

# BULGARIAN NATIONAL BANK



## ECONOMIC REVIEW

2/2017



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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

ABSPP	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
OECD	Organization for Economic Cooperation and Development
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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Global PMI developments in the April to May 2017 period show that global economic activity continues to improve. Sectoral increases were reported in the global PMI of services unlike some slight declines in the manufacturing index. PMIs by region continued to signal acceleration of growth in both developed and developing countries. The strong increase in the annual growth rate of world trade over the first four months of 2017 was mainly due to the contribution of developing countries. The global inflation acceleration since early 2017, reflecting the annual growth of international oil product and metal prices, was also due to the positive contribution of inflation in developing countries.

Taking account of the global trends, the European Central Bank (ECB) revised upwards its real GDP growth forecasts for the euro area for 2017, 2018 and 2019. In the second quarter of 2017 the ECB made no changes in both the key interest rates and parameters of the expanded asset purchase programme (APP). In June, however, the Governing Council decided to drop its guidance for further interest rate cuts. In view of reported and expected labour market and inflation indicators, the Federal Open Market Committee (FOMC) decided to raise the target range for the federal funds rate by 25 basis points to 1.00–1.25 per cent and presented a balance sheet normalisation program to gradually reduce the Federal Reserve's balance sheet until the end of this year.

In line with the expected improvement of the global economic activity, over the third and fourth quarters of 2017 external demand for Bulgarian goods and services is likely to increase further on an annual basis.

Between January and April 2017 Bulgaria's overall current and capital account balance was negative (a surplus in the corresponding period of 2016), reflecting mainly the significant decline in the capital account surplus and the increase in the trade balance deficit. On an annual basis, the current account balance as of April remained positive, with the downward trend of early 2017 expected to continue in the second half of the year driven mainly by the projected rise in the deficit on the net primary income item. Compared with the second half of 2016, the capital account surplus is also expected to decline as a share of GDP.

In the first five months of 2017 non-government sector deposits in the banking system continued to increase at comparatively high annual rates. In addition, the tendency toward accelerating annual growth in lending to households and non-financial corporations was sustained. The use of loans under the National Program for Energy Efficiency of the Multi-family Residential Buildings had an essential effect on household credit dynamics. Over the second half of 2017 non-government sector deposits are expected to slightly decelerate their growth rates as a result of the anticipated rise in private consumption and stabilisation of deposit interest rates at the attained low levels. The upward trend in the credit to non-financial corporations and households is expected to continue over the projection horizon under the favourable influence of further improving economic activity, comparatively low lending interest rates and absorption of funds under the National Program for Energy Efficiency of Multi-family Residential Buildings.

In the first quarter of 2017 real GDP increased by 0.9 per cent on a quarterly basis. Domestic demand had the major contribution to growth, while net exports contributed negatively.

Short-term economic indicators for the first half of 2017 give optimistic signs about the economic development. The improvement of labour market conditions, increasing domestic and external demand for goods and services and retention of comparatively low oil prices favour the creation of conditions for increasing investment activity and private consumption. Reflecting these factors, quarterly GDP growth is expected to retain its upward trend in the second half-year, driven largely by domestic demand.

Balanced risks to the materialisation of assumptions about the external environment and a possible stronger than expected increase in government investments create prerequisites for improvements in domestic investment activity and higher than expected economic growth in the second half-year.

Over the first five months of 2017 inflation in Bulgaria followed an upward trend, reaching 1.4 per cent in May. This was fuelled mainly by rising petroleum and food prices in euro since the second half of 2016 which contributed to the price increase in transport fuels and food products. Administratively controlled prices were another group contributing positively to the overall inflation over the first five months of the year, reflecting mostly raised excise duties of tobacco products since early 2017 and the April increase in natural gas, heating, electricity and some utilities prices. The deflationary trend in core HICP components since the previous year was sustained, reflecting mainly lower prices of durable goods, telecommunication and transport services (air transport).

Inflation is anticipated to retain its current level during the second half of 2017 driven by the positive contributions of foods and energy products. Goods and services with administratively controlled prices are also expected to make a positive contribution to the overall inflation over the following months. The effect of specific factors associated with price declines in transport (air transport) and telecommunication services will limit the increase in consumer prices.

This issue of the Economic Review bulletin includes the BNB forecast of key macroeconomic indicators for 2017–2019. This forecast is based on the information published by 20 June 2017 and employs ECB, European Commission and International Monetary Fund assumptions as of 9 June 2017 on global economic developments and commodity price dynamics in international markets.

Based on ECB, EC and IMF projections, in 2017 global economic growth is expected to accelerate *vis-à-vis* 2016 and consequently stabilise in 2018 and 2019. The acceleration during the current year will be driven mainly by developing countries, while growth in developed countries will slightly increase, stabilising thereafter in 2018. The economic growth improvement in Bulgaria's major trading partners is expected to boost the external demand for Bulgarian goods and services, particularly in 2017. Following the presidential and parliamentary elections in some of Bulgaria's trading partners (France and the Netherlands), the uncertainty surrounding international environment outlooks declined from the previous BNB forecast, and our estimates show balanced risks to the external environment development in its deviation from the assumptions integrated in the forecast.

In the process of balancing between demand and supply of major commodities in international markets, in the first half of 2017 US dollar prices of energy and non-energy commodities increased significantly on an annual basis. This process is expected to continue over the second half-year, resulting in commodity price increases for the whole 2017 compared with the previous year. In 2018–2019 estimates show a continuous slow and gradual rise in commodity prices compared to 2017.

In 2017 real GDP growth in Bulgaria is anticipated to accelerate to 3.6 per cent (3.4 per cent in 2016). For the 2018–2019 period, the economy is expected to retain a similar growth rate. Domestic demand is projected to have a major contribution to growth over the projection horizon, which will be accompanied by acceleration in goods and services imports growth at a rate close to that of exports. The contribution of net exports growth will be low, but with a negative sign. Risks to the outlook for economic activity in the baseline scenario are estimated as upside for 2017–2018 and balanced for 2019.

In 2017 inflation will reflect mainly price increases in fuels and commodities in international markets. Administratively controlled prices will also contribute to inflation. If the assumption of a moderate increase in international prices materialises, in 2018–2019 inflation is expected to follow a gradual upward trend. Risks to the inflation outlook are estimated as balanced, stemming mainly from the uncertainty about oil and food price dynamics in international markets and possible adjustments in administratively controlled prices. A greater than projected cut in telecommunication services prices due to the removal of intra-EU roaming fees since 15 June 2017 is likely to result in lower than expected inflation.

# 1. EXTERNAL ENVIRONMENT

Global PMI developments in the April to May 2017 period show that global economic activity continues to improve. Sectoral increases were reported in the global PMI of services unlike some slight declines in the manufacturing index. PMIs by region continued to signal acceleration of growth in both developed and developing countries. The strong increase in the annual growth rate of world trade over the first four months of 2017 was mainly due to the contribution of developing countries. The global inflation acceleration since early 2017, reflecting the annual growth of international oil product and metal prices, was also due to the positive contribution of inflation in developing countries.

Taking account of the global trends, the European Central Bank revised upwards its real GDP growth forecasts for the euro area for 2017, 2018 and 2019. In the second quarter of 2017 the ECB made no changes in both the key interest rates and parameters of the expanded asset purchase programme (APP). In June, however, the Governing Council decided to drop its guidance for further interest rate cuts. In view of reported and expected labour market and inflation indicators, the Federal Open Market Committee (FOMC) decided to raise the target range for the federal funds rate by 25 basis points to 1.00–1.25 per cent and presented a balance sheet normalisation program for gradual reduction of the Federal Reserve's balance sheet until the end of this year.

## Current Business Situation

In April and May the global economic indicator (global PMI) remained at a level high above the neutral 50 percentage points. Over the same period the global services PMI increased on the average for the first quarter of 2017, while that of manufacturing reported a slight decrease. Across regions, the PMI increased in both developed and developing countries. The annual growth rate of global trade also accelerated significantly over the first four months of 2017<sup>1</sup>, largely due to higher international trade flows in the Asian economies with emerging markets.

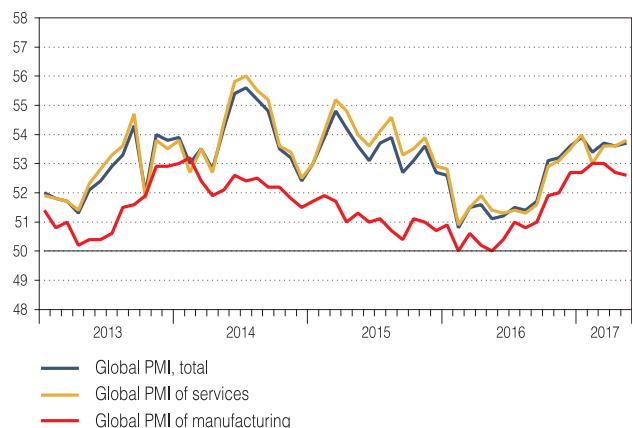
Since the beginning of 2017 global inflation increased on the end of 2016 level, reaching 2.3 per cent on an annual basis in April.<sup>2</sup> Accelerated inflation was observed mainly in developing countries. Higher prices of petroleum products and metals on international markets were the key factors behind this.

In line with improving global economic activity expectations external demand for Bulgarian goods and services is likely to continue growing on an annual basis in the third and fourth quarters of 2017.

<sup>1</sup> CPB Netherlands Bureau for Economic Policy Analysis data as of 24 May 2017.

<sup>2</sup> Based on the World Bank data as of 15 June 2017.

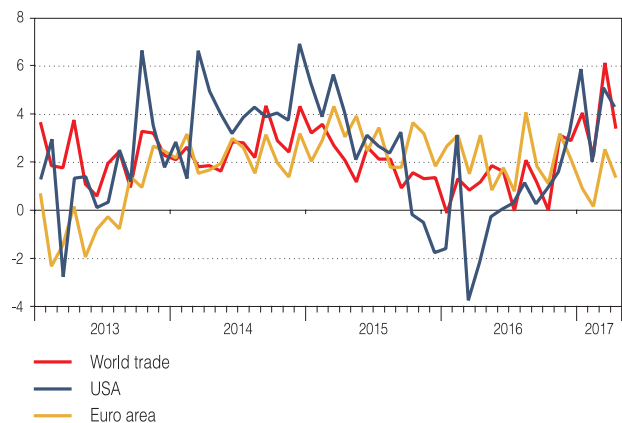
Global PMIs



Source: JP Morgan.

World Trade

(annual rate of volume growth, per cent)



Source: CPB Netherlands Bureau for Economic Policy Analysis.

## Euro Area

Over the first quarter of 2017 euro area real GDP grew by 0.6 per cent on a quarterly basis from 0.5 per cent in the fourth quarter of the previous year. Accelerated growth was observed in Germany (up to 0.6 per cent), Italy (up to 0.4 per cent) and Spain (up to 0.8 per cent), while growth in France remained unchanged (0.5 per cent). By component, major positive contributions to quarterly growth in the euro area recorded investment (0.3 percentage points) and private consumption (0.2 percentage points), whereas the contribution of net exports was close to zero. Developments in leading economic indicators, including PMIs and EC indices, signalled acceleration in euro area economic growth in the second quarter of 2017 compared to the previous one.

Labour market indicators continued to improve slowly, with unemployment going down to 9.3 per cent in April 2017. The indicator of the expected unemployment rate over the next twelve months included in the EC consumer confidence index showed an improvement in consumer expectations about labour market developments.

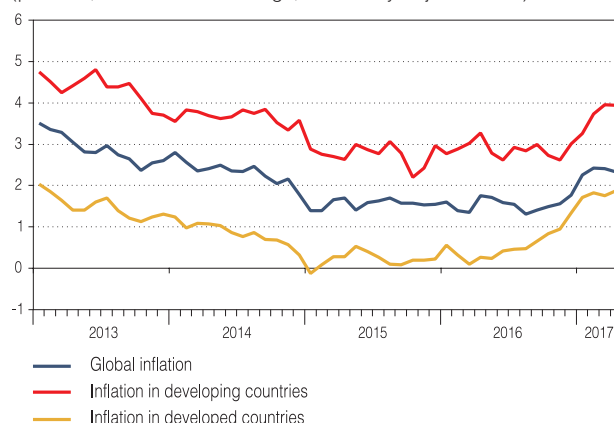
Annual inflation in the euro area was 1.4 per cent in May, 1.9 per cent in April and 1.5 per cent in March. Changes in the Harmonised Index of Consumer Prices (HICP) in the second quarter were driven by price developments in tourism and transport services around Easter holidays. The slowdown in inflation in May reflected also the weaker positive contribution of the HICP energy component.

In June the ECB revised upwards its euro area real GDP growth outlook for 2017, 2018 and 2019 by 0.1 percentage point each. The ECB assessed risks to euro area economic growth as broadly balanced while downside risks prevailed in the previous outlook. In June the probability of lower than projected growth related mainly to global factors.

The ECB euro area inflation forecast for 2017, 2018 and 2019 was revised downwards to 1.5 per cent (-0.2 percentage points), 1.3 per cent (-0.3 percentage points) and 1.6 per cent (-0.1 percentage point). The downward revision related to lower international petroleum prices

## Inflation Measured through CPI

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

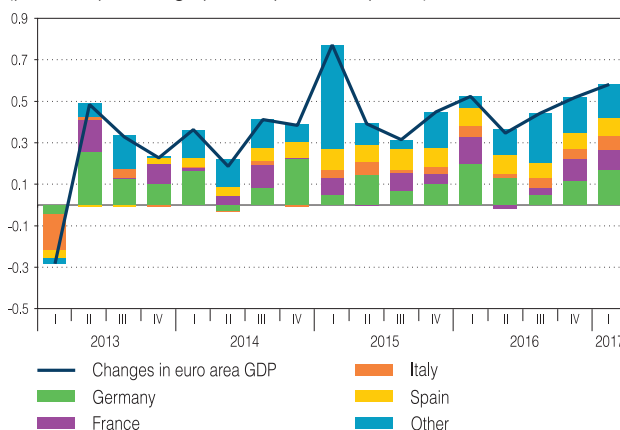


Note: The World Bank measures the change of CPI in individual groups as a weighted average of CPI changes in the countries of the group. For calculating the weights of the countries, real GDP based on purchasing power parity is used. Groups include only World Bank Member States classified by the World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

Source: the World Bank.

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

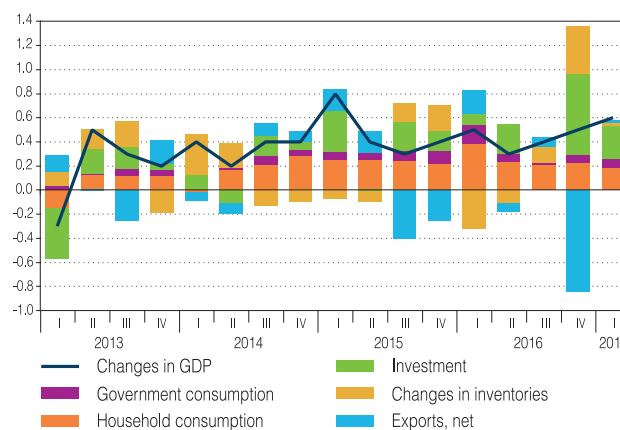
(per cent; percentage points; quarter-on-quarter)



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.

than the assumptions in the March 2017 ECB forecasts.

At its monetary policy meetings of 27 April and 8 June 2017, the ECB Governing Council made no changes to the interest rates and the parameters of the expanded Asset Purchase Programme (APP). According to the guidance on key interest rates, they will remain at their present levels for an extended period of time well past net asset purchases are discontinued. The ECB excluded the possibility of lower interest rates from its guidance as it assessed that deflation risks in the euro area have completely disappeared. The guidance on the asset purchase programme remained unchanged as it implies a potential increase in the amount and/or duration of the programme in the future, if needed.

As of 16 June 2017 the cumulative amount of purchases under the expanded ECB APP totalled EUR 1932.8 billion, of which EUR 1592.5 billion under the PSPP, EUR 222.8 billion under the CBPP3, EUR 23.8 billion under the ABSPP and EUR 93.7 billion under the CSPP.

As a result of continuing APP purchases, as of 16 June 2017 excess liquidity in the euro area banking system increased to EUR 1653.1 billion from EUR 1511.6 billion at the end of March 2017, the Eurosystem balance sheet figure reaching EUR 4.233 trillion. The increased excess liquidity in the euro area banking system continued to contribute to the low EONIA level, its average value coming to -0.36 per cent for the 1 April to 20 June 2017 period

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

(per cent)

Institution	Date of release	2017		2018		2019	
		latest	previous	latest	previous	latest	previous
ECB	VI.2017	1.9	1.8	1.8	1.7	1.7	1.6
EC	V.2017	1.7	1.6	1.8	1.8	-	-

Sources: the ECB, EC.

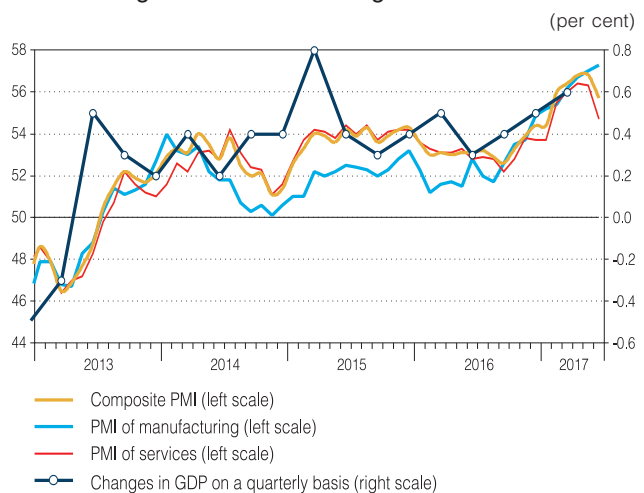
### Projections of Euro Area Annual Inflation Rate

(per cent)

Institution	Date of release	2017		2018		2019	
		latest	previous	latest	previous	latest	previous
ECB	VI.2017	1.5	1.7	1.3	1.6	1.6	1.7
EC	V.2017	1.6	1.7	1.3	1.4	-	-

Sources: the ECB, EC.

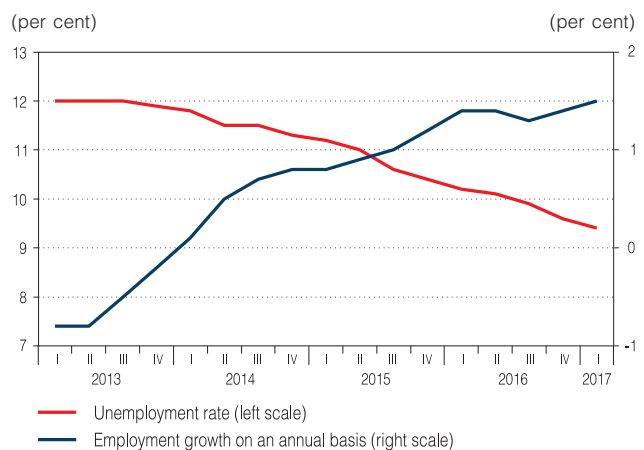
### GDP Change and Manufacturing and Services PMIs



Sources: Eurostat, Markit.

### Euro Area Unemployment Rate and Employment Growth

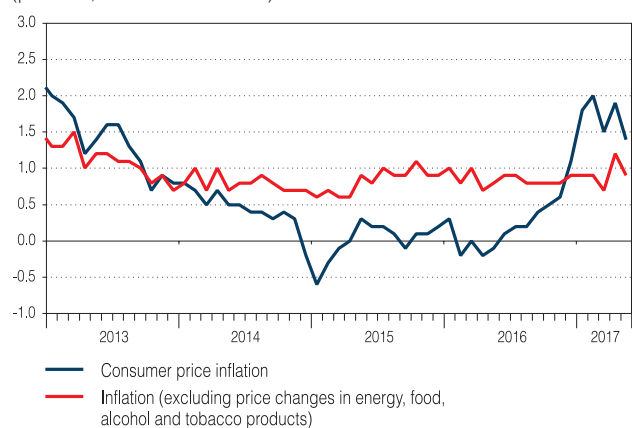
(per cent)



Source: Eurostat.

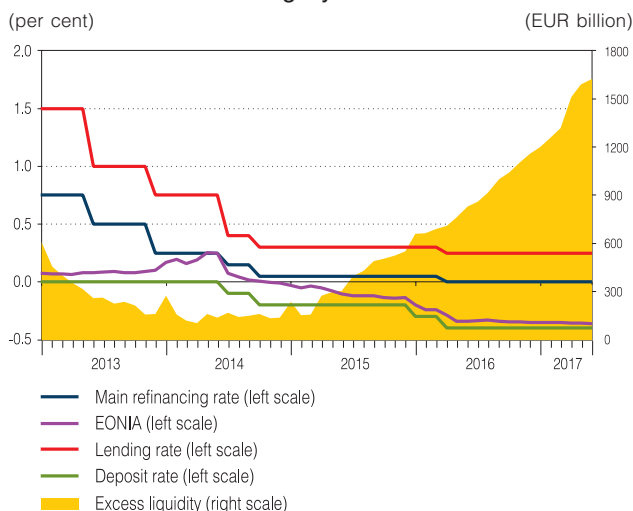
### Euro Area Inflation Rate

(per cent; on an annual basis)



Source: Eurostat.

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



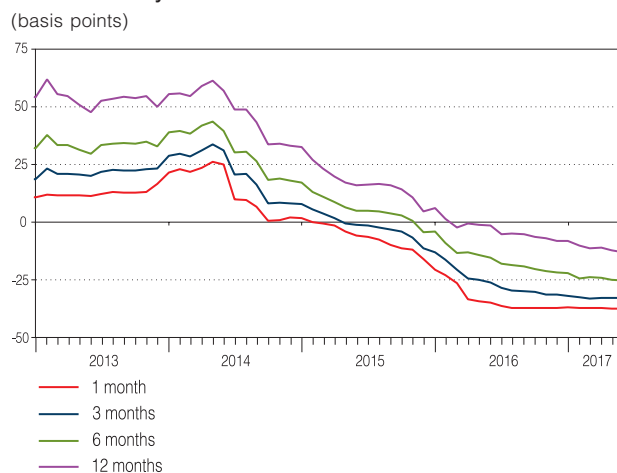
from -0.35 per cent in the first quarter of 2017. The trade volume of overnight deposits on the interbank market in the euro area decreased, with its daily average coming to EUR 6.2 billion for the 1 April to 20 June 2017 period (EUR 9.5 billion for the first quarter of 2017). EURIBOR interest rates on interbank market deposits followed a downward trend in all maturity sectors in the second quarter of 2017. As of 20 June 2017 the one-month interest remained at its end-March level (-0.37 per cent) whereas interest on deposits with a maturity of 6 and 12 months fell on the end of March to -0.27 per cent (-3.0 basis points) and -0.16 per cent (-5.0 basis points) respectively.

## The United States

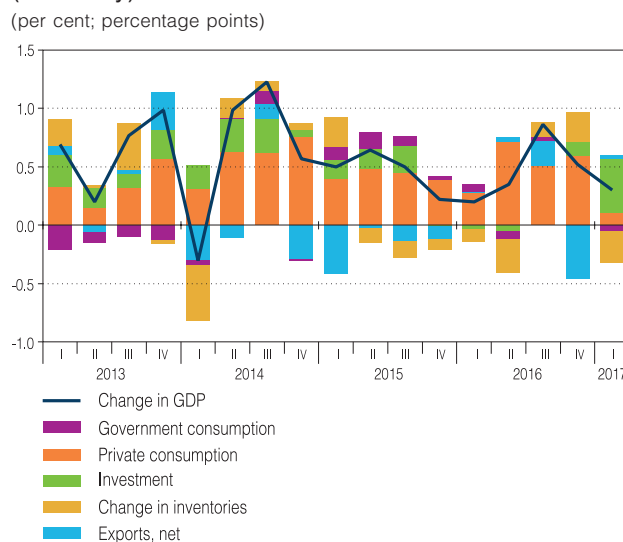
In the first quarter of 2017 real GDP growth in the US slowed down on a quarter-on-quarter basis from 0.5 per cent in the fourth quarter of 2016 to 0.3 per cent, largely due to the sizeable negative contribution of the change in inventories and the positive contribution of household consumption. On the other hand, business investment saw a significant growth compared to the previous quarter.

In the second quarter of 2017 the average values of leading US economic indicators, among which ISM-PMI and consumer confidence indices did not change significantly compared with the first quarter and remained at relatively high levels. Monthly data on individual consumption

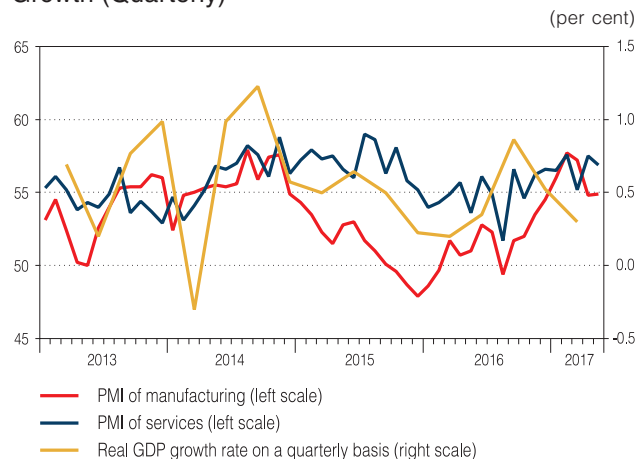
## EURIBOR Dynamics



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



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



expenditure and retail sales saw more volatile but positive changes.

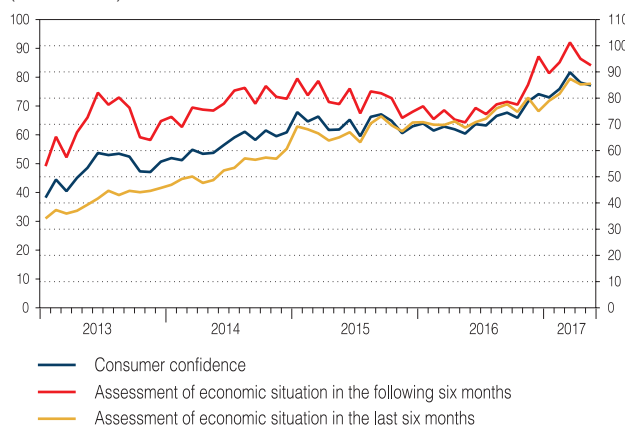
In April the annual rate of change of the price index of personal consumer expenditure (PCE) increased by 1.7 per cent or at a slower pace compared to the 1.9 per cent and 2.1 per cent reported in March and in February respectively. The annual change in the core PCE index (excluding food and fuels) also was lower: 1.5 per cent in April, compared with 1.6 per cent in March and 1.8 per cent in February. May CPI data also point to moderation in the annual rate of overall inflation (down to 1.9 per cent from 2.2 per cent in April) and in the annual rate of core inflation (down to 1.7 per cent from 1.9 per cent in April). Preliminary data for June concerning expectations about the change in consumer prices in one to five-year horizon, which are part of the consumer confidence index of the University of Michigan, showed an increase in long-term and stabilisation in short-term inflation expectations.

US labour market conditions improved further in the second quarter of 2017. The average quarterly number of new employees in the US non-farm sector declined. However, the slowdown in employment growth reflected the fact that US unemployment is at historical low levels. In May US unemployment ratio fell to 4.3 per cent: the lowest level since May 2001. Latest data on leading economic indicators signal that US labour market conditions will remain favourable till the end of 2017.

On the basis of the reported and expected US labour market and inflation indicators, at its 13 and 14 June 2017 meeting the US Federal Open Market Committee (FOMC) took a decision to raise by 25 basis points the federal funds rate corridor to 1.00–1.25 per cent. According to the projection median of individual FOMC members one further increase of the federal funds rate is expected by the close of 2017. At the same meeting a plan for reducing the size of the Federal Reserve's balance sheet that would begin towards the end of 2017 was presented. The plan foresees a certain and gradually increasing amount of funds from maturing government bonds and mortgage bonds from the Federal Reserve portfolio not to be reinvested in new instruments of the same type.

## US Consumer Confidence Indices

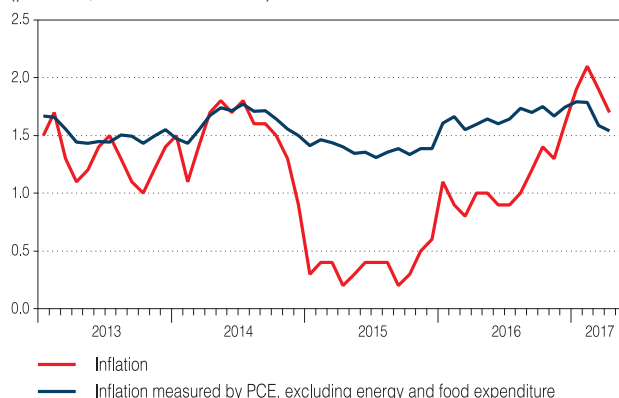
(2000 = 100)



Source: Conference Board.

