main external factor behind low interest rates in Bulgaria relates to the market expectations of keeping the ECB key interest rates unchanged over the forecast horizon.

In the third quarter of 2018 the Ministry of Finance held no government securities auctions in the primary market. The yield of secondary market government securities continued to reflect mainly the lack of supply of new government securities issues since the start of the year and the high banking system liquidity. These country-specific sectors contributed to a further decline in the long-term interest rate used to assess the degree of convergence by

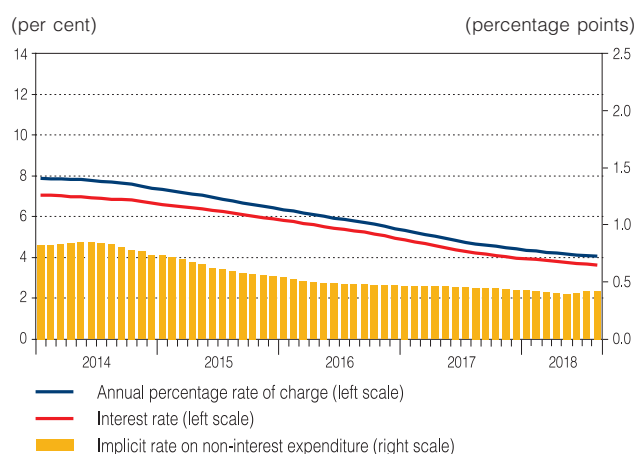
<sup>33</sup> Spreads are calculated as a difference between average interest rates in Bulgaria and in the euro area in all maturities for the relevant type of loan, overall in national currency and euro, weighted by the relevant volumes of new loans for a 12-month period.

## Interest Rates and Annual Percentage Rate of Charges on New Household Loans

### a) consumer loans



### b) housing loans

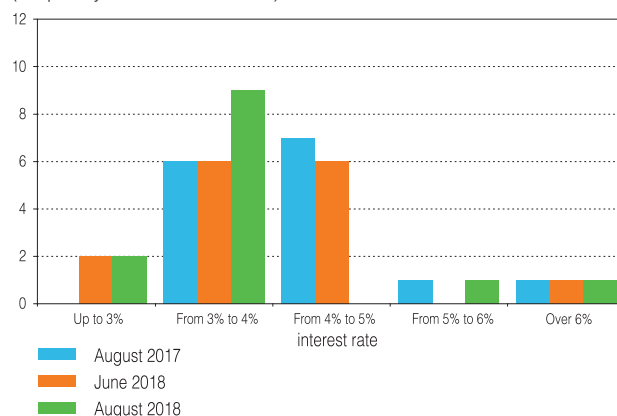


Notes: Interest rates in all maturities and currencies are weighted by the relevant volumes of new loans for a 12-month period. The implicit per cent is the difference between the APRC and the relevant interest rates and reflects the approximate per cent of all non-interest service charges on loans (including fees and commissions).

Source: the BNB.

## Distribution of Interest Rates on New Housing Loans in Euro

(frequency – number of banks)



Source: the BNB.

21 basis points compared with the end of June to 0.78 per cent in September 2018.<sup>34</sup> The yield of all Bulgarian Eurobonds traded in international capital markets decreased somewhat from the end of the second quarter of the year. Concurrently, the yield of euro area risk-free government securities remained broadly unchanged in the third quarter, while spreads between long-term interest rates on German government securities and those of the countries from the so-called euro area periphery continued to be highly volatile amid high political uncertainty in Italy.

At the end of 2018 and in early 2019 the dynamics of Bulgarian government bond yields is expected to be driven by both external and country-specific factors. The ECB Governing Council's intention to discontinue net purchases under the Asset Purchase Programme (APP) in December<sup>35</sup> and risks of stronger fluctuations in EU periphery countries' government bond yields, ensuing from political processes in Italy, may push up the yield of Bulgarian bonds. Concurrently, assuming limited supply of government securities in Bulgaria's primary market and strong demand over the projection horizon, the yield of Bulgarian government securities may be expected to remain close to that reported in September 2018.

## Financial Flows between the General Government and Other Sectors of the Economy

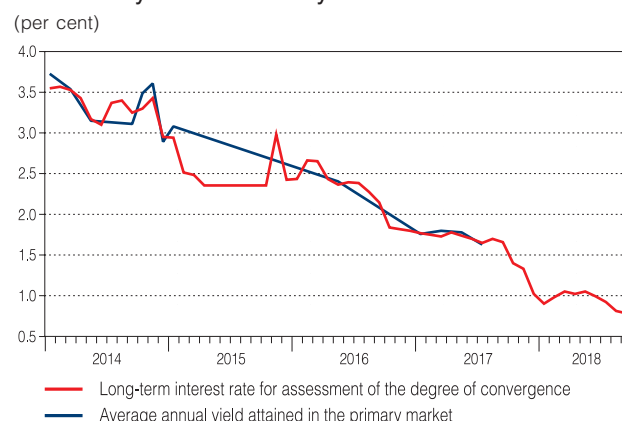
Government's revenue and expenditure policy and budget financing operations affect the allocation of liquidity across economic sectors.

In the second quarter of 2018 the external sector was the major source of liquidity to the budget (1.9 per cent of GDP for the quarter), with grants received under EU programmes (BGN 549.1 million) and reimbursed funds under the EU Common Agricultural Policy (BGN 249.6 million) exceeding EU budget contribution costs (BGN 268.1 million). Over the review period the fiscal policy had an insignifi-

<sup>34</sup> Due to lack of new government securities issues in 2018 the residual maturity of the benchmark bond selected for calculating the long-term interest rate fell under nine years at the end of September 2018, which also had a downward effect on the yield of this issue.

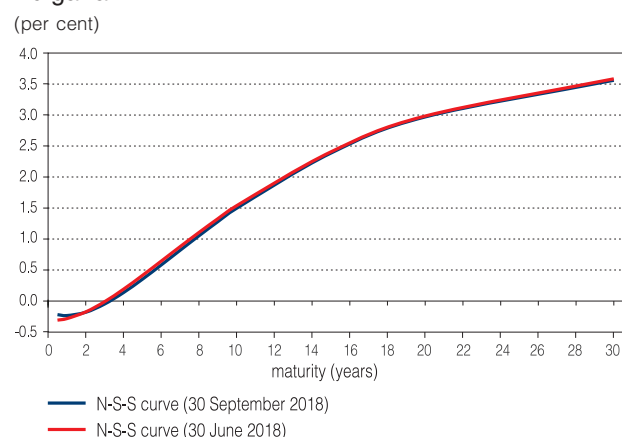
<sup>35</sup> For more information, see Chapter 1.

## Ten-Year-and-Six-Month Government Bond Rates on the Primary and Secondary Markets



Source: the BNB.

## Reference Government Securities Yield Curve in Bulgaria



Notes: The reference yield curve of Bulgarian government securities is based on own calculations under the extended version of *Nelson-Siegel-Svensson* model (1994). The yield change refers to the previous quarter.

The chart employs daily yield data on Bulgarian government securities issued and traded in international capital markets, published in the MF Central Government Debt and Guarantees Monthly Bulletin.

Sources: the MF, BNB calculations.

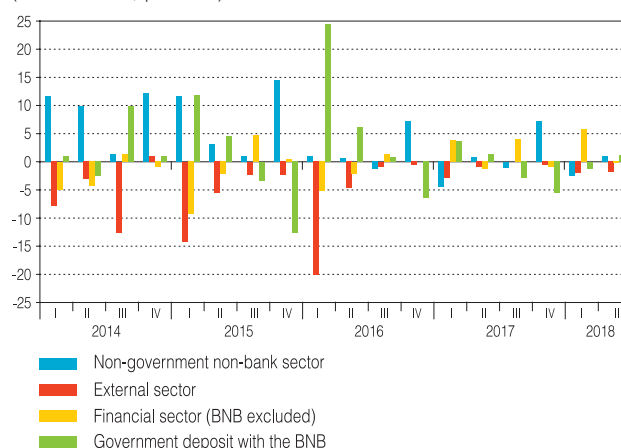
cant impact on the financial sector liquidity (the BNB excluded) with a net negative effect of 0.2 per cent of the GDP for the quarter, which in the absence of new government issues on the primary market and bond service payments, reflected mainly corporate taxes paid by the financial sector. Consolidated budget had a net positive effect (0.9 per cent of the GDP for the quarter) on the liquidity of the non-government sector, reflecting higher inflows into this sector due to payments from the national budget under the EU Common Agricultural Policy (BGN 831.5 million) compared with outflows from the sector resulting from the excess of the tax and non-tax revenue over non-interest government expenditure. The liquidity redirected from the external and financial sectors (the BNB excluded) to the budget exceeded the net inflow of liquid funds from the budget to the non-government non-bank sector. As a result, the government deposit with the BNB rose BGN 312.6 million (1.2 per cent of GDP for the quarter) compared to the end of the first quarter of the year.

Based on preliminary monthly data as of mid-October 2018, in the third quarter a significant inflow of liquidity from the external sector to the budget may be expected as a result of higher transfers under EU operational programmes and reimbursed payments under the EU Common Agricultural Policy *vis-à-vis* the previous quarter. The upward trend in the consolidated fiscal programme surplus<sup>36</sup> suggests positive net financial flows to the budget and from the non-government non-bank sector. The government deposit with the BNB rose BGN 1106.1 million from the end of the second quarter of the year, a result mainly of redirected liquidity from the external and non-government non-bank sector at the end of September.

Developments in financial flows generated in the process of external and internal economic factor interaction contributed to growth in international foreign exchange reserves. By end-September 2018 the market value of international reserves (including valuation adjustments and price revaluations), an asset on the BNB Issue Department

## Consolidated Budget Effect on Other Sectors' Liquidity (Quarterly)

(share of GDP, per cent)



Sources: the MF, the BNB.

<sup>36</sup> Based on MF preliminary data and estimates at 30 September 2018 the consolidated fiscal programme surplus is expected to be BGN 2685.9 million (2.6 per cent of projected GDP).



balance sheet, rose EUR 0.9 billion from the end of 2017 to EUR 24.5 billion (BGN 48.0 billion). According to the currency board principles, the increase in international reserves corresponds to the increase in the Issue Department balance sheet liabilities. The higher government deposit with the BNB and currency in circulation contributed most substantially to increased liabilities of the BNB Issue Department at the end of the January–September 2018 period *vis-à-vis* December 2017.

In the fourth quarter of 2018 and the first quarter of 2019 bank reserves with the BNB are expected to remain broadly unchanged compared to the end of September. In the last quarter of 2018 the government deposit with the BNB is expected to decrease under the assumption of a sizeable increase in budget expenditure at year end and payments under the EU Common Agricultural Policy at a schedule similar to that of the previous year. Provided these payments are reimbursed by the EC in the beginning of 2019 and the excess of revenue over expenditure under the consolidated fiscal programme is sustained in the first three months of the year, funds on the government deposit with the BNB are expected to increase in the first quarter of 2019. The increase in the government deposit will be partly offset by pending payments on government securities maturing in the first three months of 2019. Annual growth of currency in circulation is expected to remain close to that reported at the end of the third quarter of 2018, influenced by continuously increasing private consumption, price levels, as well as low deposit rates.

### 3. ECONOMIC ACTIVITY

In the second quarter of 2018 real GDP increased by 0.8 per cent from the previous quarter, with domestic demand components contributing most significantly to the improved economic activity and net exports contributing negatively.

Unemployment (5.5 per cent in the second quarter) retained its downward trend, and nominal compensation per employee rose on average by 1.7 per cent on a quarterly basis.

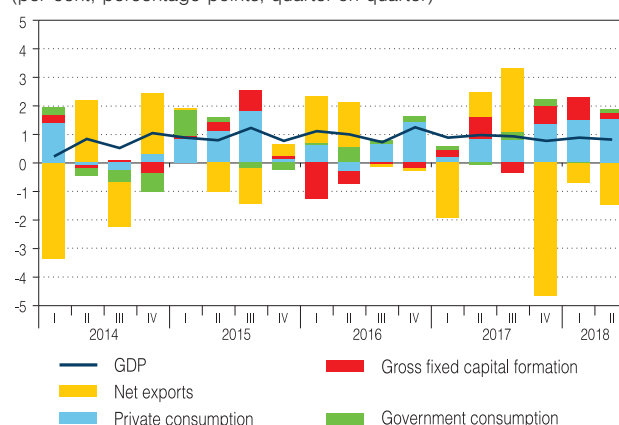
The consumer confidence indicator continued increasing in the third quarter of 2018, sending out positive signals about domestic demand developments unlike the overall business climate indicator which worsened. Wage growth and concurrent rises in household purchasing power, optimistic consumer sentiment, persistently low interest rates and high capacity utilisation rates are expected to continue favouring growth in both private consumption and investment activity of corporations. Government investments are expected to be an additional factor stimulating economic activity, whereas the external environment will remain a source of uncertainty. As a consequence we can expect that in the fourth quarter of 2018 and first quarter of 2019 real GDP will further increase on a quarterly basis at rates close to those recorded in the first half of 2018, but there are risks of lower than projected growth.

#### Current Economic Environment

In the second quarter of 2018 the quarterly growth rate of real GDP decelerated slightly from the previous quarter to 0.8 per cent, according to seasonally adjusted national account NSI data. Economic activity was driven by domestic demand, with private consumption contributing most significantly, followed by gross fixed capital formation and government consumption with lower positive contributions. Net exports contributed negatively to growth, reflecting both reported increases in goods and services imports and a decrease in total exports. The quarterly decline in goods and services exports over the second quarter was largely due to lower exported volumes of oil products as a result of a scheduled refurbishment of production facilities in March and April 2018.<sup>37</sup>

Over the second quarter the growth rate of private consumption accelerated slightly from the first three months of 2018. Consumption growth was underpinned by the retained long-term upward trend in consumer confidence, increased household labour income, and low interest rate levels which continue to stimulate

**Contribution to GDP Growth by Final Use Component**  
(per cent, percentage points; quarter-on-quarter)



Note: Non-additive data due to direct chain-linked and seasonal adjustment of GDP and its components; the contribution of the change in inventories has not been included.

Sources: the NSI, BNB calculations.

<sup>37</sup> NSI data on foreign trade and production and supply of energy products. For details, see the Exports and Imports of Goods and Services Section in this Chapter.

consumer credit demand. In the second quarter of 2018 gross fixed capital formation increased from the previous quarter, contributing positively to growth in domestic demand. BNB estimates<sup>38</sup> indicate that investment growth is driven by the increase in private investment.

In the third quarter the business climate indicator tracking business sentiment declined on average *vis-à-vis* the second quarter of 2018,<sup>39</sup> accompanied by worsening expectations of managers in industry and trade about the future economic activity. Business climate dynamics in industry was in line with the recorded rise in the uncertainty indicator constructed by the BNB, though it remains below its long-term level. These developments indicate potential risks of lower than projected growth of economic activity in Bulgaria in the following quarters.

In the third quarter of 2018 an increasingly larger proportion of firms pointed again to the labour shortage as a factor hampering their business. The labour shortage is probably the reason for a smaller share of corporations to project an increase in their staff over the next three months, signalling that at the end of 2018 and in early 2019 employment will grow at slower rates than in 2017 and the first half of 2018.

Despite a slightly deteriorated economic situation, in the third quarter the composite business climate indicator remained above its historical average value. All of this, combined with broad-based sound developments in domestic demand components, suggests that the economy continues to be in an expansion phase.

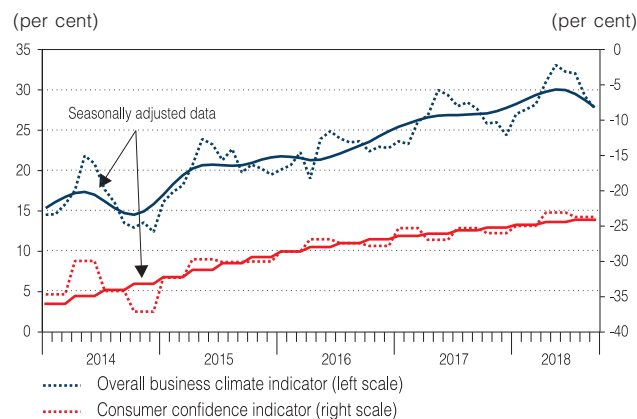
Consumer confidence improved in the third quarter, driven by positive consumer expectations of the overall economic situation in the next 12 months and improved expectations of unemployment and consumer financial position. Retention of optimistic consumer assessments is also confirmed by the continued strong growth of retail sales in food and non-food goods<sup>40</sup>. In

<sup>38</sup> The analysis employs data derived from quarterly non-financial accounts of the general government sector and Consolidated Fiscal Programme implementation reports published by the NSI and MF, respectively.

<sup>39</sup> Seasonally adjusted data.

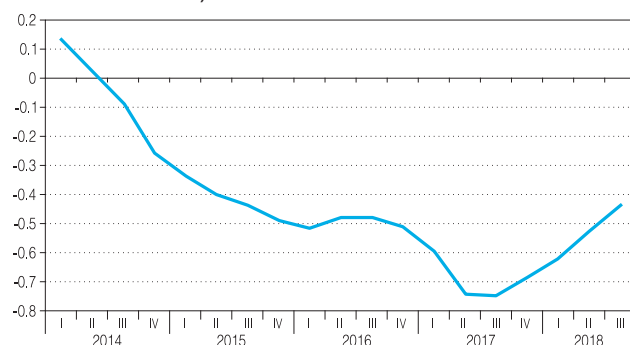
<sup>40</sup> For details on developments in nominal retail trade volumes, see the Household Behaviour Section in this Chapter.

## Business Climate and Consumer Confidence



Sources: the NSI, BNB calculations.

