

# Economic Review

1/2016



BULGARIAN  
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BANK

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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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In the first quarter of 2016 the global economic indicator declined again, signalling a slow improvement in the global economic activity. The worsened indicator of the international situation was largely due to the decrease in the services index. In contrast to the last quarter of 2015, the decline in the global economic indicator was entirely due to worsened economic activity expectations in developed economic regions, such as the USA, the euro area and Japan. Economic indicators, reflecting the economic activity in the developing countries, stabilised. This was mainly attributable to the moderate improvement of China's indicators at the end of the first quarter, which largely reflected the effect of stimulus measures initiated by the government and the People's Bank of China.

Global inflation remained relatively stable in the first months of 2016. The effect of the continued fall in international prices of main commodity groups throughout the review period was partly offset by depreciated currencies of some developing economies, which pushed up inflation in these countries. However, inflation in developed economies remained very low which prompted a launch of a series of additional monetary policy measures by the ECB and the Bank of Japan.

Worsening of global economic indicators in the beginning of 2016 was a reason for the ECB and the European Commission to revise downwards their euro area real GDP growth projections for 2016. The expected lower growth is likely to result in slower annual growth of external demand for Bulgarian goods and services in the third and fourth quarters of 2016.

In Bulgaria, the current and capital account surplus posted a year-on-year increase in 2015, and this trend was sustained in early 2016. The contracted trade deficit and higher capital account surplus were the main factors behind these developments. The lower trade deficit reflected both higher real growth in exports as compared with imports and favourable terms of trade over the period. The higher capital account surplus was a result of the increase in capital transfers received under EU programmes. The year-on-year increase in the current and capital account surplus at the close of 2015 and in early 2016 was partly limited by increasing outgoing payments on the investment income. In the second and third quarters of 2016 the current account surplus is expected to increase as a share of GDP compared to its 2015 level, due mainly to a further contraction in the trade balance deficit, and the capital account surplus is anticipated to start decreasing. As a result of these developments, the overall current and capital account balance will slightly increase as a share of GDP.

In early 2016 the upward trend in funds attracted from the non-government sector in the banking system was sustained despite the further decrease in deposit rates. As of February 2016 deposits of households and non-financial corporations reported year-on-year growth by 6.7 per cent and 14.3 per cent, respectively. Lending remained low reflecting not only the weak demand but also the measures initiated by banks to optimise their balance sheets in 2015 and in early 2016. In the second and third quarters of 2016 funds attracted from the non-government sector are anticipated to continue growing due to the sustained high propensity of households to save. The expectations of a further decline in claims on the non-government sector on an annual basis are driven by materialisation of risks related to low lending activity in early 2016 and additional sales of credit portfolios by banks, which hold back nominal growth of credit to the private sector. In the context of a recovering economic activity and a continuous decrease in lending rates, the rates of decline in claims on the non-government sector are expected to gradually subside. Interest rates on new time deposits are projected to continue to decrease slowly over the projection horizon, which coupled with the high banking system liquidity will contribute to a further decline in lending rates.



In the fourth quarter of 2015 real GDP increased by 0.7 per cent. Over this quarter net exports contributed most to growth reflecting the stronger exports than imports growth in goods and services in real terms on a quarterly basis. Private consumption and gross fixed capital formation also had a positive contribution to growth.

Short-term economic indicators over the fourth quarter of 2015 and the first quarter of 2016 provide mainly positive signs about the economic development. The anticipated continuous recovery of demand for goods and services, retained low oil prices, positive sentiment of households and firms, together with the high capacity utilisation rate will create conditions for boosting employment and companies' investment activities. Still, the high uncertainty surrounding the international situation is likely to continue to contribute to a more cautious investment and expenditure policy of the firms. Private consumption is projected to grow quarter on quarter and private investment to remain low over the second and third quarters of 2016. We expect government investment to decline on an annual basis over this period due to the delayed start-up of new investment projects financed by the EU funds in the new programming period 2014–2020. In real terms, exports of goods and services will increase at a slightly higher pace than imports of goods and services. The described dynamics of the final use components indicates that in the second and third quarters of 2016 quarterly GDP growth is expected to moderate slightly relative to the rates observed in the corresponding quarters of 2015.