## US Inflation Rate

(per cent; on an annual basis)



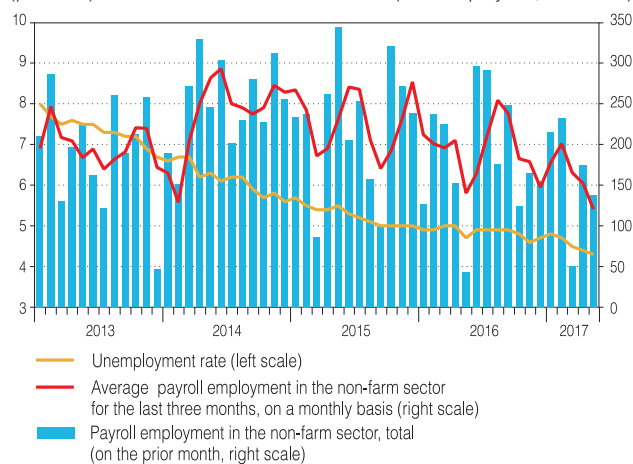
Note: Inflation is measured by the personal consumption expenditure deflator.

Source: Bureau of Labor Statistics.

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

(per cent)

(new employees, thousand)



Source: Bureau of Labor Statistics.

## China

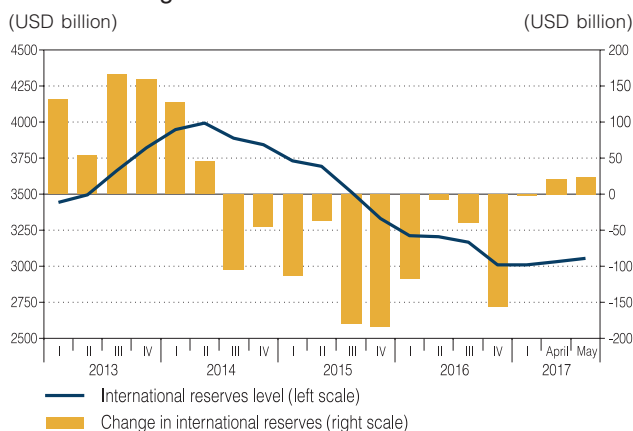
The developments in China's leading economic indicators in April and May signalled a slight slowdown in economic growth in the second quarter of 2017. Changes in PMI indices indicate that slower growth was due to the drop in industrial production and the moderate slowdown in activity in the services sector.

In April and May annual growth of industrial production remained close to the average of the index for first quarter, while annual growth of total investment moderated from 9.2 per cent in March to 8.9 per cent in April and 8.6 per cent in May. The slowdown reflected mainly the increase in investment in real estate and construction.

The annual increase of consumer prices in China accelerated from 0.9 per cent in March to 1.2 per cent in April and 1.5 per cent in May driven by higher non-food prices and the moderation in the year-on-year decline in food prices. The February downward trend in producer price inflation continued in the first two months of the second quarter underpinned by the decrease in major raw materials' prices.

In April and May the People's Bank of China kept the interest rates on its instruments unchanged but continued to actively use the reverse repurchase transactions, thereby controlling the level of liquidity in the banking system.

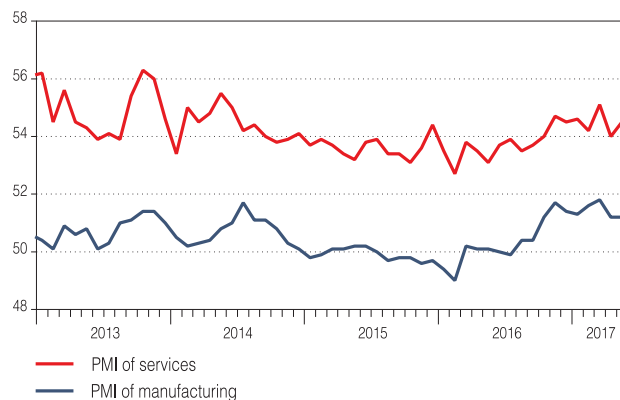
### China's Foreign Reserves



Source: People's Bank of China.

### Manufacturing and Services PMIs in China

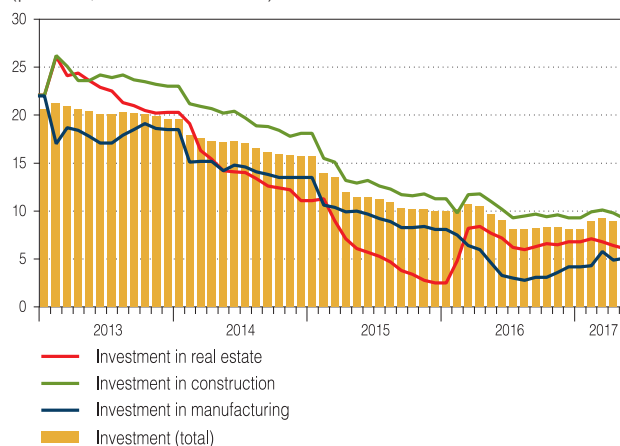
(per cent; on an annual basis)



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.

### China's Inflation Rate

(per cent; on an annual basis)



Source: National Bureau of Statistics of China.

In May China's international reserves increased for a fourth consecutive month, reaching USD 3.054 trillion. Administrative measures aimed at tightening capital controls and the depreciation of the dollar against the yuan over the period were the key factors behind the upward trend observed in international reserves.

## International Commodity Prices

### Crude Oil

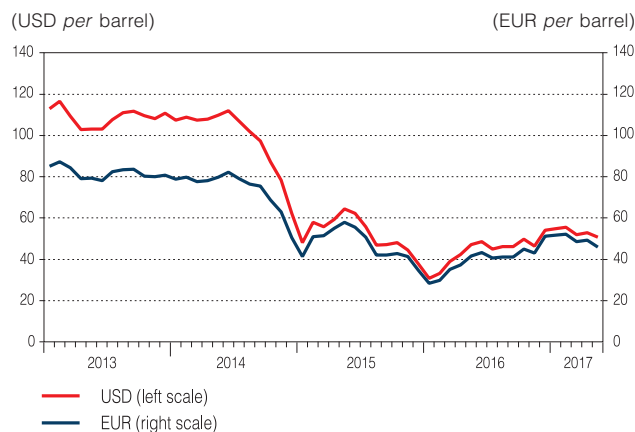
Crude oil prices on international markets soared on an annual basis in the January to May 2017 period largely due to curbed excess supply. The December 2016 agreement between OPEC and other major oil producers on limiting oil production and their decision to extend the curbs agreed in May, were designed to speed up the process of exhausting the excess supply and to push up the price of the raw material. Although the agreements are a factor for rebalancing the market, in May 2017 the Brent crude oil price fell compared to April, reaching around USD 51 *per barrel*. This reflected the published data pointing to an increase in inventories and production in the United States and in other producer countries, which questioned the effectiveness of the agreed parameters aimed at cutting down oil production.

In June market expectations of oil prices in the second half of 2017, based on crude oil futures prices, decreased *vis-à-vis* the expectations in March, with market participants taking into account the data about an increase in US inventories, as well as growing investors' concern of a possible increase in oil supply despite the measures taken by OPEC and other major producers to limit it. As a result, crude oil price is expected to be around USD 50 *per barrel* in the second half of 2017.

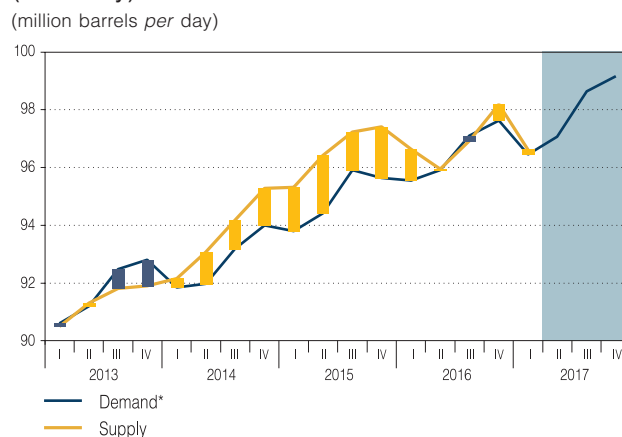
### Commodity and Food Prices

Metal prices increased by 26.5 per cent (32.5 per cent in euro) on an annual basis in the first five months of 2017. However, April and May saw a decline in metal prices on a monthly basis. In terms of demand, major factors behind this fall related to the economic development of China (the largest consumer of metals in the world) whose lower imports of metals had

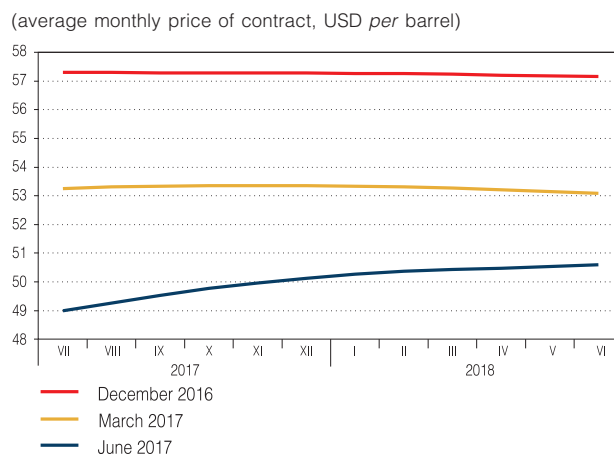
### Brent Crude Oil Price



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



### Brent Crude Oil Futures Prices



an impact on world demand for metals. The tightening of China's lending standards created expectations of continued lower metal demand in China in the future. At the same time, global supply increased due to high iron ore exports from Australia and Brazil and lifted restrictions on exports of metal ores by the Indonesian government.

Despite the temporary breach in the production process in some important for the sector copper ore mines in Chile, Indonesia and Peru, copper price also contributed to the month-on-month decline in metal prices in April and May 2017. This reflected both the accumulation of large inventories and the announced intent by China to tighten the conditions in the construction sector which will result in weaker demand for copper ore.

Metal prices in US dollars and in euro are expected to remain close to current levels on average in the second half of 2017. As a result, annual growth in this group is expected to continue.

In the first five months of 2017 the global food price index in US dollars remained almost unchanged on an annual basis whereas that in euro increased by 4.3 per cent. Cereal prices and in particular prices of wheat which is essential for the Bulgarian exports of goods tended upwards on a monthly basis since the year start. The unfavourable weather conditions in the US which had a negative effect on the global supply of the commodity and resulted in a downward shift in market expectations about global wheat production in 2017<sup>3</sup> contributed most to this. Food prices in dollars and euro are expected to continue to increase on a quarter on quarter basis in the third and fourth quarters of 2017.

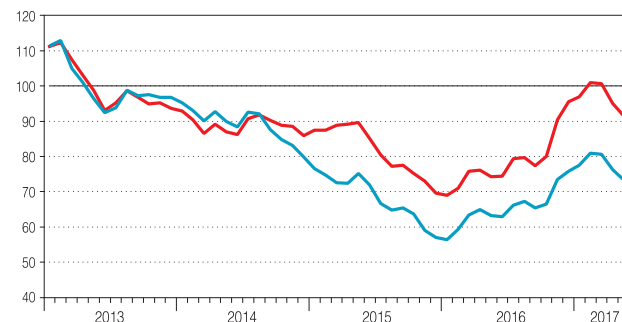
If market expectations of international fuel, commodity and food price dynamics materialise, the terms of trade for Bulgaria will worsen in the second half of 2017.

<sup>3</sup> See IMF, Commodity Market Monthly, 9 June 2017, p. 5.

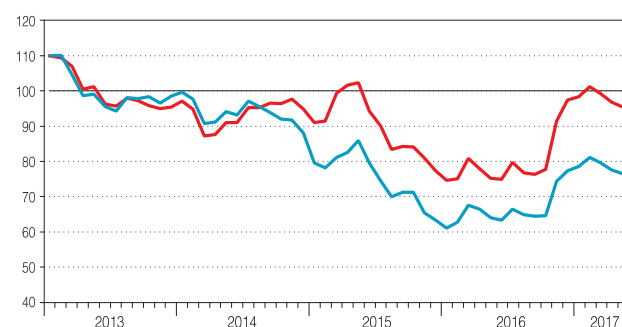
## Price Indices of Major Raw Materials and Commodity Groups

(2013 = 100)

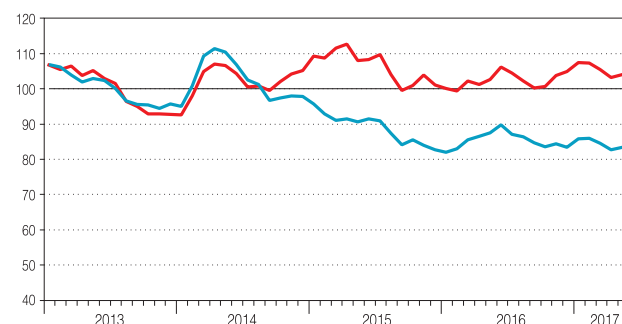
### Metals



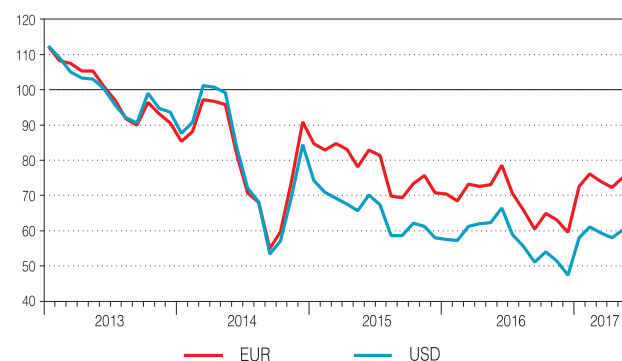
### Copper



### Food



### Wheat



Sources: the ECB and BNB calculations.

## 2. FINANCIAL FLOWS, MONEY AND CREDIT

Between January and April 2017 the overall current and capital account balance was negative (a surplus in the corresponding period of 2016), reflecting mainly the significant decline in the capital account surplus and the increase in the trade balance deficit. On an annual basis, the current account balance as of April remained positive, with the downward trend of early 2017 expected to continue in the second half of the year driven mainly by the projected rise in the deficit on the net primary income item. Compared with the second half of 2016, the capital account surplus is also expected to decline as a share of GDP.

In the first five months of 2017 non-government sector deposits in the banking system continued to increase at comparatively high annual rates. In addition, the tendency toward accelerating annual growth in lending to households and non-financial corporations was sustained. The use of loans under the National Program for Energy Efficiency of the Multi-family Residential Buildings had an essential effect on household credit dynamics. Over the second half of 2017 non-government sector deposits are expected to slightly decelerate their growth rates as a result of the anticipated rise in private consumption and stabilisation of deposit interest rates at the attained low levels. The upward trend in the credit to non-financial corporations and households is expected to continue over the projection horizon under the favourable influence of further improving economic activity, comparatively low lending interest rates and the absorption of funds under the National Program for Energy Efficiency of the Multi-family Residential Buildings.

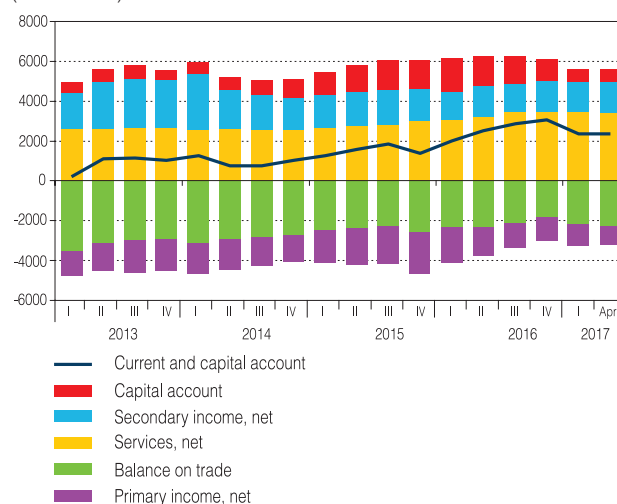
### External Financial Flows

In the January–April 2017 period the balance on the current and capital account was negative at EUR 3.3 million compared with a surplus of EUR 718.6 million reported in the corresponding period of 2016.<sup>4</sup> Lower overall balance reflected both the deficit on the current account, which reported a surplus in the corresponding period of prior year and the strong decrease in the capital account surplus.

The current account negative balance in the first four months of 2017 was mostly attributable to the higher trade balance deficit against the January–April 2016 period and, to a lesser extent, to the lower surplus in the net services item on an annual basis. The increased trade balance deficit against the corresponding period of 2016 was a result of both higher real growth in imports as compared with exports of goods and worsened terms of trade. Concurrently, exports of services slowed down on an annual basis as exports in other services reported a decline despite increased earnings from tourism and transport. The slight increase in imports of services (mainly tourism and transport) in the January–April 2017 period as compared to the

Current and Capital Account Dynamics and Contribution by Component (on an Annual Basis)

(EUR million)



Source: the BNB.

<sup>4</sup> The analysis of balance of payments flows employs information from its analytical reporting.

corresponding period of 2016 contributed additionally to the lower surplus in the net services item on an annual basis.<sup>5</sup>

The capital account surplus went down in the January–April 2017 period as compared with the corresponding period of 2016, a result of the lower volume of transfers under EU programmes.

The current and capital account negative balance in the first four months of 2017 was partly limited by the strongly reduced deficit on the net primary income item<sup>6</sup> and, to a lesser extent, the higher surplus on the net secondary income item compared with the January–April 2016 period. The decrease in the deficit on the net primary income item reflected lower outflows under the reinvested profit, and dividend and distributed profit items, a trend observed also in 2016.

On an annual basis as of April the current account balance remained positive while the surplus is expected to further decrease as a percentage of GDP in the second half of 2017. The major factor behind this will be the projected rise in the deficit on the net primary income item, promoted by the gross operating surplus in the economy which tended to increase in recent quarters. Another factor, which will contribute to lower current account surplus on an annual basis, is the projected rise in the trade balance deficit as a percentage of GDP. The faster increase in real exports compared with imports is expected to be insufficient to offset the effect of unfavourable terms of trade. In the context of still low absorption of funds under the EU-funded operational programmes for the 2014–2020 programming period, in the third and fourth quarters of 2017 the capital account surplus is projected to shrink as a share of GDP compared with the second half of 2016.

Between January and April 2017 the financial account balance was positive *vis-à-vis* a negative balance in the corresponding period of 2016. The financial account positive balance was driven by the stronger increase in Bulgarian residents' foreign assets compared to the increase in foreign liabilities. Foreign asset

<sup>5</sup> For a more detailed analysis of exports and imports of goods and services, see Chapter 3.

<sup>6</sup> Preliminary data subject to revision.

## Flows on Balance of Payments Accounts

(EUR million)

	2015	2016	On an annual basis as of April 2017
<b>Current account</b>	<b>-60.5</b>	<b>1 988.6</b>	<b>1 726.8</b>
Trade balance	-2 622.4	-1 844.8	-2 343.1
Services, net	3 003.6	3 446.8	3 392.5
Primary income, net	-2 082.1	-1 198.6	-923.6
Secondary income, net	1 640.4	1 585.3	1 601.1
<b>Capital account</b>	<b>1 421.6</b>	<b>1 066.9</b>	<b>606.9</b>
<b>Financial account</b>	<b>-1 076.0</b>	<b>-51.3</b>	<b>1 009.1</b>
<b>Changes in reserves</b>	<b>3 729.7</b>	<b>3 467.3</b>	<b>1 994.2</b>

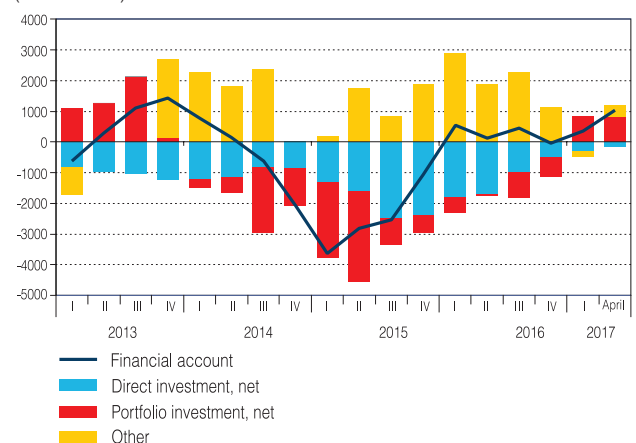
(per cent of GDP)

	2015	2016	On an annual basis as of April 2017
<b>Current account</b>	<b>-0.1</b>	<b>4.2</b>	<b>3.6</b>
Trade balance	-5.8	-3.9	-4.9
Services, net	6.6	7.3	7.1
Primary income, net	-4.6	-2.5	-1.9
Secondary income, net	3.6	3.3	3.3
<b>Capital account</b>	<b>3.1</b>	<b>2.3</b>	<b>1.3</b>
<b>Financial account</b>	<b>-2.4</b>	<b>-0.1</b>	<b>2.1</b>
<b>Changes in reserves</b>	<b>8.2</b>	<b>7.3</b>	<b>4.2</b>

Source: the BNB.

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

(EUR million)



Note: The Other item includes Other Investment, net, and Financial Derivatives (Other than Reserves) and Employee Stock Options, net.

Source: the BNB.

dynamics in the January–April 2017 reflected mainly banks' transactions<sup>7</sup> and assets of other sectors<sup>8</sup> (mostly in the form of portfolio and direct investment). The increase in total liabilities on financial account was mostly attributable to the other sectors' new foreign loans and trade credits (included under the other investment sub-item) and, to a lesser extent to foreign direct and portfolio investment attracted by these sectors. As a result of non-residents' sales of Bulgarian government securities to residents, total liabilities of the general government sector posted a decline.

Between January and April 2017 foreign direct investment liabilities (reporting FDI inflows into Bulgaria) decreased on an annual basis to EUR 182.5 million (against EUR 454.4 million between January and April 2016).<sup>9</sup> The strongest foreign direct investment inflow was from the Netherlands and Switzerland.

Negative net flows on the current and capital account, as well as the inflow of funds on the financial account led to a decrease in gross international reserves on December 2016. According to the balance of payments data for the January–April 2017 period the decrease came to EUR 302.4 million.<sup>10</sup> As of April 2017 gross international reserves posted growth of EUR 1994.2 million for the last 12 months. As of April 2017 the international reserve coverage of the average nominal imports of goods and non-factor services remained high (9.5 months) for the last 12 months, posting a rise from April 2016 (9.3 months).

In April 2017 Bulgaria's gross external debt decreased on the end of 2016 due mainly to lower intercompany lending and the lower external debt of the government. The decrease in the government external debt reflected mainly residents' purchases of Bulgarian government securities issued in international markets from non-residents. The share of long-term debt in Bulgaria's total gross external debt was 76.5 per cent in April 2017.

<sup>7</sup> Further details on bank operations are provided in the Monetary and Credit Aggregates section of Chapter 2.

<sup>8</sup> Excluding other monetary financial institutions and general government sectors.

<sup>9</sup> Preliminary data subject to revision.

<sup>10</sup> Valuation adjustments and price revaluation excluded.

## Banks' Flows on Balance of Payments Financial Account

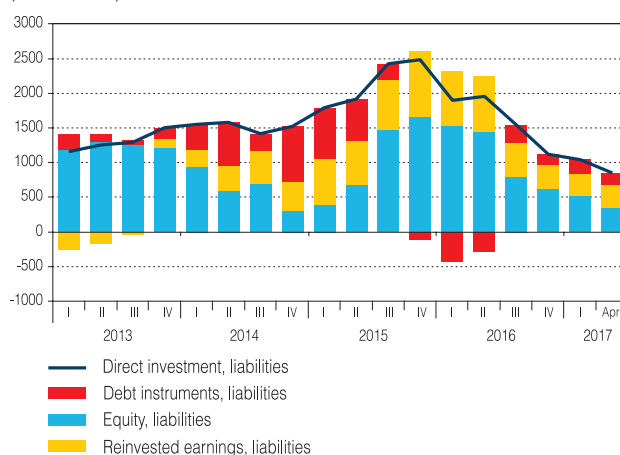
(EUR million)

	2015	2016	January–April 2017
<b>Direct investment</b>			
assets	1.6	9.9	12.1
liabilities	326.6	69.5	0.6
<b>Portfolio investment</b>			
assets	-785.9	317.5	-62.6
liabilities	1.5	0.8	-0.9
<b>Other investment</b>			
assets	-2 022.4	525.6	514.2
liabilities	-1 636.1	-126.9	-50.7
<b>Total assets</b>	<b>-2 806.7</b>	<b>852.9</b>	<b>463.7</b>
<b>Total liabilities</b>	<b>-1 308.0</b>	<b>-56.6</b>	<b>-51.0</b>
<b>Net assets</b>	<b>-1 498.7</b>	<b>909.5</b>	<b>514.7</b>

Source: the BNB.

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

(EUR million)



Source: the BNB.

## Gross External Debt as of April 2017

(EUR million)

	Amount	Change	
		On December 2016	Last 12 months
General government	6 505.4	-277.1	192.2
Central bank	0.0	0.0	0.0
Banks	4 160.2	-2.7	406.9
Other sectors	11 263.9	60.6	-567.2
FDI: intercompany loans	12 182.7	-311.0	-620.8
<b>Total</b>	<b>34 112.3</b>	<b>-530.1</b>	<b>-973.2</b>

Source: the BNB.

While maintaining low interest rates in the euro area, conditions for foreign debt service by Bulgarian residents remained favourable. Between January and April 2017 expenditure on foreign debt service posted a decrease compared with the corresponding period of 2016. Concurrently, the share of long-term loans in total new loans increased further to 68.4 per cent (59.7 per cent in the January–April 2016 period).

## Monetary and Credit Aggregates

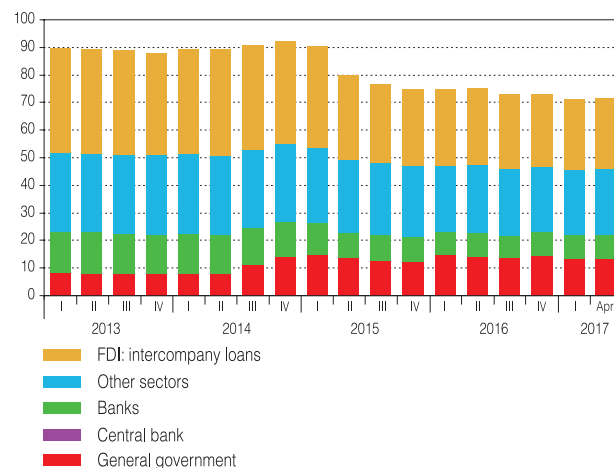
In the first five months of 2017 the inflow of attracted funds in the banking system remained high and contributed to the strong annual increase in the broad monetary aggregate M3 which amounted to 8.0 per cent in May (7.6 per cent at the end of 2016). Broad money dynamics continued to be driven by overnight deposits and, to a lesser extent, by currency in circulation outside MFIs. The share of overnight deposits and currency outside banks in M3 continued to increase reaching 52.3 per cent in May 2017 (51.3 per cent at the end of 2016). At the end of the review period the quasi money monetary aggregate had a slight negative contribution to M3 annual growth. Major factors determining the M3 component dynamics include the relatively high savings rate in the economy and corporate and household preferences for easier access to savings amid low deposit rates.

Resident deposits comprised the bulk of the total amount of funds attracted by banks with a share of 91.3 per cent on average for the last 12 months as of May 2017. Annual growth of non-government sector deposits<sup>11</sup> in the banking system came to 7.6 per cent in May 2017 (7.0 per cent at the end of 2016) with household deposits contributing most significantly, increasing by 5.7 per cent to BGN 45.7 billion on an annual basis. Over the same period deposits of non-financial corporations reported a 10.1 per cent annual increase, but their contribution to growth of total deposits of the non-government sector remained lower than that of households due to their lower amount:

<sup>11</sup> Non-government sector deposits include deposits of households, non-financial corporations and financial corporations. Deposits of households and non-financial corporations (94.4 per cent on average for the last 12 months as of May 2017) comprise the major share of all non-government sector deposits, and the analysis therefore is focused on these two sectors.

## Gross External Debt as a Share of GDP

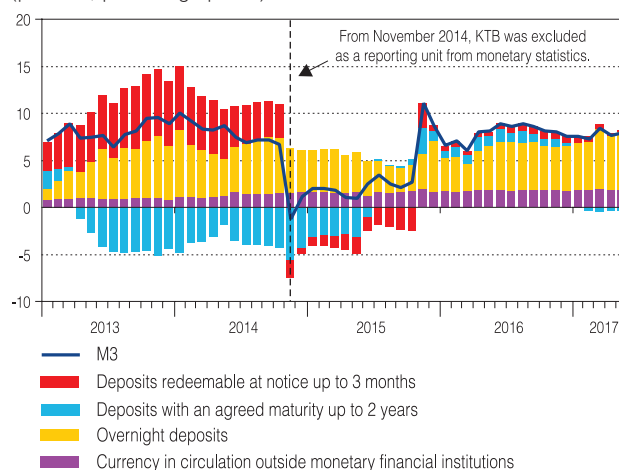
(per cent of GDP)



Source: the BNB.