## Uncertainty Indicator in the Economy (Corporations and Households)

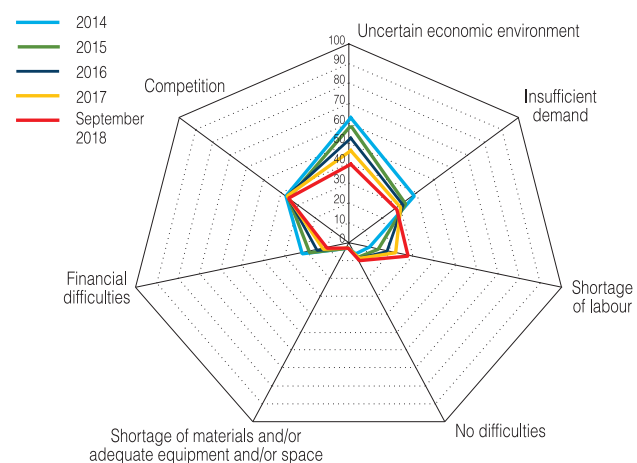


Notes: Higher values of this indicator should be interpreted as an increase in uncertainty. Positive/negative values indicate that the uncertainty is above/below its long-run level. This indicator is constructed under a methodology presented in: Ivanov, E. "Constructing an Uncertainty Indicator for Bulgaria", BNB Discussion Papers 109/2018, and corresponds to the indicator U1 constructed in the paper.

Sources: EC, BNB calculations.

## Factors Limiting Economic Activities of Corporations

(relative share of all corporations)



Note: Average for the period calculated as sector-weighted (industry, construction, trade and services).

Sources: the NSI, BNB calculations.

the fourth quarter of 2018 and the first quarter of 2019 growing labour demand by firms, rising nominal and real household labour income and optimistic consumer sentiment are anticipated to contribute to the increase in final consumption expenditure of households.

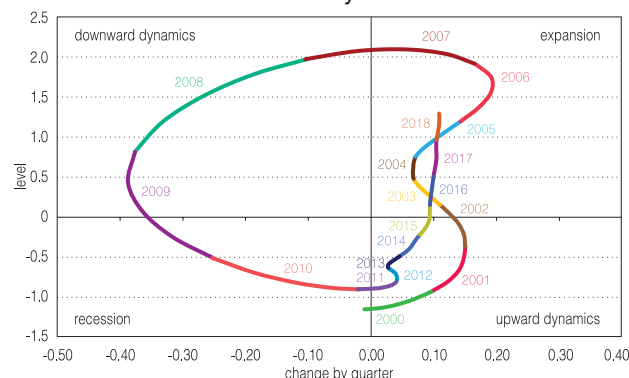
We expect that domestic demand will continue to contribute most strongly to GDP growth in the following two quarters. This will be driven by the retention of currently high growth rates in private consumption and projected acceleration of public investment. It can be expected at the end of 2018 and in early 2019 that firms will expand further their investment activities encouraged by the existing high capacity utilisation, expected growth in domestic and external demand, retained favourable financing conditions and improved corporate profitability.

Exports of goods and services are forecasted to increase in the fourth quarter of 2018 and the first quarter of 2019 in line with strengthening external demand, though at slower rates than goods and services imports, with the result that net exports will have a negative contribution to growth.

Given the final use component dynamics, quarterly real GDP growth is projected to increase over the fourth quarter, then slow down slightly. At the same time, annual real GDP growth is projected to follow a gradual upward trend.

Risks to the projection point towards lower growth in real GDP, reflecting primarily the external environment. Less favourable development in Turkey's economic situation compared to the baseline scenario of projected external demand, as well as further escalating global trade conflicts are the two main sources of uncertainty surrounding external demand for Bulgarian goods and services. Possible lower than projected growth in government investment is another factor for achieving weaker than expected economic growth over the projection horizon. Concurrently, private consumption will grow faster than projected by the BNB, posing a risk of higher than expected growth.

## Business Climate Indicator Dynamics

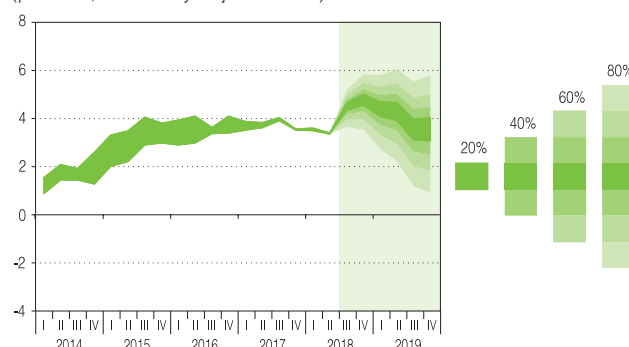


Notes: The chart compares the business climate level (the vertical axis) and its quarterly change (the horizontal axis). The business climate series has been transformed using the *HP* filter (with a parameter  $\lambda = 100$ ) in order to eliminate short-term fluctuations after which it has been standardised.

The four chart grids allow to distinguish the four phases of the business cycle.

## Expected Annual Rate of Change of Real GDP

(per cent, seasonally adjusted data)



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.

## Real GDP Growth by Final Use Component

(per cent, quarter-on-quarter; real rate, seasonally adjusted data)

	2015				2016				2017				2018	
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
Consumption incl.	1.4	1.4	2.0	0.2	0.9	0.4	0.7	1.8	0.5	1.1	1.4	1.7	1.8	1.8
Household consumption	1.2	1.7	2.8	0.2	1.0	-0.5	1.0	2.2	0.3	1.3	1.2	2.1	2.3	2.2
Government final consumption expenditure	2.0	2.3	-0.9	-0.5	-0.9	3.2	0.0	2.2	1.3	-1.9	1.4	0.3	1.0	0.1
Collective consumption	5.0	-1.2	0.7	-0.1	-0.5	2.6	1.3	1.1	1.0	0.3	1.9	1.7	-0.1	1.0
Gross fixed capital formation	0.5	1.5	3.5	0.4	-5.9	-2.2	-0.3	-0.9	1.2	4.0	-1.9	3.2	4.1	1.1
Exports of goods and non-factor services	2.2	-0.8	-3.3	3.9	3.0	4.0	0.7	1.9	0.7	1.4	3.5	-2.1	-1.7	-1.6
Imports of goods and non-factor services	2.1	0.8	-1.3	3.1	0.4	1.5	0.8	2.1	3.5	0.1	0.2	4.8	-0.7	0.7
GDP	0.9	0.8	1.2	0.8	1.1	1.0	0.7	1.2	0.9	1.0	0.9	0.7	0.9	0.8

Source: the NSI.

## Exports and Imports of Goods and Services

Between January and June 2018 nominal exports of goods decreased by 2.3 per cent on an annual basis, and nominal imports of goods increased by 6.6 per cent.<sup>41</sup>

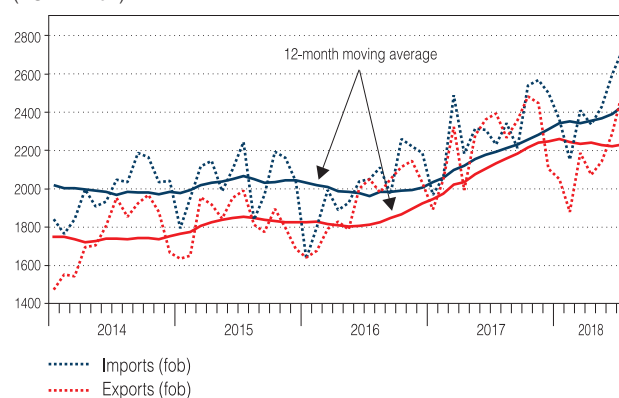
According to non-seasonally adjusted national account GDP data, in the first half of 2018 real exports of goods fell by 2.6 per cent on an annual basis, while real imports of goods rose by 5.8 per cent. Cross-checking the changes in goods exports and imports in nominal and real terms suggests that global price dynamics in the first half of the year had a positive contribution to the change in international trade flows. Over the first seven months of 2018 nominal goods exports dropped by 1.0 per cent, while goods imports grew by 9.3 per cent, as suggested by balance of payments data.

In the fourth quarter of 2018 and the first quarter of 2019 real exports of goods are expected to recover and real imports of goods to continue increasing on an annual basis at rates higher than those in exports. Real goods export growth will be determined by the increasing external demand, whereas real goods imports will be driven by the expected annual growth in investment and private consumption in Bulgaria. Increased export and import prices will support nominal changes in foreign trade flows over the fourth quarter of 2018 and the first quarter of 2019.

<sup>41</sup> Foreign trade data.

## Dynamics of Exports and Imports of Goods

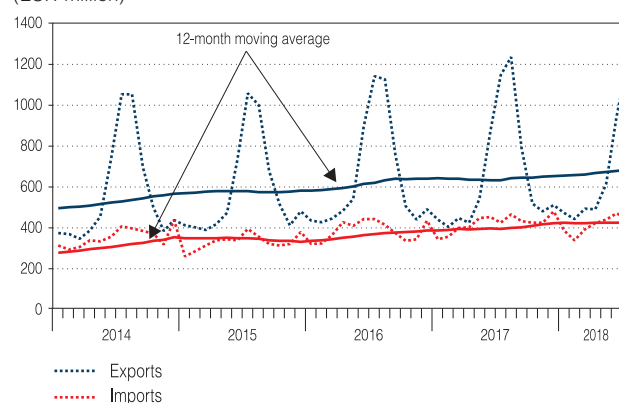
(EUR million)



Source: the BNB.

## Dynamics of Exports and Imports of Services

(EUR million)



Source: the BNB.



According to balance of payments data for the first seven months, exports and imports of services increased on an annual basis from the corresponding period of 2017, with growth of exported services outpacing that of imported services. According to national account data, both increasing volumes and rising prices of exported services year on year had positive contributions to growth in nominal services exports in the first half year. At the same time, nominal services import dynamics was entirely driven by the price component, while real volumes recorded a decline on an annual basis. Expectations for the end of 2018 and the first quarter of 2019 show that services exports and imports will grow on an annual basis, underpinned by both price factors and real trading volume growth.

In the first half of 2018 exports of goods to EU Member States increased by 10.6 per cent on an annual basis, reflecting the continued improvement in the EU economic activity. Exports to Germany had the largest contribution to this growth. Exports of machines<sup>42</sup> and animal and plant products contributed most significantly to the developments in exports to EU Member States by commodity group. A year-on-year decline in nominal terms was recorded only in exports of energy products. In the first half year exports to non-EU countries declined by 23.9 per cent on an annual basis. This fall reflected mainly weaker exports of energy products<sup>43</sup> to Turkey and Egypt as a result of a scheduled refurbishment of production facilities in a key undertaking for the Bulgarian energy sector in March and April 2018.<sup>44</sup> Over the first half year goods exports to EU countries increased its share in total goods exports compared to the same period of 2017, reaching 70.7 per cent.

In the first half year nominal goods exports posted an annual decrease under the Combined Nomenclature, reflecting only the weaker exports of energy products. The remaining commodity groups, however, retained their upward trend observed in the previous year. The group of

<sup>42</sup> In this chapter, it should read the machines, vehicles, appliances, instruments and weapons group under the Combined Nomenclature.

<sup>43</sup> In this chapter, it should read mineral products and fuels group under the Combined Nomenclature.

<sup>44</sup> NSI data on production and supplies of oil and oil products of 27 June 2018.

## Net Exports of Commodity Groups by Use, January–June 2018

	Balance (EUR million)	Change* (EUR million)	Growth of exports** (per cent)	Growth of imports** (per cent)
Consumer goods	81.6	-161.2	2.2	7.6
Raw materials	-546.6	-189.5	7.7	10.6
Investment goods	-784.8	-478.1	-1.7	11.2
Energy resources	-1155.3	-434.6	-47.8	-12.7
Other exports	-54.8	-7.8	9.5	14.0
<b>Total</b>	<b>-2459.9</b>	<b>-1271.2</b>	<b>-2.3</b>	<b>6.6</b>

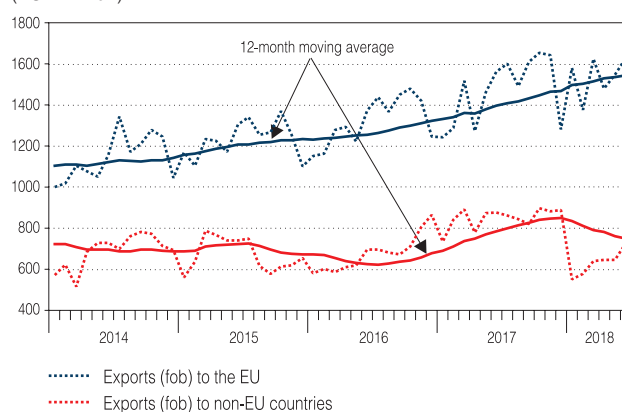
\* Balance change on the same period of previous year.

\*\* Exports and imports growth for the period on an annual basis.

Source: the BNB.

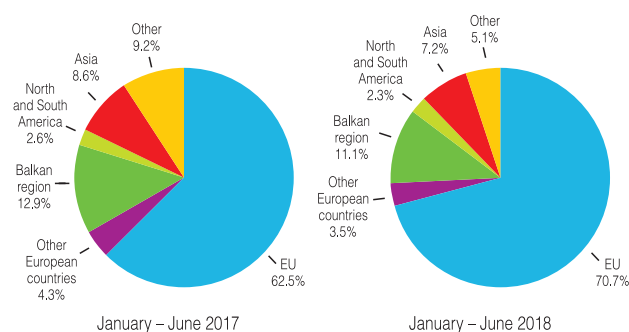
## Dynamics of Exports to EU and non-EU Countries

(EUR million)



Source: the BNB.

## Exports of Goods: Geographical Breakdown



Source: the BNB.

## Exports by Commodity Group, January–June 2018

	Value (EUR million)	Change* (EUR million)	Growth** (per cent)	Contribution**, percentage points
Wood products, paper, ceramics and glass	664.5	20.8	3.2	0.2
Machines, vehicles, appliances, instruments and weapons	3 692.9	25.3	0.7	0.2
Mineral products and fuels	997.5	-641.9	-39.2	-4.8
Base metals and related products	2 434.4	19.4	0.8	0.1
Animal and vegetable products, food, drinks and tobacco	1 870.0	222.9	13.5	1.7
Textiles, leather, clothing, footwear and other consumer goods	1 742.7	31.4	1.8	0.2
Chemical products, plastics and rubber	1 682.6	13.1	0.8	0.1
<b>Total exports</b>	<b>13 084.5</b>	<b>-309.1</b>	<b>-2.3</b>	<b>-</b>

\* Change on the corresponding period of previous year.

\*\* Growth/contribution to growth of total exports over the period on an annual basis.

Source: the BNB.

animal and plant products had the largest positive contribution to goods export dynamics.

In 2017 Bulgaria continued to increase its market share in world trade, reflecting largely the improving competitiveness of the economy. Against the backdrop of rising unit labour costs over the recent years, it can be concluded that the improved competitiveness was mainly attributable to non-price factors.

Over the first half of 2018 exports of machines increased on an annual basis, though at a significantly lower growth rate than in the first half of 2017. This reflected exports to EU countries, while those to non-EU countries declined from the January to June 2017 period. Machines export dynamics in the first half of 2018 was determined by the increase in exported volumes, while prices recorded declines.<sup>45</sup> Reflecting the growing external demand, the upward trend in machines exports is expected to continue in the fourth quarter of 2018 and first quarter of 2019.

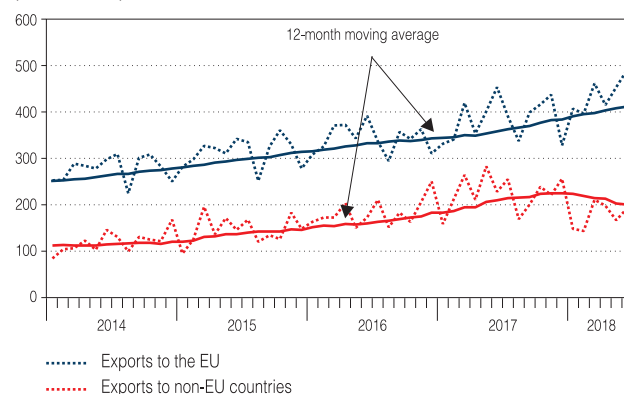
In the first half year exports of energy products declined substantially as a result almost entirely of lower physical volumes.<sup>46</sup> This decline is also a major factor for the overall drop of goods exports. The main reason was the significant fall in oil product production due to a scheduled

<sup>45</sup> Quarterly export deflators for the machines, equipment and vehicles group under the Standard International Trade Classification (SITC) were used to estimate the price effect in the first and second quarters of 2018.

<sup>46</sup> Quarterly export deflators for the mineral fuels, oils and related products group under the SITC were used to estimate the price effect in the first and second quarters of 2018.

### Exports of Machines, Vehicles, Appliances, Instruments and Weapons

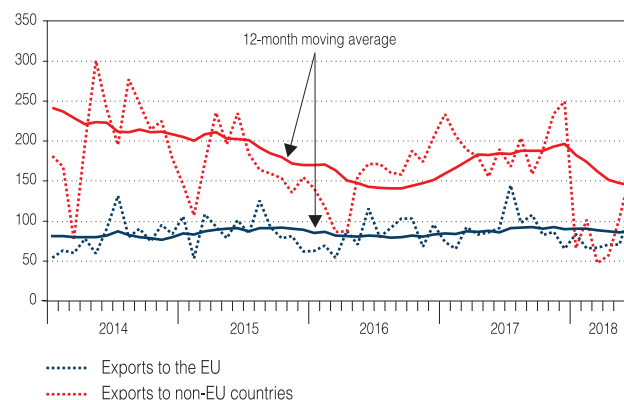
(EUR million)



Source: the BNB.

### Exports of Mineral Products and Fuels

(EUR million)



Source: the BNB.

refurbishment of production capacities in March and April 2018.<sup>47</sup> With completion of the refurbishment work and given the annual increase in petroleum product prices in dollars and euro, declines in nominal exports of mineral products are expected to be reversed in the fourth quarter of 2018 and the first quarter of 2019.