In the first quarter of 2016 the decrease in end-use consumer prices accelerated and inflation reached -1.9 per cent in March (-0.9 per cent at the end of 2015). This reflected mainly the decline in international oil prices which contributed to the significant drop in transport fuel prices, as well as in the prices of transport services and some administratively controlled prices affected indirectly by fuel prices. Lower import and domestic prices of certain agricultural products contributed to the deflation reported in the food group in March, while the strengthening in the long-term downward trend in the prices of telecommunication services contributed to the deflation in the services group. Prices in other major groups of goods and services remained stable.

In the second and third quarters of 2016 inflation is expected to remain negative, which will be driven mainly by the fall in international fuel, food and commodity prices in the beginning of 2016.

# 1. External Environment

In the first quarter of 2016 the global economic indicator continued to decline mainly driven by the drop in the services index. Across regions, expectations about economic activity worsened mostly in advanced economies, particularly in the USA. Global inflation remained relatively stable. The effect of the continued fall in international prices of main commodity groups throughout the review period was partly offset by depreciated currencies of some developing economies, which pushed up inflation in these countries. However, inflation in developed economies remained very low which prompted a launch of a series of additional monetary policy measures by the ECB and the Bank of Japan.

The ECB and the EC revised downwards their euro area GDP growth projections for 2016. The expected growth is likely to result in slower annual growth of external demand for Bulgarian goods and services in the third and fourth quarters of 2016.

## Current Business Situation

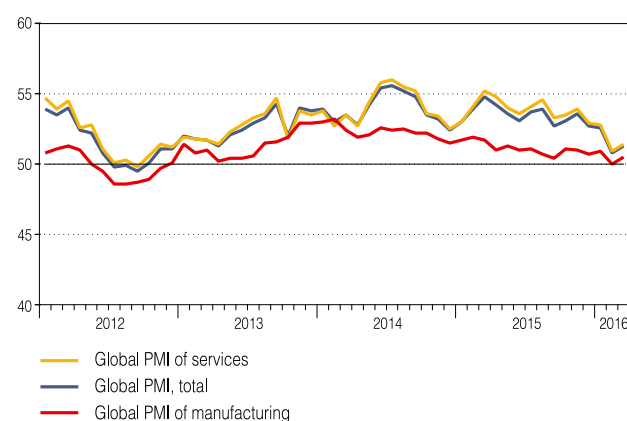
In the first quarter of 2016 the global economic indicator (global PMI) declined from the average level of the previous quarter due mainly to the services index decline and, to a lesser degree, to the industrial production index. Lowered expectations of the global business situation in the first three months of 2016 reflected entirely declines in economic indicators of developed economies, signalling economic growth moderation in the USA, euro area and Japan.

In the beginning of 2016 world trade volumes tended further to moderately increase on an annual basis. This growth was fuelled by both developing and developed economies, with a stronger rise observed in foreign trade of the euro area. The US trade volume, however, declined significantly.

In early 2016 global inflation stayed close to that of end-2015, reaching 1.4 per cent in February 2016 (against 1.5 per cent in December 2015). By region, a slight slowdown in inflation rates was recorded in developing countries amid declining international commodity prices, which was partially offset by the depreciation of their national currencies. Inflation in developed countries was positive and low in February 2016 (0.4 per cent) retaining its level of end-2015.

External environment will continue to be a source of uncertainty for the development of

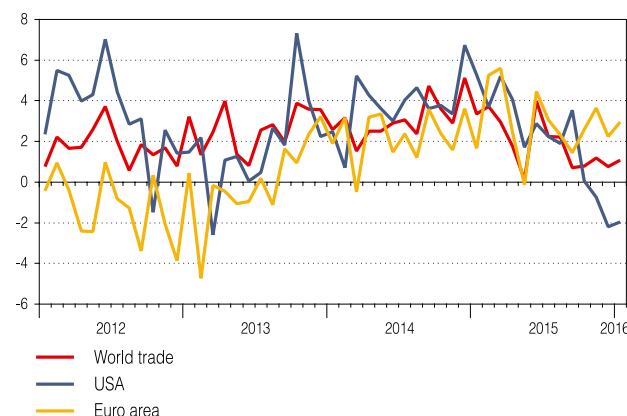
Global PMIs



Source: JP Morgan.