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

(per cent, percentage points)

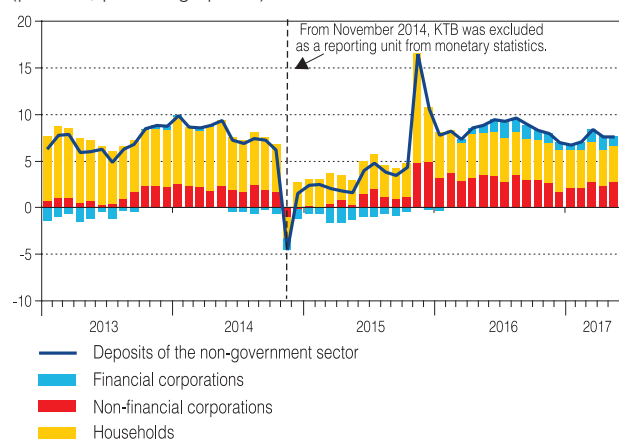


Note: The marketable instruments component is not shown on the chart due to its insignificant contribution to broad money growth.

Source: the BNB.

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

(per cent, percentage points)



Source: the BNB.

BGN 19.4 billion in May. As to the maturity structure of deposits, preferences of corporations and households remained in favour of overnight deposits. As regards the currency structure, the upward trend in savings denominated in levs<sup>12</sup> was sustained, most probably reflecting higher interest rates on deposits in levs and higher transaction costs for maintenance and bank operations in foreign currency.

In the first five months of 2017 the effective implicit rate of minimum required reserves<sup>13</sup> remained at its level of end-2016 reflecting the retained high share of attracted funds from residents. In May 2017 it was 9.39 per cent (9.43 per cent at the end of 2016), with banks' deposits with the BNB comprising 8.36 percentage points of minimum reserve requirements and the remaining 1.04 percentage points in the form of recognised cash balances.

Following the acceleration in the first quarter of 2017, April saw some slowdown in the annual rate of growth of reserve money reflecting mainly the slower increase of banks' reserves with the BNB. In May total reserve money growth accounted for 15.0 per cent (4 per cent in December 2016).

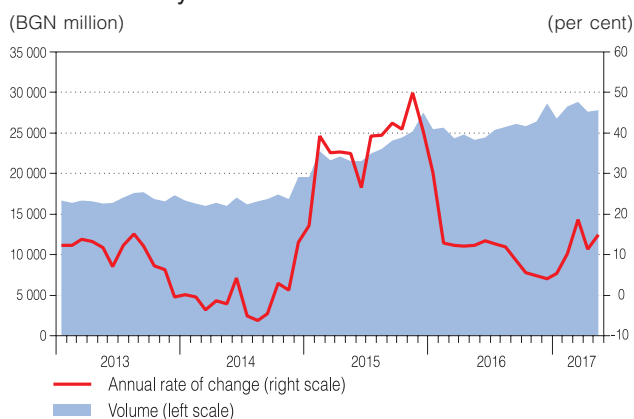
Fluctuations in the dynamics of bank reserves with the BNB continued to be driven by the volume of excess reserves. As of May 2017 the excess funds on banks' minimum reserve accounts with the BNB over the required minimum under Ordinance No 21 was 112.5 per cent on an average daily basis (89.8 per cent in December 2016).

In May banknotes and coins in circulation posted 12.0 per cent growth on an annual basis which remained close to the prior year's growth. The increase in private consumption, amid further improvement in the labour market, contributed to retained comparatively high growth rates of currency in circulation. However, the downward trend in deposit rates weakened the motivation of depositing funds with banks.

<sup>12</sup> As of May the share of lev-denominated deposits in total non-government sector deposits accounted for 61.1 per cent.

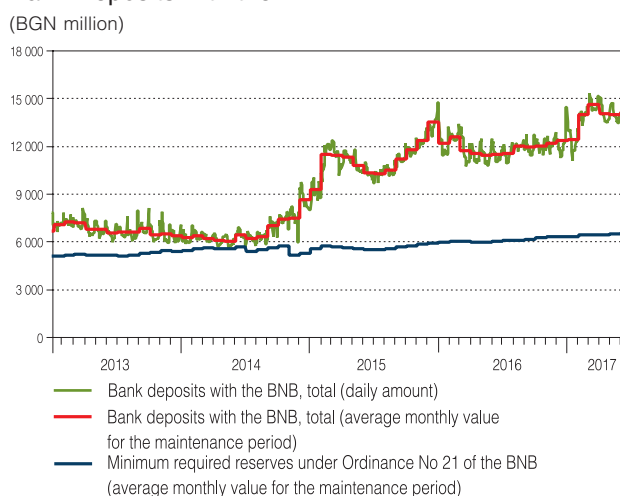
<sup>13</sup> According to Article 3 of the new BNB Ordinance No 21 on the Minimum Required Reserves Maintained with the Bulgarian National Bank by Banks, effective as of 4 January 2016, the rate of minimum required reserves on funds attracted from residents remains at 10 per cent of the deposit base, from non-residents 5 per cent and from the state and local government budgets 0 per cent.

## Reserve Money



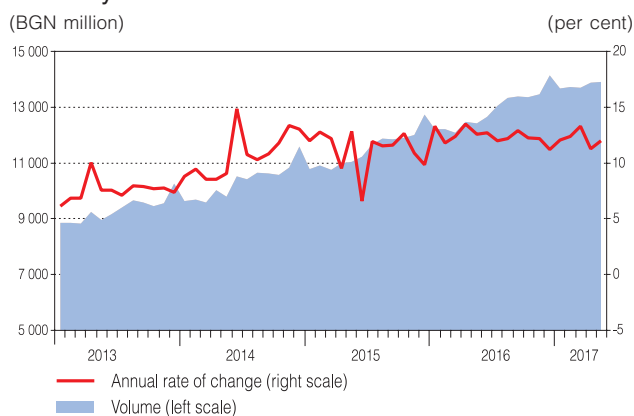
Source: the BNB.

## Bank Deposits with the BNB



Source: the BNB.

## Currency in Circulation



Source: the BNB.

Banking system liquidity remained high in the first five months of 2017, with the liquid asset ratio accounting for 37.87 per cent in May 2017 (38.24 per cent in December 2016). Under currency board arrangements in Bulgaria, foreign currency trade with the BNB in euro is the main tool to manage bank liquid resources. As of May 2017 the BNB was a net purchaser of euro from banks amounting to EUR 1.3 billion on an annual basis.

In the first five months of 2017 claims on the non-government sector and bank reserves contributed most strongly to annual growth of banks' assets. Investment in government securities of the Bulgarian government and banks' foreign assets contributed less.

The increase in claims on the non-government sector reflected the improving economic environment, further decline in lending rates and the use of loans extended under the National Programme for Energy Efficiency of Multi-family Residential Buildings. Credit dynamics reflected also the base effect related to the weaker supply of loans in the first half of 2016 when the bank asset quality review was carried out. In May the growth rate of loans to non-financial corporations and households<sup>14</sup> accelerated to 4.3 per cent (1.0 per cent by end-December 2016).

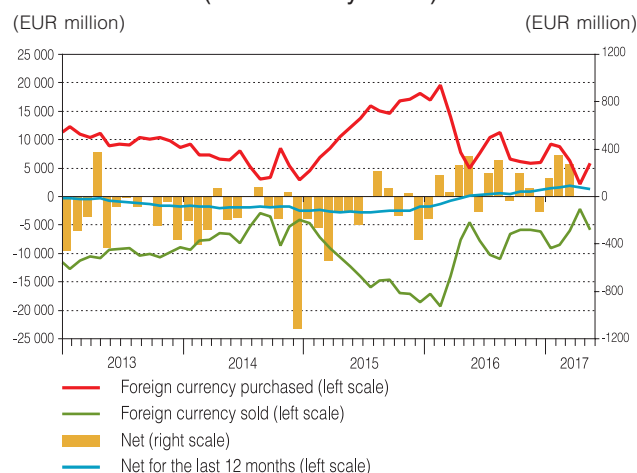
As of May 2017 loans to non-financial corporations rose by 3.3 per cent on an annual basis (by 0.3 per cent at the end of December 2016). Loans, excluding overdrafts, made the major positive contribution to annual growth. Between March and May overdraft also had a positive contribution. Breakdown by economic activity shows that manufacturing, energy,<sup>15</sup> agriculture<sup>16</sup> and real estate activities made the largest positive contribution to annual growth of credit

<sup>14</sup> Loans represent the bulk of bank claims on the non-government sector with a share of 98 per cent on average for the last 12 months as of May 2017 and the analysis was therefore focused on them. In addition to loans, claims include also repurchase agreements, securities other than shares, and shares and other equity instruments. Non-government sector deposits, 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 97 per cent on average in the last 12 months as of May 2017 and therefore developments in these two sectors are addressed.

<sup>15</sup> Production and distribution of electricity, heating, gaseous fuels.

<sup>16</sup> Agriculture, forestry and fishery.

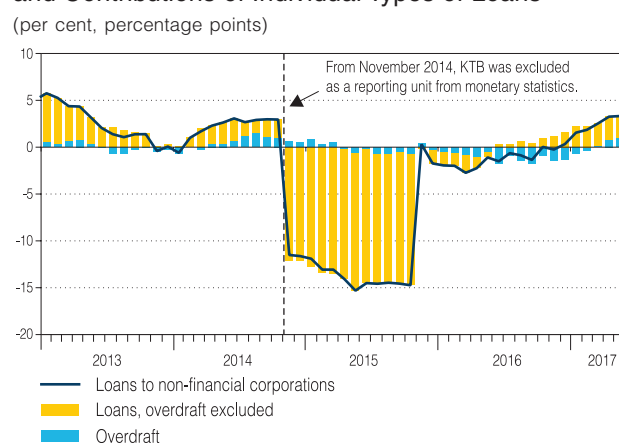
## Foreign Currency Purchases and Sales between the BNB and Banks (on a Monthly Basis)



Note: 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.

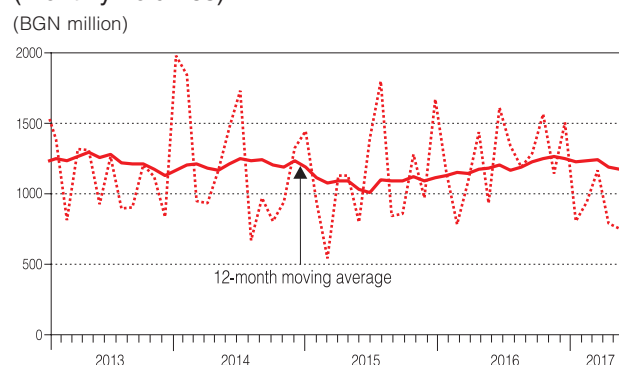
Source: the BNB.

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



Source: the BNB.

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



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.

in the first quarter of 2017, while trade<sup>17</sup> and mining and quarrying had the largest negative contribution.

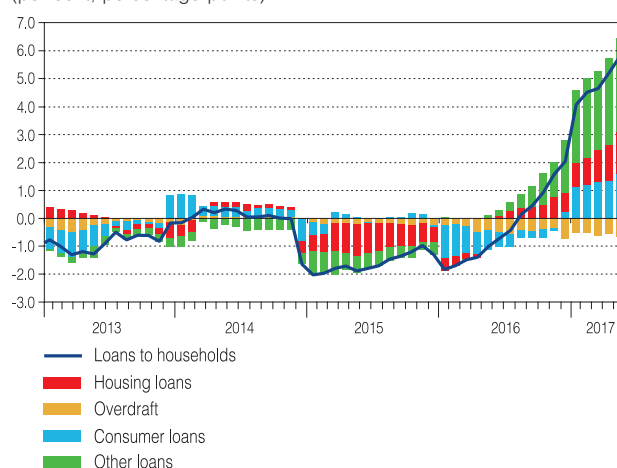
New loans<sup>18</sup> to corporations exhibited a decline in volumes compared with the end of 2016.<sup>19</sup> As regards the currency structure of new corporate loans, lev-denominated loans posted a gradual increase and in May 2017 their share rose to 52.6 per cent (up 3.3 percentage points compared with end-2016) at the expense of the decreased share of new corporate loans denominated in euro and US dollars to 45.6 and 1.8 per cent respectively.<sup>20</sup>

Enhanced credit growth continued to be more strongly pronounced in households than in corporations. As of May 2017 annual growth of loans to households accounted for 5.8 per cent (2.0 per cent at the end of December 2016). Other loans and, to a lesser extent, consumer and housing loans contributed most strongly to this dynamics. Loans extended under the National Programme for Energy Efficiency of Multi-family Residential Buildings continued to be of key significance for the dynamics of other loans to households. The downward trend in overdraft was also sustained, reporting a year-on-year decline of 8.1 per cent in May 2017. The upward dynamics in new loans to households was sustained in all loan categories in the first five months of 2017.<sup>21</sup>

Results of the BNB quarterly lending survey<sup>22</sup> conducted in the first quarter of 2017 show retention of the bank standards<sup>23</sup> for extending loans to corporations and easing of the standards for crediting households, particularly for consumer loans. Enhanced competition in the banking sector was the major reason behind

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

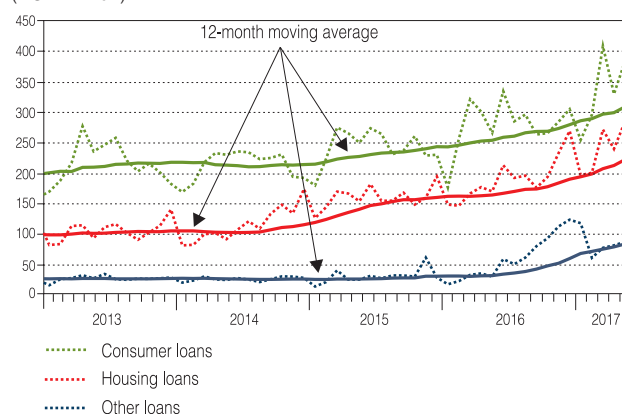
(per cent, percentage points)



Source: the BNB.

## New Loans to Households (Monthly Volumes)

(BGN million)



Source: the BNB.

<sup>17</sup> Trade, cars and motorcycles repair.

<sup>18</sup> The terms 'new' and 'newly extended' are hereinafter referred to as the statistical category 'new business'.

<sup>19</sup> Based on 12-month moving average.

<sup>20</sup> Based on 12-month moving average.

<sup>21</sup> Based on 12-month moving average.

<sup>22</sup> Summarised results of the bank lending survey are presented through weighting bank responses by their market share in the relevant credit segment.

<sup>23</sup> Credit standards are understood as internal bank guidelines and 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.

easing of the banks' policy<sup>24</sup> in respect of corporations and households. High banking system liquidity, further decline in the cost of credit and increased volume of attracted funds contributed significantly to the easing of credit standards and conditions<sup>25</sup> in both sectors. In the second quarter of 2017 banks expect a further easing of loan standards for households while keeping relatively unchanged standards for corporations.

Between January and March 2017 banks reported enhanced demand for bank resources and based on the weighted balance of opinions households were more active over the quarter. Demand for funds for investment purposes and low interest rates had the strongest effect for the increased demand for corporate loans in the first quarter of 2017. Major factors behind stronger household demand for bank resources reflect household needs for purchasing durable goods and other goods intended for current consumption, favourable outlook in the residential property market, as well as low interest rates. Banks' expectations for the April–June 2017 period show that demand for funds by corporations and households will further increase, with more significant growth anticipated in housing loans.

In the second half of 2017 the growth rate of non-government sector deposits is expected to slightly slow down as a result of expected private consumption growth and stabilisation of deposit rates at the attained levels. Accelerated growth of credit to non-financial corporations and households is expected to continue over the forecast horizon due to further improvement in the economic environment and relatively low lending rates. A positive effect on credit dynamics is expected to occur on the part of both demand and supply. The use of funds under the National Programme for Energy Efficiency of Multi-family Residential Buildings and the loans extended under it are anticipated to continue contributing significantly to credit growth in the second half of 2017.

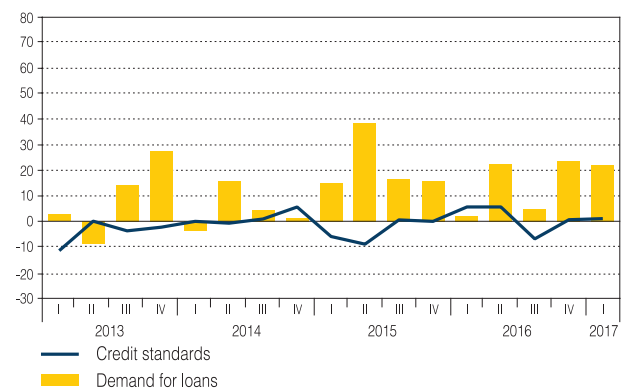
<sup>24</sup> Credit policy refers to credit standards and credit conditions applied by banks in extending loans.

<sup>25</sup> Credit conditions typically involve the reference interest rate surcharge, the loan amount, conditions for its utilisation and other conditions, fees and commissions, collateral or guarantees to be provided by a borrower.

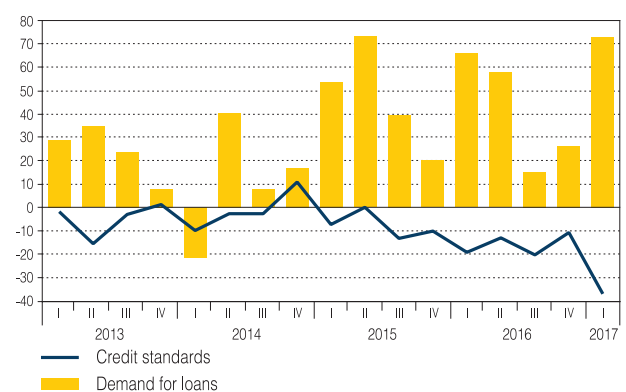
## Changes in Demand and Credit Standards

(balance of opinions; percentage points)

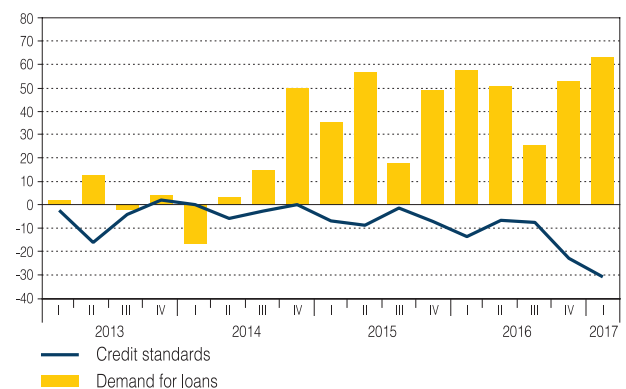
### a) corporate loans



### b) consumer loans



### c) housing loans



Note: 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.

## Interest Rates

Fluctuations in the dynamics of LEONIA index<sup>26</sup>, reporting real transactions in the unsecured overnight deposit market, remained high in the first quarter of 2017, with values in April and May stabilised close to EONIA values. In May 2017 the index went down by 23 basis points compared with end-2016 and the spread between LEONIA and EONIA amounted to 2 basis points.

In the first five months of the year Bulgarian lev interbank money market rates, having an indicative value without concluded real transactions, remained relatively close to their levels of December 2016. The yield curve in the lev interbank money market reported some decline in quotations of 5 and 6 months and an increase in those of over 8 months. In May unsecured three-month lev deposit rates<sup>27</sup> declined by 2 basis point from December 2016 to reach 0.11 per cent, six-month rates fell by 7 basis points while 12-month rates increased by 2 basis points to 0.78 per cent.

Quotations in the lev interbank money market in Bulgaria followed the euro area pattern, with spreads of interbank money market quotations in Bulgaria *vis-à-vis* the euro area remaining almost unchanged for instruments with maturity of up to six months and slightly increased for instruments with maturity of over six months between January and May 2017. In May the spread between unsecured deposit rates in levs and those in the euro area was 43 basis points for three-month deposits and 91 basis points for 12-month deposits.

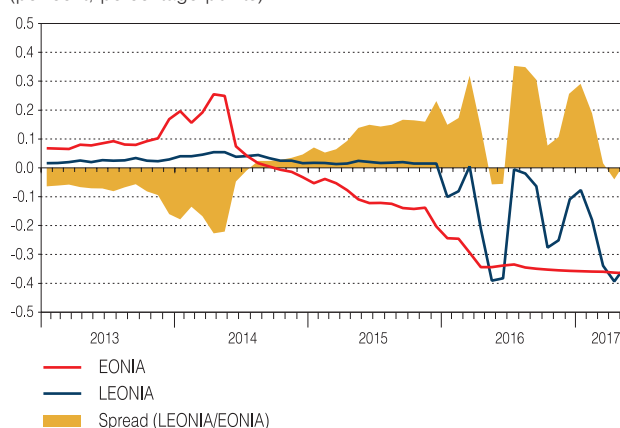
The high bank liquidity in Bulgaria, a result of the strong inflow of attracted funds in Bulgaria, supported further the downward trend in interest rates in the first five months of 2017. In

<sup>26</sup> At its 16 March 2017 meeting, the BNB Governing Council decided to discontinue, as from 1 July 2017, the calculation of the LEONIA reference rate and adopted a Methodology for Calculation of the LEONIA Plus Reference Rate of Concluded Overnight Deposit Transactions in Bulgarian levs on the Interbank Market, which replaces the LEONIA index (for further details, see [http://www.bnb.bg/PressOffice/POPressReleases/POPRDate/PR\\_20170316\\_EN](http://www.bnb.bg/PressOffice/POPressReleases/POPRDate/PR_20170316_EN)).

<sup>27</sup> At its 16 March 2017 meeting, the BNB Governing Council decided to discontinue, as from 1 July 2018, the activities in relation to the calculation and publication of the SOFIBID and SOFIBOR reference rates (for further details, see [http://www.bnb.bg/PressOffice/POPressReleases/POPRDate/PR\\_20170316\\_EN](http://www.bnb.bg/PressOffice/POPressReleases/POPRDate/PR_20170316_EN)).

### Interbank Money Market Interest Rates on Overnight Deposits

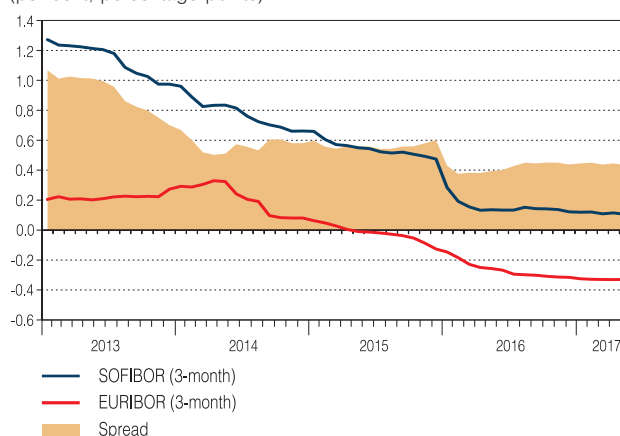
(per cent, percentage points)



Source: the BNB.

### Interest Rates on Three-month Deposits

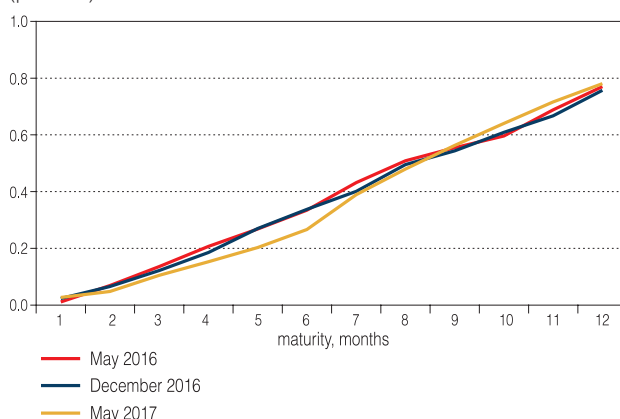
(per cent, percentage points)



Sources: the BNB, the ECB.

### Interbank Money Market Instruments Yield Curve

(per cent)



Source: the BNB.

May the average weighted interest rate on new time deposits of non-financial corporations and households declined by 20 basis points from the end of 2016 to 0.4 per cent. The decline in interest rates on new time deposits of households in the first five months of the year was stronger than that of corporate deposits. Interest rates on new time deposits in levs, euro and US dollars posted a similar decline on end-2016.

In May the breakdown by bank of average weighted interest rates on new time lev deposits of households showed no essential changes in the distribution of banks by interest rate range compared with March 2017. The number of banks with average interest rates between 0.50–0.75 per cent decreased at the expense of the increasing number of banks offering interest rates from 0.75 to 1.00 per cent. The standard deviation remained low, close to the level of the end of the first quarter of 2017, reflecting banks' interest rates on new time lev deposits of households.

The downward trend in interest rates on new loans was sustained in the first five months of 2017. The BNB quarterly lending survey suggests that the downward trend in lending rates reflects competition in the banking sector, high liquidity, increasing volume and low price of attracted bank resources, and improvement of overall macroeconomic environment, which is a prerequisite for decreasing the risk premium on loans.<sup>28</sup>

Compared with end-2016 interest rates on new loans to corporations decreased by 28 basis points in lev-denominated loans, by 48 basis points in euro-denominated loans and by 52 basis points in US dollar-denominated loans. As of May 2017 interest rates on new corporate loans in the three major currencies were 4.1 per cent in levs, 4.9 per cent in euro and 5.1 per cent in US dollars.<sup>29</sup>

The annual percentage rate of charge (APRC) on household loans also retained its clearly pro-

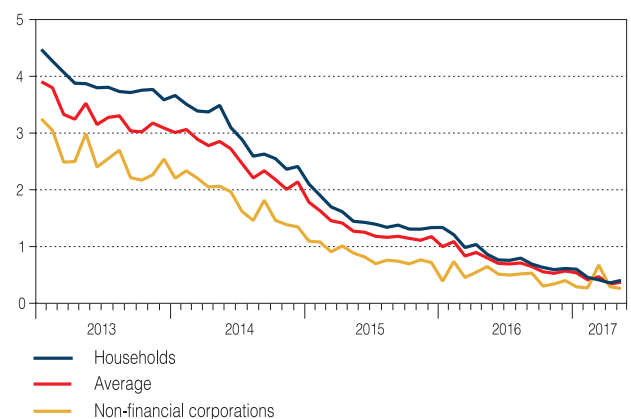
<sup>28</sup> According to the results of the BNB lending survey, risk assessment is considered to be banks' perceptions of risk and their response to the developments in the economic situation and prospects, the state and expectations about corporations' development, customer solvency and required collateral.

<sup>29</sup> The above values of interest rates on loans to non-financial corporations are weighted averages on a 12-month basis.

## Interest Rates on New Time Deposits

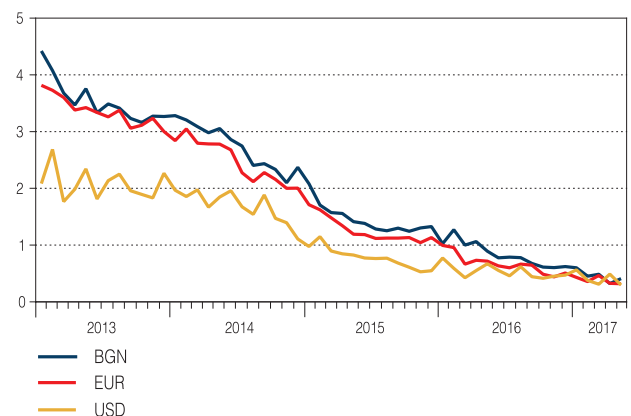
(per cent)

### a) by sector



Note: The average interest rate is calculated for all sectors, maturities and currencies weighted by the relevant volumes of new deposits. The average interest rates for non-financial corporations and households are calculated for maturities and currencies weighted at their respective new deposit volumes.

### b) by currency

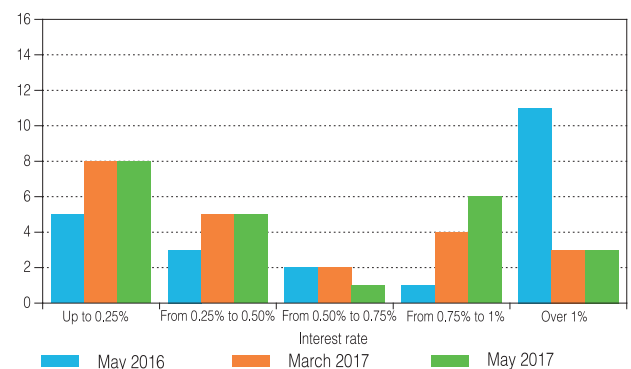


Note: The average interest rate is calculated for all sectors and maturities at their respective new deposit volumes.

Source: the BNB.