In the first half year nominal exports of base metals picked up on an annual basis, though at a significantly weaker growth rate than in the corresponding period of 2017.<sup>48</sup> The increase was recorded in prices unlike exported real volumes which declined.<sup>49</sup> By geographical breakdown, metal exports to EU countries rose significantly year on year, while those to non-EU countries decreased *vis-à-vis* January to June 2017. In the fourth quarter of 2018 and the first quarter of 2019 metal exports are expected to grow further on an annual basis in nominal terms under the influence of rising real volumes. At the same time, this increase will be partially limited by a projected fall in international metal prices in dollars and euro.

Nominal exports of animal and plant products increased on an annual basis over the first half of 2018, with cereals exports contributing most strongly to this. Increased exports of animal and plant products were attributable to the higher real export volumes, whereas export prices declined on an annual basis.<sup>50</sup> Exports to EU Member States recorded growth, while those to non-EU countries declined from January–June 2017. Our expectations for the fourth quarter of 2018 and first quarter of 2019 show that exports of animal and plant products will drop on an annual basis due to lower cereals yields in EU countries.<sup>51</sup>

<sup>47</sup> See footnote 44.

<sup>48</sup> The first half year saw a base effect of the recovered production of copper products following the renovation and extension of production capacities in a key sector undertaking in 2016.

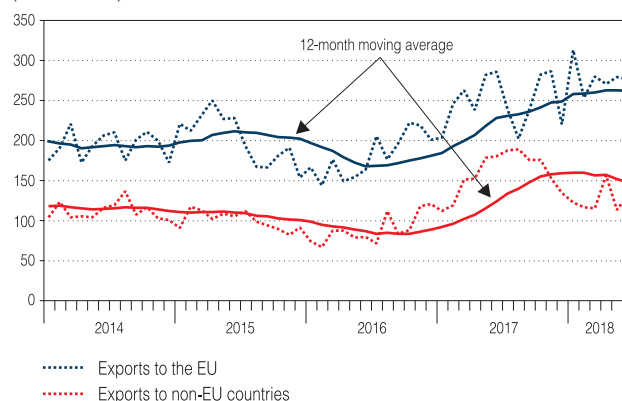
<sup>49</sup> Quarterly export deflators for the precious and other non-ferrous metals under SITC were used to estimate the price effect in the first and second quarters of 2018.

<sup>50</sup> Quarterly export deflators for the food and live animals group under SITC were used to estimate the price effect in the first and second quarters of 2018.

<sup>51</sup> For further details, see Wheat Outlook of USDA, September 2018, p 7.

## Exports of Base Metals and Related Products

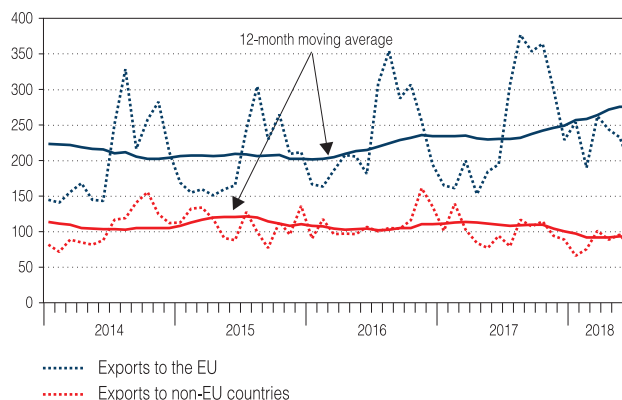
(EUR million)



Source: the BNB.

## Exports of Animal and Plant Products, Food, Drinks and Tobacco

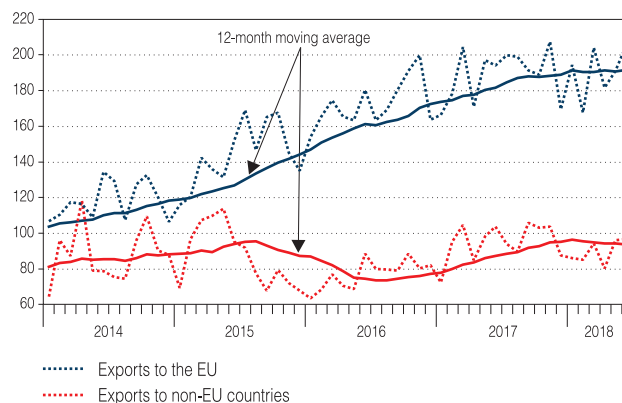
(EUR million)



Source: the BNB.

## Exports of Chemical Products, Plastics and Rubber

(EUR million)



Source: the BNB.

In the first half of 2018 exports of chemical products<sup>52</sup> rose nominally on an annual basis, with plastics and plastic products, essential oils and perfumery contributing most essentially to this growth.<sup>53</sup> Growth was reported largely to EU countries, whereas chemical product exports to non-EU countries posted a decline on an annual basis. Nominal growth of group's exports was driven by both positive dynamics of chemical product prices in the first and second quarters of 2018<sup>54</sup> and decreased exported volumes in the second quarter of 2018. Over the fourth quarter of 2018 and the first quarter of 2019 external demand growth is expected to add further to the year-on-year increase in chemical product exports.

According to balance of payments data, between January and July 2018 exports of services increased by 8.8 per cent on an annual basis, with exports of travel and, to a lesser extent, transport sub-items contributing most to this growth. Between January and July 2018 year-on-year earnings from visits of foreign nationals to Bulgaria increased by 8.1 per cent. NSI data indicate that visits of foreign tourists to Bulgaria increased by 6.5 per cent from January–July 2017, with tourists from Romania and Ukraine recording the largest growth.

In the first half of 2018 nominal goods imports picked up on an annual basis. By use, growth was reported in all sub-groups with the exception of energy resources. Raw materials, followed by investment goods contributed most substantially to growth of nominal imports.

In the first half of 2018 imports of goods from EU Member States rose by 6.6 per cent on the same period of 2017, with imports from Germany contributing most strongly to this growth. Imports from non-EU countries grew by 6.6 per cent on an annual basis, with those from Brazil and China making the largest positive contribution to this dynamics, and from Russia recording the strongest negative contribution. In the first half of 2018 imports from the EU increased

<sup>52</sup> The chemical products, plastics and rubber group under the Combined Nomenclature.

<sup>53</sup> In this chapter, it should read the essential oils and resinoids; perfumery, cosmetic or toilet preparations group under the Combined Nomenclature.

<sup>54</sup> Quarterly export deflators for the chemicals and chemical products group under the SITC were used to estimate the price effect in the first and second quarters of 2018.

## Imports of Commodity Groups by Use, January–June 2018

	Value (EUR million)	Change* (EUR million)	Growth** (per cent)	Contribution** (percentage points)
Consumer goods	3 342.7	236.3	7.6	1.6
Raw materials	6 014.6	578.9	10.6	4.0
Investment goods	4 165.5	418.6	11.2	2.9
Energy resources	1 937.2	-282.1	-12.7	-1.9
Other imports	84.5	10.4	14.0	0.1
<b>Total imports (cif)</b>	<b>15 544.4</b>	<b>962.1</b>	<b>6.6</b>	<b>-</b>

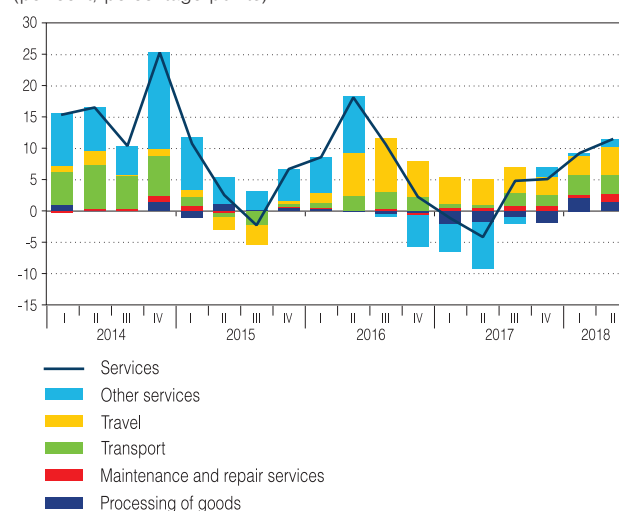
\* Change on the corresponding period of previous year.

\*\* Growth/contribution to total import growth over the period on an annual basis.

Source: the BNB.

## Annual Change of Services Exports and Contribution by Sub-component

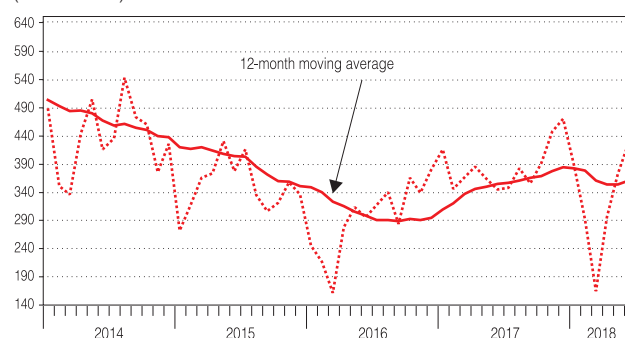
(per cent, percentage points)



Source: the BNB.

## Imports of Energy Resources

(EUR million)



Source: the BNB.

slightly their share to 51.9 per cent (51.8 per cent in 2017).

Between January and June nominal imports of energy resources dropped from the same period of 2017 due to decreased imported volumes.<sup>55</sup> Deceleration of real imports in this group was most pronounced in March and April 2018, reflecting a significant fall in production and supply of oil products due to a scheduled refurbishment in domestic production facilities.<sup>56</sup> At the same time, import prices of energy resources increased on an annual basis in the first and second quarters as a result of rising petroleum prices in international markets. Given the completion of refurbishment and expected increases in international petroleum prices, nominal imports of energy products are expected to grow on an annual basis over the projection horizon.

The raw materials group had the largest contribution to annual growth in total imports over the first half of 2018. This reflected both higher imported physical volumes and, to a lesser extent, increased import prices.<sup>57</sup> Imports of ores, followed by imports of iron and steel had the largest positive contributions in nominal terms. In the fourth quarter of 2018 and first quarter of 2019 nominal imports of raw materials are projected to remain at similar levels, given an expected decline in food and unprocessed raw materials prices.

Between January and June year-on-year imports of consumer goods also increased in line with the strong annual growth of private consumption in both nominal and real terms, according to non-seasonally adjusted GDP data. The sub-group of food, drinks and tobacco, followed by furniture and furnishings continued to add most markedly to consumer goods import growth. Given the forecast of increasing private consumption year on year, nominal imports in this group are expected to increase further on

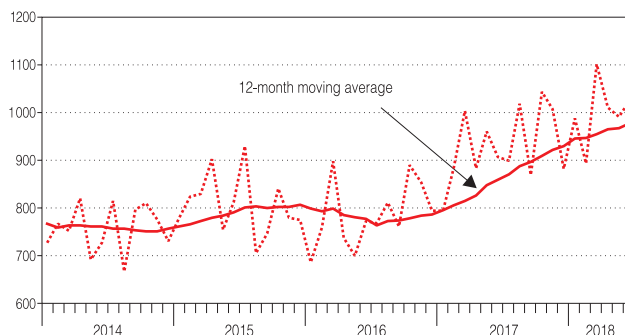
<sup>55</sup> Quarterly export deflators for the mineral fuels, oils and related products group under the SITC were used to estimate the price effect in the first and second quarters of 2018.

<sup>56</sup> See footnote 44.

<sup>57</sup> Quarterly import deflators for the groups of food and live animals, inedible (crude) materials (excluding fuels); chemicals and chemical products and manufactured goods classified chiefly by materials under the SITC were used to estimate the price effect in the first and second quarters of 2018.

## Imports of Raw Materials

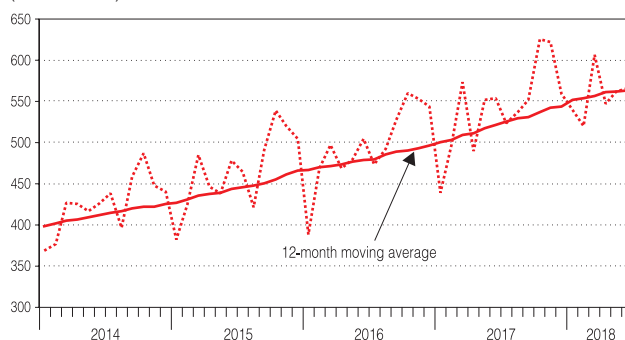
(EUR million)



Source: the BNB.

## Imports of Consumer Goods

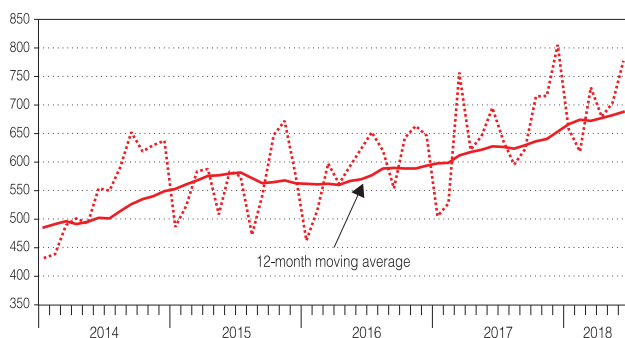
(EUR million)



Source: the BNB.

## Imports of Investment Goods

(EUR million)



Source: the BNB.



an annual basis over the fourth quarter of 2018 and first quarter of 2019.

Between January and June 2018 imports of investment goods increased significantly on an annual basis, their dynamics corresponding to the nominal and real growth of investment, according to non-seasonally adjusted GDP data. Imports of machines and equipment, followed by spare parts and equipment were the major contributors to imported investment goods growth. The assessment of price changes suggests that the higher imports in the group reflects the increase in traded physical volumes, while import prices dropped in the first half year.<sup>58</sup> Our year-on-year forecast for the fourth quarter of 2018 and the first quarter of 2019 shows retention of the upward trend in nominal imports of investment goods, given the expected acceleration in investment growth rates in Bulgaria compared with the first half of the year.

According to balance of payments data, in the January–July 2018 period services imports increased by 2.5 per cent year on year, with transport services, followed by travel contributing most strongly to growth. In real terms,<sup>59</sup> services imports fell by 0.9 per cent on an annual basis for the first six months of 2018, while nominal growth reflected entirely the price component. According to NSI data, Bulgarians' visits abroad increased by 8.4 per cent in the first seven months of 2018, with those to Turkey and Greece recording the most significant contribution to this growth.

## Behaviour of Firms and Competitiveness

In the second quarter of 2018 real value added for the total economy retained its upward trend, its quarter-on-quarter rate reaching 0.7 per cent. The services sector made the major positive contribution to value added growth, followed by manufacturing and construction, while the agricultural sector had a negative contribution.

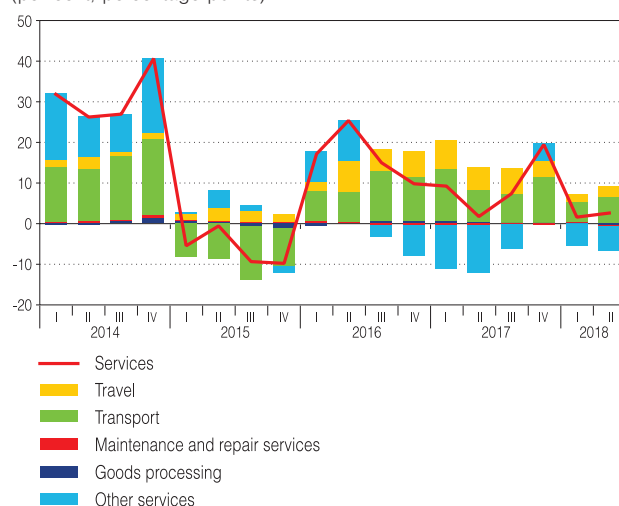
Over the second quarter value added in industry grew by 0.5 per cent on a quarterly basis, driven by the increased economic activity in

<sup>58</sup> Quarterly import deflators for the group of machines, equipment and vehicles under the SITC were used to estimate the price effect in the first and second quarters of 2018.

<sup>59</sup> Non-seasonally adjusted national account GDP data.

## Annual Change of Services Imports and Contribution by Sub-component

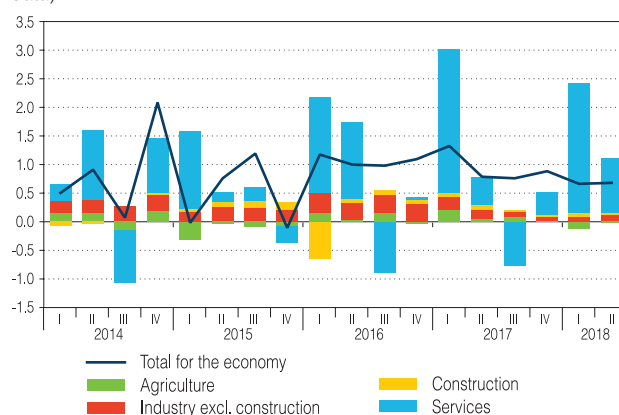
(per cent, percentage points)



Source: the BNB.

## Value Added Growth and Contribution by Sector

(per cent, percentage points, quarter-on-quarter; seasonally adjusted data)



Note: Non-additive data on contributions due to direct seasonal adjustment of value added and its components.

Sources: the NSI, BNB calculations.

both manufacturing and construction. The NSI short-term business statistics data were not completely in line with the trends observed in national accounts data, with the industrial turnover index recording an improvement in the second quarter *vis-à-vis* the previous quarter, and construction production reporting a decline. The industrial turnover increase (at constant prices) over the second quarter of 2018 was due to the domestic market, whereas international markets had a negative contribution to growth. This dynamics was in line with the reported fall in exports of goods.<sup>60</sup>

Quarter-on-quarter declines in construction production over the second quarter was driven by the drop in both building<sup>61</sup> and civil/engineering<sup>62</sup> construction. July data, however, indicate a recovery in the construction production index, and domestic construction activity in the following months is likely to be supported by the persistent upward trend in house prices<sup>63</sup> and government investment.