World Trade

(annual rate of volume growth, per cent)



Source: CPB Netherlands Bureau for Economic Policy Analysis.

the Bulgarian economy in the third and fourth quarters of 2016. Current economic indicators in the euro area indicate moderation in the growth which could be reflected in external demand for Bulgarian goods and services over the third and fourth quarters of 2016.

## Euro Area

Over the fourth quarter of 2015 euro area real GDP grew by 0.3 per cent on a quarterly basis, as in the previous quarter. Real GDP remained unchanged in Germany (0.3 per cent), France (0.3 per cent) and Spain (0.8 per cent), while moderating in Italy to 0.1 per cent and accelerating in the rest of the euro area.

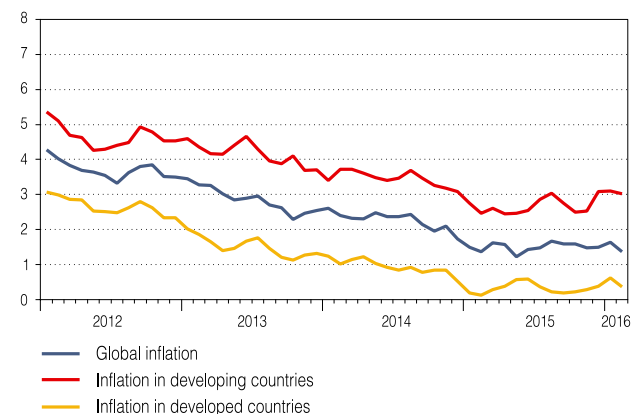
Against the background of the weaker external environment, euro area net exports in the fourth quarter were again the only component with a negative contribution to GDP growth (by -0.3 percentage points). Growth was observed in total euro area investment, which had the highest positive contribution to the quarterly growth of economic activity in the euro area (0.3 percentage points). This development was largely due to the increase in public and private investment in Germany.

Over the first months of 2016 the dynamics of euro area leading economic indicators, including PMIs and EC indices, shows that euro area growth in the first quarter is likely to slow down from the previous period. The average value of PMIs in the first quarter remained lower than the average value for the preceding quarter, indicating a moderation in economic activity in both manufacturing and services sectors.

The slow, but sustainable, improvement of the labour market in the euro area continued in the first months of 2016. In February euro area unemployment declined to 10.3 per cent. However, the indicator of the expected unemployment level over the next twelve months included in the EC consumer confidence index showed a slight deterioration in consumer expectations about labour market developments. Over the recent months Greece and Spain continued to report the highest unemployment rates at 24.0 and 20.4 per cent, respectively, with a moderate decline of this indicator observed in both countries. An increase in annual unemployment was

## Inflation Measured through CPI

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

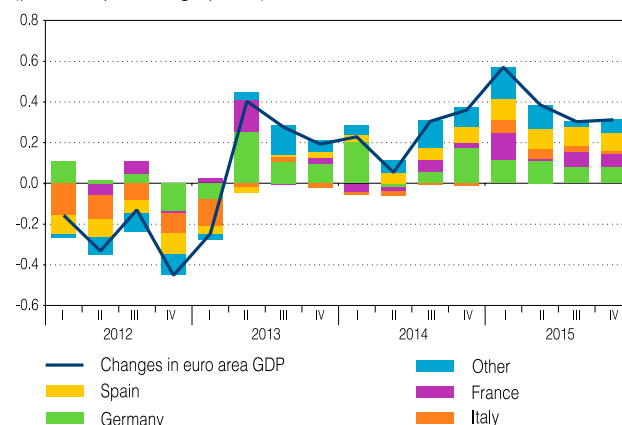


Note: The World Bank measures the change of CPI in individual groups as a weighted average of CPI changes in the countries of the group. For calculating the weights of the countries, real GDP based on purchasing power parity is used. Groups include only World Bank Member States classified by the World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

Source: World Bank.

## Contributions to Real GDP Growth in the Euro Area by Country (Quarterly)

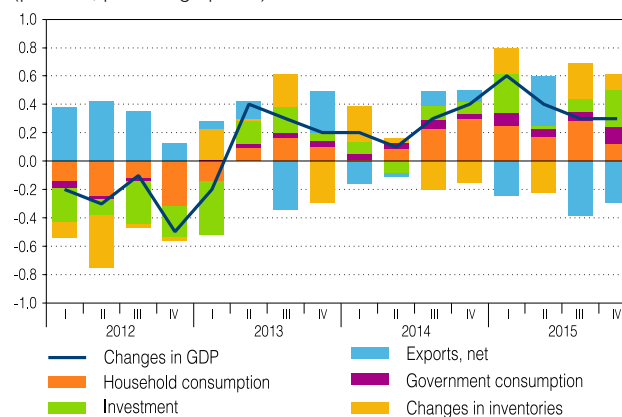
(per cent; percentage points)



Sources: Eurostat and BNB calculations.