## Distribution of Interest Rates on New Household Time Lev Deposits

(frequency – number of banks)



Source: the BNB.

nounced downward trend. The decline in consumer and housing loans was similar in the first five months of 2017 and was slightly below 0.5 percentage points. Declines in both housing and consumer loans were mainly due to the downward dynamics of the interest rate component of costs, while the implicit rate of non-interest service charges was only minor. In May the APRC applied to housing loans was 4.9 per cent and that applied to consumer loans 10.5 per cent.<sup>30</sup>

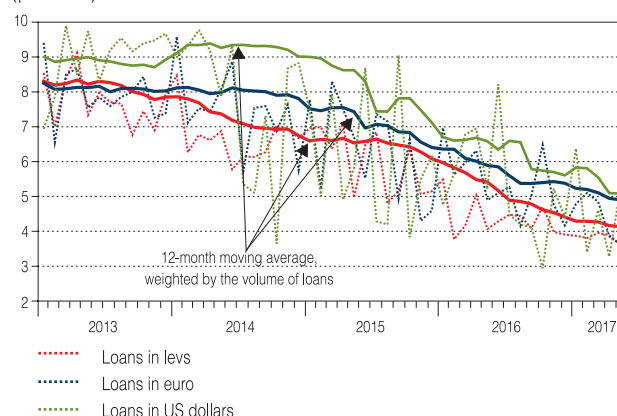
In May 2017 the breakdown of average weighted interest rates on new housing euro loans showed ranges of up to 4.0 per cent and from 4.0 to 5.0 per cent. In May the standard deviation increased by 26 basis points to 1.0 per cent compared with March 2017. In May the average interest rate on new housing euro loans decreased by 8 basis points compared with March 2017 to reach 4.3 per cent.

In the second half of 2017 new time deposit and lending rates are expected to fluctuate around the attained levels. Factors favouring low interest rates are associated with the large amount of attracted funds in the banking system and high bank liquidity, as well as the competition in the banking sector. An additional factor for keeping interest rates in the Bulgarian banking system at the attained levels reflects the expectations for retaining ECB interest rates unchanged over the forecast horizon.

In the second quarter of 2017 long-term government securities yields in the primary market remained at previous quarter's levels, while yields of medium-term government securities tended to decline further. The average annual yield of the issue with an original maturity of four years fell to 0.11 per cent and 0.05 per cent at the auctions in April and June (from 0.18 per cent in the first offering of the issue in February). Given the relatively weak demand in the long-term end of the maturity curve the average annual yield attained at the May government securities auction with a maturity of ten years and six months was 1.78 per cent (by comparison the average weighted yield of the auctions in January and March was 1.79 per cent).

<sup>30</sup> Values indicating APRC and interest rates are the weighted average of the interest rates on household, consumer and housing loans on a 12-month basis.

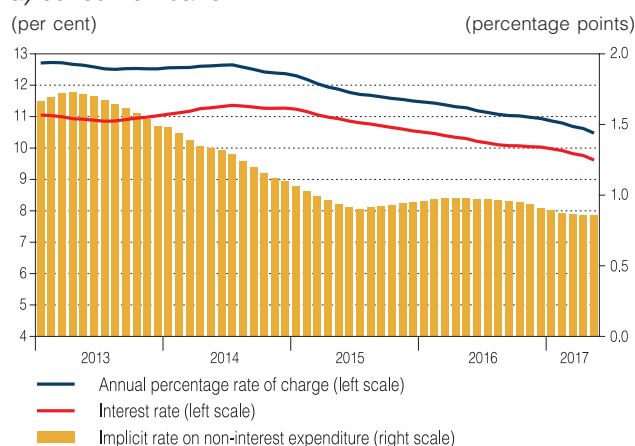
### Interest Rates on New Loans to Non-financial Corporations by Currency



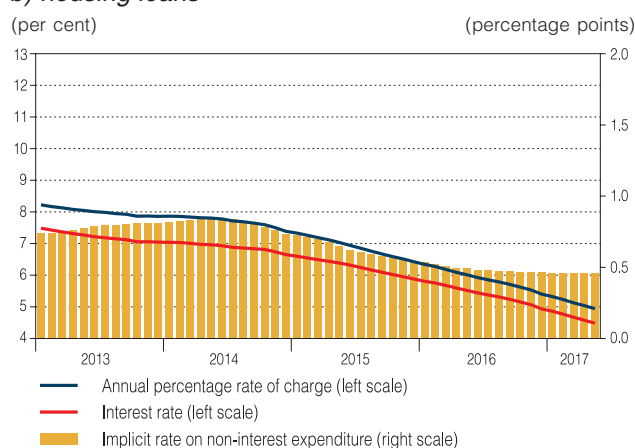
Source: the BNB.

### 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. Implicit rate is the difference between the APRC and the relevant interest rates and reflects the approximate rate of all non-interest service charges on loans (including fees and commissions).

Source: the BNB.

Demand for government securities in the secondary market in April and May remained high in the context of the current high banking sector liquidity, the negative net issue of government securities in the first half of the year (BGN 364.5 million) and the expected additional financial resources due to Eurobonds maturing in July 2017, 60 per cent of which held by residents.<sup>31</sup> Following a slight increase in April, in May the long-term interest rate for convergence purposes remained at a similar level, accounting for 1.74 per cent (against 1.75 per cent on average for the first quarter of the year). Over the second quarter a decline was also observed in the yields of Bulgarian Eurobonds issued in international capital markets. The decline was stronger in short-term securities and was due to both strong demand from residents,<sup>32</sup> supported by internal factors mentioned above and the positive developments in EU countries. The expectations for the ECB interest rate policy to remain unchanged for an extended period of time and reduced political uncertainty after the presidential and parliamentary elections in France led to a decrease in long-term interest rates in most Member States, which was most significant for government securities of France and periphery EU countries.

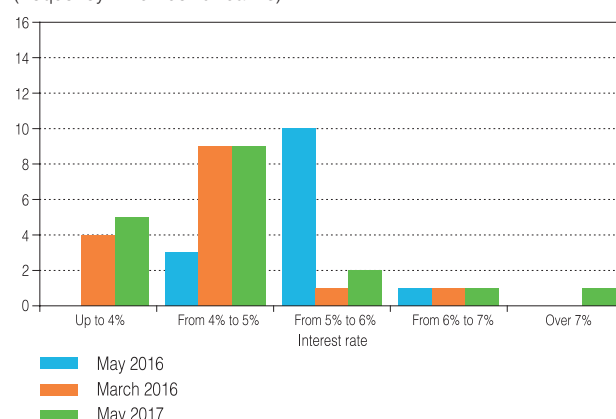
In the second half of 2017 Bulgarian government bond yields are expected to remain at current low levels, with a possible further decline caused by the same factors, which also determine the current strong resident demand. Government bond supply will remain subdued in line with preliminary announced parameters of the issuing policy, stable budget position and high liquidity buffers of the government.

<sup>31</sup> Based on information from the MF Central Government Debt and Guarantees Monthly Bulletin as of 31 March 2017 concerning Eurobonds maturing in July 2017 held by residents.

<sup>32</sup> Based on the MF Central Government Debt and Guarantees Monthly Bulletin as of 31 March 2017 the amount of Eurobonds held by residents rose by BGN 415.6 million compared with December 2016.

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

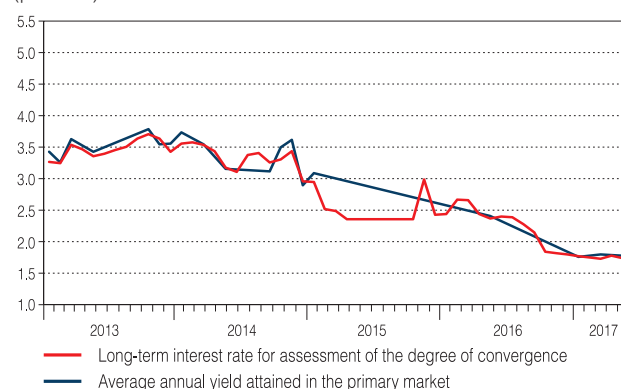
(frequency – number of banks)



Source: the BNB.

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

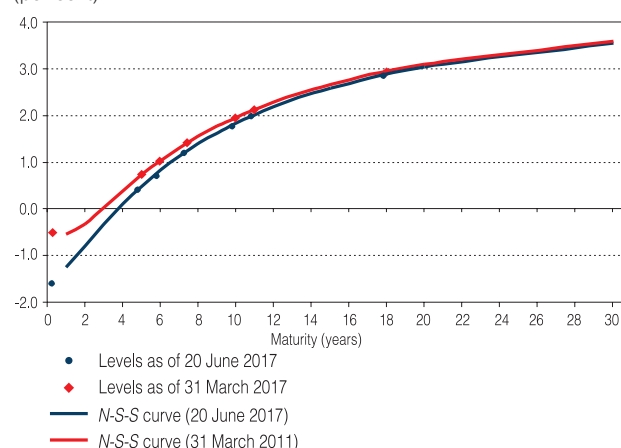
(per cent)



Source: the BNB.

## Reference Government Securities Yield Curve in Bulgaria

(per cent)



Notes: The reference yield curve of Bulgarian government securities is based on BNB own calculations according to modified methodology based on the models of Nelson–Siegel–Svensson (1994). The yield change refers to the previous quarter.

The chart employs daily data on the yields of 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.

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

Government revenue and expenditure policies and budget financing operations affect the allocation of liquidity among economic sectors.

In the first quarter of 2017 the non-government non-bank sector was the main source of liquidity to the budget, with tax and non-tax revenue exceeding the funds re-channelled to this sector in the form of non-interest expenditure. Net flows from the external sector were also positive as a result of reimbursed funds from the EC under the EU Common Agricultural Policy (BGN 635.0 million) and current and capital grants (BGN 367.8 million) over the outgoing payments on the contribution to the EU budget (BGN 213.7 million) and interest to non-residents (BGN 137.5 million).<sup>33</sup>

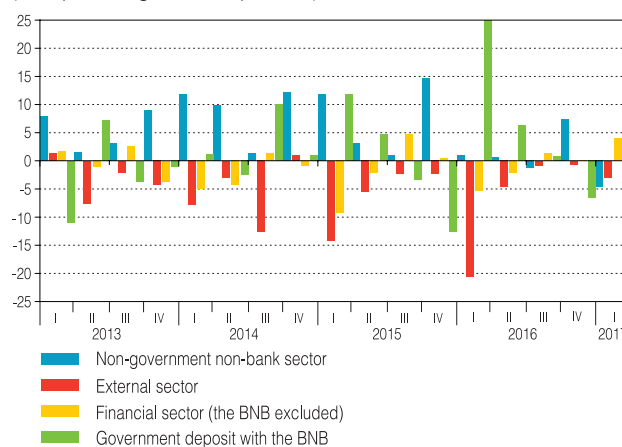
In the first quarter of 2017 the financial sector was a net beneficiary of liquidity from the budget mainly due to domestic market government securities transactions (a negative net issue of government securities in the amount of BGN 574.5 million) and interest paid on government securities held by the sector issued on domestic and international capital markets (BGN 253.8 million). Liquidity flows to the budget from the external and non-government non-bank sector exceeded interest and principal payments on maturing government securities to the financial sector. As a result the government deposit with the BNB increased by BGN 744.4 million in the first quarter of 2017.

Preliminary monthly data of June suggest that in the second quarter of 2017 the financial and external sectors will be sources of relatively low amount of liquidity for the budget, reflecting the positive net issue of government securities over the period (BGN 210 million) and the inflow of funds under EU programmes. These funds will contribute mainly to the expected increase in the government deposit in the second quarter.

Developments in the financial flows generated in the process of interacting external and internal

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

(as a percentage of GDP, per cent)



Sources: the MF, the BNB.

<sup>33</sup> Interest payments to non-residents are estimated by adjusting external interest expenditure with payable interest to residents calculated on the basis of the amount of Eurobonds held by residents based on data from the MF Central Government Debt and Guarantees Monthly Bulletin as of 31 March 2017.

factors contributed to the decrease in gross international reserves compared with December 2016. As of May 2017 the market value of international reserves (assets on the BNB Issue Department balance sheet) amounted to EUR 23.6 billion (BGN 46.3 billion) posting a decline by EUR 232 million compared with the end of the previous year. According to the currency board principles, the decrease in international reserves corresponds to the decrease in the Issue Department balance sheet liabilities. Lower liabilities to other depositors and decreased banks' reserves with the BNB contributed most strongly to the decline in liabilities in the first five months of 2017.

In the second half of 2017 total banks' reserves with the BNB are projected to slightly fall due to a decrease in excess reserves. According to government plans, part of available funds in the government deposit with the BNB will be spent on payments of government securities issued in international capital markets and maturing in July 2017. Provided the deficit under the consolidated fiscal programme corresponds to the fiscal target set in the 2017 budget forecast, the government deposit may further decrease until the end of 2017. Currency in circulation is expected to grow further at high though moderating rates, reflecting private consumption growth and deposit rates retained at current low levels.

### 3. ECONOMIC ACTIVITY

In the first quarter of 2017 real GDP increased by 0.9 per cent on a quarterly basis. Domestic demand had the major contribution to growth, while net exports contributed negatively.

Short-term economic indicators for the first half of 2017 give optimistic signs about the economic development. The improvement of labour market conditions, increasing domestic and external demand for goods and services and retention of comparatively low oil prices favour the creation of conditions for increasing investment activity and private consumption. Reflecting these factors, quarterly GDP growth is expected to retain its upward trend in the second half-year, driven largely by domestic demand. Balanced risks to the external environment and a possible stronger than expected increase in government investments create prerequisites for improvements in domestic investment activity and higher than expected economic growth in the second half-year.

#### Current Economic Environment

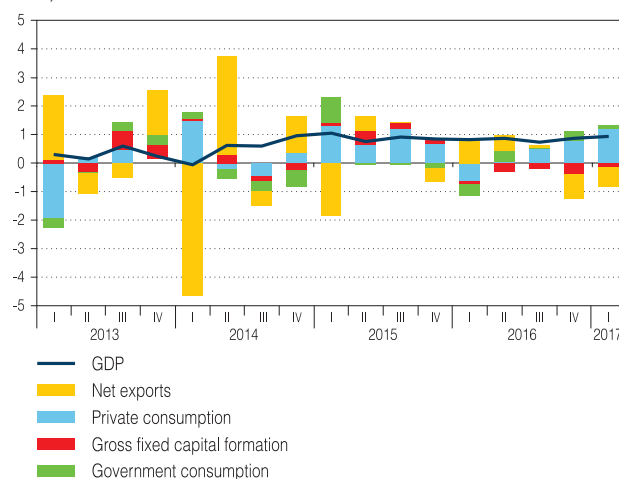
In the first quarter of 2017 real GDP grew by 0.9 per cent<sup>34</sup> on a quarterly basis, at a rate similar with that observed in the previous two years. The trend towards a gradual increase of domestic demand contribution, which started in 2016, continued at the beginning of 2017, while the contribution of net exports contracted driven by the accelerated growth in imports of goods and services along with the continued growth in exports. As a result, private consumption, and to a lesser extent, government consumption, contributed positively to growth in the first quarter of 2017, while net exports and investment in fixed capital contributed negatively. According to BNB calculations (using quarterly non-financial accounts of the general government sector and reports on the implementation of the Consolidated Fiscal Programme, published by NSI and MF respectively), the quarter-on-quarter decline in investment in fixed capital was due to the lower government investment over the quarter, while private investment increased.

The NSI business surveys tracking firms and households' sentiment measured by the business climate in Bulgaria and consumer confidence, suggest that they continue to improve in the second quarter of 2017. Positive develop-

<sup>34</sup> The quarter-on-quarter analysis in this Chapter employs seasonally adjusted data, unless otherwise indicated. The seasonal adjustment of indicators, on which the NSI or Eurostat do not officially publish seasonally adjusted data, was made via the TRAMO SEATS or OxMetrics programme by using automated set up for diagnostics and optimisation of adjustment parameters.

#### Contribution to GDP Growth by Final Use Component

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

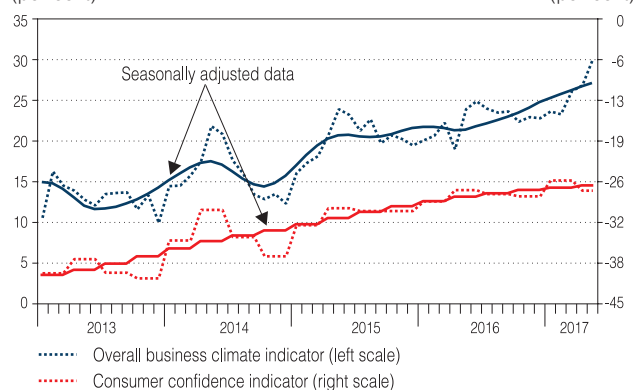


Note: Non-additive data due to direct chain-linked and seasonal adjustment of GDP and its components; the contribution of the change in inventories has not been included.

Sources: the NSI, BNB calculations.

#### Business Climate and Consumer Confidence

(per cent)



Sources: the NSI, BNB calculations.

ments were observed also in the expectations about future economic activity in the following three months, with a significant improvement in construction and manufacturing. All sectors reported also an increase in the share of enterprises planning to increase their staff in the following three months.

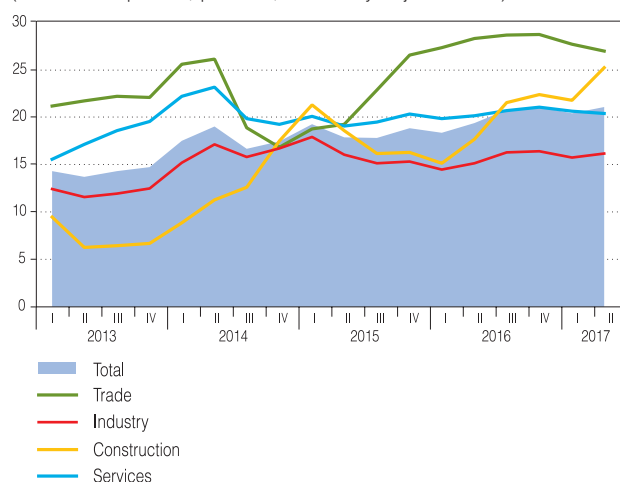
Growing capacity utilisation in manufacturing against the backdrop of the increased production indicates that firms will continue to expand their investment activity and recruit staff. The uncertain economic environment in the first half of 2017 remained an important factor hampering business activities, but the share of firms opting for this answer declined. As regards factors limiting the activities of the largest share of enterprises, there is a shift in the leading position of the uncertain economic environment in favour of competition in the trade and services sectors.

The expansion of investment activity and the increase in the costs of enterprises, together with the improving economic environment are expected to help boost households' income and improve their sentiment. As a result, private consumption is expected to continue to increase on an annual basis until the end of 2017, with a close to zero quarterly rate of change.

In 2017 government consumption contribution to real GDP growth is expected to be higher than in 2016. Taking into account data on government consumption growth in the first quarter of 2017, we expect a lower negative contribution of this component to the quarter-on-quarter real GDP growth in the second half-year. The

## Expectations about Future Economic Activity

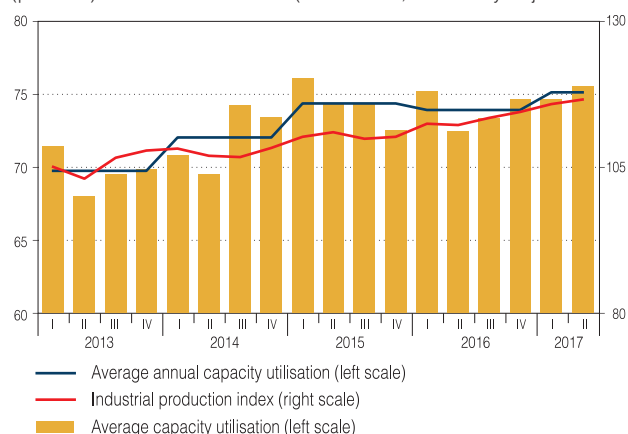
(balance of opinions, per cent; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Industrial Production Index and Production Capacity Utilisation in Industry

(per cent) (2010 = 100; seasonally adjusted data)



Note: Data on the industrial production index for the second quarter of 2017 relate to April.

Sources: the NSI, BNB calculations.

## Real GDP Growth by Final Use Component

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

	2014				2015				2016				2017
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I
Consumption incl.	2.3	-0.7	-1.1	-0.3	2.9	0.7	1.5	0.7	-1.5	0.5	0.5	1.3	1.9
Household consumption	2.4	-0.3	-0.7	0.6	2.0	1.0	1.8	1.1	-0.9	0.1	0.7	1.3	1.9
Government final consumption expenditure	2.7	-2.4	1.2	-5.3	2.7	2.2	-1.6	-0.1	0.1	0.9	0.8	1.4	1.3
Collective consumption	-0.4	-0.8	-2.6	-0.9	3.2	-0.9	0.0	-0.5	-2.7	1.1	0.6	1.7	0.5
Gross fixed capital formation	0.4	1.3	-0.9	-1.1	0.6	2.3	0.9	0.9	-0.4	-1.4	-0.9	-1.8	-0.6
Exports of goods and non-factor services	-2.8	5.1	1.6	3.8	1.4	-0.6	-1.7	3.0	1.8	1.4	3.0	0.5	0.9
Imports of goods and non-factor services	4.7	-0.7	2.4	1.8	4.2	-1.4	-1.8	3.7	0.5	0.5	2.7	1.7	1.9
GDP	0.0	0.6	0.6	1.0	1.1	0.8	0.9	0.9	0.8	0.9	0.7	0.9	0.9

Source: the NSI.

expected increase in government investment will also contribute to overall growth in the economy in the second half of 2017.

With growing external demand exports growth is expected to outstrip that of imports thus exhausting the negative contribution of net exports to overall economic growth in the second half of 2017.

In the second half of 2017 real GDP growth is expected to accelerate on a quarter-on-quarter and annual basis as a result of the accelerating domestic demand.

Risks regarding consumption and investment outlook are for a higher growth due to the possibility of stronger government investment and consumption growth than that projected by the BNB.

## Exports and Imports of Goods and Services

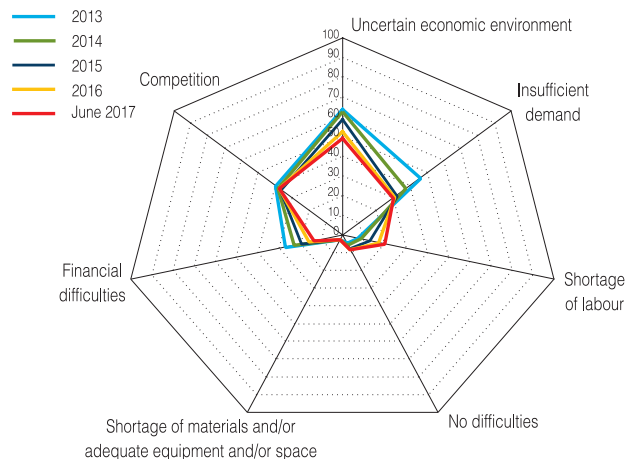
In the first quarter of 2017 nominal exports of goods increased by 14.8 per cent on an annual basis and nominal imports of goods by 21.0 per cent respectively.<sup>35</sup> According to non-seasonally adjusted GDP data, in the first quarter of 2017 real annual growth in exports of goods came to 9.0 per cent on an annual basis, while real imports of goods increased by 13.1 per cent. Cross-checking the changes in exports and imports of goods in nominal and real terms suggests that the dynamics of global prices over the quarter has contributed further to nominal growth of international trade flows. Balance of payments data indicate a retained upward trend in the nominal exports and imports of goods in April 2017.

In the second half of 2017 real exports and imports of goods are expected to continue to increase on an annual basis, with growth in imports outpacing that in exports. Real exports of goods will reflect the expected increase in external demand. Real imports dynamics shall be determined by the projected annual investment and private consumption growth in Bulgaria. The anticipated increase in global prices of major commodity groups in the second half of 2017 will also have a positive effect on nominal exports and imports growth.

<sup>35</sup> Foreign trade data.

## Factors Hampering Business Activities

(relative share of all corporations)



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

Sources: the NSI, BNB calculations.

## Net Exports of Commodity Groups by Use, January–March 2017

	Balance (EUR million)	Change* (EUR million)	Exports Growth**, (per cent)	Imports growth** (per cent)
Consumer goods	120.0	-70.4	5.7	11.7
Raw materials	-266.5	-30.4	15.7	15.4
Investment goods	-248.5	-51.9	12.1	13.9
Energy resources	-490.9	-282.1	53.8	81.2
Other imports	-23.0	-1.8	8.2	8.2
<b>Total</b>	<b>-909.0</b>	<b>-436.5</b>	<b>14.8</b>	<b>21.0</b>

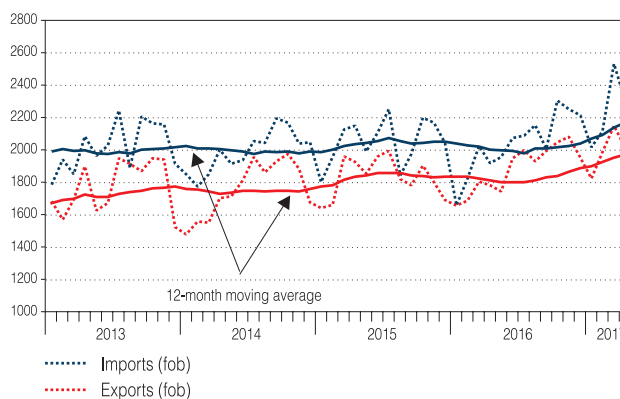
\* Balance change on the same period of previous year.

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

Source: the BNB.

## Exports and Imports of Goods Dynamics

(EUR million)



Source: the BNB.

Based on balance of payments data for the first four months of 2017, exports of services has declined on an annual basis while imports of services has increased slightly on the corresponding period of 2016. According to national accounts data for the first quarter of 2017, this dynamics was due to the fall in real export volumes, while the reported growth in imports of services reflected the increase in the price component.

In the second half of 2017 the number of visits of foreign citizens to Bulgaria is expected to rise and to contribute to an increase in real exports of tourist services on an annual basis. At the same time, if the trend toward an increase in the travel of Bulgarian citizens abroad continues and if the projected increase in domestic demand materialises, real exports of tourist services is expected also to improve over the forecast horizon.

In the first quarter of 2017 exports to EU Member States increased by 12.2 per cent on an annual basis reflecting the improvement of EU economic activity. Exports to Belgium, Germany and the Netherlands contributed most markedly to growth. Exports of metals<sup>36</sup> and machines<sup>37</sup> contributed most significantly to the dynamics of exports to EU Member States by commodity group. Exports to non-EU countries also increased significantly on an annual basis in the first quarter of 2017 (20.1 per cent). A major factor behind this were stronger exports of metals and mineral fuels.<sup>38</sup> By country, Turkey and China had the largest contribution to the growth of trade with non-EU countries. In the first quarter of 2017 the share of exported goods to EU Member States decreased slightly at the expense of that to non-EU countries to reach 65.1 per cent.

In the first quarter of 2017 nominal exports of all commodity groups under the Combined Nomenclature grew year-on-year, with exports of machines and metals having the largest positive contribution. Growth in nominal exports of goods

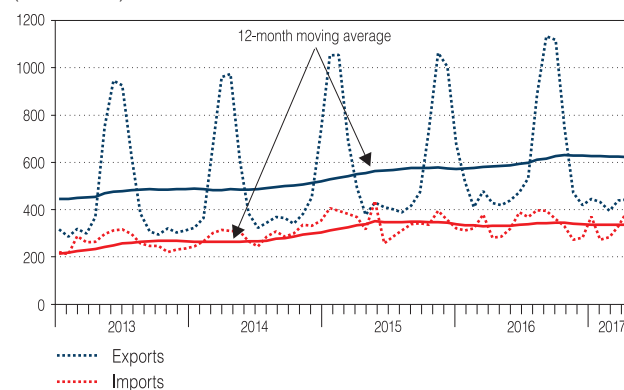
<sup>36</sup> In this Chapter, it should read the base metals and their products group under the Combined Nomenclature.

<sup>37</sup> In this Chapter, it should read the machines, vehicles, appliances, instruments and weapons group under the Combined Nomenclature.

<sup>38</sup> In this Chapter, it should read mineral products and fuels group under the Combined Nomenclature.

## Exports and Imports of Services Dynamics

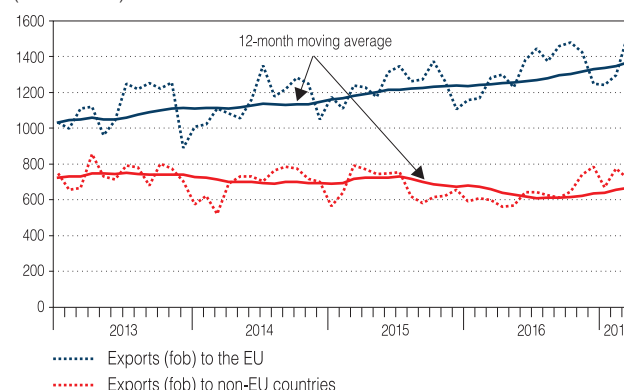
(EUR million)



Source: the BNB.