In the second quarter gross value added in the services sector increased by 1.4 per cent on a quarterly basis (3.4 per cent in the previous quarter), with all sub-sectors contributing positively to growth, excluding financial and insurance activities. Real estate activities had the major positive contribution to value added growth. Value added growth in trade, transport and accommodation and food service activities<sup>64</sup> was accompanied by the continuous upward trend in retail trade turnovers at constant prices, suggesting accelerating consumer demand in the second quarter, most pronounced in food goods. Value added growth in the other services sub-sectors was in line with the preliminary NSI data on services turnover index over the second quarter, signalling a further increase in sales revenue generated by transportation, storage

<sup>60</sup> For more information on goods exports, see the Exports and Imports of Goods and Services Section in this Chapter.

<sup>61</sup> Building construction includes construction of residential and non-residential buildings.

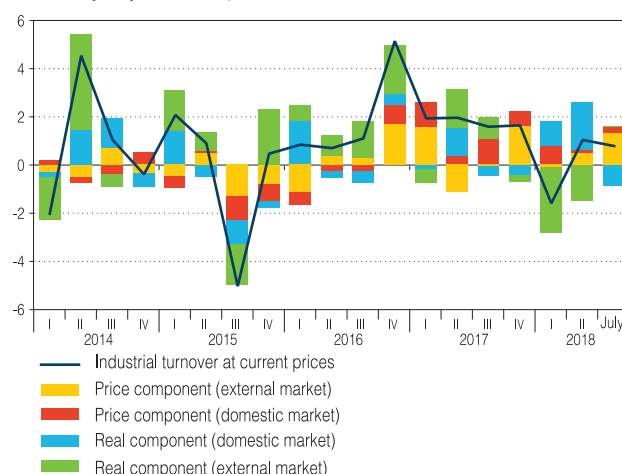
<sup>62</sup> Civil and engineering construction covers infrastructure construction of roads, bridges, pipes, power lines, gas pipelines, telecommunications and other construction works.

<sup>63</sup> For further information on house price dynamics, see Chapter 4 Inflation.

<sup>64</sup> Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities sector under the economic activities classification at level A10.

## Industrial Turnover Dynamics

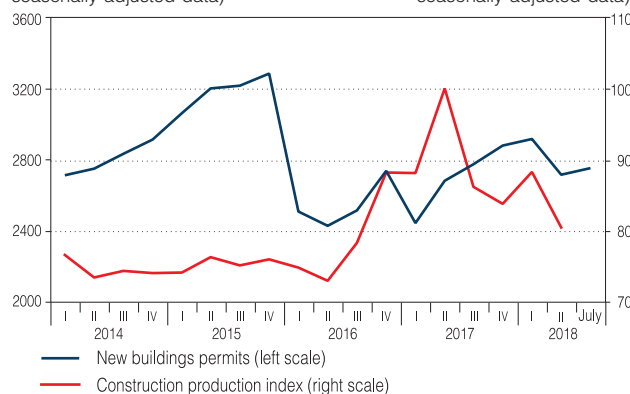
(per cent, percentage points, quarter-on-quarter; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Construction Production Dynamics and New Building Permits Issued

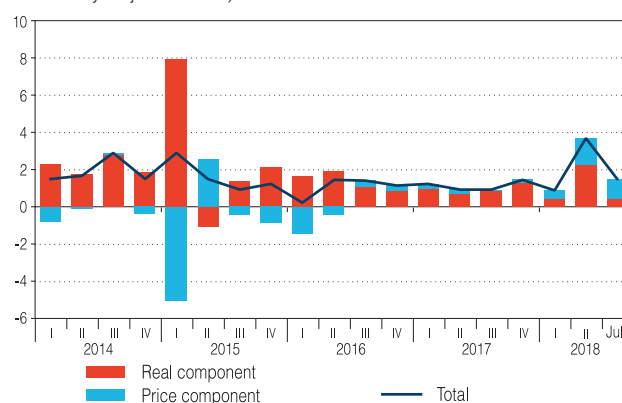
(number of buildings; seasonally adjusted data) (2010=100; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Dynamics of Nominal Retail Trade Turnovers

(per cent, percentage points, quarter-on-quarter; seasonally adjusted data)

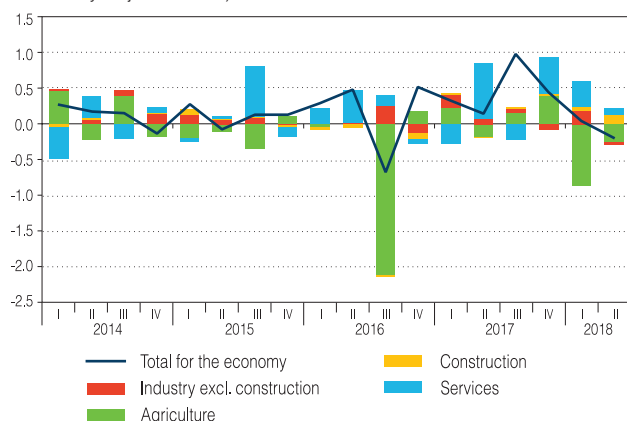


Note: Non-additive data on contributions due to direct seasonal adjustment of the total amount and its components.

Sources: the NSI, BNB calculations.

## Growth Rate of Employment in the Total Economy and Contribution to Changes in the Number of Employed by Economic Sector

(per cent, percentage points, quarter-on-quarter; seasonally adjusted data)



Note: Non-additive data on contributions due to direct seasonal adjustment of the total amount and its components.

Sources: the NSI, BNB calculations.

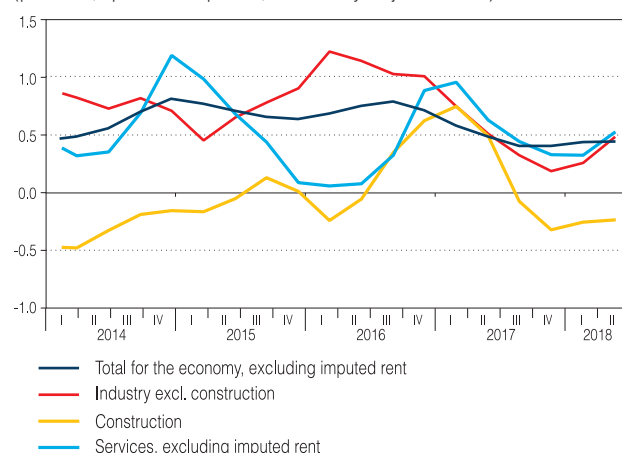
and posts, information and communication, telecommunications and some other business services.

The NSI short-term business statistics data on production and turnovers in industry, trade and construction in July 2018 give predominantly positive signs of changes in gross value added in the relevant sectors over the third quarter of 2018. In July industrial turnovers at constant prices increased from the previous quarter as a result mainly of international market developments, which justifies our expectations of a recovery in goods exports over the next quarters. In July retail trade volumes at constant prices also continued to grow on a quarterly basis. Similar developments were observed in the construction production index, with quarterly growth recorded in both building and civil/engineering construction.

Despite the economic activity improvement measured by value added dynamics, in the second quarter of 2018 total employment fell by 0.2 per cent from the previous quarter, according to seasonally adjusted NSI national account data. Higher quarter-on-quarter employment was reported in the services sector and in construction, while the agricultural sector reported a decline. Across services sub-sectors, positive contributions to employment growth were recorded in trade, transport, and accommodation and

## Labour Productivity Developments (Value Added per Employee)

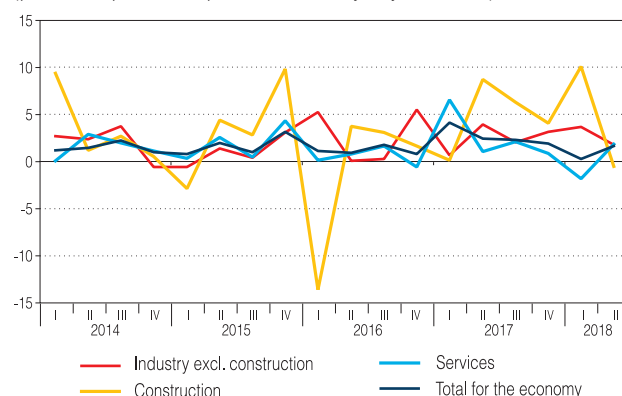
(per cent, quarter-on-quarter; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Compensation per Employee at Current Prices

(per cent, quarter-on-quarter; seasonally adjusted data)

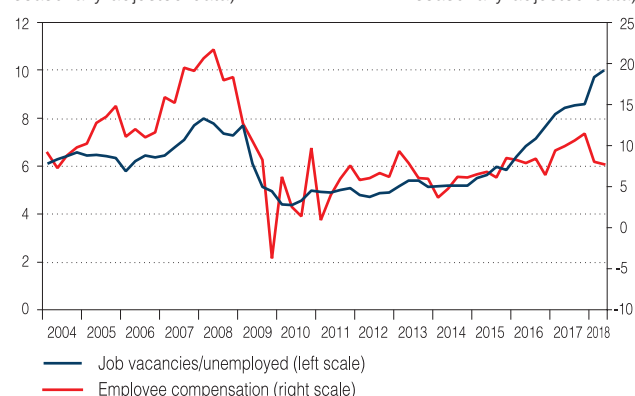


Sources: the NSI, BNB calculations.

## The Job Vacancies/Unemployed Ratio and Employee Compensation

(per cent, job vacancies/unemployed; seasonally adjusted data)

(per cent on corresponding quarter of the previous year; seasonally adjusted data)



Note: The quotient between job vacancies over the month and unemployed is an indicator of the labour market conditions. The increase in the indicator is interpreted as a limited potential of labour supply to satisfy demand as a smaller number of unemployed compete for one job.

Sources: The NSI, Employment Agency, BNB calculations.

food service activities<sup>65</sup> and information and communication,<sup>66</sup> while the other sub-sectors registered declines on a quarterly basis.

The expected higher external and domestic demand for goods and services and job vacancies tending to gradually increase are indicative of enhancing labour demand by firms. These factors are expected to retain their favourable effect on employment which in turn will grow in the fourth quarter of 2018, slowing down its rate in early 2019 as a result of limited labour supply.

In the second quarter of 2018 labour productivity continued to improve on a quarterly basis due to the reported value added growth along with a decline in employment. Labour productivity growth was favoured by private investment, corresponding to the increased share of managers indicating that the bulk of investment in 2018 will be used for expansion and rationalisation of production.<sup>67</sup> All economic sectors, except for construction, contributed positively to labour productivity growth. Given the sound domestic and external demand, economic activity is expected to increase further at the end of 2018 and early 2019. At the same time, decreased expectations of firms about their staff over the third quarter are a precondition for employment to rise by the end of 2018 and in early 2019 at rates slower than those in the beginning of the year. As a result, labour productivity is expected to continue improving in the fourth quarter of 2018 and the first quarter of 2019.

In the context of increasing labour demand coupled with labour supply declines in the second quarter,<sup>68</sup> nominal compensation *per* employee continued to grow on a quarterly basis over the second quarter of 2018. Other factors which continued to stimulate wage growth were the increase in minimum wage, minimum social security income and pension contributions in

<sup>65</sup> Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities sector under the economic activities classification at level A10.

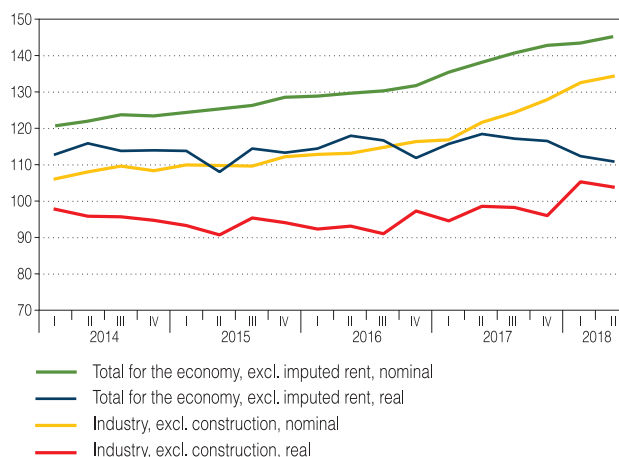
<sup>66</sup> Information and communication under the economic activity classification at level A10.

<sup>67</sup> The analysis employs data derived from EC investment surveys.

<sup>68</sup> Labour supply is measured by seasonally adjusted labour force.

## Unit Labour Costs

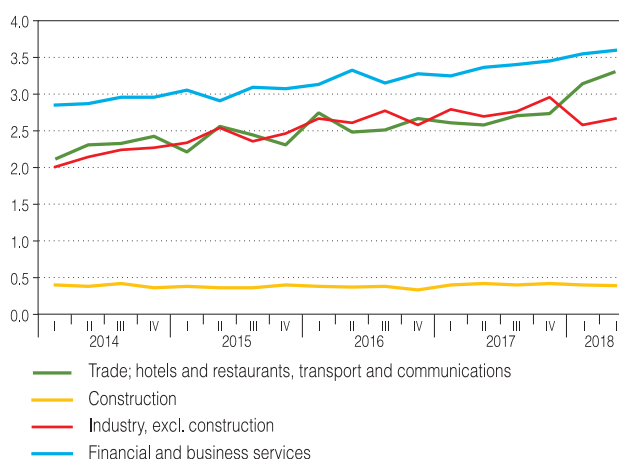
(2010 = 100; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Gross Operating Surplus at Current Prices

(BGN billion; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Gross Value Added Growth

(per cent, quarter-on-quarter; real rate, seasonally adjusted data)

	2014				2015				2016				2017				2018	
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
Agriculture, forestry and fishing	3.1	3.4	-2.9	4.0	-6.6	-0.8	-1.9	-1.4	3.5	0.5	3.3	-0.6	4.9	1.0	1.8	0.3	-2.7	-0.4
Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities	1.0	1.0	1.2	1.3	0.8	1.2	1.1	1.0	1.6	1.4	1.5	1.5	1.0	0.7	0.4	0.3	0.4	0.6
Construction	-1.1	-0.6	0.0	0.3	0.7	1.3	1.9	2.1	-10.2	1.1	1.2	1.0	1.0	1.2	0.4	0.4	1.0	0.4
Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	-2.0	3.0	-1.0	2.0	2.7	-0.2	2.1	-0.8	0.1	1.8	0.5	1.2	0.6	0.6	0.2	0.8	1.0	0.4
Information and communication	0.1	0.3	0.5	0.8	0.2	0.3	0.9	1.0	15.3	-1.7	-0.4	1.0	1.7	2.1	1.7	1.6	1.2	1.6
Financial and insurance activities	-1.5	3.8	-3.5	1.3	-1.7	-4.6	6.0	1.6	1.9	2.9	-0.3	-1.3	1.9	-2.4	1.0	0.7	4.2	-0.3
Real estate activities	6.5	0.6	-3.9	-0.1	5.5	3.6	-5.4	-3.2	11.0	5.3	-8.3	-2.0	14.4	4.5	-9.4	-0.4	13.6	4.6
Professional, scientific and technical activities; administrative and support service activities	0.2	0.1	1.7	0.5	3.6	0.9	1.5	2.1	-1.4	1.3	0.3	-0.6	1.2	-0.3	0.6	1.4	0.5	1.3
Public administration, education, human health and social work activities	2.0	1.0	-1.2	2.6	0.1	0.0	0.0	-0.6	-3.2	0.8	1.2	0.5	3.4	-1.2	1.4	0.6	0.8	0.8
Culture, sport and entertainment; other activities; activities of households as employers; non-identified activities of households producing goods and services for own use; activities of extraterritorial organisations and bodies	-7.9	4.3	3.3	1.6	2.1	2.0	-2.2	1.4	-1.9	0.2	-0.9	1.5	2.1	-0.1	3.5	-0.1	-2.6	0.8
Gross value added, total for the economy	0.5	0.9	0.1	2.1	0.0	0.8	1.2	-0.1	1.2	1.0	1.0	1.1	1.3	0.8	0.8	0.9	0.7	0.7

Source: the NSI.

early 2018, as well as higher wages in the public sector.<sup>69</sup> Compensation *per* employee in industry decreased its growth rate from the previous quarter, while a slight acceleration in services was observed in line with stronger labour productivity growth in this sector. In the fourth quarter of 2018 and the first quarter of 2019 compensation *per* employee is expected to continue rising on a quarterly basis under the influence of the above factors.

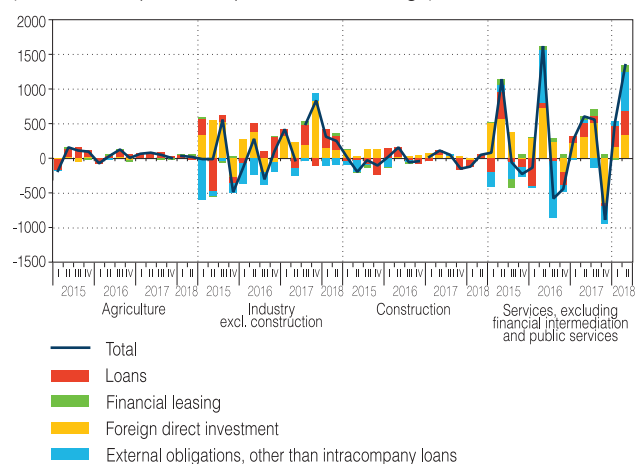
Labour productivity in the total economy also increased, though at a slower pace compared with the growth of compensation *per* employee in the same period, leading to an acceleration in unit labour costs in nominal terms. This development was consistent with the acceleration of the economic activity in Bulgaria and the continuing process of nominal and real convergence.

Seasonally adjusted data show that the gross operating surplus rose in the second quarter

<sup>69</sup> For details, see the Fiscal Policy Effects on the Economy Section in this Chapter.

## Financing Sources\*

(million BGN, quarter-on-quarter volume change)



\* Sources of financing other than gross operating surplus.

Source: the BNB.

of 2018 as a result mainly of its improvement in the services sector and, to a lesser extent, in industry, while the other major sub-sectors registered a decline in profits. Funding attracted by firms from sources other than the gross operating surplus increased in all economic sectors. This growth was largely due to received loans, increased foreign obligations and growth in attracted foreign direct investment<sup>70</sup> into Bulgaria during the reviewed quarter.