## Contribution to Real GDP Growth in the Euro Area by Component (Quarterly)

(per cent; percentage points)



Source: Eurostat.

reported in Italy and Portugal, where it went up by 0.1 and 0.2 percentage points, respectively. Germany recorded the lowest unemployment level at 4.3 per cent.

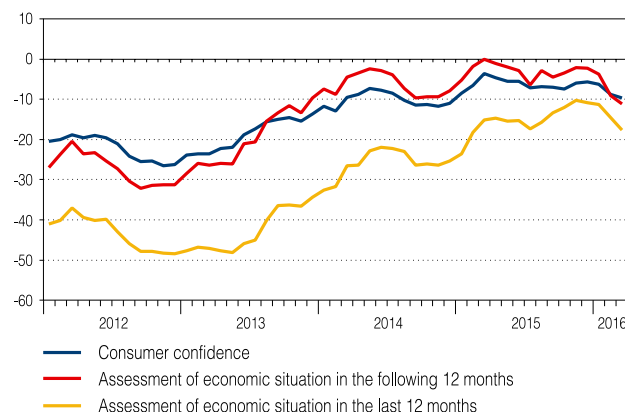
In March the ECB revised downwards its forecast for GDP growth in the euro area for 2016 and 2017 *vis-à-vis* the December 2015 forecast, reflecting expectations of slowing growth in the global economy.

Inflation in the euro area remained at very low levels, with Eurostat data pointing to retention of the annual HICP level in March compared with a decline of 0.2 per cent in February. HICP inflation was mainly driven by decreased energy prices, while growth in services and non-processed foods prices accelerated. According to final Eurostat data, in March the consumer price index fell most significantly in Cyprus (-2.2 per cent) and Spain (-1.0 per cent), while inflation was highest in Belgium (1.6 per cent) and Malta (1.0 per cent).

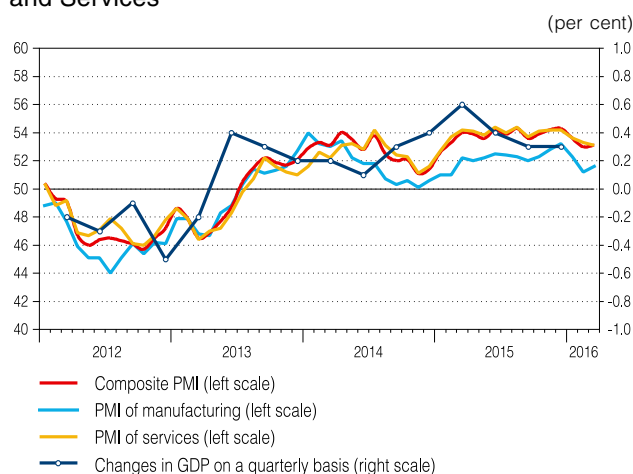
The ECB and the EC revised downwards their euro area average annual inflation forecasts for 2016 and 2017. The revision for 2016 was more essential and reflected mainly expectations about a drop in the prices of energy products included in HICP.

At its monetary policy meeting of 21 January 2016, the ECB made no changes to its interest rate policy and kept unchanged rates on the main refinancing operations, deposit facility and marginal lending facility at 0.05, -0.30 and 0.30 per cent, respectively. More unfavourable economic and financial conditions in the euro area over the first months of 2016 and ECB forecasts of inflation and growth which were revised negatively gave grounds for the Bank to decide at its 10 March meeting to cut interest rates on the main refinancing operations and marginal lending facility by 5 basis points each to 0.0 and 0.25 per cent, respectively, along with reducing the deposit facility rate by 10 basis points to -0.40 per cent. In addition, the ECB took a decision to enhance its set of non-standard monetary policy measures.