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

(EUR million)



Source: the BNB.

## Exports by Commodity Group, January–March 2017

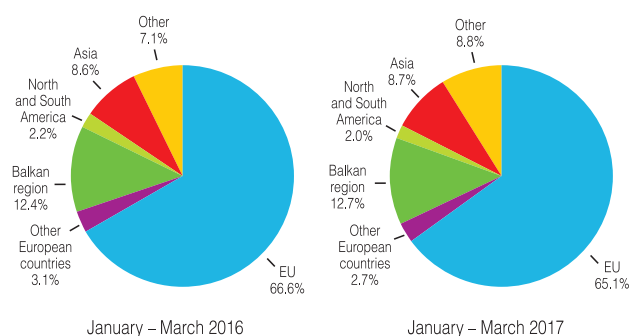
	EUR million	Change* (EUR million)	Growth** (per cent)	Contribution**, (percentage points)
Wood products, paper, ceramics and glass	301.6	5.8	2.0	0.1
Machines, vehicles, appliances, instruments and weapons	1684.0	161.7	10.6	3.0
Mineral products and fuels	686.5	154.5	29.0	2.9
Base metals and related products	1077.2	361.6	50.5	6.7
Animal and vegetable products, food, drinks and tobacco	847.7	28.3	3.5	0.5
Textiles, leather, clothing, footwear and other consumer goods	839.9	17.4	2.1	0.3
Chemical products, plastics and rubber	779.8	73.2	10.4	1.4
<b>Total exports</b>	<b>6216.7</b>	<b>802.4</b>	<b>14.8</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.

## Exports of Goods Geographical Breakdown



Source: the BNB.

continued the trend observed over the past years, reflecting the improving competitiveness of the Bulgarian economy. An indicator for this is the increasing market share of Bulgaria in both global and EU trade. Against the backdrop of rising unit labour costs over the recent years, it can be concluded that improving competitiveness was largely attributable to non-price factors.

Between January and March 2017 exports of machines increased sizeably on an annual basis – a trend observed also in 2016. Exports of machines dynamics in the first quarter of 2017 was due to higher exported volumes, whereas a decline in prices was observed<sup>39</sup>. Nominal exports to non-EU countries saw a more significant increase. Exports of machines are expected to continue to increase in the second half of 2017 driven by enhanced external demand.

In the first quarter of 2017 a trend towards an increase in nominal exports of energy products formed, driven largely by the annual rise of petroleum products prices.<sup>40</sup> Exports to both EU Member States and non-EU countries saw an increase on an annual basis. Taking into account the annual increase in global prices of petroleum products in the second half of 2017, exports of mineral products is projected to continue to increase in nominal terms.

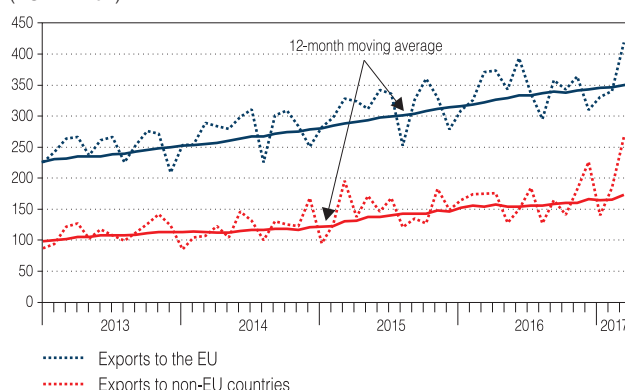
Exports of base metals saw the most sizeable annual growth in total annual exports of goods

<sup>39</sup> The 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 quarter of 2017.

<sup>40</sup> The 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 quarter of 2017.

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

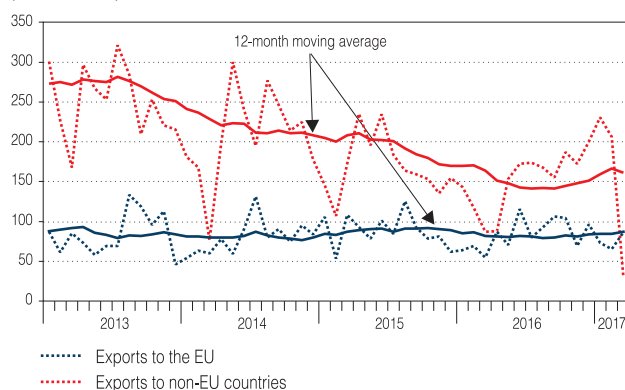
(EUR million)



Source: the BNB.

## Exports of Mineral Products and Fuels

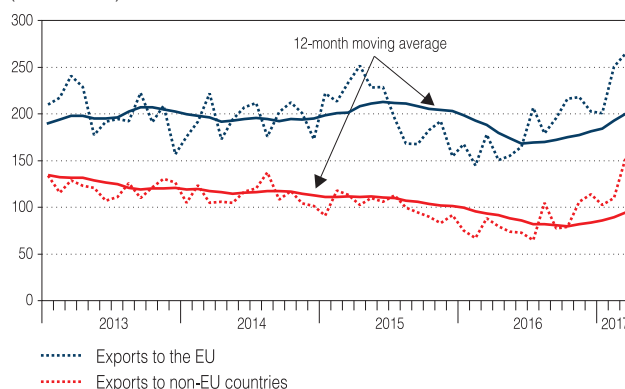
(EUR million)



Source: the BNB.

## Exports of Base Metals and Related Products

(EUR million)



Source: the BNB.

over the first quarter of 2017. This was partly due to the recovery in the manufacturing of copper products after the repair works and expansion of production capacity in a key sector undertaking.<sup>41</sup> Metal prices which increased<sup>42</sup> sizeably on an annual basis over the first quarter of 2017 had an additional positive effect. By geographical distribution exports of metals to both EU Member States and non-EU countries increased over the period. Exports to Belgium and Germany contributed most significantly to growth in this group. As a result of the projected rise in metal prices on an annual basis, nominal exports of metals are expected to continue to increase in the second half of 2017.

Nominal exports of animal and plant products saw a slight year-on-year growth in the first quarter of 2017. This reflected primarily higher prices and, to a lesser extent, higher exported physical volumes.<sup>43</sup> Growth in exports of animal and plant products was observed in both exports to EU and non-EU countries. Over the forecast horizon, nominal exports of the group increased on an annual basis driven by higher external demand.

Exports of chemical products<sup>44</sup> for the January to March 2017 period increased on an annual basis for both EU and non-EU countries. Nominal growth of exports of this group was the result of exported larger physical volumes.<sup>45</sup> In the second half of 2017 the trend towards an increase in exported physical volumes is expected to continue to have a positive effect on the exports of chemical products.

According to balance of payments data, in the January to April 2017 period exports of services decreased by 2.8 per cent year-on-year, mainly due to the decline in the other services sub-item. However, visits of foreign nationals to

<sup>41</sup> According to the press release published on 10 May 2016 on the Aurubis web site: <http://bulgaria.aurubis.com/news-and-publications/press-releases/aurubis-reports-good-half-year-results/>

<sup>42</sup> The quarterly export deflators for the precious and other non-ferrous metals under SITC were used to estimate the price effect in the first quarter of 2017.

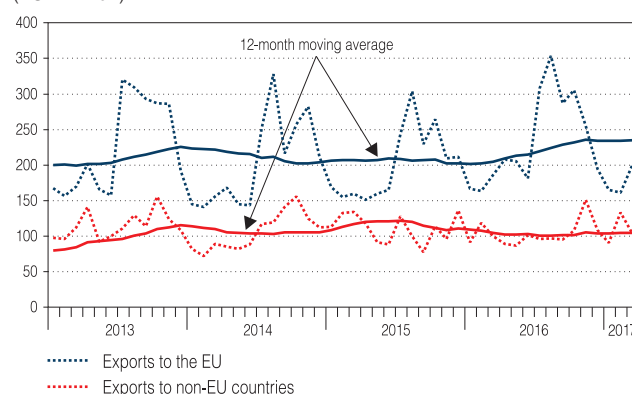
<sup>43</sup> The quarterly export deflators for the food and live animals group under SITC were used to estimate the price effect in the first quarter of 2017.

<sup>44</sup> The chemical products, plastics and rubber group under the Combined Nomenclature.

<sup>45</sup> The quarterly export deflators for the chemicals and chemical products group under SITC were used to estimate the price effect in the first quarter of 2017.

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

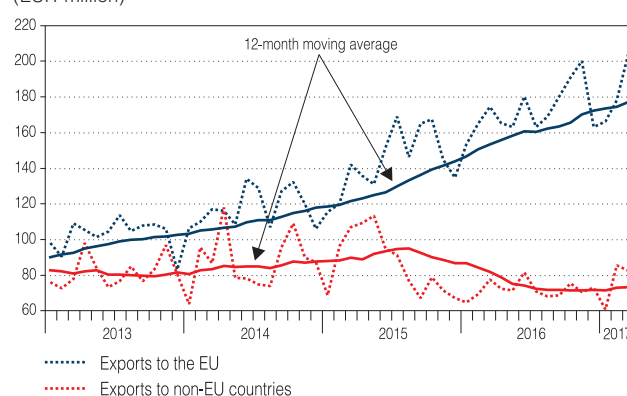
(EUR million)



Source: the BNB.

## Exports of Chemical Products, Plastics and Rubber

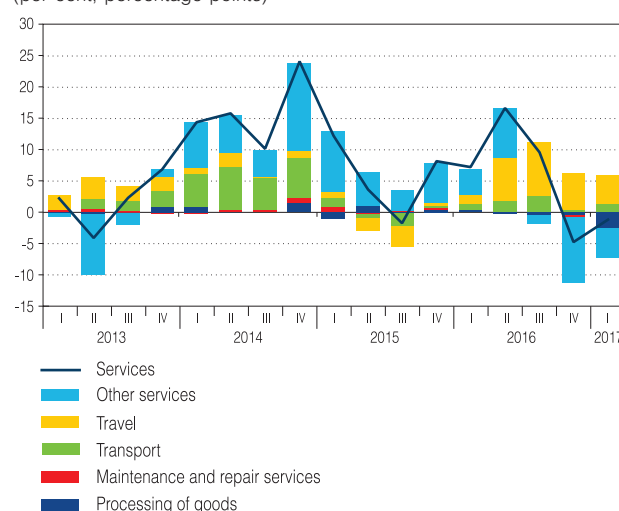
(EUR million)



Source: the BNB.

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

(per cent, percentage points)



Source: the BNB.

Bulgaria increased by 17.8 per cent on annual basis over the period. According to NSI data visits of foreign nationals to Bulgaria in the first four months of 2017 increased by 15.9 per cent on the corresponding period of 2016, mainly due to the visits from Romania, Greece and Turkey.

In the January to March 2017 period nominal imports of goods increased on an annual basis due both to higher imported physical volumes and higher import prices. Energy resources, followed by raw materials contributed most to nominal growth of goods by use, which could be explained by the price rise in these goods groups on international markets.

In the January–March 2017 period imports of goods from EU Member States rose by 11.0 per cent compared to January–March 2016 period, with imports from Romania and Germany having the most significant positive contribution. In the first quarter of 2017, imports from non-EU countries recorded an even higher growth than from EU Member States: 33.6 per cent on an annual basis. Imports from Russia consisting mainly of petroleum products had the largest positive contribution to this development and was strongly influenced by the commodity price rise. Over the period, the share of imports from EU countries declined on an annual basis to 50.9 per cent, whereas the share of imports from non-EU countries increased.

The 2016 downward trend in imports of energy resources was discontinued in early 2017. This was a result of the sizeable year-on-year increase in imported physical volumes in the first quarter of 2017. This group's dynamics reflected also higher international prices of petroleum products.<sup>46</sup> Imports from Russia contributed most to the growth of imports of petroleum products. As petroleum prices in both US dollars and euro are expected to rise, nominal imports of energy products is projected to continue to increase on an annual basis in the second half of 2017.

Imports of the raw materials group also went up on an annual basis in the first quarter of 2017 and had a significant positive contribution to

## Imports of Commodity Groups by Use, January–March 2017

	EUR million	Change* (EUR million)	Growth** (per cent)	Contribution** (percentage points)
Consumer goods	1508.6	157.8	11.7	2.7
Raw materials	2678.0	357.0	15.4	6.1
Investment goods	1779.1	217.6	13.9	3.7
Energy resources	1124.5	503.8	81.2	8.6
Other imports	35.5	2.7	8.2	0.0
<b>Total imports (cif)</b>	<b>7125.7</b>	<b>1238.9</b>	<b>21.0</b>	<b>-</b>

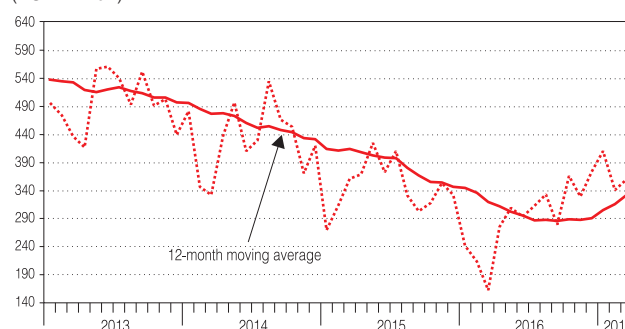
\* Change on the corresponding period of previous year.

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

Source: the BNB.

## Imports of Energy Resources

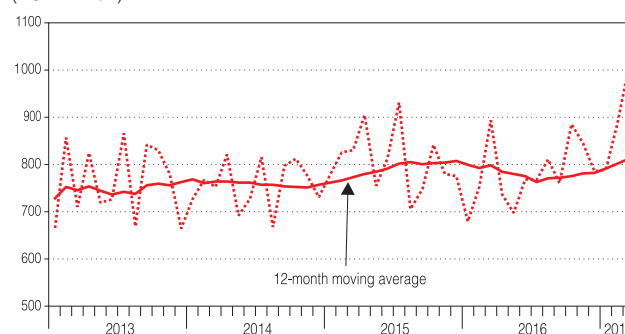
(EUR million)



Source: the BNB.

## Imports of Raw Materials

(EUR million)



Source: the BNB.

<sup>46</sup> The quarterly export deflators for the mineral fuels, oils and related products group under SITC were used to estimate the price effect in the first quarter of 2017.

overall nominal imports growth. The observed increase reflected both rising import prices and higher physical volumes<sup>47</sup>. Imports of metal ores had the largest positive contribution in nominal terms ascribable to the recovery in production in a key undertaking for the sector.<sup>48</sup> In the second half of 2017 imports of raw materials are expected to continue to increase driven by the year-on-year increases in the prices of major commodity groups on international markets.

The first quarter of 2017 saw also an year-on-year increase in the imports of consumer goods in line with growing consumer demand. Food and pharmaceuticals and cosmetics sub-groups had the largest contribution to growth. Given that private consumption increases, imports of the group are expected to continue to grow in the second half of 2017.

Nominal imports of investment goods went up on an annual basis in the first quarter of 2017, with the group's growth accelerating compared with 2016. In the first quarter of 2017 investment goods imports dynamics was in line with the observed annual growth in investment as indicated by non-seasonally unadjusted GDP data. The assessment of price changes shows that the increase in the group's imports was due to rising import prices and growing physical volumes.<sup>49</sup> Given the expected growth of investment in Bulgaria, our forecasts for the second half of 2017 point to a sustained upwards trend in nominal imports of investment goods.

According to balance of payments data for the January–April 2017 period imports of services rose by 0.4 per cent year-on-year, with higher expenses of Bulgarian residents travelling abroad contributing most significantly to this. According to NSI data, Bulgarians' visits abroad over the first four months of the year increased by 22.2 per cent on an annual basis, with visits to Greece, Romania and Serbia having the most significant contribution to growth.

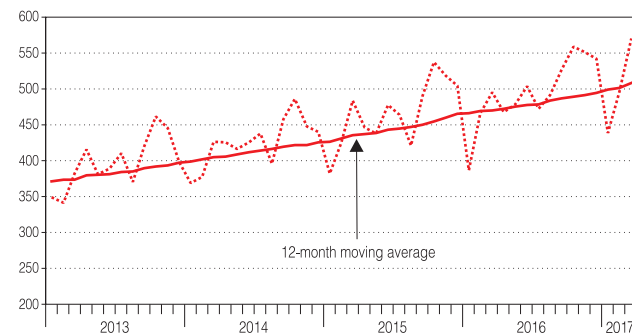
<sup>47</sup> The quarterly import deflators of the groups of food and live animals, inedible (crude) materials (excluding fuels); chemicals and chemical products and manufactured goods classified chiefly by materials under the SITC were used to estimate the price effect in the first quarter of 2017.

<sup>48</sup> See footnote 42.

<sup>49</sup> The quarterly import deflators for the machines, equipment and vehicles group under SITC were used to estimate the price effect in the first quarter of 2017.

## Imports of Consumer Goods

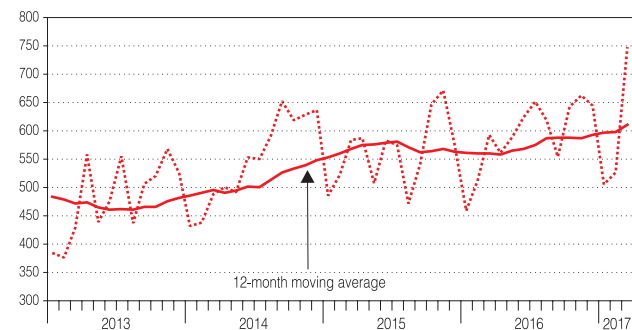
(EUR million)



Source: the BNB.

## Imports of Investment Goods

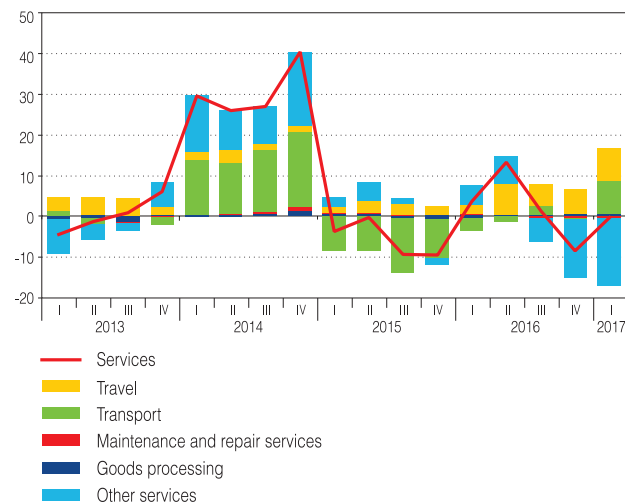
(EUR million)



Source: the BNB.

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

(per cent, percentage points)



Source: the BNB.

## Behaviour of Firms and Competitiveness

Real gross value added in the first quarter of 2017 continued to increase: up 1.2 per cent on a quarter-on-quarter basis compared with 0.9 per cent at the end of 2016. Value added in the agricultural sector fell slightly from the previous quarter and had almost neutral contribution to total value added growth, while services and manufacturing sectors had a positive contribution to it. The real value added in industry increased by 0.8 per cent, going up in both industry and construction. The positive trends recorded in the national accounts data were accompanied by a positive development as evidenced from the NSI short-term business statistics, where the industrial turnover and construction production indices improved on the previous quarter. Value added in the services sector reported a positive growth rate, mainly due to the trade sub-sector<sup>50</sup>. Over the same period retail trade turnover followed a similar dynamics, posting an increase on a quarter-on-quarter basis in the first quarter of 2017.

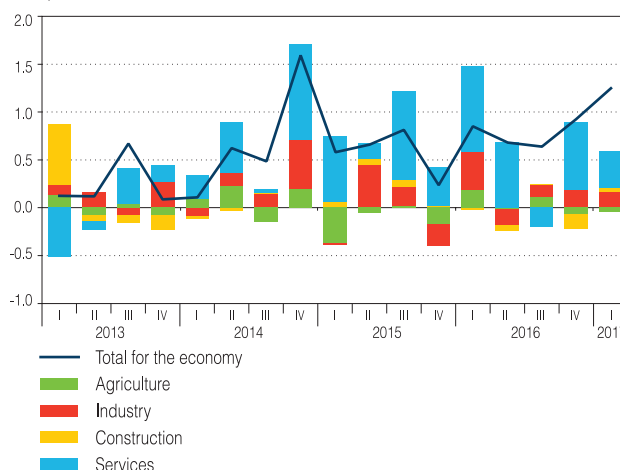
Available data from the NSI short-term business statistics for April suggest that value added growth rates will remain high also in the second quarter of 2017. In April the construction production index retained its upward dynamics observed since the beginning of the year. As a result of the high nominal turnover index in industry in the first three months of 2017, April saw a decline on a quarter-on-quarter basis on the monthly average data of the previous quarter owing largely to the decrease in real turnover on the external market. Over the same period trade turnover also declined on a quarterly basis.

According to NSI business surveys in the second quarter of 2017 firms' assessments with respect to the current and expected business situation are optimistic. Improved corporate expectations together with the limiting effect of the uncertainty about the economic environment point to an enhanced real growth of the economy in the second half of 2017.

<sup>50</sup> Trade, repair of motor vehicles and motorcycles, transport, storage and mail services, hotels and restaurants sector by A10 breakdown of economic activities.

## Value Added Growth and Contribution by Sector

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

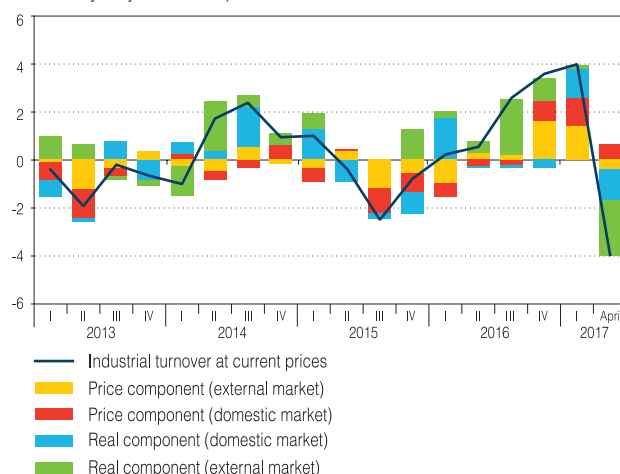


Note: Non-additive data on contributions due to direct seasonal adjustment of value added and its components.

Sources: the NSI, BNB calculations.

## Industrial Turnover Dynamics

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

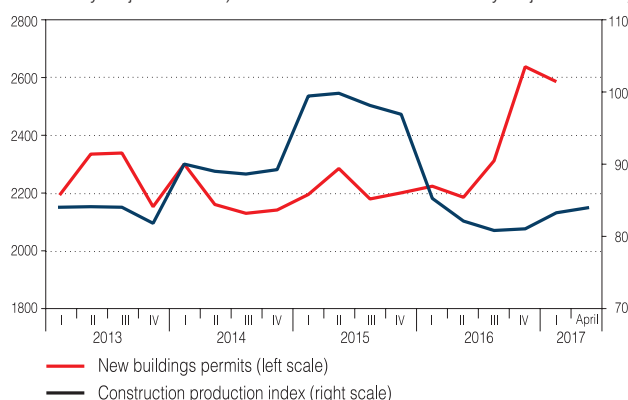


Sources: the NSI, BNB calculations.

## Construction Production Dynamics and New Buildings Permits Issued

(number of buildings; seasonally adjusted data)

(2010 = 100; seasonally adjusted data)



Sources: the NSI, BNB calculations.

Over the first quarter of 2017 overall employment in the economy retained its upward trend, posting an increase of 0.3 per cent on the previous quarter. The agricultural sector and industry contributed positively to overall growth, while services sector where employment continued to decline, mostly in trade, had a negative contribution. Firms' expectations about increased staffing and the continued increase in the number of job vacancies in the second quarter are indicative of the higher labour demand by enterprises. Accordingly, continued employment growth may be expected in the second half of 2017.

Labour productivity in total economy retained its upward dynamics in the first quarter of 2017, going up 0.7 per cent on the previous quarter. The increase in employment in the agricultural sector coupled with a slight decline in the value added resulted in reduced productivity in the sector, while in all other sectors productivity growth accelerated.

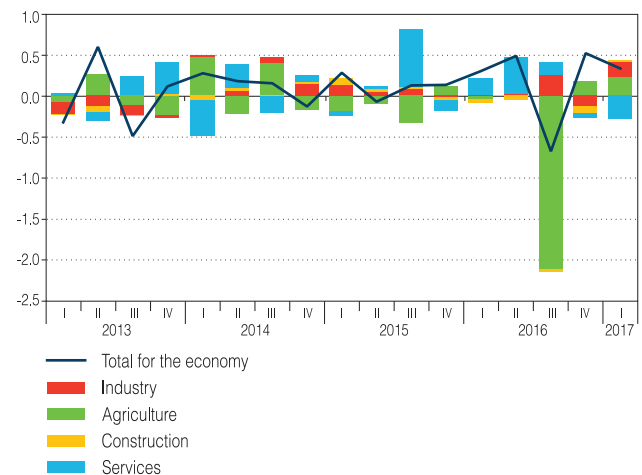
In the first quarter of 2017 nominal compensation *per* employee for the total economy accelerated its growth rate. The indicator increased in all sectors of the economy, with services reporting the highest quarter-on-quarter growth (5.8 per cent).

The upward dynamics in compensation *per* employee accompanied by the less pronounced increase in labour productivity in total economy prompted an increase in both nominal and real unit labour costs in the total economy over the third quarter of 2017. Over the same period unit labour costs in manufacturing remained at levels similar to those of the previous quarter reflecting the slower growth rate of compensation *per* employee in the sector.

As a result of the increase in goods and services prices, firms financial performance improved despite higher labour costs. In the first quarter of 2017 operating surplus in the total economy increased by 0.9 per cent on the previous quarter. The agricultural sector and industry contributed to gross operating surplus growth, whereas the services sector had a slight negative contribution.

## Contribution to Changes in the Number of Employed by Economic Sector

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

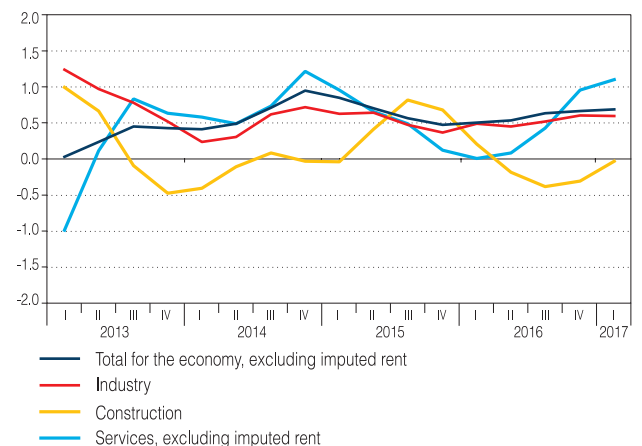


Note: Non-additive data on contributions due to direct seasonal adjustment of the total amount and its components.

Sources: the NSI, BNB calculations.

## Labour Productivity Developments (Value Added *per* Employee)

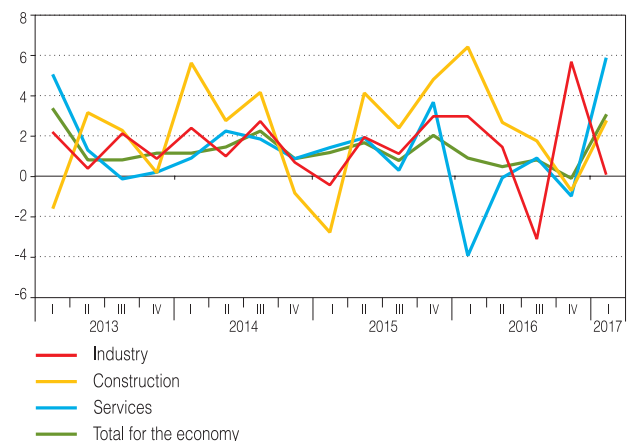
(per cent, quarter-on-quarter; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Compensation *per* Employee at Current Prices

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



Sources: the NSI, BNB calculations.