Growth decomposition by factor of production suggests that total factor productivity and, to a lesser extent, capital were the main contributors to the growth in the second quarter of 2018. Labour had an insignificant positive contribution as a result of a slight increase in working hours for the total economy. This was due to the larger number of worked man-hours *per* employee which, however, was offset by the decreased number of employed against the previous quarter, according to the NSI seasonally adjusted data.

## Household Behaviour

In the second quarter of 2018 household consumer behaviour continued to reflect the clear trend of growing employment and income on an annual basis, with wage income contributing most significantly to the total household income<sup>71</sup> and resources to cover consumer expenditure. Increased disposable income in the context of high consumer confidence and persistently low interest rates contributed positively to the quarterly growth in private consumption on both annual and quarterly basis.

Based on seasonally adjusted data from the NSI Labour Force Survey, in the second quarter of 2018 the labour force participation rate<sup>72</sup> declined from the prior quarter, though remaining at a comparatively high level. Reflecting the continuous reduction of population in working age, labour supply, measured by labour force,<sup>73</sup>

<sup>70</sup> Preliminary data subject to revision.

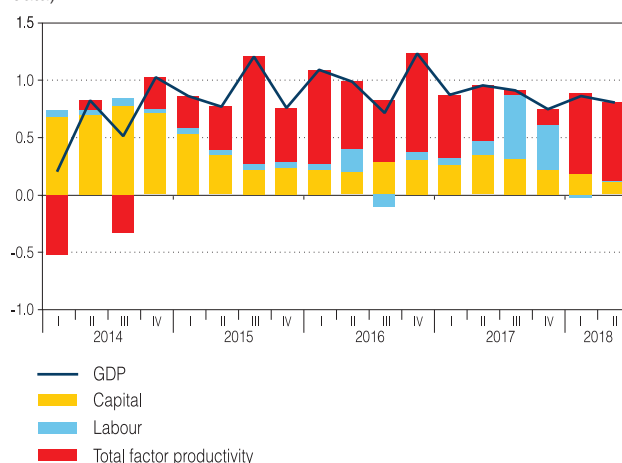
<sup>71</sup> NSI Household Budget Survey data.

<sup>72</sup> The labour force participation rate is the proportion between economically active persons (labour force) and population of the same age.

<sup>73</sup> Labour force (currently economically active population) comprises persons aged 15 and older who provide the supply of labour for the production of goods or services. Labour force includes both employed and unemployed persons.

## Contribution of Changes in Factors of Production to GDP Growth

(per cent, percentage points, quarter-on-quarter; seasonally adjusted data)

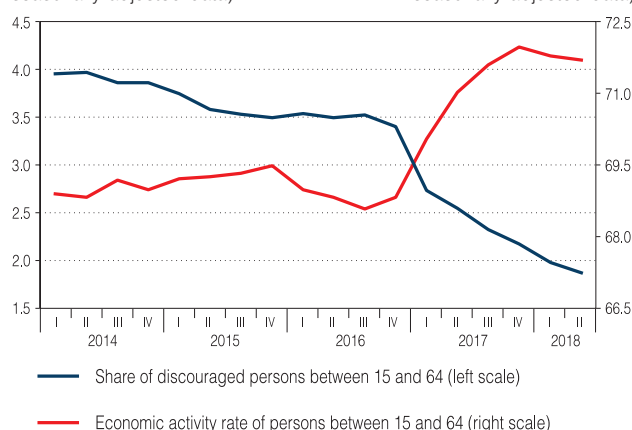


Sources: the NSI, BNB calculations.

## Economic Activity and Share of Discouraged Persons

(per cent, seasonally adjusted data)

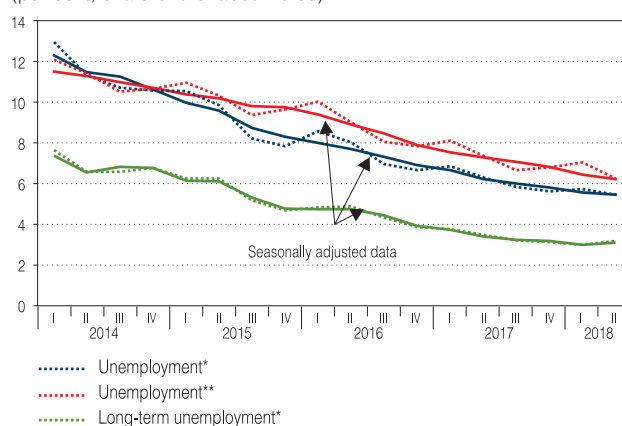
(per cent, seasonally adjusted data)



Sources: NSI Labour Force Survey, BNB calculations.

## Unemployment Rate

(per cent, share of the labour force)



\* NSI data.

\*\* Employment Agency data.

Sources: NSI Labour Force Survey, Employment Agency, BNB calculations.



decreased from the previous quarter. At the same time, the number of discouraged persons continued to decline.

The unemployment rate<sup>74</sup> dropped further in the second quarter, with the unemployment rate reaching 5.5 per cent, as reflected in Labour Force Survey seasonally adjusted data. Administrative statistics data of the Employment Agency show similar dynamics and a decline in unemployment to 6.0 per cent in August (seasonally adjusted data) indicating a possible further fall over the third quarter of 2018.

Reflecting the increasing demand<sup>75</sup> and limited labour supply in the economy, employee wages continued to rise in the second quarter of 2018. Wage growth was observed on both annual (non-seasonally adjusted data of the wage bill and average wage *per employee*) and quarterly basis (seasonally adjusted national account data).

The NSI indicator measuring consumer confidence increased in July, driven by positive consumer expectations of the overall economic situation in the next 12 months and improved expectations of unemployment and financial position of households. As of July the share of persons intending to increase their spending on durable goods also grew.

Optimistic household expectations and continued labour income growth led to a quarterly and annual increase in private consumption over the second quarter of 2018. It was accompanied by growth in nominal retail trade turnovers, with real volumes contributing most significantly. July data indicate slowdown in quarterly growth of private consumption in the third quarter of 2018. Over the first eight months newly extended consumer loans recorded upward dynamics which is expected to stimulate further consumer demand in the following months.

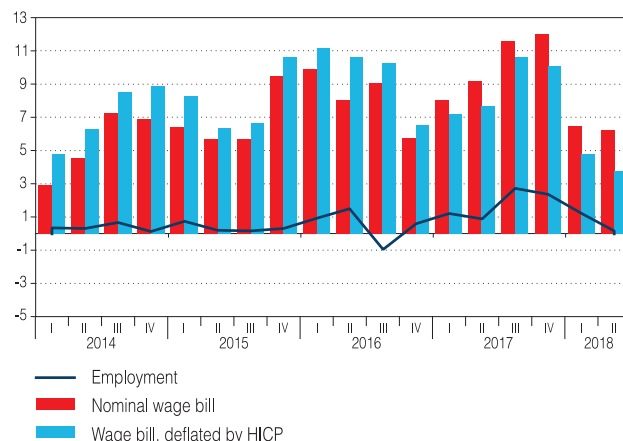
Over the second quarter households remained a net creditor to the banking system, with the share of savings in household disposable income retaining its high levels. The proportion

<sup>74</sup> Unemployment rate is the proportion between the number of unemployed and the labour force based on Labour Force Survey data.

<sup>75</sup> Measured by the number of job vacancies (Employment Agency data).

## Employment and Nominal Wage Bill

(annual change, per cent)

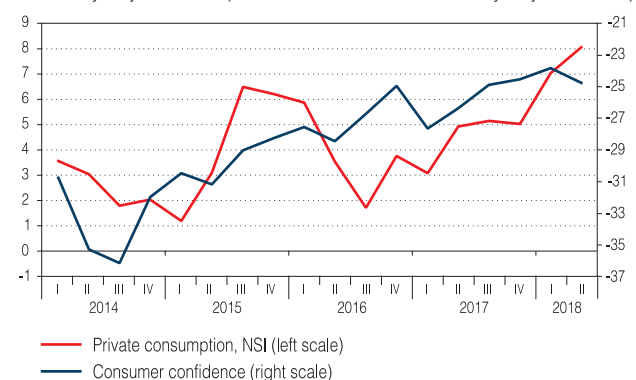


Sources: the NSI – SNA, BNB calculations.

## Private Consumption and Consumer Confidence

(annual change, per cent; seasonally adjusted data)

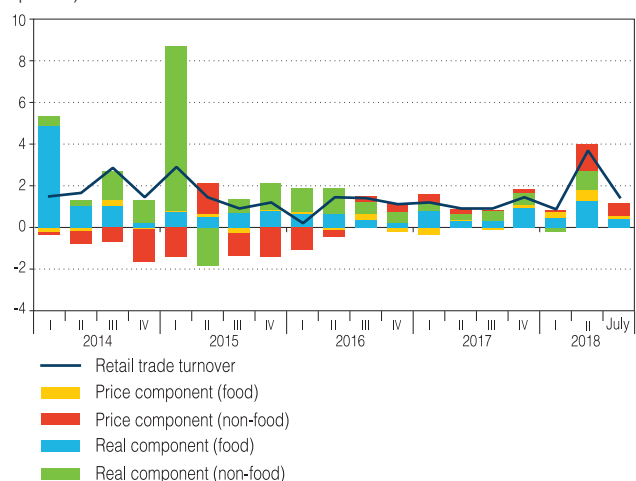
(per cent; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Retail Trade Turnover

(seasonally adjusted data at current prices, per cent, on the previous quarter)



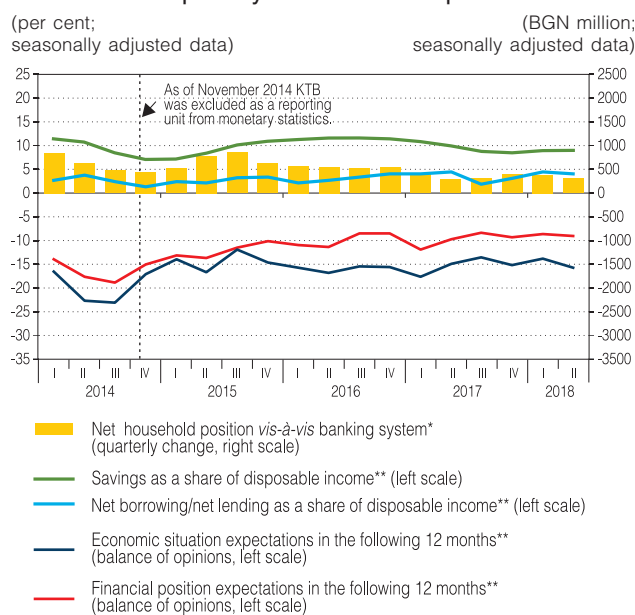
Note: Non-additive data on contributions due to direct seasonal adjustment of the total amount and its components.

Sources: the NSI, BNB calculations.

of households intending to increase their savings in the following 12 months also remained high (according to the NSI Consumer Survey of July 2018).

At the end of 2018 and early 2019 continuous labour demand and sustainable wage growth are expected to result in new entrants joining labour force. Concurrently, household consumption will further increase under the influence of rising nominal and real household labour income and optimistic consumer sentiment.

## Household Propensity to Save and Expectations



\* BNB data.

\*\* NSI data.

Sources: NSI Household Budget Survey, NSI Consumer Survey, the BNB.

## Employment and Income Dynamics

	2014				2015				2016				2017				2018	
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
(per cent, quarter-on-quarter; seasonally adjusted data)																		
Employed persons	0.3	0.2	0.2	-0.1	0.3	-0.1	0.1	0.1	0.3	0.5	-0.7	0.5	0.3	0.1	1.0	0.4	0.0	-0.2
Nominal wage <i>per employee</i> *	1.1	1.6	2.2	0.9	0.9	2.0	1.3	3.1	1.6	0.8	1.7	0.8	3.6	2.6	2.1	1.8	0.2	1.4
Real wage <i>per employee</i> **	1.5	2.1	2.4	1.3	1.4	1.9	1.7	3.5	1.9	1.4	1.5	0.7	3.1	2.0	1.8	1.2	-0.2	1.0
Wage bill, nominal terms	1.0	1.9	2.0	0.9	1.6	2.0	1.7	3.2	1.6	1.5	1.9	1.4	3.5	2.3	2.4	2.0	0.8	1.6
Wage bill, real terms**	1.3	2.4	2.2	1.3	2.0	2.0	2.1	3.6	1.9	2.2	1.7	1.3	3.1	1.8	2.1	1.4	0.4	1.2
(per cent, on corresponding quarter of previous year, non-seasonally adjusted data)																		
Employed persons	0.3	0.3	0.7	0.1	0.8	0.2	0.2	0.3	0.9	1.5	-1.0	0.6	1.2	0.9	2.7	2.4	1.2	0.2
Nominal wage <i>per employee</i> *	3.5	4.3	7.3	7.3	5.5	5.1	4.2	8.1	8.2	5.9	7.4	3.6	6.9	9.3	11.3	11.7	5.0	4.7
Real wage <i>per employee</i> **	5.4	6.1	8.5	9.2	7.4	5.8	5.2	9.2	9.4	8.4	8.6	4.4	6.1	7.8	10.4	9.8	3.4	2.3
Wage bill, nominal terms	2.9	4.5	7.2	6.9	6.4	5.7	5.6	9.5	9.9	8.0	9.1	5.7	8.0	9.1	11.5	12.0	6.4	6.2
Wage bill, real terms**	4.8	6.3	8.5	8.8	8.3	6.3	6.6	10.6	11.1	10.6	10.3	6.5	7.2	7.6	10.6	10.1	4.8	3.7

\* The wage is calculated according to NSI data (SNA), with social security contributions paid by the employer deducted from the compensation *per employee*. The difference is divided by the number of employees.

\*\* Data deflated by HICP.

Sources: NSI – SNA, BNB calculations, Eurostat.

## Retail Trade Turnover

(per cent, quarter-on-quarter; seasonally adjusted data at constant prices)

	2014				2015				2016				2017				2018		
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	July
Retail trade, excluding motor vehicles and motorcycles incl.	2.3	1.7	2.8	1.9	7.9	-1.1	1.4	2.1	1.6	1.9	1.1	0.8	1.0	0.7	0.9	1.3	0.5	2.3	0.5
Food, drinks and tobacco products	13.2	2.9	2.8	0.6	2.1	1.4	1.9	2.2	1.9	1.9	1.0	0.7	2.2	0.9	1.0	2.5	1.2	3.6	1.2
Textile, clothing, footwear and leather	-3.1	5.3	6.4	-2.3	-0.8	0.1	3.9	2.9	2.5	2.9	1.3	-0.2	8.1	-1.2	-5.4	1.9	-3.2	3.3	1.3
Household appliances, furniture and other household goods	-0.8	0.8	-0.1	2.1	0.7	-0.1	1.8	-0.2	2.3	0.3	1.2	2.0	1.5	2.8	1.5	1.7	0.9	1.7	0.2
Computer and communication equipment	-4.8	-4.1	0.4	-0.3	16.4	-5.5	0.3	-2.7	-1.8	5.3	1.9	7.7	2.4	1.5	1.4	1.9	-5.0	2.0	-2.6
Pharmaceutical and medical goods, cosmetics and toiletries	3.8	1.6	2.1	3.3	2.4	1.6	1.9	2.5	2.0	3.5	3.6	0.9	3.5	1.3	0.9	1.0	7.2	2.0	2.5
Unspecialised shops with different kinds of goods	0.7	1.0	0.3	0.8	1.3	0.4	1.5	2.3	0.0	1.2	2.5	1.4	5.2	3.4	2.5	1.8	-3.0	1.2	-1.3
Automobile fuels and lubricants	6.1	-1.7	10.2	-3.4	38.6	-6.5	-0.4	5.4	0.8	1.5	-2.2	-3.0	-7.1	-2.7	-1.1	-0.5	-0.3	1.5	-2.1

Source: NSI Short-term Business Statistics.

## Fiscal Policy Effects on the Economy

As of end-August 2018 budget surplus was BGN 2388 million (2.3 per cent of projected GDP)<sup>76</sup>, with the budget balance posting an increase by BGN 237 million compared to the same period of last year (0.1 percentage points of GDP).

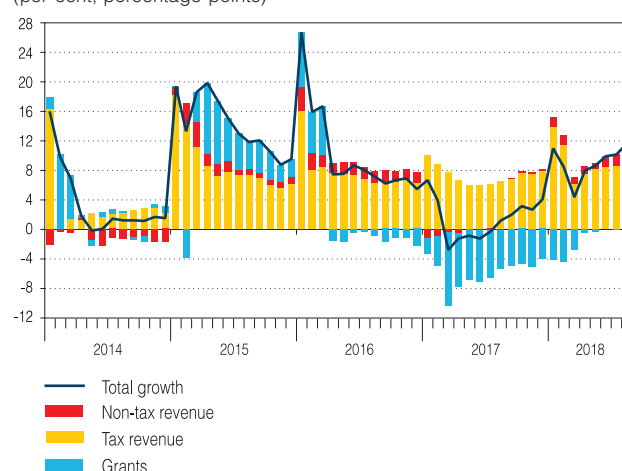
For the January to August period, total budget revenue was 11.6 per cent higher than one year earlier, driven mainly by tax revenue (8.3 percentage points) and, to a lesser degree, non-tax revenue (2.0 percentage points) and grants (1.3 percentage points). Persistently high growth of tax revenue (10.0 per cent) reflected the upward development in all main categories of tax revenue, with social and health insurance contributions and indirect taxes remaining the largest contributors to this growth. Indirect tax growth for the first eight months of the year accelerated to 8.1 per cent (6.4 per cent by end-May), with the VAT revenue increase (8.0 per cent) reflecting strong growth of household consumption.

The sustainable growth in revenue from social and health contributions (13.7 per cent) reflected the positive development in the labour market and continued effects of increased pension contributions, minimum income and minimum

<sup>76</sup> GDP forecasts of the Ministry of Finance for 2018, published in August 2018 Information Bulletin on the execution of the state budget and key indicators of consolidated fiscal programme.

## Contributions of Major Groups of Revenue to Growth in Total Revenue and Grants, Cumulatively (on an Annual Basis)

(per cent; percentage points)



Sources: the MF, BNB calculations.

wage in force from early 2018. Measures to increase public sector wages since the second half of 2017 and beginning of 2018, especially in the sector of education, also contributed to growth in contributions on both revenue and expenditure side of the budget. Favourable labour market dynamics was the major factor behind the increase in personal income tax revenue. Its growth rate moderated against very high levels of early 2018, still outpacing to a significant extent nominal growth in compensation of employees for the first half year (7 per cent). It was probably affected positively by the measures to boost tax collection.<sup>77</sup> Annual growth in corporate tax revenue also continued to outpace growth in gross operating surplus in the first two quarters, remaining at a comparatively high level (8.2 per cent in August) despite the slowdown registered in recent months.

The significant acceleration in absorption of EU funds since early 2018 led, as expected, to an increase in consolidated fiscal programme grants. This increase was more pronounced only towards the end of August, when the monthly EU programme refunds peaked at the level of BGN 383.3 million.

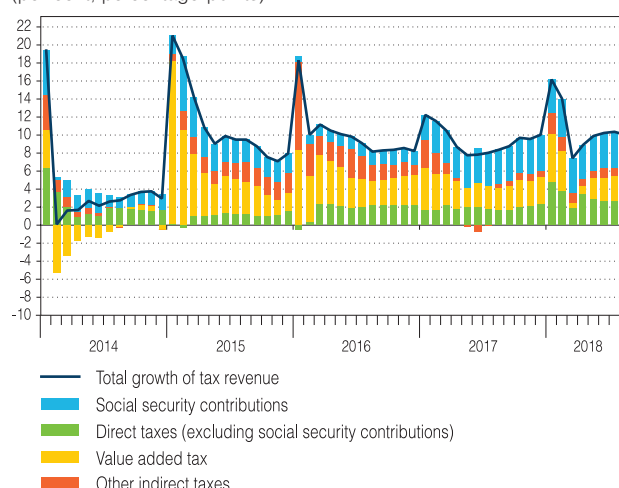
The annual growth rate of total CFP expenditure for the first eight months of 2018 remained high at 11.6 per cent, with a temporary acceleration observed in August.<sup>78</sup> Capital expenditure (3.2 percentage points), social expenses (3.1 percentage points) and personnel costs (2.8 percentage points) contributed most substantially to total expenditure growth. Retention

<sup>77</sup> Based on Ministry of Finance Information Bulletin, in 2018 there are still positive effects on collection of taxes on dividends as a result of the NRA campaign to control business entities and non-profit organisations designating sizeable cash balances in their 2016 financial statements.

<sup>78</sup> In August there were interest payments on bonds issued in international capital markets and maturing in 2024, which broadly explains the one-off high interest expenditure on external loans (BGN 87.9 million) during this month, unlike 2017 when such payments were reported in September. Accelerated growth of budget expenses in August reflects also the increased (by 40.1 per cent) subsidies to the budgets of higher education institutions, the Bulgarian Academy of Sciences, the Agricultural Academy, Bulgarian National Television, Bulgarian National Radio, Bulgarian News Agency and budgets under Article 13, paragraph 4 of the Law on Public Finance, including also expenses of the Security of the Electricity System Fund. Given the significant volatility in monthly payments from the Fund, part of the monthly increase is likely to be of a temporary nature, but there is also a trend toward more sustainable growth of these expenses as a result of a strong rise in market prices of exhaust emission allowances *vis-à-vis* the same period of 2017, suggesting a parallel increase in revenue and expenditure of the Fund.

### Contributions of Major Tax Groups to Tax Revenue Growth, Cumulatively (on an Annual Basis)

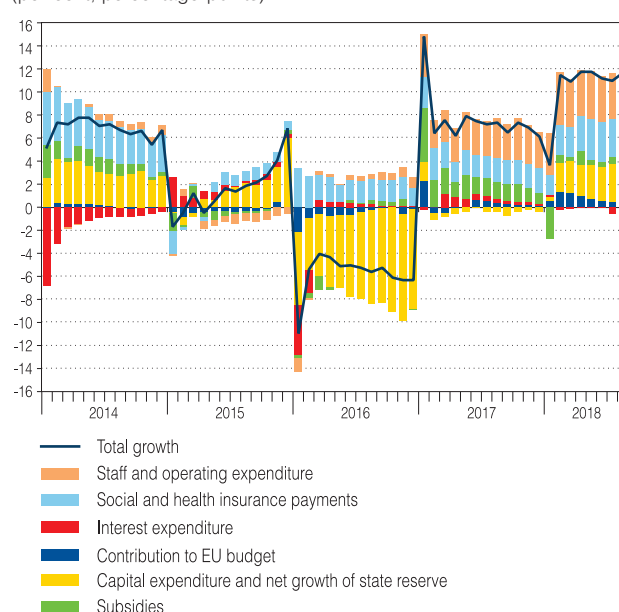
(per cent; percentage points)



Sources: the MF, BNB calculations.

### Contribution of Major Groups of Expenditure to Total Expenditure Growth, Cumulatively (on an Annual Basis)

(per cent; percentage points)



Note: The Consolidated Fiscal Programme reports of January 2016, including staff expenditure, cover wage, insurance and other remuneration expenditure, while in the reports for past periods, the latter were not included in operating expenditure. To prevent data inconsistencies prior to and after January 2016 resulting from the methodological change, staff and operating expenditure are presented aggregately in the chart and separately in the table Key Budget Indicators Performance for 2017-2018.

Sources: the MF, BNB calculations.

of a relatively high rate of growth in current non-interest expenditure by end-August was driven to a large extent by the continuous effect of pension policy changes and measures to increase budget remunerations with a focus on wages in the sector of education. Following the 3.8 per cent increase in pensions since the beginning of July (2.4 per cent in July 2017), no essential acceleration in pension expenditure was observed due to the exhausted effect of the first of two consecutive increases in minimum pension in the second half of 2017. The sustained growth rate of expenses suggests retention of the positive effect of government's social payments on disposable income of households at levels similar to those in the previous quarter.

The annual growth rate of wage expenditure was relatively constant (at 11.5 per cent as of August). Growth in operating expenditure and health care spending (in social security funds' budgets) also remained at high levels despite the minimal slowdown in growth compared to May. This dynamics led to a retained positive contribution of government consumption to real GDP quarterly growth in the second quarter of 2018.

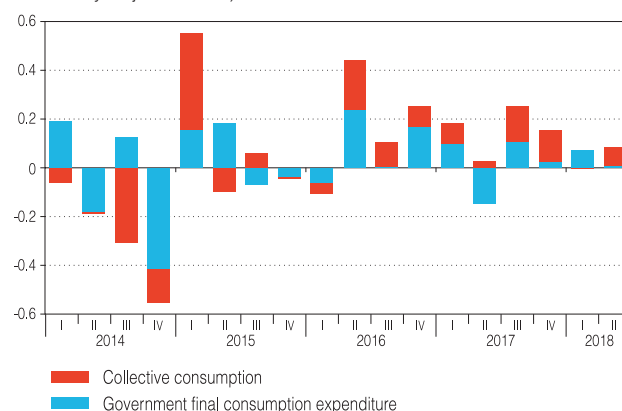
For the first eight months of 2018, capital expenditure under the consolidated fiscal programme rose by 54.3 per cent, reflecting largely the strong increase in EU co-financed investment (69.1 per cent). A significant recovery was also registered in capital expenditure of the national budget, which rose by 39.7 per cent from the levels reported in 2017. Capital expenditure dynamics under consolidated fiscal programme indicates a positive contribution of government investment to GDP growth over the first half of 2018.

In the last quarter of 2018 and the first quarter of 2019 tax revenue is expected to continue to rise annually due to favourable labour market developments and high growth in domestic consumption. Government expenditure policy is expected to continue supporting domestic economic activity in terms of both higher social payments and higher government consumption.

In the last quarter of 2018 we expect a stronger increase in both EU programme investment and

### Contribution of Government Consumption Components to Real GDP Growth

(percentage points, quarter-on-quarter, seasonally adjusted data)



Sources: the NSI, BNB calculations.

national capital expenditure, which will lead to a more tangible contribution of government investment to GDP growth. A positive contribution of government investments to economic activity, albeit more limited as compared to the last quarter of 2018, can be expected also in the first quarter of 2019, if the upward trend in EU funds absorption is sustained.

#### Key Budget Indicators Performance for 2017–2018

Consolidated Fiscal Programme	2017 January–August <sup>1</sup>		2018 January–August <sup>1</sup>	
	BGN million	per cent <sup>2</sup>	BGN million	per cent <sup>2</sup>
<b>Total revenue and grants</b>	<b>23 285</b>	<b>1.2</b>	<b>25 976</b>	<b>11.6</b>
Tax revenue	19 403	8.4	21 344	10.0
incl. social security and health insurance contributions	5 439	14.3	6 184	13.7
Non-tax revenue	2 887	-0.2	3 344	15.8
Grants	995	-55.1	1 288	29.5
<b>Total expenditure (incl. the contribution to EU budget)</b>	<b>21 133</b>	<b>7.3</b>	<b>23 588</b>	<b>11.6</b>
Staff	5 040	10.1	5 622	11.5
Operating expenditure	2 294	9.3	2 488	8.5
Interest	615	12.7	588	-4.4
Social expenditure, scholarships <sup>3</sup>	9 987	4.4	10 681	6.9
Subsidies	1 354	27.2	1 575	16.3
Capital expenditure and government reserve growth	1 236	-5.1	1 896	53.3
incl. capital expenditure	1 230	-9.6	1 899	54.3
Contribution to general budget of the European Union	607	13.2	738	21.5
	BGN million	difference <sup>4</sup> (BGN million)	BGN million	difference <sup>4</sup> (BGN million)
<b>Budget balance, on a cash basis</b>	<b>2 152</b>	<b>-1 165</b>	<b>2 388</b>	<b>237</b>
Tax revenue under the state budget	2017 January–August <sup>5</sup>		2018 January–August <sup>5</sup>	
	BGN million	per cent <sup>2</sup>	BGN million	per cent <sup>2</sup>
<b>Tax revenue</b>	<b>13 302</b>	<b>15.6</b>	<b>14 440</b>	<b>8.5</b>
Corporate tax	1 401	19.0	1 516	8.2
Income tax for individuals	2 141	17.6	2 450	14.4
Value added tax	6 276	16.5	6 777	8.0
Excise duties	3 217	11.1	3 386	5.3
Customs duties	124	25.1	157	26.5
Insurance premia tax	25	29.5	28	10.7
Other taxes	118	12.5	125	6.2

Note: The difference between the sum of individual components and total sum is due to rounding.

<sup>1</sup> Based on monthly reports on cash-based performance of the Consolidated Fiscal Programme.

<sup>2</sup> Annual rate of change on the same period of previous year.

<sup>3</sup> Including also current and capital transfers, which in 2018 are presented in monthly reports on cash-based performance of the Consolidated Fiscal Programme as a separate item on the expenditure side of the budget.

<sup>4</sup> The change of the budget balance on the same period of previous year.

<sup>5</sup> Based on monthly reports on cash-based performance of the state budget.

Source: the MF.



## 4. INFLATION

Over the first eight months of 2018 annual inflation in Bulgaria followed an upward trend to reach 3.7 per cent in August. It was mainly driven by services inflation accelerating in line with consumer demand increases and specific driver in some sub-groups of services. Another driver behind inflation acceleration was the 17.2 per cent increase of international oil prices in euro as of August 2018 compared to December 2017, exerting both direct effects on energy product inflation, as well as indirect effects on other HICP components through production costs of corporations and producer prices.

In the fourth quarter of 2018 the annual inflation rate is expected to remain close to that in the third quarter, driven largely by services' and energy products' prices. Reflecting the expected smaller increase in energy products' and administered goods and services' prices along with the temporary nature of price rises in some services, the annual inflation rate is projected to begin gradually decelerating over the first quarter of 2019.

Over the first eight months of 2018 annual inflation accelerated to 3.7 per cent in August from the end of 2017 (1.8 per cent in December 2017).<sup>79</sup> By HICP component, services, energy products and administratively controlled prices had the largest positive contribution to the inflation in August.

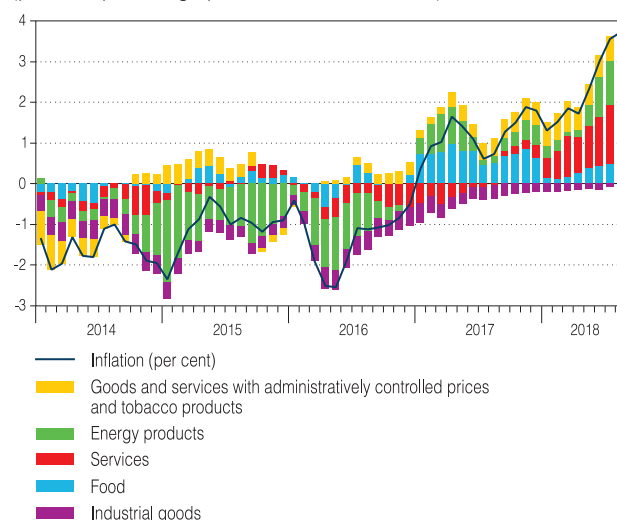
The external environment was a decisive factor for accelerating inflation since the beginning of the year, with a particularly significant increase of the international oil price in euro (by 46.1 per cent on an annual basis in August 2018 against 24 per cent on an annual basis in December 2017). Higher oil prices had a direct impact on the rising energy inflation. Concurrently, the price increase pass-through from producer to consumer contributed indirectly to the higher prices of other HICP components.

Internal factors that were the main drivers behind the rising inflation since the beginning of the year were related to the accelerated increase in service prices, mostly in accommodation services and insurance connected with travel. The increase in tobacco products excise duties also contributed for the third consecutive year to the rising inflation since the beginning of the year.

Price developments of goods imported in Bulgaria are directly affected by international prices of fuels, food and commodities, their spillover through the supply chain being one

### Inflation and Contribution of Major Commodity and Services Groups to It

(per cent; percentage points; on an annual basis)



Note: This structure corresponds to the Eurostat classification; tobacco products and goods and services with administratively controlled prices are presented separately. The index of goods and services with administratively controlled prices is calculated through the elementary aggregates level in the consumer basket.

Sources: the NSI, BNB calculations.

<sup>79</sup> The analysis in this Section employs NSI data on HICP.

of the major factors behind the inflation in the country. According to national account data, annual growth in the price deflator for imported goods was 1.7 per cent in the second quarter of 2018 (against 5.9 per cent at the end of 2017)<sup>80</sup>. Mineral products<sup>81</sup> and unprocessed raw materials<sup>82</sup> had positive contributions to the change in imported goods prices, whereas the import deflator for foods<sup>83</sup> and some finished products<sup>84</sup> recorded a decline on an annual basis. The trend towards dropping international food prices in euro<sup>85</sup> year on year, established in the second half of 2017, continued in the first eight months of 2018, leading to a price decline in food imported in Bulgaria.

Over the first eight months of 2018 the total producer price index (PPI) in the domestic market continued to grow on an annual basis, reaching 3.1 per cent in August, from 5.1 per cent at the end of 2017. The economic sub-sectors contributing most significantly to producer price rises were manufacturing and, to a lesser extent, production and distribution of electricity and heating<sup>86</sup>, consistent with the increased international oil prices and slightly higher regulated gas prices since the beginning of 2018.<sup>87</sup> The comparatively strong increase in the positive contribution of manufacturing in August 2018 was largely driven by industrial products related to food, tobacco products<sup>88</sup> and chemicals production. BNB estimates based

<sup>80</sup> Based on Standard International Trade Classification (SITC) import data.

<sup>81</sup> This refers to the group of mineral fuels, oils and related products under the SITC.

<sup>82</sup> This refers to the group of inedible (crude) materials (excluding fuels) under the SITC.

<sup>83</sup> This refers to the groups of food and live animals and animal and vegetable fats, oils and waxes under the SITC.

<sup>84</sup> This refers to the group of miscellaneous finished products n.e.c. under the SITC.

<sup>85</sup> The analysis employs ECB data on the international food price index.

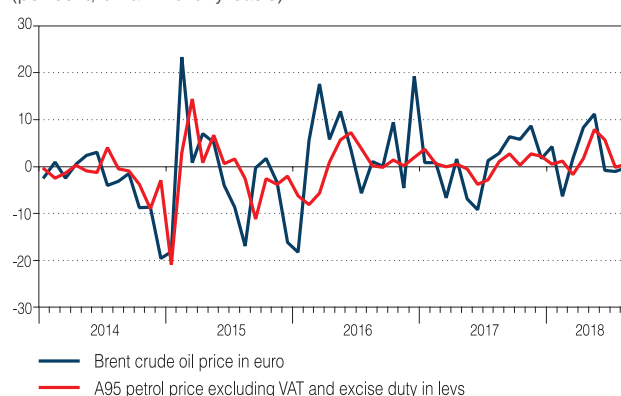
<sup>86</sup> This refers to the group of production and distribution of electricity, heating, and gaseous fuels.

<sup>87</sup> Changes in natural gas prices in the first quarter of 2018 as approved by the Energy and Water Regulatory Commission (EWRC) at the end of 2017 reflect the price dynamics of oil and alternative fuels in international markets over the last nine months, as well as movements in the USD/BGN exchange rate. For more details see: <http://www.dker.bg/news/143/65/komisiyata-za-energijno-i-vodno-regulirane-utvrdi-tsenata-na-prirodniya-gaz-za-prvoto-trimesechie-na-2018-g.html>

<sup>88</sup> This refers to the production of food, beverages and tobacco products group.