## Gross Value Added Growth

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

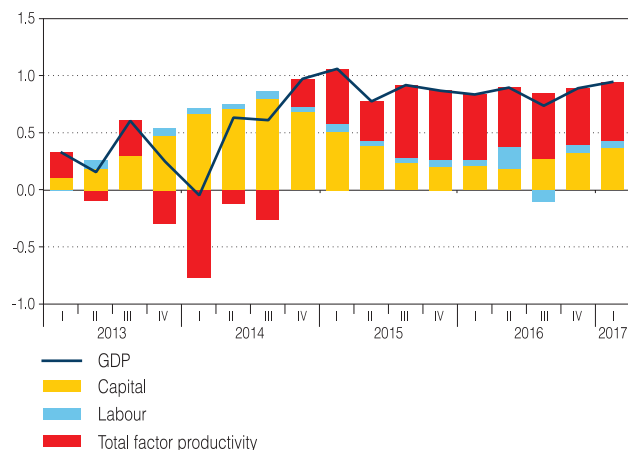
	2014				2015				2016				2017
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I
Agriculture, forestry, hunting and fishing	2.0	4.8	-3.0	4.1	-7.6	-1.1	0.4	-3.8	4.4	-0.2	2.6	-1.5	-1.1
Mining and quarrying, manufacturing; electricity, gas and water supply	-0.4	0.6	0.7	2.4	-0.1	2.0	0.9	-1.1	1.9	-0.8	0.6	0.9	0.7
Construction	-0.7	-0.4	0.2	0.2	0.9	1.1	1.3	0.4	-0.3	-0.9	0.1	-2.5	0.9
Wholesale and retail trade; repair of motor vehicles and motorcycles, transportation and storage; accommodation and food service activities	-1.0	1.4	0.2	1.7	1.7	1.8	1.8	0.9	1.9	1.1	0.8	1.5	1.0
Information and communications	0.1	0.3	0.6	1.5	-0.1	0.2	-0.4	1.0	2.9	3.5	-0.1	0.9	-1.2
Financial and insurance activities	0.9	2.1	-3.3	0.3	1.2	-6.4	5.4	0.4	1.3	1.3	-4.2	1.3	1.2
Real estate activities	0.7	-0.9	1.4	1.9	0.6	1.3	1.1	0.1	1.2	1.1	0.0	1.0	0.4
Professional, scientific and technical activities; administrative and support service activities	1.7	-1.0	0.4	1.5	3.7	2.5	0.6	2.0	0.3	-1.5	-0.6	1.8	1.1
Public administration and defence; compulsory social securities; education, human health and social work activities	2.0	1.1	-0.1	1.4	-0.1	-0.3	0.3	-0.3	0.0	0.1	0.0	0.1	0.8
Arts, entertainment and recreation, repair of household goods and other services	-2.7	2.5	2.4	1.2	0.2	0.6	-0.8	2.0	2.6	3.6	-0.5	0.8	-2.7
Gross value added, total for the economy	0.1	0.6	0.5	1.6	0.6	0.7	0.8	0.2	0.9	0.7	0.6	0.9	1.2

Source: the NSI.

In the first quarter of 2017 total factor productivity remained the main contributor to GDP growth in the breakdown by production factor. The positive contribution of capital continued to reflect high capacity utilisation and labour also contributed positively to growth as a result of growing employment in the total economy.

## Contribution of Changes in Production Factors to GDP Growth

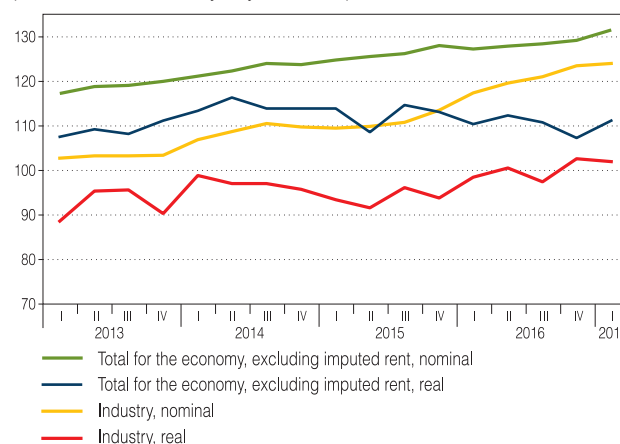
(per cent, percentage points, quarter-on-quarter; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Unit Labour Costs

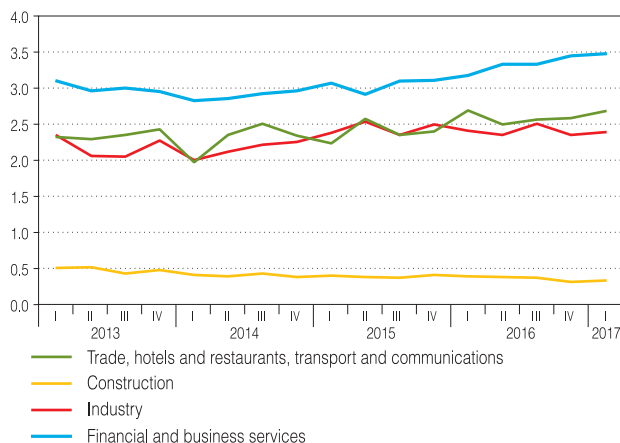
(2010 = 100; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Gross Operating Surplus at Current Prices

(BGN billion; seasonally adjusted data)



Sources: the NSI, BNB calculations.

## Household Behaviour

Improving labour market in the first quarter of 2017 is an important factor that will continue to support consumer demand growth.

According to the NSI Labour Force Survey<sup>51</sup> in the first quarter of 2017 labour supply measured by the labour force dynamics increased. Labour force participation rate<sup>52</sup> increased on the previous quarter reflecting participation in the labour force, due partly to the increase in the pensionable service and growing labour income. Recovering labour demand, measured by the improved business expectations about the number of personnel, is expected to motivate working-age population to join labour force in the following quarters.

The Labour Force Survey<sup>53</sup> shows that in the first quarter of 2017 the unemployment rate continued to decline and reached 6.9 per cent according to seasonally adjusted data (and 6.9 per cent according to non-seasonally adjusted data), due to the lower number of long-term unemployed (unemployed for more than a year). The seasonally adjusted unemployment rate<sup>54</sup> calculated using the Employment Agency data also continued to decrease, reaching 7.2 per cent in May 2017 (7.1 per cent according to non-seasonally adjusted data).

The increase in the minimum insurance thresholds and minimum wage<sup>55</sup> of early 2017 and improving economic activity contributed to the increase in household labour income in the first quarter of 2017 (both annually according to non-seasonally adjusted data on wage bill

<sup>51</sup> The labour force (currently economically active population) comprises persons aged 15 and older who provide the supply of labour for the production of goods and services. Labour force includes both employed and unemployed persons.

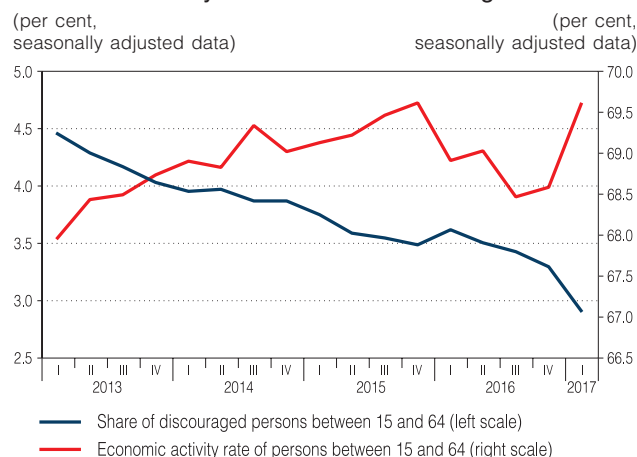
<sup>52</sup> Labour force participation rate is the proportion between economically active persons (labour force) and the population of the same age.

<sup>53</sup> Unemployment rate is the proportion between the number of unemployed and the labour force based on Labour Force Survey data.

<sup>54</sup> The definition of the unemployment rate according to the Employment Agency corresponds to that referred to in footnote 54, but using a constant rate of labour force comprising the number of persons in the respective age group since the last census of the population.

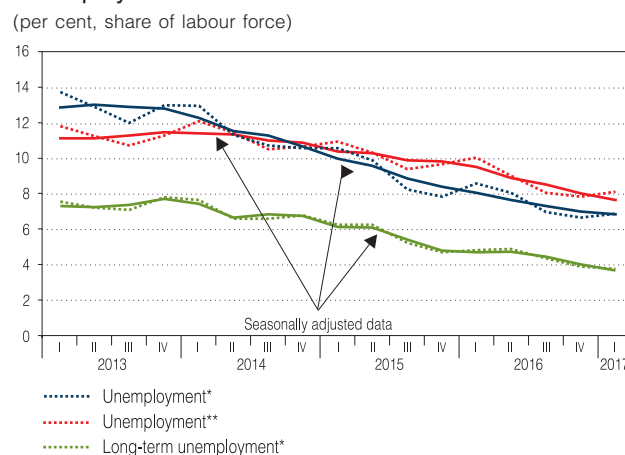
<sup>55</sup> As of 1 January 2017 the minimum wage was raised to BGN 460. In May the Supreme Administrative Court annulled the increase but the government is expected to submit a new decree.

## Economic Activity and Share of Discouraged Persons



Sources: the NSI Labour Force Survey, BNB calculations.

## Unemployment Rate



\* NSI data.

\*\* Employment Agency data.

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

and average wage *per* employee, and quarterly according to seasonally adjusted national accounts data).

Increasing household income and positive labour market developments were the major drivers behind the high consumer demand growth. According to national accounts data, household consumption continued to increase on both annual and quarterly basis in the first quarter of 2017. Over the period retail trade turnover also increased. Non-food goods accounting on average for two-thirds of total retail trade<sup>56</sup> contributed more significantly to this. A positive trend was observed also in consumer lending, with the amount of new consumer loans growing further in the first five months of 2017.

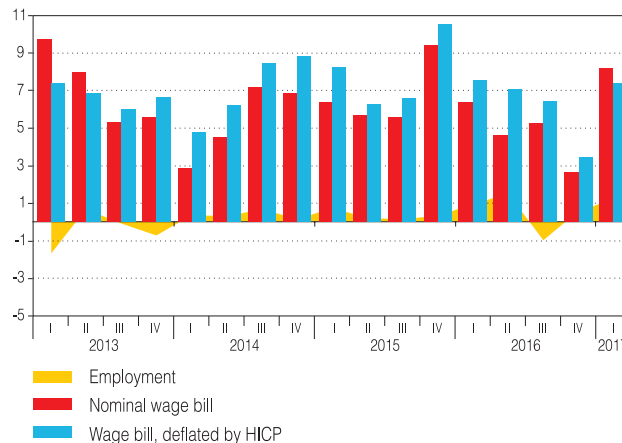
These factors combined with the expectations of continued increase in employment and growing household labour income could result in further growth of private consumption in the second half of 2017.

The household savings rate remained comparatively high and increased only slightly in the first quarter of 2017. The NSI Household Budget Survey data show that the share of savings in household disposable income continued to increase. The share of households, which intend to increase their savings in the following 12 months, remained also high (according to the NSI Consumer Survey of April 2017). In the first quarter of 2017 households' net assets measured through their net position *vis-à-vis* the banking system (based on BNB monetary statistics data) decreased slightly as a result of incurred new debt.

<sup>56</sup> According to the annual retail trade statistics (in thousands of BGN).

## Employment and Nominal Wage Bill

(annual change, per cent)

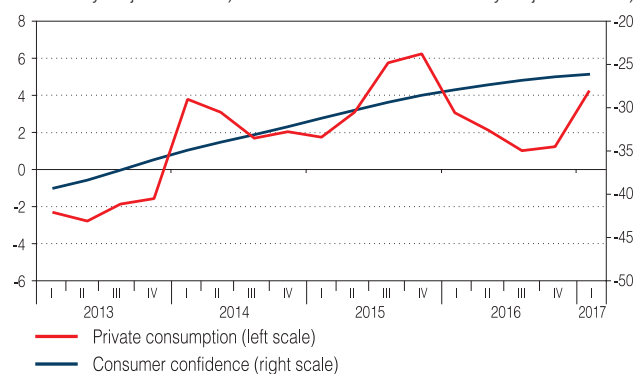


Sources: the NSI – SNA, BNB calculations.

## Private Consumption and Consumer Confidence

(annual change, per cent;  
seasonally adjusted data)

(per cent;  
seasonally adjusted data)

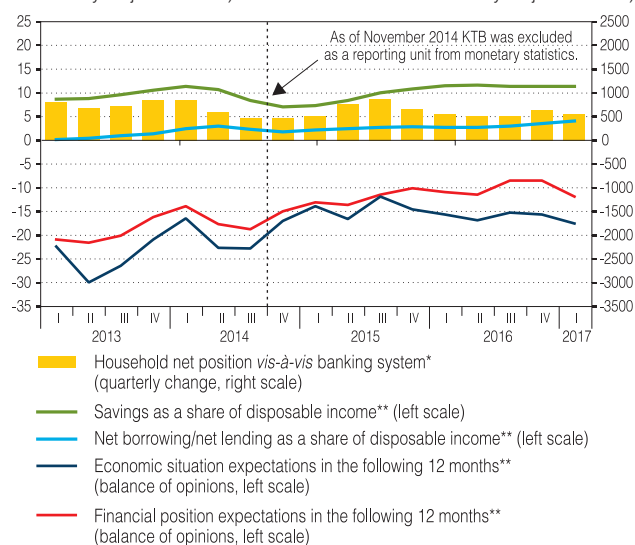


Sources: the NSI, BNB calculations.

## Household Propensity to Save and Expectations

(per cent;  
seasonally adjusted data)

(BGN million;  
seasonally adjusted data)



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

## Employment and Income Dynamics

	2013				2014				2015				2016				2017
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I
(per cent, quarter-on-quarter; seasonally adjusted data)																	
Employed persons	-0.3	0.6	-0.5	0.1	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
Nominal wage per employee*	3.2	0.8	0.6	1.7	1.0	1.6	2.3	0.6	1.5	1.7	0.8	2.1	0.7	0.5	1.2	-0.1	2.6
Real wage <i>per</i> employee**	3.0	1.1	1.3	1.9	1.5	2.2	2.5	1.1	1.9	1.4	1.4	3.1	0.0	1.2	1.3	0.3	2.1
Wage bill, nominal terms	3.1	0.7	0.4	1.7	0.8	1.9	2.1	0.6	2.2	1.8	1.2	2.3	0.8	1.2	1.4	0.5	2.5
Wage bill, real terms**	2.9	1.0	1.0	1.8	1.3	2.5	2.2	1.1	2.5	1.5	1.8	3.3	0.1	2.0	1.5	0.9	2.0
(per cent, on corresponding quarter of previous year, non-seasonally adjusted data)																	
Employed persons	-1.7	0.7	-0.1	-0.7	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
Nominal wage per employee*	12.3	8.6	6.2	6.6	3.5	4.3	7.3	7.3	5.5	5.1	4.2	8.1	4.8	2.5	3.7	0.6	7.2
Real wage <i>per</i> employee**	9.9	7.4	6.9	7.7	5.4	6.1	8.5	9.2	7.4	5.8	5.2	9.2	5.9	5.0	4.9	1.4	6.3
Wage bill, nominal terms	9.7	8.0	5.3	5.6	2.9	4.5	7.2	6.9	6.4	5.7	5.6	9.5	6.4	4.6	5.3	2.7	8.2
Wage bill, real terms**	7.4	6.9	6.0	6.7	4.8	6.3	8.5	8.8	8.3	6.3	6.6	10.6	7.6	7.1	6.5	3.5	7.4

\* 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: the NSI – SNA, BNB calculations, Eurostat.

## Retail Trade Turnover

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

	2013				2014				2015				2016				2017	
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	April
Retail trade, excluding motor vehicles and motorcycles incl.	1.2	1.9	1.7	2.2	6.7	-0.8	1.8	1.8	11.0	-2.6	0.6	1.7	1.4	1.2	0.9	0.8	1.0	-0.4
Food, drinks and tobacco products	-6.4	5.4	4.7	0.0	14.0	2.9	2.2	0.9	1.7	1.8	2.1	2.6	3.9	2.0	1.2	1.5	1.5	-0.2
Textile, clothing, footwear and leather	-11.2	14.9	8.7	0.5	-10.0	9.7	7.6	-1.0	-5.5	3.4	2.7	5.5	0.2	3.8	-0.3	3.1	4.5	1.8
Household appliances, furniture and other household goods	1.6	2.4	2.2	2.0	-0.7	0.6	0.1	1.9	1.4	-0.4	0.9	-1.0	0.1	-0.2	-0.9	-0.3	3.2	2.6
Computer and communication equipment	10.6	3.4	-0.3	3.5	-3.1	-3.1	-0.8	-1.7	16.6	-3.5	-0.2	-3.8	-8.7	8.1	2.0	5.9	0.0	-0.9
Pharmaceutical and medical goods, cosmetics and toiletries	6.9	5.7	4.5	1.9	3.7	1.9	1.9	3.3	2.4	2.0	1.7	2.0	-2.4	4.3	3.4	0.0	3.2	1.7
Unspecialised shops with different kinds of goods	-4.9	12.7	-2.5	0.8	1.7	1.9	0.6	-1.0	2.5	1.0	1.9	2.2	-10.5	2.1	1.6	0.8	5.0	1.0
Automobile fuels and lubricants	-1.6	3.4	-5.8	-2.7	12.0	-3.6	7.3	-4.4	46.2	-8.9	-1.5	4.5	2.1	-1.2	-2.5	-3.0	-3.6	-4.6

Source: the NSI, short-term business statistics.

## Impact of Fiscal Policy on the Economy

The positive results from the implementation of the Consolidated Fiscal Programme observed in early 2017 continued in April when government surplus came to BGN 1591 million (1.6 per cent of projected GDP)<sup>57</sup>. Concurrently, the excess revenue over expenditure for the first four months of 2017 is BGN 769 million lower compared with the same period of the previous year when a budget surplus of BGN 2351 million (2.5 per cent of GDP) was reported.

<sup>57</sup> GDP forecasts of the Ministry of Finance for 2017 of the updated spring macroeconomic forecast for the 2017-2020 period, published in April 2017.

In April 2017 total revenue and grants declined by 1.3 per cent due to the continued decline in receipts from grants and non-tax revenue observed since the beginning of the year. As the impact of the effects of high revenue from VAT and excise duties reported in early 2017 faded away, tax revenue growth slowed down its pace, albeit still high (8.7 per cent in April 2017). Revenue from social security and health insurance contributions and, to a lesser extent, from direct taxes, had a relatively large contribution to tax revenue growth, supported by the early 2017 increase in pension contributions and minimum wages and the continued labour market recovery. Although the growth rate of revenue from indirect tax was lower in April compared to the year start, it also had a sizeable contribution to tax revenue growth, with its implementation reflecting both higher excise duties on cigarettes from early 2017 and growing private consumption.

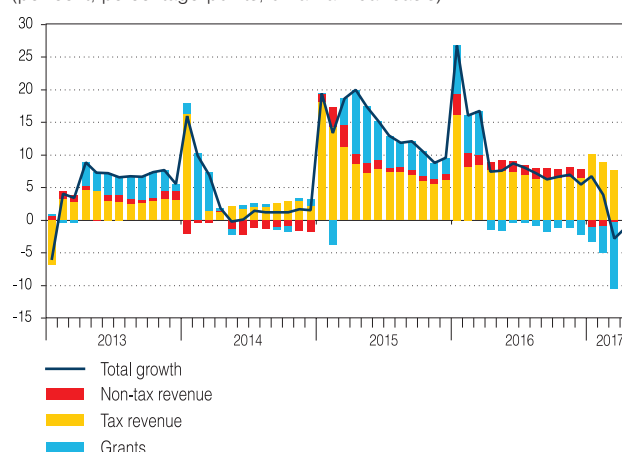
Between January and April revenue from grants included certified project expenditure under the 2014–2020 programming period reimbursed by the European Commission. The revenue was lower compared with the same period of 2016 as grants' implementation in the previous year was positively influenced by advanced payments for the current programming period and by the final reimbursement of expenditure incurred under the previous 2007–2013 programming period.

In April 2017 annual growth of total expenditure on the consolidated fiscal programme came to 6.2 per cent entirely due to current expenditure. Current expenditure dynamics was driven largely by the higher social payments and compensation *per* employee in the general government sector. The increase in these two items was underpinned by the legislative changes of early 2017, including the payment of a new type of monthly allowance for children with permanent disabilities, wage increase in the education sector, higher pension contributions<sup>58</sup> and health insurance payments. Spending on compensation *per* employee grew 9.3 per cent on an annual basis. Pension, allowance and social

<sup>58</sup> For further information, see the Basic Parameters of the 2017–2019 Budgetary Framework box, Economic Review, 4/2016.

### Contribution of Major Groups of Revenue to Growth in Total Revenue and Grants, Cumulatively

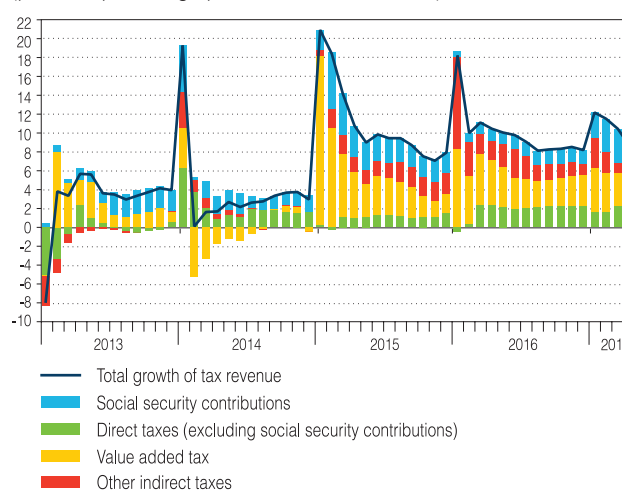
(per cent; percentage points; on an annual basis)



Sources: the MF, BNB calculations.

### Contribution of Major Tax Groups to Tax Revenue Growth, Cumulatively

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



Sources: the MF, BNB calculations.

transfer expenditure under the Social Insurance Code grew by 3.4 per cent on the same period of the prior year and had therefore low positive contribution to the increase in households' disposable income. Subsidies, operating expenditure and interest payments also contributed to current expenditure growth, with the 24.3 per cent annual growth in interest payments reflecting the first interest payments on the Eurobonds issued in March 2016.

Annual growth of main government consumption sub-components, including compensation *per* employee and health insurance payments, added to the low positive contribution of government consumption to the quarter-on-quarter real GDP growth in the first quarter of 2017. At the same time, the first quarter of 2017 saw a sizeable government consumption growth on an annual basis (5.9 per cent).<sup>59</sup> In the first four months of 2017 capital expenditure under the consolidated fiscal programme declined on an annual basis; reporting lower implementation than the one planned by the Ministry of Finance under the consolidated fiscal programme. This points to a possible concentration of a significant portion of investment project funding in the second half of the year and as a result total government investment in 2017 is expected to be higher than in 2016.

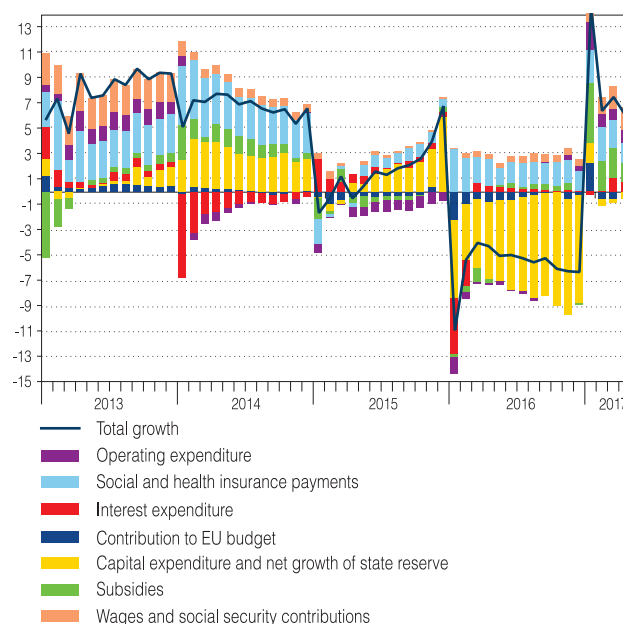
In the second half of 2017 tax revenue growth is expected to remain at relatively high levels, which will reflect our expectations for a continued favourable domestic demand dynamics as well as positive effects of the changes to the tax and social security policy. Taking into account the measures for improving pension adequacy provided for in the Convergence Programme of the Republic of Bulgaria for the 2017-2020 period, social expenditure is expected to continue to contribute to the increase in household's disposable income, largely due to higher pension expenditure.<sup>60</sup> Government

<sup>59</sup> Real growth rate compared to the corresponding quarter of the previous year based on seasonally adjusted data.

<sup>60</sup> As of 1 July 2017 the weight of one year pensionable service in the pension formula increases by 2.4 per cent for new pensions and for pensions awarded before the end of 2016. An increase of the minimum old-age pension to BGN 180 is foreseen (up by 11.5 per cent) as of 1 July 2017 and to BGN 200 (up by 11.1 per cent) as of 1 October 2017. As a result of the proposed change, the minimum amounts of the other contributory service pensions which are determined as a percentage of the old-age pension will increase by the same percentages.

## Contribution of Major Groups of Expenditure to Total Expenditure Growth, Cumulatively

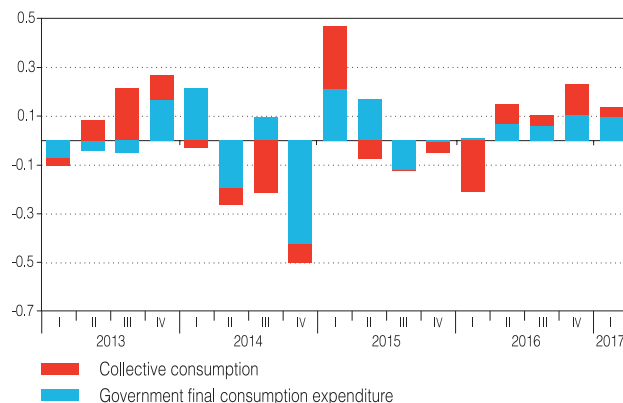
(per cent; percentage points; on an annual basis)



Sources: the MF, BNB calculations.

## Contribution of Government Consumption Components to Real GDP Growth

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



Sources: the NSI, BNB calculations.

consumption is expected to contribute more strongly to real GDP growth in 2017 compared to 2016, reflecting the effect of the increase in wages and operating expenditure planned by the government. Taking into account data on government consumption growth in the first quarter of 2017, we expect a lower negative contribution of this component to the quarter-on-quarter real GDP growth in the second half-year.

## Key Budget Indicators Performance for 2016–2017

Consolidated Fiscal Programme	2016 January–April <sup>1</sup>		2017 January–April <sup>1</sup>	
	BGN million	per cent <sup>2</sup>	BGN million	per cent <sup>2</sup>
<b>Total revenue and grants</b>	<b>12,170</b>	<b>7.4</b>	<b>12,017</b>	<b>-1.3</b>
Tax revenue	9,189	10.5	9,987	8.7
incl. social security and health insurance contributions	2,318	4.5	2,631	13.5
Non-tax revenue	1,648	9.3	1,587	-3.7
Grants	1,333	-11.3	443	-66.7
<b>Total expenditure (incl. the contribution to EU budget)</b>	<b>9,819</b>	<b>-4.3</b>	<b>10,426</b>	<b>6.2</b>
Wages and social security contributions	1,996	2.4	2,182	9.3
Operating expenditure	1,353	-1.4	1,444	6.8
Interest	323	18.7	401	24.3
Social security, assistance and social care	4,838	4.6	5,007	3.5
Subsidies	506	-4.8	647	27.9
Capital expenditure and reserves of the general government sector	509	-55.4	459	-9.8
Contribution to general budget of the European Union	295	-21.6	286	-3.1
	BGN million	difference <sup>3</sup> (BGN million)	BGN million	difference <sup>3</sup> (BGN million)
<b>Budget balance, on a cash basis</b>	<b>2,351</b>	<b>1,284</b>	<b>1,591</b>	<b>-760</b>
Tax revenue under the state budget	2016 January–April <sup>4</sup>		2017 January–April <sup>4</sup>	
	BGN million	per cent <sup>2</sup>	BGN million	per cent <sup>2</sup>
<b>Tax revenue</b>	<b>6,491</b>	<b>12.6</b>	<b>6,953</b>	<b>7.1</b>
Corporate tax	908	11.6	972	7.0
Income tax for individuals	977	7.2	1,050	7.5
Value added tax	3,007	15.1	3,292	9.4
Excise duties	1,440	13.2	1,463	1.6
Customs duties	55	6.2	64	17.1
Insurance premia tax	13	23.2	13	-1.8
Other taxes	92	-3.4	100	8.9

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> The change of the budget balance on the same period of previous year.

<sup>4</sup> Based on monthly reports on cash-based implementation of the state budget.

Source: the BNB.

## 4. INFLATION

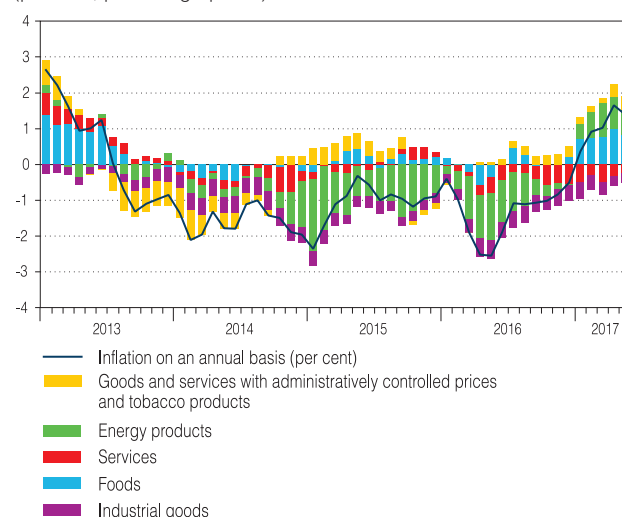
Over the first five months of 2017 inflation in Bulgaria followed an upward trend, reaching 1.4 per cent in May. This was fuelled mainly by rising petroleum and food prices in euro since the second half of 2016 which contributed to the price increase in transport fuels and food products. Administratively controlled prices were another group contributing positively to the overall inflation over the first five months of the year, reflecting mostly raised excise duties of tobacco products since early 2017 and the April increase in natural gas, heating, electricity and some utilities prices. The deflationary trend in core HICP components since the previous year was sustained, reflecting mainly lower prices of durable goods, telecommunication and transport services (air transport).