## Rate of Change in Brent Crude Oil and A95 Petrol Prices

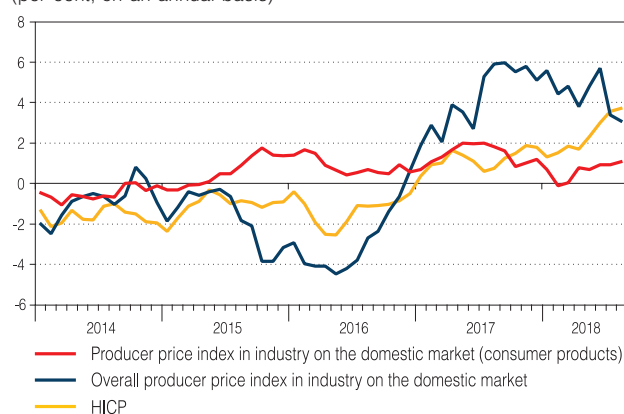
(per cent; on a monthly basis)



Sources: the ECB, the NSI, BNB calculations.

## Rate of Change in PPI in Industry and HICP

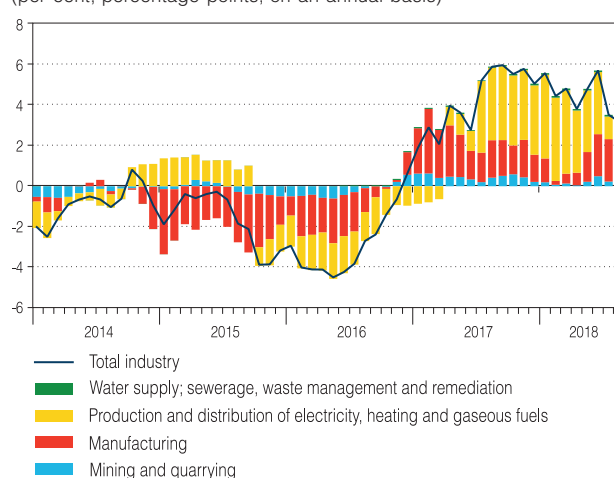
(per cent; on an annual basis)



Source: the NSI.

## Rate of Change in PPI on the Domestic Market and Contribution by Major Sub-sectors

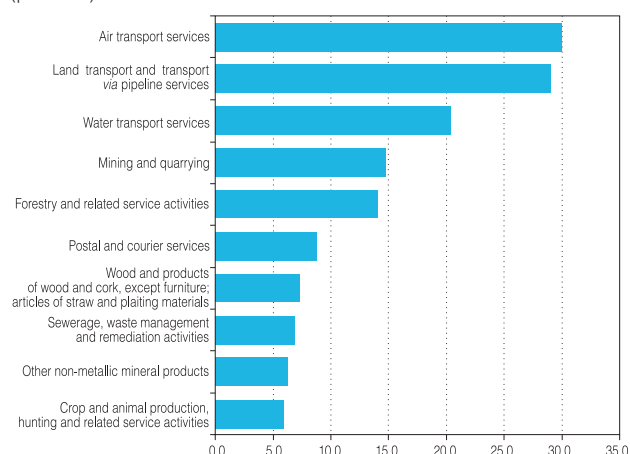
(per cent; percentage points; on an annual basis)



Source: the NSI.

## Sectors of the Bulgarian Economy with the Highest Share in the Intermediate Consumption of Coke and Refined Petroleum Products (2014)

(per cent)



Source: Own calculations according to the [world supply and use tables \(2014\)](#).

on data from the supply and use tables for the Bulgarian economy suggest that road and air transport, mining and quarrying and, to a lesser extent, agriculture are the worst affected by higher prices of refined petroleum products.

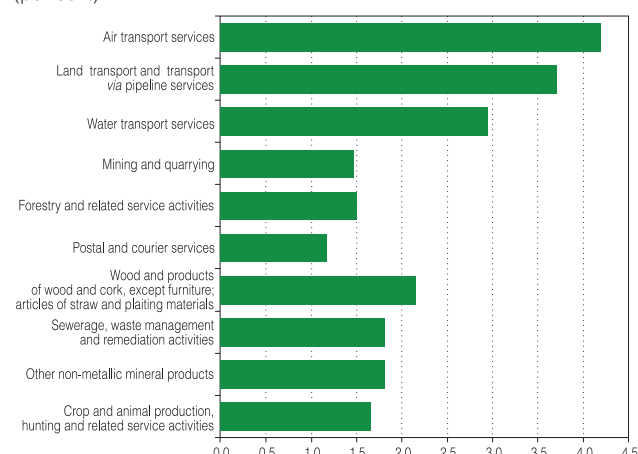
According to the end-use classification, the PPI increase in the January–August 2018 period was mainly due to higher energy product prices (electricity, natural gas and refined petroleum products), which account for a significant part of firms' production costs. Thus the upward trend in those products implies a subsequent increase in final consumer prices.

In August 2018 the growth rate in producer prices of non-durable consumer goods decelerated from the end of 2017, reflecting lower inflation dynamics in some food products in line with falling import prices of these products. This had a bearing on inflation in the group of food, with inflation slowing down in processed food to 1.3 per cent on an annual basis in August 2018 against 2.5 per cent at the end of 2017.

Developments in the unprocessed food group were characterised by a certain volatility since the year start. Despite the decline in the first two quarters, inflation in this group in August accounted for 3.4 per cent (3.0 per cent at the end of 2017). This corresponded to the downward price dynamics in most imported unprocessed food products over the first six months of the year (including meat and meat products). Exception to this trend was the sub-group of

## Direct and Indirect Effects on Product Prices in Selected Sub-sectors of the Economy at a 10 per cent Increase in Output Prices of Coke and Refined Petroleum Products Sub-sector

(per cent)

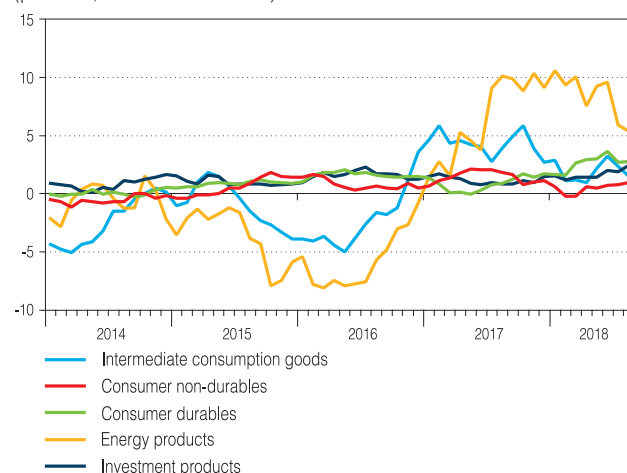


Note: Effects have been estimated, assuming that the price increase in coke and refined petroleum products sub-sector will be fully passed on the other sub-sectors' prices and will not be offset by a decline in the profit of any of them.

Source: Own calculations according to the [world supply and use tables \(2014\)](#).

## Rate of Change in Producer Prices on the Domestic Market by Major Industrial Grouping

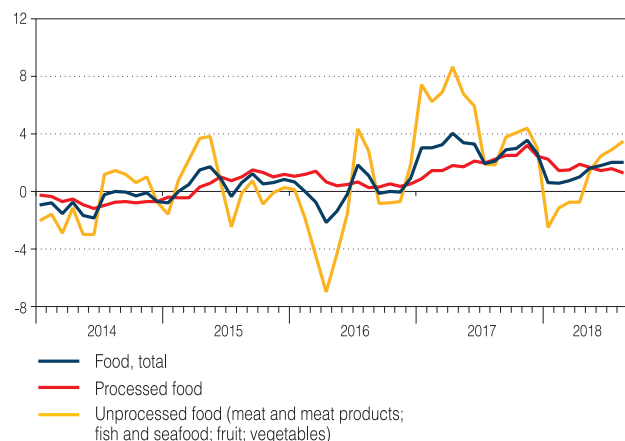
(per cent; on an annual basis)



Source: the NSI.

## Rate of Change of Food Price Index

(per cent; on an annual basis)



Sources: the NSI, BNB calculations.

cereals and cereal preparations, recording a slight year-on-year increase in both import and final consumer prices since the beginning of the year. Poor wheat harvest worldwide, with worsened forecasts for Russia's and Ukraine's harvests suggesting price rises in individual food groups for the Bulgarian consumers, was the primary external factor responsible for these developments.

The upward trend in core inflation (including service and non-food prices) which started at the end of 2017, continued in the first eight months of 2018, amounting to 3.5 per cent in August. This trend was largely due to the continuously accelerating inflation in the services group, which reached 6.8 per cent in August 2018, against 1.2 per cent at the close of 2017.

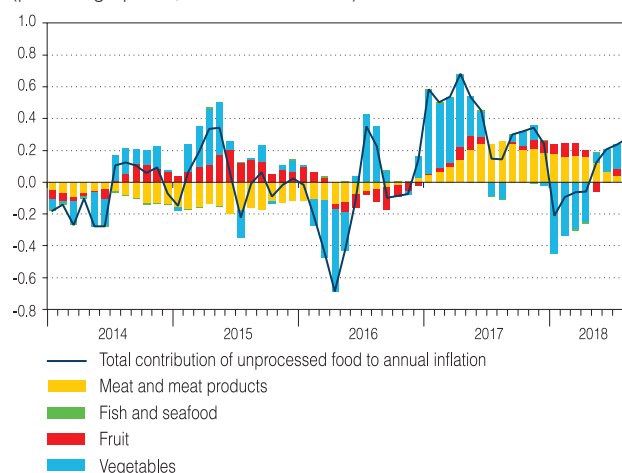
In August 2018, the accommodation services<sup>89</sup> and insurance connected with travel sub-components had the highest positive contribution to the overall inflation with price rises driven by one-off factors. In the first eight months of the year prices of insurance connected with travel increased following a decision of the Supreme Court of Cassation made in the first half of 2018<sup>90</sup>, which expands the circle of persons entitled to claim compensation for death of a relative. Another potential factor behind the price increase in insurance connected with travel was the increased demand resulting

<sup>89</sup> Inflation rate in accommodation services reflect the methodological change in calculating the price index in this group.

<sup>90</sup> For more details see: [http://www.vks.bg/vks\\_p02\\_0500.htm](http://www.vks.bg/vks_p02_0500.htm)

## Contribution of Major Sub-groups of Unprocessed Food to Overall Inflation

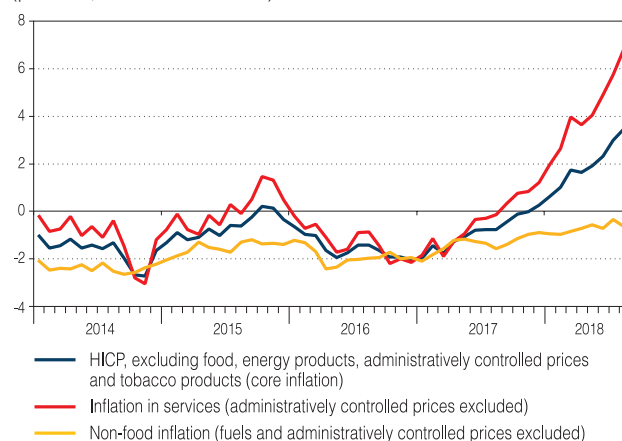
(percentage points; on an annual basis)



Sources: the NSI, BNB calculations.

## Core Inflation

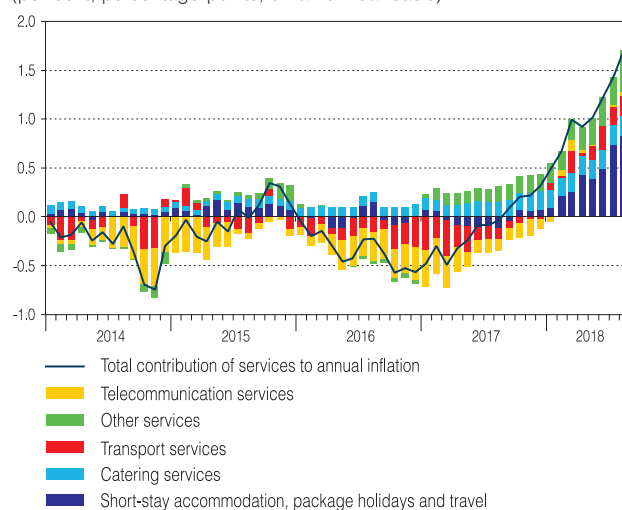
(per cent; on an annual basis)



Sources: the NSI, BNB calculations.

## Contribution of Services and Major Services Sub-groups to Overall Inflation

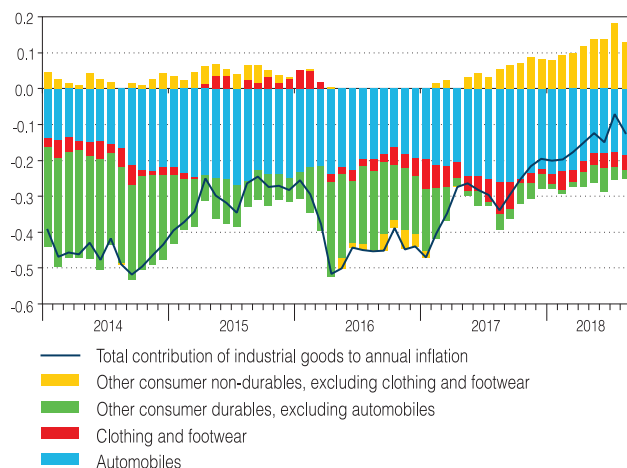
(per cent; percentage points; on an annual basis)



Sources: the NSI, BNB calculations.

### Contribution of Major Non-food Goods Sub-groups (Excluding Energy Products) to Overall Inflation

(per cent; percentage points; on an annual basis)



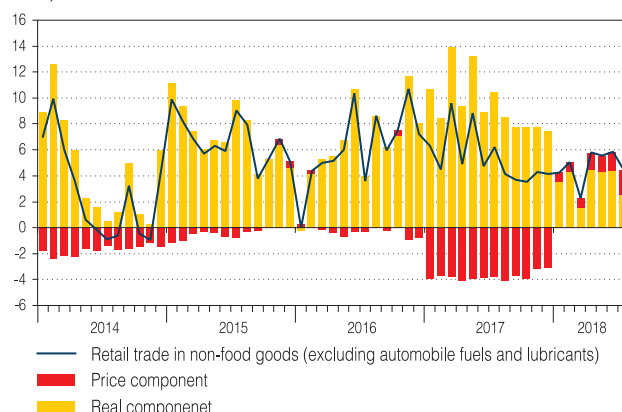
Sources: the NSI, BNB calculations.

from the termination of an insurance company's activities in August<sup>91</sup>. In the first eight months of 2018 the upward trend in transport service prices since the year start continued, mainly driven by higher airfares and in line with rising petroleum prices on international markets on an annual basis. Catering is the other sub-group contributing more significantly to the increasing overall inflation, its continuous price rises being consistent with the upward trend in processed food prices.

Non-food goods continued to contribute negatively to the core inflation and despite the slower decline rate, the trend towards lower year-on-year prices was retained (-0.6% in August against -0.9% at the end of 2017). This dynamics was consistent with the euro appreciation on the US dollar in the January to August 2018 period compared to the same period of 2017<sup>92</sup>, and the persistent decline in prices of imported finished products<sup>93</sup>. Decreased non-food prices were mainly driven by durable goods (automobiles and television equipment). Non-food prices decreased on an annual basis in sync with developments in the price component of retail trade volumes. In July 2018 nominal retail

### Growth Rate of Nominal Retail Trade in Non-food Goods Excluding Trade in Motor Vehicles and Lubricants

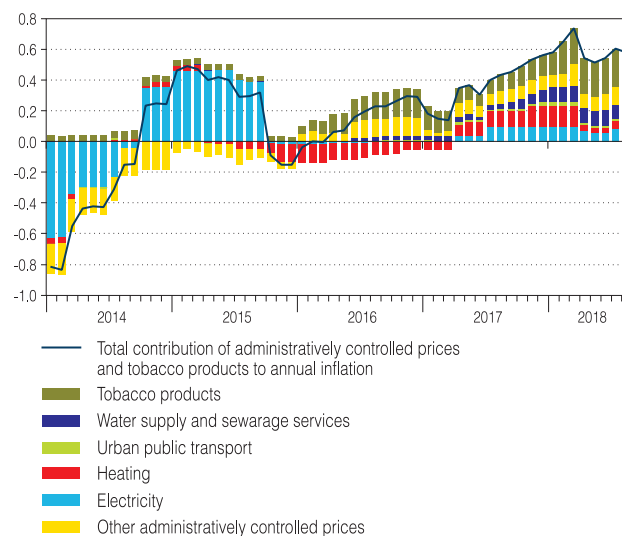
(per cent; percentage points; on an annual basis; working-day adjusted data)



Sources: the NSI, BNB calculations.

### Contribution of Major Sub-groups of Goods with Administratively Controlled Prices and Tobacco Products to Overall Inflation

(per cent; percentage points; on an annual basis)



Sources: the NSI, BNB calculations.

<sup>91</sup> For more details see: <http://www.fsc.bg/bg/novini/dogovorite-po-grazhdanska-otgovornost-sklyucheni-s-klona-na-zk-olimpik-shte-badat-avtomatichno-prekrateni-9044.html>

<sup>92</sup> BNB estimates show that by 2014 approximately 27 per cent of final household consumption expenditure was spent on imported goods other than food and energy products (according to the [world supply and use tables](#)).

<sup>93</sup> The analysis employs data on imported goods prices in group 8 'miscellaneous finished products n.e.c.' under the SITC.

trade in non-food goods<sup>94</sup> posted annual growth of 4.5 per cent underpinned by both increased traded volumes and higher selling prices.<sup>95</sup>

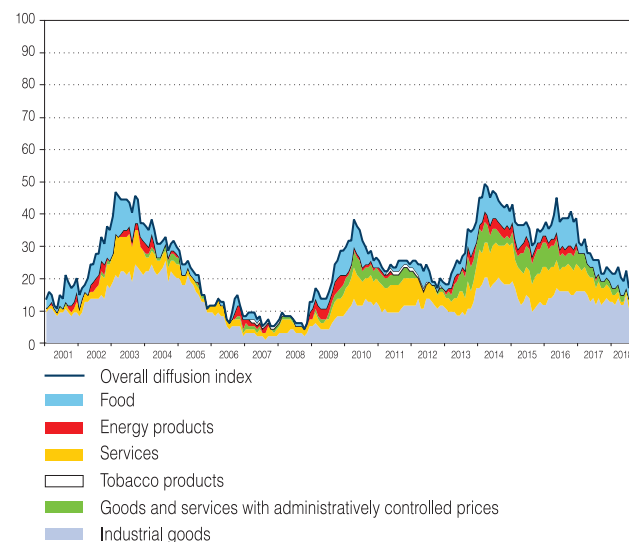
In the first eight months of 2018 goods and services with administratively controlled prices further contributed to the overall inflation. Tobacco products recorded price rises on an annual basis by 4.7 per cent in August against 2.7 per cent in December 2017, mainly due to the increased excise duty on cigarettes for a third consecutive year<sup>96</sup>. The higher prices of goods and services with administratively controlled prices also reflected EWRC decision to raise water supply prices in 14 regions in Bulgaria<sup>97</sup> from the beginning of 2018 and higher electricity, heating and gas supply prices by 2.03, 7.33 and 10.81 per cent on average as approved by EWRC on 1 July<sup>98</sup>. Since April administratively controlled price inflation decelerated slightly due to the exhausted base effect of raised regulated prices of natural gas<sup>99</sup>, heating and electricity<sup>100</sup> as approved by EWRC in April 2017.

In August 2018 the diffusion index, showing the share of groups of goods and services with declining prices on an annual basis, dropped to 20.4 per cent against 22.6 per cent at the end of 2017. The trend towards a gradual increase in the number of goods and services sub-groups, reporting a price increase of over 2 per cent, was retained in August, suggesting a further increase in the overall inflation in the following months.

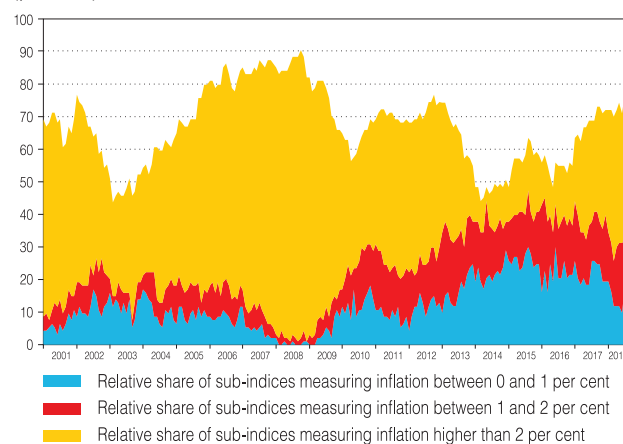
According to the NSI business surveys, in September 2018 most managers in industry (90.1 per cent), services (92.8 per cent) and

## Diffusion Index of Major Goods and Services Groups

a) relative shares of declining HICP sub-indices on an annual basis (per cent)



b) relative shares of increasing HICP sub-indices on an annual basis (per cent)



Sources: the NSI, BNB calculations.

<sup>94</sup> Retail trade in non-food goods excluding automobile fuels and lubricants.

<sup>95</sup> For details, see the Behaviour of Firms and Competitiveness Section in Chapter 3.

<sup>96</sup> An increase in the specific tobacco excise duty from BGN 101 to BGN 109 *per* 1000 cigarettes; a decrease in the *ad volarem* excise duty from 27 to 25 per cent; and an increase in the minimum overall excise duty (specific and *ad volarem*) from BGN 168 to BGN 177 *per* 1000 cigarettes became effective at the beginning of 2018.

<sup>97</sup> For more details see: <http://www.dker.bg/uploads/documents/vik/vik-tseni-2018.pdf>

<sup>98</sup> For more details see: <http://www.dker.bg/news/222/65/kevr-utvrdi-okonchatelnite-tseni-ot-1-yuli-na-elektricheskata-i-na-toplinnata-energiya-i-na-energiyata-proizvedena-ot-toplotsentrali-po-visokoefektiven-kombiniran-sposob.html>

<sup>99</sup> For more details see: <http://old.dker.bg/newsbg.php?n=2869>

<sup>100</sup> For more details see: <http://old.dker.bg/newsbg.php?n=2872>



retail trade (87.9 per cent) expect selling prices to remain stable over the following three months. Nevertheless, the balance of opinions in the retail trade and services sectors has followed a gradual upward trend since the year start. In September 2018, NSI surveys showed a decline in the share of managers in services pointing to insufficient demand as an obstacle to the business development compared to the end of 2017, with retention of this trend being a precondition for price increases within the group. In the retail trade sector, which is the closest to end users in the supply chain, a decrease was also reported in the share of managers pointing to insufficient demand as a factor limiting their activity.

In the second quarter of 2018, the House Price Index (HPI) continued to increase, though its growth rate tending to slow down compared to the HPI observed in 2017. In the second quarter HPI annual growth was 7.5 per cent, from 8.7 per cent on average in 2017, with new and existing housing prices posting a similar growth rate. The second quarter of 2018 saw year-on-year higher house prices in the six largest cities in Bulgaria (cities with a population of over 120,000 citizens). Despite these developments, since early 2018 house prices remained still 19.4 per cent lower than the maximum values recorded in the third quarter of 2008.

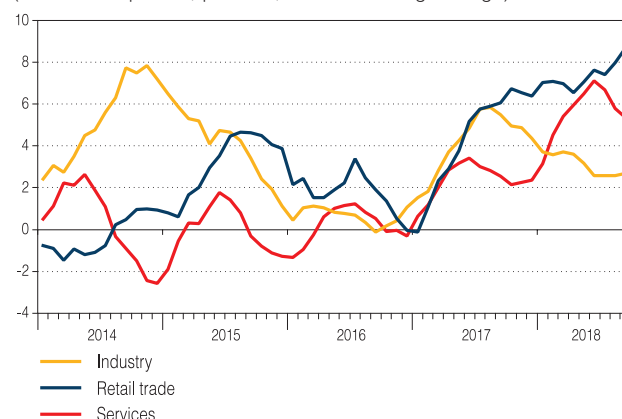
The upward dynamics of house prices was in line with the improved consumer confidence and increased disposable income of households driven by favourable labour market developments. Low levels of new time deposit rates were also a driver for the enhanced household demand for housing as they motivate households to look for alternative investment opportunities in the form of real estate purchases. The annual percentage rate of charge (APR) on new housing loans continued to decline, reaching 4.1 per cent in the second quarter (against 4.4 per cent on average for 2017)<sup>101</sup>. Banks' policy towards easing household credit standards and conditions acted in the same direction.<sup>102</sup>

<sup>101</sup> Data on the APRC on housing loans to households are averages weighted by the relevant volumes of new loans for a 12-month period.

<sup>102</sup> For further details, see the Monetary and Credit Aggregates Section in Chapter 2.

## Expectations of Selling Prices in Industry, Retail Trade and Services in the Next Three Months

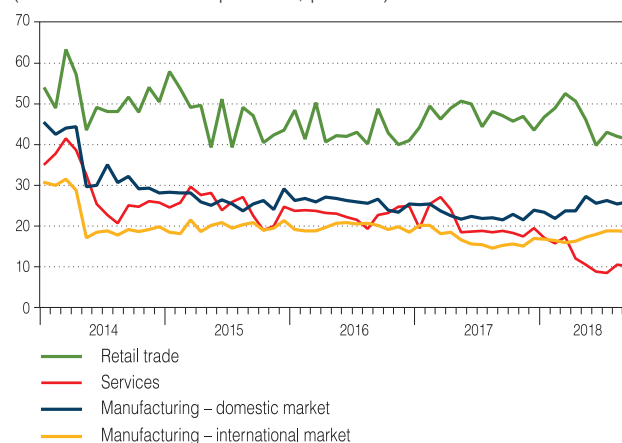
(balance of opinions, per cent, 6-month moving average)



Source: the NSI.

## Share of Firms by Sectors Pointing to Insufficient Demand as a Factor Limiting Their Activity

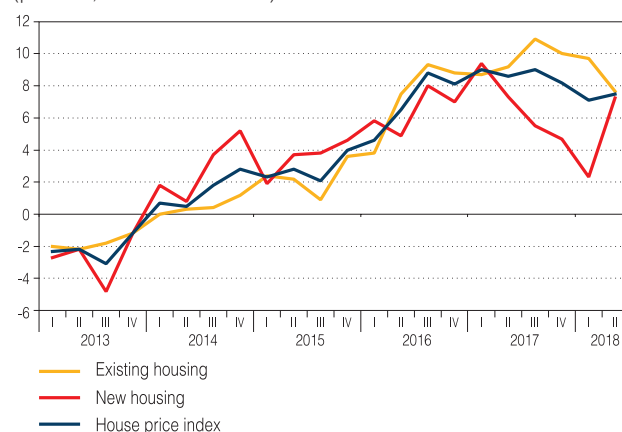
(relative share of all corporations, per cent)



Sources: the NSI, BNB calculations.

## Rate of Change of the House Price Index

(per cent; on an annual basis)



Source: the NSI.

## Key Indicators of Housing Market Developments in Bulgaria

(per cent; year-on-year change)

Indicators	2014	2015	2016	2017	2017		2018	
					III	IV	I	II
Prices								
House Price Index, total	1.4	2.8	7.0	8.7	9.0	8.2	7.1	7.5
New dwellings	2.8	3.5	6.4	6.7	5.5	4.7	2.3	7.2
Existing dwellings	0.5	2.3	7.3	9.7	10.9	10.0	9.7	7.7
Inflation (HICP)	-1.6	-1.1	-1.3	1.2	0.9	1.7	1.6	2.4
House rentals, paid by tenants (HICP)	0.2	0.7	0.6	1.0	1.0	1.0	1.3	1.6
Lending								
New housing loans	4.4	39.2	17.0	38.1	44.1	40.0	31.6	18.2
Annual percentage rate of charge on new housing loans (per cent, at the end of the period)	7.4	6.4	5.4	4.4	4.6	4.4	4.3	4.1
Housing loans balances	-0.1	-1.8	0.5	5.0	5.8	7.4	9.1	9.4
Construction and investment								
Permits issued for the construction of new residential buildings (square meters)	27.7	13.0	4.8	32.5	47.2	33.1	37.1	31.0
Value added in construction (at average annual prices for 2010)	-3.1	2.8	-6.8	4.4	3.4	-4.1	9.1	0.7
Constriction production index, building construction	0.1	8.9	-16.1	10.8	15.6	8.2	12.6	0.5
Fixed investment; residential buildings	-3.3	-10.3	102.1	3.9	4.4	4.2	10.4	6.4
Construction cost index for new buildings	1.0	1.3	1.5	2.7	2.2	3.6	2.0	3.6

Note: Values indicating the amount of new housing loans and the APRC on housing loans to households are averages weighted by the relevant volumes of new loans for a 12-month period.

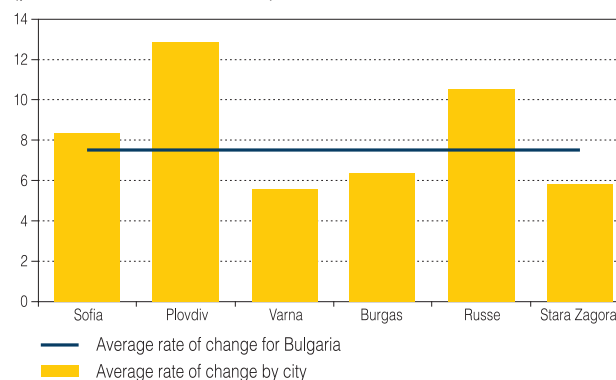
Sources: the NSI, the BNB, Eurostat.

House price dynamics also influenced the behaviour of firms in the construction sector. In the second quarter of 2018 house prices continued to rise at a rate higher than that of the new building construction cost index, which was a precondition for increasing the economic activity in the sector. During the second quarter of 2018 the volume of building construction grew by 3.3 per cent on an annual basis, while the value added in total for the construction sector<sup>103</sup> posted annual growth of 0.7 per cent, against 4.4 per cent on average for 2017. Concurrently, new residential building permits issued over the second quarter of 2018 (measured by building floor area) increased by 31 per cent on the corresponding quarter of the previous year. This development indicates that increased supply of new housing may be expected in the following months, which is likely to result in a further slowdown in HPI annual growth.

In the fourth quarter of 2018 the annual inflation rate is expected to remain close to that in the third quarter, followed by a gradual slowdown

### Rate of Change in the House Price Index in Cities of More than 120,000 Inhabitants over the Second Quarter of 2018

(per cent; on an annual basis)



Source: the NSI.

<sup>103</sup> The analysis employs national accounts data on value added in the construction sector at constant prices, which include construction of dwellings and other types of construction.

from early 2019. This dynamics is expected to reflect mainly the slower rate of core inflation and the slowdown in growth of international oil prices and goods with administratively controlled prices. Inflation in core HICP components will be driven mainly by services, which were a major factor for the developments in overall inflation since the start of the current year. The growth rate of accommodation services and insurance connected with travel prices is expected to slow down and in combination with the continuing decline in non-food goods prices to help moderate core inflation in the fourth quarter of 2018 and the first quarter of 2019. As a result of the anticipated downward dynamics in international oil prices, energy product price growth is expected to decelerate, while food price projections point to an increase, reflecting international trends. The increased tobacco products excise duties for a third consecutive year along with the higher electricity, heating, gas supply and water supply prices are expected to put upward pressure on inflation in the fourth quarter, with its effect being less noticeable in early 2019.

There are risks of higher than projected inflation by the close of the year and in the first quarter of 2019, which are mainly related to goods and services with administratively controlled prices. After we prepared the forecast, on 28 September 2018 the EWRC approved new prices of natural gas for the fourth quarter<sup>104</sup>. The forecast does not reflect the increase of 13.9 per cent compared to the third quarter, thus implying a higher than expected rise in administratively controlled prices. The decision was followed by a heating price increase approved on 1 October, which will affect the consumers in eight cities in Bulgaria<sup>105</sup>. It is also likely that the oil price growth rate will be higher than expected, which may result in both fuel inflation acceleration and a price increase of the other HICP components through the supply chain from producers to consumers.

<sup>104</sup> For more details see: <http://www.dker.bg/news/248/65/komisiyata-za-energijno-i-vodno-regulirane-utvr-di-tsenata-na-prirodniya-gaz-za-chetvrtoto-trimesechie-na-2018-g.html>

<sup>105</sup> For more details see: <http://www.dker.bg/news/253/65/kevr-utvr-di-okonchatelnite-tseni-ot-1-oktomvri-na-toplinnata-energiya-i-na-elektricheskata-energiya-ot-visokoefektivno-kombinirano-proizvodstvo/d,news-detail.html>

## Construction Production Dynamics and New Residential Building Permits Issued

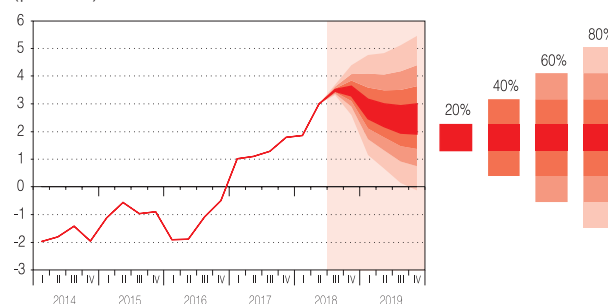
(number of buildings; seasonally adjusted data) (2015 = 100; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Expected Annual Rate of Change in Inflation at the End of the Corresponding Period

(per cent)



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.

## Rates of Change in Major Goods and Services Groups Prices and Contribution of These Groups to Inflation

	Inflation accumulated as of August 2017 (December 2016 = 100)		Inflation accumulated as of August 2018 (December 2017 = 100)		Annual rate of inflation as of August 2018 (August 2017 = 100)	
Inflation (per cent)	0.9		2.8		3.7	
	inflation rate by group (per cent)	contribution (percentage points)	inflation rate by group (per cent)	contribution (percentage points)	inflation rate by group (per cent)	contribution (percentage points)
<b>Food</b>	<b>1.7</b>	<b>0.42</b>	<b>1.1</b>	<b>0.27</b>	<b>2.0</b>	<b>0.50</b>
Processed food	1.8	0.30	0.7	0.12	1.3	0.22
Unprocessed food	1.5	0.12	1.9	0.15	3.4	0.28
<b>Services</b>	<b>2.0</b>	<b>0.53</b>	<b>7.7</b>	<b>1.91</b>	<b>6.8</b>	<b>1.71</b>
Catering	1.7	0.10	2.3	0.13	3.6	0.21
Transport services	2.7	0.10	9.8	0.32	6.2	0.20
Telecommunication services	-1.1	-0.06	1.8	0.08	1.0	0.04
Other services	3.4	0.38	11.9	1.37	10.7	1.25
<b>Energy products</b>	<b>-0.3</b>	<b>-0.02</b>	<b>6.7</b>	<b>0.56</b>	<b>14.4</b>	<b>1.06</b>
Transport fuels	-0.4	-0.03	7.9	0.52	15.6	0.96
<b>Industrial goods</b>	<b>-1.8</b>	<b>-0.38</b>	<b>-1.5</b>	<b>-0.31</b>	<b>-0.6</b>	<b>-0.12</b>
<b>Goods and services with administratively controlled prices*</b>	<b>1.9</b>	<b>0.32</b>	<b>14.</b>	<b>0.25</b>	<b>2.1</b>	<b>0.36</b>
<b>Tobacco products</b>	<b>1.6</b>	<b>0.08</b>	<b>3.7</b>	<b>0.17</b>	<b>4.7</b>	<b>0.22</b>

\* The index of goods and services with administratively controlled prices is calculated through weighting the relevant elementary aggregates in the consumer basket.

Sources: the NSI, BNB calculations.

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