Inflation is anticipated to retain its current level during the second half of 2017 driven by the positive contributions of foods and energy products. Goods and services with administratively controlled prices are also expected to make a positive contribution to the overall inflation over the following months. The effect of specific factors associated with price declines in transport (air transport) and telecommunication services will limit the increase in consumer prices.

In the first five months of 2017 growth of final consumer prices accelerated to 1.4 per cent in May (against -0.5 per cent in December 2016).<sup>61</sup> This reflected the sizeable year-on-year increase in crude oil prices (in euro) in international markets and their pass-through into domestic fuel prices. Both the upward trend in international food prices in euro since the second half of 2016 and higher production costs in agriculture in Bulgaria in the beginning of 2017, which contributed to the increase in unprocessed food prices, acted in the same direction. Increased production costs reflected mainly the farmers' higher expenditure on electricity and fuels.<sup>62</sup> Specific factors, related to the decrease in the prices of telecommunication and transport services (mainly air transport services) as well as the continued decline in durable goods prices (mostly cars), were the reasons for retaining the deflationary trend in core HICP components.

The effect of international prices of fuels, food and commodities on inflation may be seen through price developments of goods imported in Bulgaria. The long-term downward trend in prices of goods imported in Bulgaria was reversed in the first quarter of 2017, with imports of goods deflator reporting a 5.6 per cent increase on an annual basis against

**Annual Inflation and Contribution of Major Commodities and Services Groups to It**  
(per cent; percentage points)



Notes: 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>61</sup> The analysis in this Section employs NSI HICP data.

<sup>62</sup> NSI data on price indices of goods and services currently consumed in agriculture are used in the analysis.

-7.2 per cent on average for 2016.<sup>63</sup> This reflects mainly the rise in fuel<sup>64</sup> and food<sup>65</sup> import prices and, to a lesser extent, price hikes of various types of materials.<sup>66</sup> Higher import prices of these goods were rapidly transmitted through the supply chain on domestic producer prices and consequently on consumer goods prices.

The first five months of 2017 saw deflationary effects of domestic factors related mainly to the fall in goods and services prices, forming the core HICP components. Telecommunication and transport services prices continued to follow a downward trend on an annual basis driven by enhanced competition in these sectors and the widespread introduction of low-cost airlines in Bulgaria over the recent years.<sup>67</sup> Non-food goods continued to contribute negatively to overall inflation, reflecting mainly the sustained long-term downward trend in durable goods prices.

In the first five months of 2017 changes in tax legislation, related to the increase in the excise duty on tobacco products, continued to have a pro-inflationary effect. The Energy and Water Regulatory Commission (EWRC) decisions of end-March and early April to increase prices of natural gas, heating and electricity, which are indirectly impacted by fuel prices, were another factor having a slight pro-inflationary effect.

Since the year start the total producer price index (PPI) in the domestic market largely followed the upward international oil and metal price developments.<sup>68</sup> From December 2016 PPI started to increase on an annual basis at an accelerating pace, reaching 3.5 per cent in May 2017 (compared with 0.6 per cent at the end of 2016). The increase in producer prices was observed mainly in the manufacturing sub-sector and, to a lesser extent, in mining and quarrying and production and distribution of electricity and

<sup>63</sup> Import data under the Standard International Trade Classification (SITC).

<sup>64</sup> This refers to the oil and refined petroleum products group.

<sup>65</sup> This refers to the food and live animals and animal and vegetable fats, oils and waxes groups.

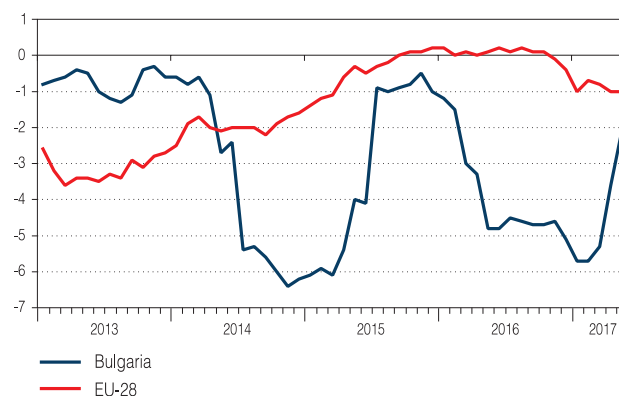
<sup>66</sup> This refers to the inedible (crude) materials (excluding fuels), manufactured goods classified chiefly by materials groups.

<sup>67</sup> For more details, see Chapter 4 Inflation, in the Economic Review, 4/2016.

<sup>68</sup> For more details on price developments in major raw materials, see the International Commodity Prices section in Chapter 1.

### Rate of Change of the Telecommunications Price Index in Bulgaria and the EU

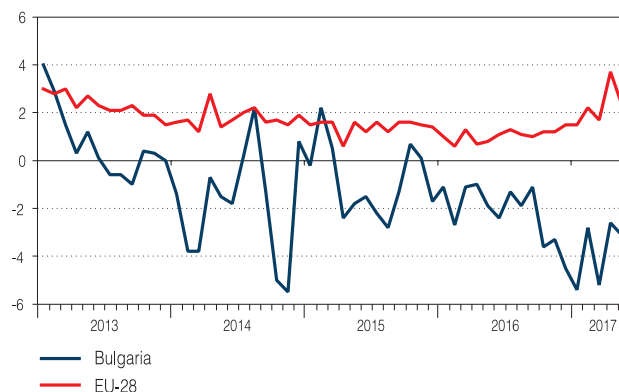
(per cent; on an annual basis)



Source: Eurostat.

### Rate of Change of the Transport Price Index in Bulgaria and the EU

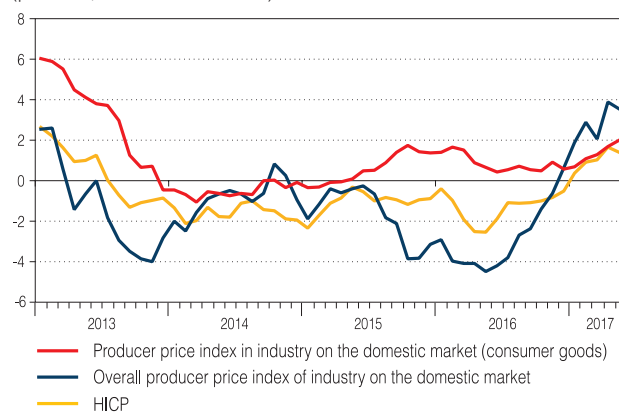
(per cent; on an annual basis)



Source: Eurostat.

### Rate of Change in Manufacturing PPI and HICP

(per cent; on an annual basis)



Source: the NSI.

heating sub-sectors.<sup>69</sup> Higher industrial production prices associated with the manufacture of refined petroleum products, metals, food and tobacco products contributed most to this.<sup>70</sup> Higher prices of processed petroleum products translated rapidly into final transport fuel prices. As a result, the annual inflation in this group accelerated to 14.0 per cent in May 2017 (from -0.4 per cent at the end of 2016). Higher prices in the production and distribution of electricity, heating and gas sub-sector<sup>71</sup> reflected price rises of alternative fuels in international markets on the basis of which the EWRC raised at end-March and early April the final price of natural gas, heating and electricity.<sup>72</sup>

According to the end-use classification, the increase in the PPI in the January to May 2017 period was mainly driven by higher energy products and intermediate consumption product prices which (together with labour costs) account for a substantial part of firms' production costs. Even though this growth was mainly driven by international metal prices, an year-on-year increase in May 2017 was also recorded in some producer prices related to the production of non-metal raw materials. Retention of the upward trend in energy products and intermediate consumption product prices in the following months will be a precondition for the occurrence of an upward pressure on final consumer prices. In the first five months of 2017 an increase in producer prices of consumer non-durables and durables continued to be observed in the manufacturing sector. Consumer non-durables price rise was largely due to the increase in the prices of some food and drinks, tobacco products, and partly of clothing. Higher producer prices of food and drinks were passed on to final consumer prices of processed food which reported an increase of 1.7 per cent on an annual basis in May 2017 (0.5 per cent at the end of 2016).

<sup>69</sup> This refers to the production and distribution of electricity, heating, gaseous fuels.

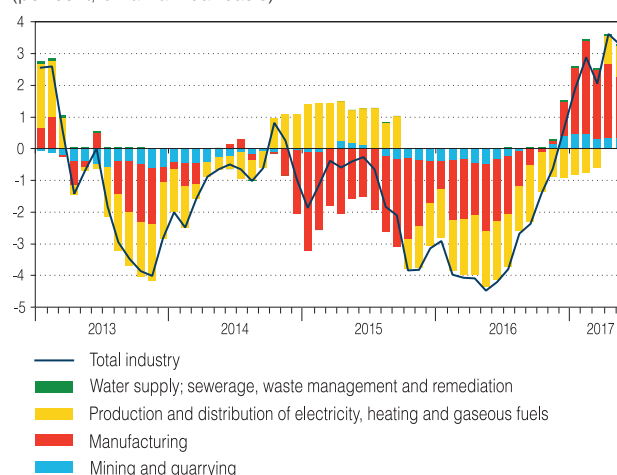
<sup>70</sup> This refers to the production of coke and refined petroleum products, the manufacture of basic metals and fabricated metal products, except machinery and equipment, and the manufacture of food products, beverages and tobacco groups.

<sup>71</sup> This refers to the production and distribution of electricity, heating, gaseous fuels.

<sup>72</sup> For more details see: <http://www.dker.bg/newsbg.php?n=2869>, <http://www.dker.bg/newsbg.php?n=2872>.

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

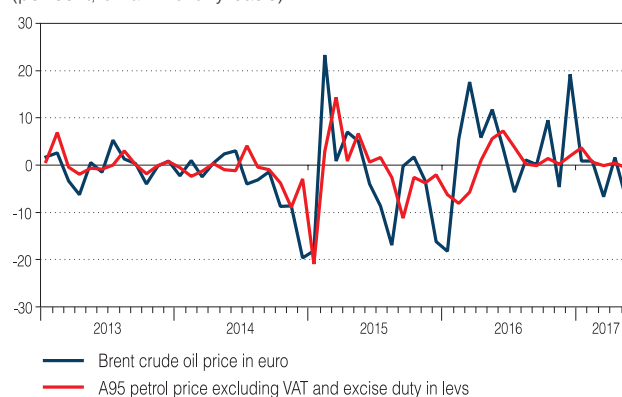
(per cent; on an annual basis)



Source: the NSI.

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

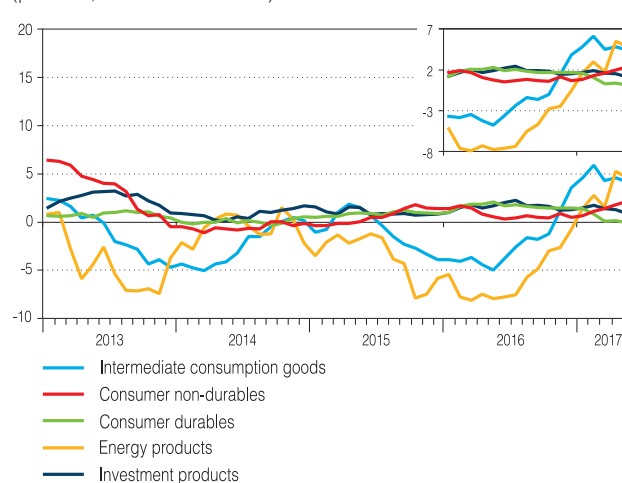
(per cent; on a monthly basis)



Sources: the ECB, the NSI, BNB calculations.

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

(per cent; on an annual basis)



Source: the NSI.

The heavy dependence of unprocessed food prices on weather conditions in Bulgaria and import price dynamics underpinned the strong increase in prices in this group observed since the year start. In May 2017 unprocessed food inflation was 6.8 per cent (1.9 per cent at the end of 2016), mainly due to the price increase in vegetables and fruit, and partly due to meat and meat products price rise. Increased fruit and vegetable prices reflected the higher prices of imported products and higher production costs in agriculture. The higher production costs were mainly attributable to increased expenditure on electricity and fuels<sup>73</sup> due to cold weather in the beginning of the year and the increase in transport fuel prices. Higher meat and meat product prices were in line with the increase in import prices of these products which started in the second half of 2016.

In early 2017 producer prices of durable goods on the domestic market recorded low positive year-on-year growth which was in line with the lower negative contribution of non-food consumer prices whose inflation was negative at -1.2 per cent in May (against -1.9 per cent at the end of 2016). Since the year start within the group of durable goods in HICP a comparatively high negative contribution to annual inflation continued to be observed in automobiles along with the subsiding negative contribution of other durable goods. The fall in the prices of these goods, most of which are imported in Bulgaria, reflects probably the downward trend in the prices of imported durable goods outlined in 2016. Retail trade turnover, an indicator for consumer demand, signals an increase in household consumption in the January–April 2017 period (retail trade turnover at constant prices of non-food goods<sup>74</sup> reported an increase of 8.8 per cent on an annual basis in April 2017).

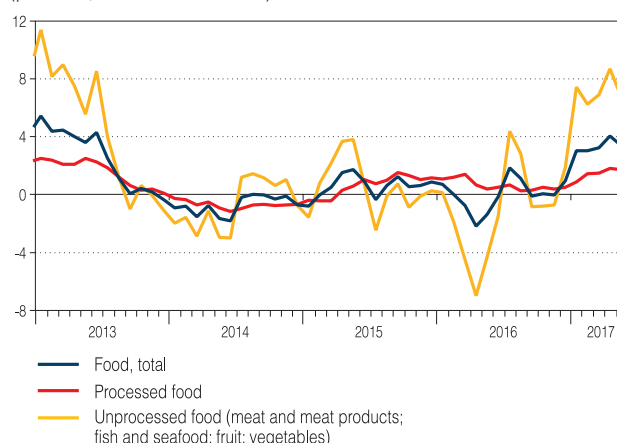
Core inflation, including services and non-food goods prices, was negative in the first quarter of 2017 and came to -1.1 per cent in May (-2.1 per cent at end-2016), reflecting changes in the prices of both services and non-food goods groups.

<sup>73</sup> NSI data on price indices of goods and services currently consumed in agriculture are used in the analysis.

<sup>74</sup> Retail trade in non-food goods excluding automobile fuels and lubricants.

### Rate of Change of Food Price Index

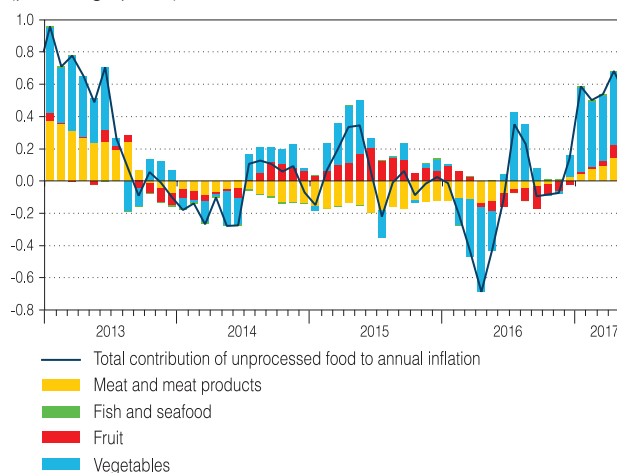
(per cent; on an annual basis)



Sources: the NSI, BNB calculations.

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

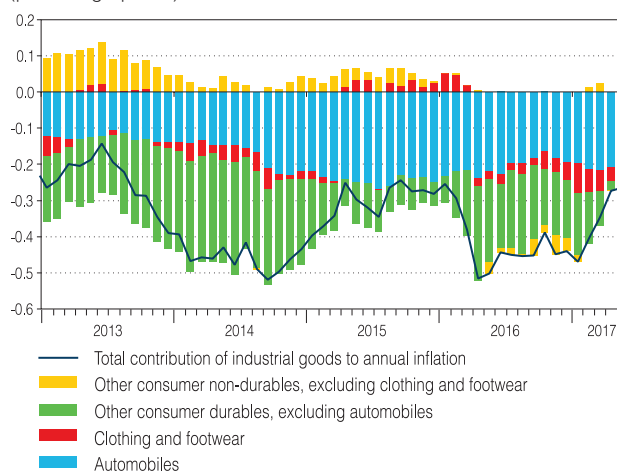
(percentage points)



Sources: the NSI, BNB calculations.

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

(percentage points)



Sources: the NSI, BNB calculations.

In May inflation in services (excluding those with administratively controlled prices) came to -1.0 per cent (-2.1 per cent at the close of 2016). This reflected the price drop in transport services resulting primarily from air transport price fall underpinned by low-cost airlines' price developments. The downward trend in deflation of telecommunication services, which occurred in the beginning of the year, was a factor limiting deflation in services. Catering prices exhibited low positive inflation throughout the first five months of 2017 in line with reported growth in food prices.

In the first five months of 2017 administratively controlled prices continued to increase on an annual basis. Between January and May 2017 the positive contribution of tobacco prices to annual inflation was sustained, reflecting the increased excise duty on cigarettes since early 2017.<sup>75</sup> The EWRC decisions of the end of March and the beginning of April 2017 on the rise of final prices of gas, heating, electricity and some utility services have increased the contribution of administratively controlled prices to overall inflation since April 2017.

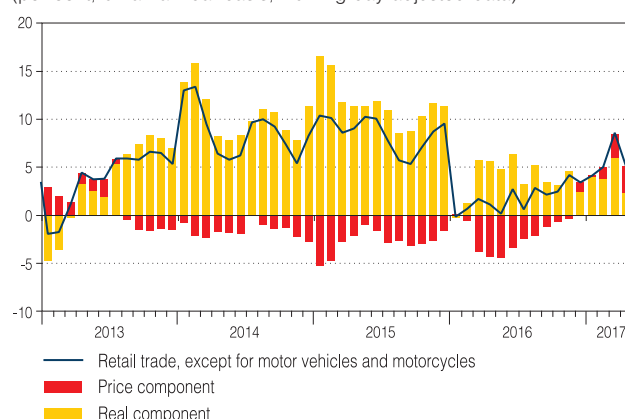
In the first five months of 2017 the number of goods and services with rising prices went up and that of groups with more than 2 per cent price growth increased, while the share of groups of goods and services with falling prices on an annual basis decreased to 28 per cent compared with 38.7 per cent at the end of 2016. The structure of the diffusion index indicates that consumer prices are likely to continue rising in the following months.

According to the NSI business survey, in May 2017 most managers in industry (87.9 per cent), services (95.4 per cent) and retail trade (87.1 per cent) expect selling prices to remain stable over the coming three months. However, since the beginning of 2017 the balance of opinions in all three sectors has been positive and followed an upward trend. As regards selling prices in the coming months, in June managers' expectations are likely to reflect the increase in intermediate consumption goods and energy product prices, and rises in some

<sup>75</sup> From the beginning of 2017 the *ad-valorem* excise duty on tobacco products was raised from 25 to 27 per cent along with a 4.3 per cent increase in the minimum amount of the overall excise duty (specific and *ad-valorem*).

## Growth Rate of Nominal Retail Trade Volumes Excluding Trade in Motor Vehicles and Motorcycles

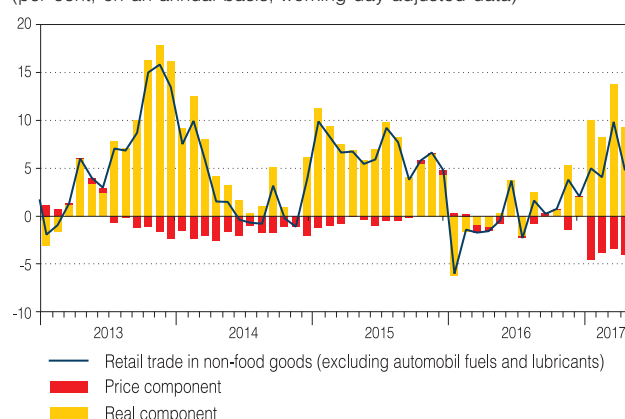
(per cent, on an annual basis; working-day adjusted data)



Sources: the NSI, BNB calculations.

## Growth Rate of Nominal Retail Trade in Non-food Goods Excluding Trade in Automobile Fuels and Lubricants

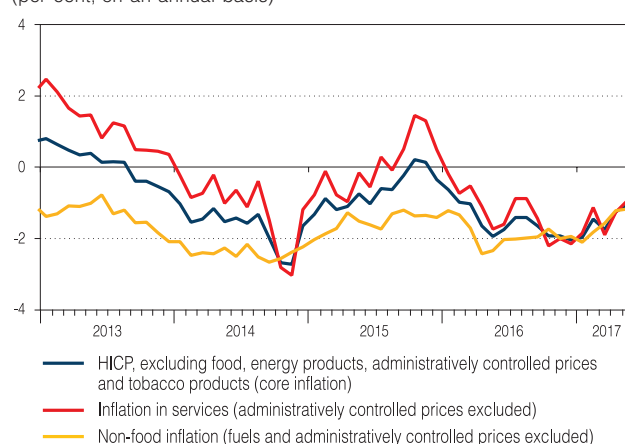
(per cent, on an annual basis; working-day adjusted data)



Sources: the NSI, BNB calculations.

## Core Inflation

(per cent; on an annual basis)



Sources: the NSI, BNB calculations.

administratively controlled prices observed since the year start. According to the NSI business surveys, potential factors limiting firms' activity and impacting price-setting decisions in the first six months of 2017 relate to the uncertain economic environment and competition. In June 2017 the share of managers in industry and services, outlining insufficient demand as an obstacle to the business activity, decreased from the end of 2016. Concurrently, in the retail trade sector, which is the closest to end-users in the supply chain, a slight increase was reported in the share of managers pointing to insufficient demand as a factor limiting their activity.

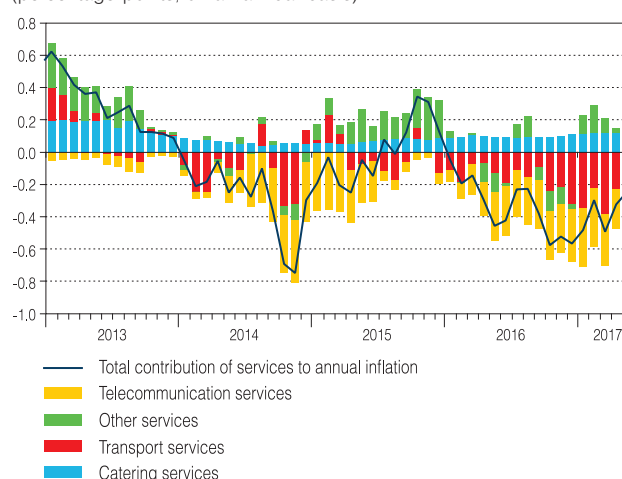
Inflation is expected to remain at the current level over the following two quarters. This will reflect the projected increase in crude oil and food prices in international markets in the following months and their pass-through into domestic fuel and food prices. Administratively controlled prices are expected to continue to make a positive contribution to overall inflation, reflecting largely the increased excise duty on tobacco products since early 2017 and the price rises of gas, heating, electricity and some utility services at the end of March and the beginning of April 2017. Core inflation is expected to remain negative but tending to limit the rate of price declines.

The major risks to the inflationary expectations in the following three quarters relate to the dynamics of international petroleum and commodities price developments, and the effects of their pass-through into goods and services prices that are indirectly influenced by international prices. Additional uncertainty to the forecast emerges from possible new changes in the domestic prices of gas, heating and electricity. The removal of roaming charges in EU countries as of 15 June 2017 is a prerequisite for a further decrease in prices of telecommunication services which may result in lower than projected inflation. The quality of agricultural harvests in Bulgaria and the region will be an important factor which will affect domestic food prices over the following months.

In the first quarter of 2017 the house price index continued to increase on an annual basis reaching 8.8 per cent (against 8.1 per cent at the end of 2016). Price hikes in both new

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

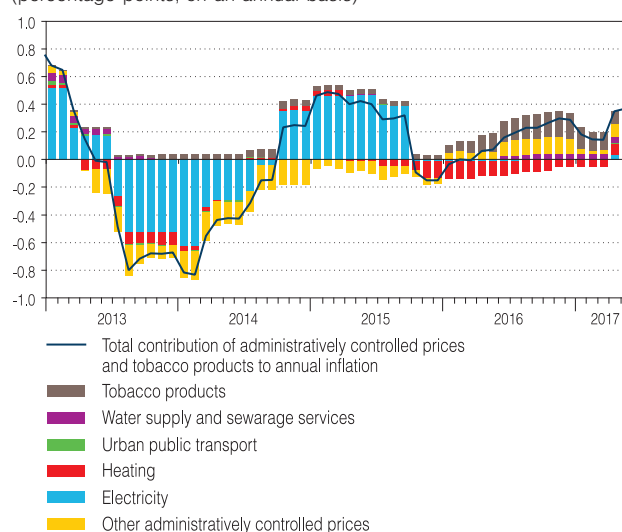
(percentage points; on an annual basis)



Sources: the NSI, BNB calculations.

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

(percentage points; on an annual basis)



Sources: the NSI, BNB calculations.

and existing housing contributed to this effect. Across geographical regions a similar dynamics was observed, with higher house prices reported also in the six largest cities in Bulgaria. However, in the beginning of 2017, house prices remained well below the levels reported in the third quarter of 2008.

The upward dynamics of house prices was in line with the increased disposable income of households, reflecting positive labour market developments. Housing demand is encouraged by several additional factors. High household savings rate and the continued downward trend in interest rates on new time deposits are the reasons behind enhanced household demand for housing. In the first quarter of 2017 the annual percentage rate of charge (APR) on new mortgage loans declined further, reaching 5.1 per cent (against 5.4 per cent at the end of 2016).<sup>76</sup> Banks' policy towards easing credit standards for households also acted in this direction.<sup>77</sup>

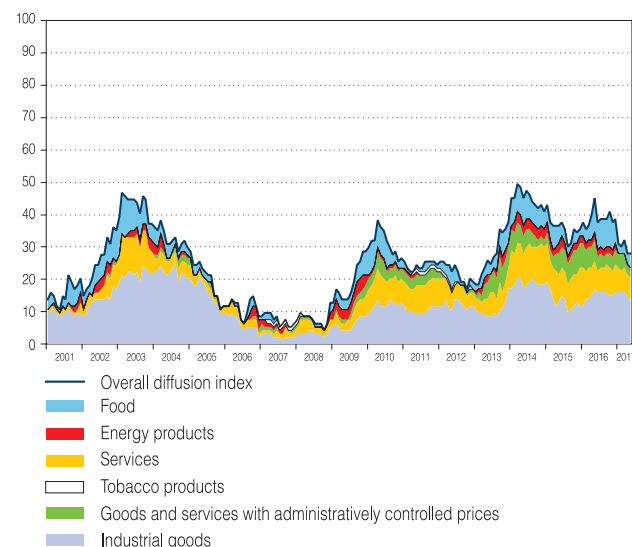
In addition, house price dynamics influenced the behaviour of firms in the construction sector. In the first quarter of 2017 the real value added in the sector reported growth of 1.2 per cent (against -2.5 per cent on average for 2016). The higher rate of increase in house prices than in the firms' construction cost index is likely to result in an enhanced economic activity in the construction sector and in higher supply of new housing, which will have a dampening effect on house price dynamics. An indication of a possible increase in supply is the higher number of permits for the construction of new residential buildings reported in early 2017.

<sup>76</sup> Values indicating APRC on housing loans to households are weighted averages by the relevant volumes of new loans for a 12-month period.

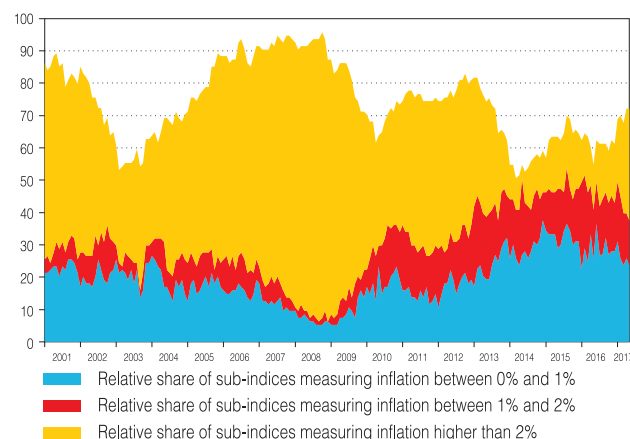
<sup>77</sup> For further details, see the Monetary and Credit Aggregates section in Chapter 2.

## 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)

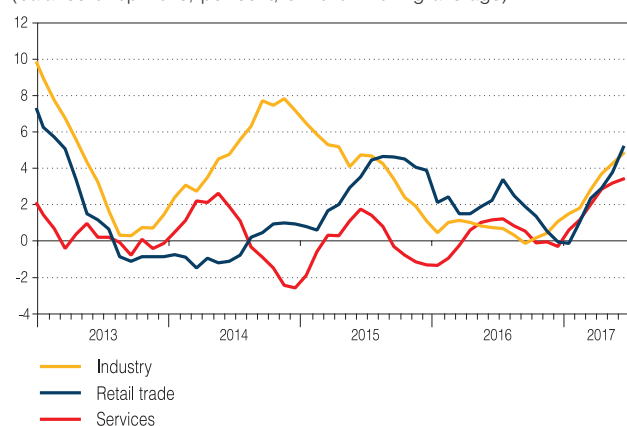


Note: Data on the HICP 4-digit level sub-indices (sub-classes according to the NSI methodology) have been used. The diffusion index shows the share of sub-indices reporting a change in value on an annual basis. When calculating the relative shares the weight of the relevant sub-indices in the consumer basket is taken into account.

Sources: the NSI, BNB calculations.

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

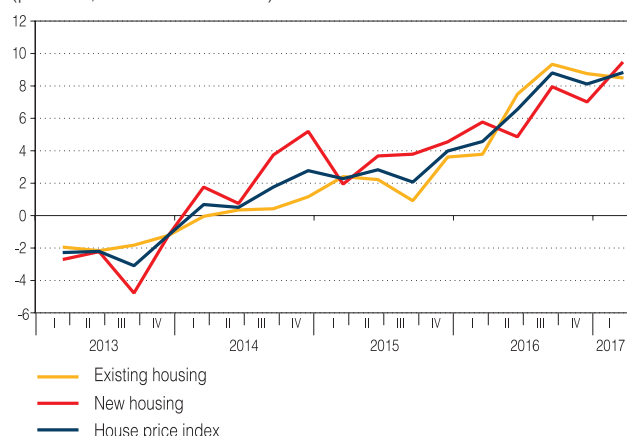
(balance of opinions, per cent, 6-month moving average)



Source: the NSI.

## Rate of Change of House Price Index

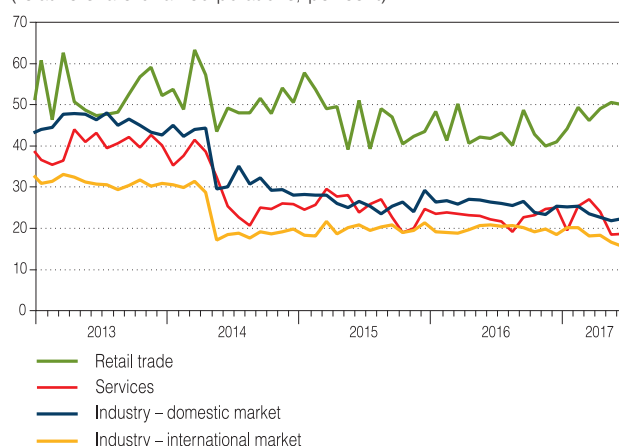
(per cent; on an annual basis)



Source: the NSI.

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

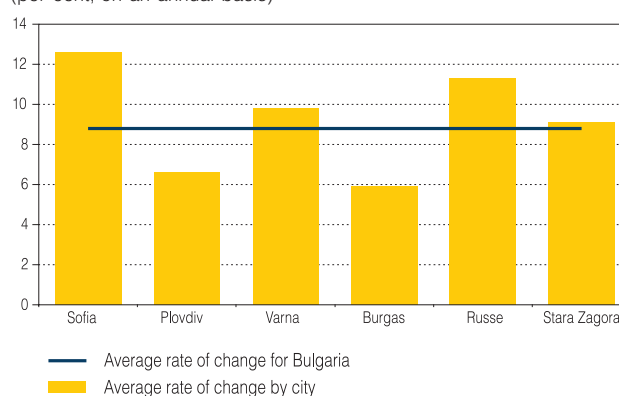
(relative share of all corporations, per cent)



Sources: the NSI, BNB calculations.

## Rate of Change of the House Price Index in Cities with More than 120,000 Citizens in the First Quarter of 2017

(per cent; on an annual basis)



Source: the NSI.

## Key Indicators of Housing Market Developments in Bulgaria

(per cent; year-on-year change)

Indicators	2013	2014	2015	2016	2016			2017
					II	III	IV	
Prices								
House Price Index, total	-2.2	1.4	2.8	7.0	6.5	8.8	8.1	8.8
New housing	-2.7	2.8	3.5	6.4	4.9	7.9	7.0	9.4
Existing housing	-1.8	0.5	2.3	7.3	7.5	9.3	8.8	8.5
Inflation (HICP)	0.4	-1.6	-1.1	-1.3	-2.3	-1.1	-0.8	0.8
House rentals, paid by tenants (HICP)	0.5	0.2	0.7	0.6	0.7	0.7	0.8	1.0
Lending								
New housing loans	6.0	9.7	39.7	18.9	11.6	18.5	38.9	45.6
Annual percentage rate of charge on new housing loans (per cent, at the end of the period)	7.9	7.4	6.4	5.4	5.9	5.7	5.4	5.1
Housing loans (outstanding amounts)	-0.2	-0.1	-1.8	0.5	0.2	0.9	1.4	2.4
Construction and investment								
Permits issued for the construction of new residential buildings (built area, square meters)	12.0	27.7	13.0	4.8	17.9	-2.9	15.1	17.0
Value added in construction (at average annual prices for 2010)	1.3	-3.1	2.8	-2.5	-0.7	-0.1	-10.7	1.2
Constriction Production Index, building construction	-1.6	0.4	8.4	-16.5	-19.2	-15.3	-13.1	5.9
Fixed investment; residential buildings	-4.0	-3.3	-10.3	-6.2	-2.7	-9.1	-9.6	-1.1
New Buildings Construction Cost Index	1.7	1.0	1.3	1.5	1.8	1.6	0.8	1.9

Note: Values indicating 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.

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

	Inflation accumulated as of May 2016 (December 2015 = 100)		Inflation accumulated as of May 2017 (December 2016 = 100)		Annual rate of inflation as of May 2017 (December 2016 = 100)	
<b>Inflation (per cent)</b>	<b>-1.5</b>		<b>0.4</b>		<b>1.4</b>	
	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>0.1</b>	<b>0.04</b>	<b>2.6</b>	<b>0.63</b>	<b>3.4</b>	<b>0.82</b>
Processed food	-0.3	-0.05	0.9	0.14	1.7	0.29
Unprocessed food	1.2	0.09	6.1	0.48	6.8	0.54
<b>Services</b>	<b>-3.4</b>	<b>-0.89</b>	<b>-2.2</b>	<b>-0.57</b>	<b>-1.0</b>	<b>-0.24</b>
Catering services	0.6	0.03	1.1	0.07	2.5	0.15
Transport services	-6.8	-0.26	-5.5	-0.20	-7.0	-0.26
Telecommunication services	-4.4	-0.24	-1.1	-0.05	-2.8	-0.14
Other services	-3.7	-0.43	-3.4	-0.39	0.0	0.01
<b>Energy products</b>	<b>-8.8</b>	<b>-0.51</b>	<b>3.2</b>	<b>0.22</b>	<b>12.9</b>	<b>0.73</b>
Transport fuels	-9.6	-0.50	3.5	0.21	14.0	0.69
<b>Industrial goods</b>	<b>-1.2</b>	<b>-0.28</b>	<b>-0.5</b>	<b>-0.10</b>	<b>-1.2</b>	<b>-0.26</b>
<b>Goods and services with administratively controlled prices*</b>	<b>0.4</b>	<b>0.06</b>	<b>1.4</b>	<b>0.23</b>	<b>1.7</b>	<b>0.27</b>
<b>Tobacco products</b>	<b>2.5</b>	<b>0.12</b>	<b>0.6</b>	<b>0.03</b>	<b>1.9</b>	<b>0.09</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.

## 5. BULGARIAN NATIONAL BANK FORECAST OF KEY MACROECONOMIC INDICATORS FOR 2017–2019

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The BNB forecast of key macroeconomic indicators is based on data published as of 20 June 2017. ECB, EC and IMF assumptions on global economic developments and the dynamics of prices of major commodity groups as of 9 June 2017 are used.

Based on ECB, EC and IMF forecasts in 2017 global economic growth is expected to accelerate on 2016 and subsequently to stabilise in 2018 and 2019. The acceleration will be mostly attributable to developing countries, while growth in advanced economies will slightly accelerate and then stabilise in 2018. Higher economic growth in Bulgaria's major trading partners is expected to boost external demand for Bulgarian goods and services, more strongly pronounced in 2017. Following the presidential and parliamentary elections in some of Bulgaria's trading partners (France, the Netherlands) uncertainty about global economic developments mitigated as compared with the previous forecast and risk of deviation in external environment developments from assumptions incorporated in the forecast are assessed as balanced.

In the first half of 2017 in the process of balancing demand and supply of commodity prices on international markets, USD prices of energy and non-energy inputs increased significantly on an annual basis. This process is expected to continue in the second half of 2017 which will prompt a rise in raw materials prices in 2017 as compared with the previous year. In 2018 and 2019 assessments point to further gradual growth of raw materials prices compared with the 2017 dynamics.

Bulgaria's real GDP growth in 2017 is expected to accelerate to 3.6 from 3.4 per cent in 2016. In the 2018–2019 period growth rate in the economy is expected to remain close to this rate. Domestic demand is anticipated to contribute most strongly to growth over the forecast horizon accompanied by accelerated growth rate of imported goods and services which will be close to that of exports. The contribution of net exports to growth will be low but with a negative sign. Risks to the economic growth outlook in the baseline scenario are assessed as shifted upwards for 2017–2018 and balanced in 2019.

In 2017 inflation will be driven mainly by the increase in international fuel and commodity prices. Administratively controlled prices are also expected to have a positive contribution to the overall inflation, reflecting higher prices of some goods and services which are indirectly affected by fuel prices and the increased excise duty on tobacco products since early 2017. Factors specific for the year, as price decreases in some services (mostly transport and telecommunication services), and further declines in durable goods prices will have a limiting effect on inflation. If the assumptions of a moderate global price rise materialise and the effect of the 2017 specific factors subsides, inflation in 2018–2019 is expected to gradually increase. Risks to the inflation outlook are assessed as balanced and are mainly caused by uncertainty surrounding global food and petroleum price developments and by possible changes in administratively controlled prices. A stronger than projected decline in telecommunication services prices as a result of removed roaming charges from 15 June 2017 may lead to a lower than expected inflation.

### Forecast

The BNB forecast of key macroeconomic indicators is based on data published as of 20 June 2017. ECB, EC and IMF assumptions on global economic developments and the dynamics of prices of major commodity groups as of 9 June 2017 are used. On the basis of these assumptions global economic growth in 2017 is expected to accelerate from 2016 underpinned also by the positive developments in the international economic indicators. Higher economic activity in developing countries and cyclical growth improvements in advanced economies will help accelerate growth in 2017. Among developing economies raw materials-exporting countries reported stronger growth rates, with higher international prices of raw materials produced by them boosting economic activity. Economic activity in advanced economies is approaching its potential and positive labour market developments, low financing prices and the expected US fiscal impulse will help accelerate growth in 2017. In 2018 and 2019 global economic growth is expected to almost match 2017 growth: growth in advanced economies will stabilise and that in developing countries will slightly accelerate. The expected global economic activity dynam-

ics will contribute to higher external demand for Bulgarian goods which will increase the growth rate from 2016 over the projection horizon.

The global demand-supply gap in international commodity markets will continue to decrease in the first half of 2017. The average annual prices in US dollars of energy and non-energy prices are expected to increase on 2016 which will be the first price rise from 2012. After the strong year-on-year price rise of raw materials, particularly petroleum and metal prices, in early 2017, the second quarter of the year saw a slower price increase. The slower petroleum price rise was attributable to increased inventories and higher production in the USA. The effectiveness of agreements between OPEC and other major producers of December 2016 and May 2017 for limiting oil production caused doubts, which became a factor limiting the petroleum price rise. The increase in metal prices slowed down in the second quarter of 2017 following the commissioning of new production capacities, while China's demand decreased. In 2018 and 2019 international commodity prices are expected to continue gradually increasing, though at lower rates compared with 2017.

In 2017 real growth in Bulgaria is expected to accelerate on 2016 and to reach 3.6 per cent on an annual basis. Domestic demand, reflecting the upward dynamics of private and government consumption and gross fixed capital formation, is projected to contribute most strongly to growth. As a result of increasing demand for goods and services, the change of inventories will have a neutral contribution to growth. With the acceleration of growth rates of imported goods and services amid the high growth rate of exports, the contribution of net exports will decrease from 2016 and will be slightly negative.

Economic growth of Bulgaria is expected to remain at over 3 per cent in the projection horizon. GDP is anticipated to increase by 3.4 per cent in 2018 and retaining its upward trend to reach 3.5 per cent growth in 2019. Over the whole period domestic demand will remain the main driver of growth. Private consumption will continue to contribute most strongly to growth and driven by households' increasing disposable income and improving labour market conditions it will be further growing over the forecast period. The positive sentiment of firms, expected enhanced demand for goods and services and high capacity utilisation rate create conditions for boosting private investment which will gradually increase until 2019. Government consumption and investment are also expected to increase between 2018 and 2019 mainly as a result of the planned wage increase in the education sector projected by the government in the latest medium-term budget forecast and due to the projected increase expenditure under EU programmes. The expected high rates of external demand growth will contribute to the acceleration of export growth. Driven by these factors annual growth rates of imports of goods and services will also accelerate on an annual basis. As a result, net exports will have a neutral contribution to overall economic growth.

In 2017 real exports of goods and services are expected to slow down on the high 2016 growth rates. Growth in exports of services will be attributable to improvements of economic activity in countries important for our tourism but it will remain lower than growth in 2016 due to the high prior year base. Growth in exports of goods is projected to slow down compared with 2016 despite the higher external demand due to expected lower growth in exports of food products as a result of rich harvest and high results of exported cereals in 2016. In 2018 and 2019 real exports of goods and services are expected to accelerate on 2017 driven by the increasing external demand. Real growth rate of imported goods and services will also accelerate in 2017 in line with the increasing domestic demand. In 2018 and 2019 growth of imports is projected to remain at a level close to that in 2017. As a result over the projection horizon net exports is expected to have a slightly negative contribution to GDP growth, most strongly pronounced in 2017.

If the forecast of unfavourable terms of trade (measuring the change in prices of exported goods against the change in prices of imported goods) for Bulgaria in most of the projection horizon (2017–2019) and of higher growth rate of real imports of goods compared with that of exports materialises in 2017, the balance of payments current account trade deficit is expected to gradually increase as a percentage of GDP in the 2017–2019 period compared with 2016. In 2017 services trade is expected to report a larger surplus as a percentage of GDP from 2016 due to projected slow growth in imports of services, while at

the same time exports of services will increase more strongly than imports of services due to anticipated higher earnings from tourism. Between 2018 and 2019 the surplus in services trade as a percentage of GDP is expected to stabilise. Enhanced economic activity in Bulgaria is expected to boost companies' profits which will result in a gradual increase in the payments of dividends to non-residents, and correspondingly, in a rise in the deficit of the balance of payments primary income account over the forecast horizon. In 2017 net transfers on the balance of payments secondary income account are expected to decrease as a percentage of GDP compared with 2016 and to remain close to this in the 2018–2019 period, their dynamics reflecting the projected absorption of EU funds. As a result of the component dynamics, in the 2017–2019 period the balance of payments current account balance will remain positive, and by the end of the forecast horizon will gradually contract as a percentage of GDP.

Employment in the total economy will slightly accelerate its growth rate in the 2017–2018 period to reach 0.7 per cent. Positive labour market developments are expected to encourage the inclusion of the population in the labour force due to strengthening economic activity and the positive sentiment of firms and households. Towards the end of the forecast horizon the negative demographic developments are expected to prompt a stall in employment growth. Unemployment rate will decline throughout the forecast horizon, albeit at a moderate pace at the end of the period. As a result of the expected slow employment growth, labour productivity will largely follow the real GDP dynamics. The growth rate of real compensation *per* employee will gradually approach labour productivity growth, and nominal unit labour costs will grow at rates close to 2 per cent over the forecast horizon.

The observed substantial annual increase in global oil and food prices in euro in international markets in early 2017 will prompt an increase in the HICP in the following quarters and at the end of 2017 annual inflation is expected to reach 1.5 per cent. This trend will be further influenced by the indirect effects of higher fuel prices on some services with administratively controlled prices such as natural gas supply, heating and electricity. Raised tobacco excise duties since early 2017 is also expected to have a low positive contribution to overall inflation. Factors specific for the year related to the price decreases in some services such as telecommunication and air transport, and the further declines in durable goods prices will have a limiting effect on inflation. In line with international price developments and if the assumption of a subsiding effect of the 2017-specific factors materialises, inflation is expected to follow a pattern of a gradual increase in the 2018–2019 period, reaching 1.7 per cent at the end of the forecast horizon.

Funds attracted from the non-government sector in the banking system are expected to grow between 6 and 7 per cent in the 2017–2019 period. Over the forecast horizon interest rates on deposits are expected to remain low which will result in moderate growth in deposits. Lending rates will continue to reflect mainly the current interest rate cycle in the euro area and expectations about the continued uncertainty reduction in the economy and hence, the related decline in Bulgaria's risk premium. Against the background of relatively low lending rates and improved macroeconomic environment, demand for loans from the non-government sector is expected to continue to increase. Over the forecast horizon a gradual increase in loans to both firms and households is projected. Loans extended under the National Programme on Energy Efficiency of Residential Buildings will continue to contribute most significantly to the dynamics of loans to households in 2017, while in 2018 this contribution is expected to decline substantially.

## Forecast Revisions

Compared to the forecast published in the Economic Review, issue 4 of 2016, real GDP growth has been revised upwards for both 2017 and 2018.

By final use component, positive sentiment and accelerated disposable income growth materialised in higher than expected private consumption growth in the first quarter of 2017, which underpins most of its upward revision for 2017. A higher volume of government investment and gross fixed capital formation has been projected respectively *vis-à-vis* the previous forecast for 2017–2018. The upward revision in external demand assumptions entails higher growth of goods and services exports for 2017 and

2018. These components' dynamics suggest also a stronger increase in goods and services imports as compared to the previous forecast.

Our inflation expectations for the 2017–2018 period have been revised upwards. The upward revision in the 2017 forecast reflects mainly the higher than expected inflation in the food group over the first five months of the year driven by increasing international prices of food and higher agricultural production costs. In addition, the current forecast takes into account the effect of the increase in some administratively controlled prices of the end of March and early April 2017 for which no information was available in December 2016. The forecast for energy product prices for the end-2017 and 2018 was revised slightly downwards, while that for food prices was revised slightly upwards, reflecting the changes in the assumptions of the oil, food and commodity price developments on international markets. Due to the slower than expected decline in core HICP components deflation since early 2017 underpinned by the further falls in some services prices (air transport) and in some durables prices (automobiles), our core inflation projection for the end of 2017<sup>78</sup> was revised slightly downwards.

#### GDP and Inflation Forecast Revisions (20 June 2017 *vis-à-vis* 15 December 2016)

Annual rate of change	Forecast as of 20 June 2017			Forecast as of 15 December 2016			Revision (percentage points)		
	2016	2017	2018	2016	2017	2018	2016	2017	2018
GDP at constant prices	3.4	3.6	3.4	3.4	2.8	2.9	0.0	0.8	0.5
Private consumption	2.1	3.5	2.8	2.1	2.5	2.6	0.0	1.0	0.2
Government consumption	0.6	1.9	2.1	0.3	1.7	1.7	0.3	0.2	0.4
Gross fixed capital formation	-4.0	6.2	6.3	-1.5	5.6	4.1	-2.5	0.6	2.2
Exports (goods and services)	5.7	5.1	5.3	5.7	4.7	5.0	0.0	0.4	0.3
Imports (goods and services)	2.8	5.4	5.3	3.2	5.0	4.7	-0.4	0.4	0.6
HICP at end of period	-0.5	1.5	1.6	-0.8	1.2	1.4	0.3	0.3	0.2
Core inflation	-2.1	0.1	1.5	-2.1	0.3	1.1	0.0	-0.2	0.4
Energy products	-0.2	3.6	1.7	0.2	8.1	4.3	-0.4	-4.5	-2.6
Food	0.9	3.3	2.3	0.0	1.6	1.7	0.9	1.7	0.6
Goods and services with administratively controlled prices and tobacco products	1.4	1.9	0.9	1.3	1.1	0.9	0.1	0.8	0.0

Source: the BNB.

### Risks to the Forecast

Risks to the economic growth outlook are for higher than expected growth in the 2017–2018 period and balanced for 2019. Following the presidential and parliamentary elections the uncertainty about global economic developments in some of Bulgaria's trading partners (France and the Netherlands) mitigated as compared with the previous forecast and risks stemming from the external environment are assessed as balanced. As regards private consumption and investment risks for the whole forecast horizon are also balanced. In terms of government consumption and investment, risks for the 2017–2018 period are for a higher than expected growth and balanced for 2019.

In case of more favourable than expected developments in external and domestic environment, economic activity in Bulgaria could be higher *vis-à-vis* the baseline scenario. Oil prices, which irrespective of their upward dynamics still remain at a low level, the low cost of financing, high capacity utilisation rate and current positive sentiment observed in Bulgaria, remain preconditions for higher than projected consumption and investment. Given that the absorption rate of funds under EU programmes accelerates compared with the projected one and a more substantial part of the expected overperformance of tax revenue is used to fund additional wage, health care and operating costs exceeding the one projected

<sup>78</sup> For more information on core inflation dynamics, see Section 4, Inflation.

by the government, it is likely to have higher government investment and consumption in 2017 and 2018. Stronger than expected global growth could result in higher external demand for Bulgarian goods and services.

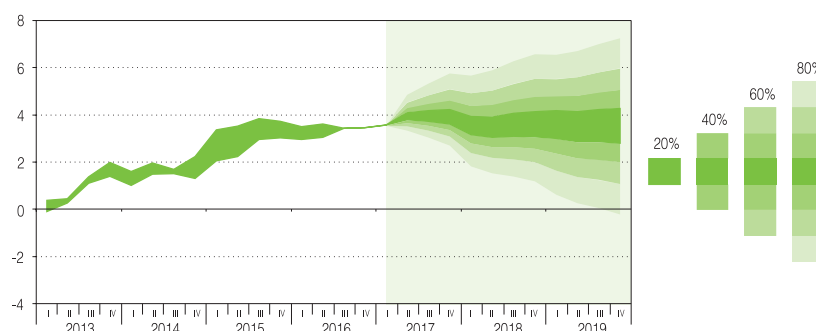
On the other hand, there remains uncertainty surrounding negotiations over Brexit, uncertainty about the future US fiscal and monetary policy, the forthcoming elections in Germany and political instability in Italy, which could exert a limiting effect on investment decisions of firms and consumer sentiment of households and on the external demand for Bulgarian goods and services. This is likely to result in weaker than expected increase in the private components of domestic demand and exports and hence, in a lower than expected real GDP growth.

The uncertainty over the outlook for a particular indicator may be graphically illustrated by means of the so-called fan chart. Chart bands, shaded in a particular colour, set an interval in which with a certain probability the projected value is expected to fall (for further details, see the note to the chart on GDP growth). Each interval widens by an increase in a projected horizon, reflecting an increasing uncertainty regarding a more distant future. The fan chart on the annual GDP growth shows for example that there is a 60 per cent probability for real GDP growth to range from 3.3 to 4.5 per cent over the year.

Risks to the inflation outlook are assessed as balanced and are mainly caused by uncertainty surrounding global food and petroleum prices developments and by possible changes in administratively controlled prices. A stronger than projected decline in telecommunication services prices as a result of removed roaming charges from 15 June 2017 may lead to a lower than expected inflation. The balance of risks regarding inflation outlook is graphically shown in the fan chart of the expected annual rate of inflation at the end of the period. It shows that there is a 60 per cent probability for annual HICP growth to range from 0.4 to 2.6 per cent at the end of 2017.

Risks to the balance of payments outlook are assessed as balanced. The major source of uncertainty to the balance of payments projection is the external environment and in particular commodity price

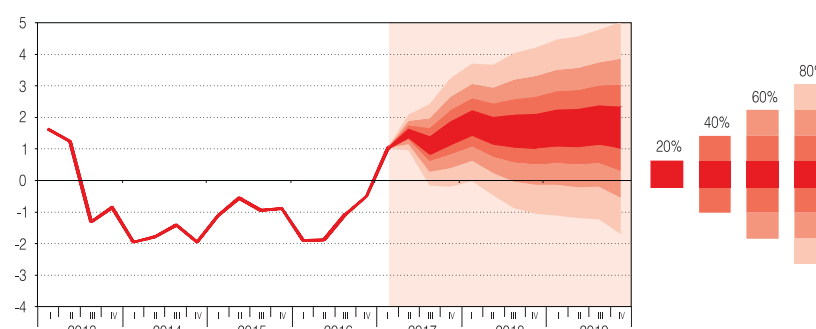
## Fan Chart of the Expected Annual Rate of Change of Real GDP



Note: The fan chart shows the expert views of the forecasters on the uncertainty around the projected value based on probability distribution. The reporting period shows revisions of GDP growth estimates. The middle band of the chart, depicted in the darkest colour, includes the central projection and the probability distribution shows 20 per cent probability for the actual value to fall in this band in each of the quarters. If neighbouring bands (in the same brighter colour) are added to the middle band, there would be a 40 per cent coverage of the probability mass. Thus, by adding each same colour couple of bands, the probability for the value to fall there would be increased by 20 percentage points to reach 80 per cent. The probability for the value to remain outside the coloured part of the chart is 20 per cent based on the distribution chosen.

Source: the BNB.

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



Note: The fan chart shows the expert views of the forecasters on the uncertainty 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.

developments on international markets which once reflected in the terms of trade could have a significant impact on the balance of trade or current account.

Uncertainty about the monetary sector forecast is reported with regard to the impact of the National Programme on Energy Efficiency of Residential Buildings on the growth rate of loans to households.

### Forecast of Key Macroeconomic Indicators for 2017–2019

(per cent)

	2015	2016	2017	2018	2019
<i>Annual rate of change</i>					
GDP at constant prices	3.6	3.4	3.6	3.4	3.5
Private consumption	4.5	2.1	3.5	2.8	2.9
Government consumption	1.4	0.6	1.9	2.1	1.9
Gross fixed capital formation	2.7	-4.0	6.2	6.3	6.7
Exports (goods and services)	5.7	5.7	5.1	5.3	5.3
Imports (goods and services)	5.4	2.8	5.4	5.3	5.4
HICP at end of period	-0.9	-0.5	1.5	1.6	1.7
Core Inflation	-0.3	-2.1	0.1	1.5	2.0
Energy	-10.5	-0.2	3.6	1.7	3.0
Food	0.9	0.9	3.3	2.3	2.1
Goods and services with administratively controlled prices and tobacco products	-0.7	1.4	1.9	0.9	0.0
Employment	0.4	0.5	0.7	0.7	0.5
Unit labour costs	2.3	0.2	1.8	1.8	1.8
Labour productivity	3.3	2.9	2.9	2.8	3.0
Unemployment rate (share of labour force, per cent)	9.1	7.6	6.9	6.3	5.9
Claims on non-government sector	-1.6	1.8	4.7	4.0	5.5
Claims on corporations*	-1.6	0.6	4.0	4.3	5.7
Claims on households	-1.3	2.0	6.1	3.4	5.1
Deposits of the non-government sector	10.6	7.0	6.0	6.6	7.0
<i>Share of GDP</i>					
Balance of payments current account	-0.1	4.2	2.2	1.4	1.1
Trade balance	-5.8	-3.9	-4.3	-4.4	-4.5
Services, net	6.6	7.3	7.5	7.6	7.6
Primary income, net	-4.6	-2.5	-3.6	-4.3	-4.6
Secondary income, net	3.6	3.3	2.6	2.6	2.5
<i>Annual rate of change</i>					
External assumptions					
External demand	1.9	2.9	4.2	3.8	3.8
Average annual Brent crude oil price (in USD)	-47.1	-15.9	21.4	3.7	3.2
Average annual price of non-energy products (in USD)	-16.5	-3.9	6.4	2.2	2.8
Brent crude oil price at the end of period (in USD)	-42.9	15.3	7.8	4.9	1.7
Price of non-energy products at the end of period (in USD)	-18.9	7.4	3.3	3.6	2.5

\* Data refer to non-financial corporations.

Source: the BNB.

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