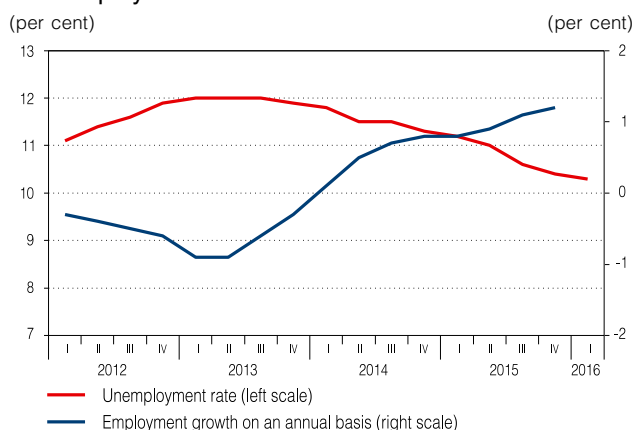
## Euro Area Consumer Confidence Indices



## Changes in GDP and PMIs of Manufacturing and Services



## Euro Area Unemployment Rate and Employment Growth



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

Institution	Date of release	2016		2017		2018	
		latest	previous	latest	previous	latest	previous
ECB	March 2016	1.4	1.7	1.7	1.9	1.8	-
EC	February 2016	1.7	1.8	1.9	1.9	-	-

Sources: ECB, EC.

## Projections of Annual Inflation in the Euro Area

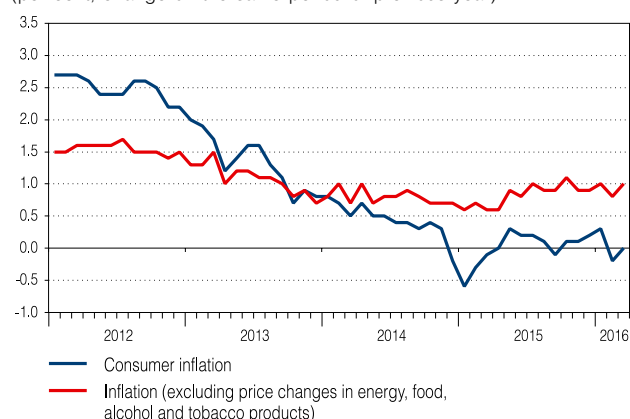
(per cent)

Institution	Date of release	2016		2017		2018	
		latest	previous	latest	previous	latest	previous
ECB	March 2016	0.1	1.0	1.3	1.6	1.6	-
EC	February 2016	0.5	1.0	1.5	1.6	-	-

Sources: ECB, EC.

## Euro Area Inflation Rate

(per cent, change on the same period of previous year)



Source: Eurostat.

## ECB Monetary Policy Measures Adopted at the Monetary Policy Meeting of 10 March 2016

Further monetary accommodation measures announced after the Governing Council meeting held on 10 March 2016 were justified by the need to accelerate inflation. In addition to the decrease in the interest rate on the deposit facility by 10 basis points to -0.40 per cent and the cuts in both the main refinancing operations rate and the marginal lending facility rate by 5 basis points each to 0.0 and 0.25 per cent, respectively (effective as of 16 March 2016), these measures also included:

- 1) Expansion of the monthly purchases under the asset purchase programme to EUR 80 billion from EUR 60 billion since April 2016. To ensure continuous and smooth implementation of asset purchases, the ECB Governing Council decided to increase the share of purchased euro-denominated bonds issued by international organisations and supranational development banks from 33 to 50 per cent of the volume of each issue and of total outstanding securities of each issuer. In addition, starting from early April 2016, the share of monthly purchases of these bonds under the PSPP was reduced from 12 to 10 per cent, while the share of the ECB in the purchases under the PSPP was raised from 8 to 10 per cent.
- 2) Inclusion of investment grade euro-denominated bonds issued by non-bank corporations established in the euro area in the list of assets that are eligible for regular purchases. Purchases of such securities will be included in a new Corporate Sector Purchase Programme (CSPP) which is expected to start towards the end of the second quarter of 2016.
- 3) Launching a new series of targeted longer-term refinancing operations (TLTRO II) which will be conducted on a quarterly basis, starting from June 2016 to March 2017, each operation with a maturity of four years. The interest rate on the TLTRO II will be equal to the interest rate on the main refinancing operations, with an additional opportunity being provided for reducing the rate if new loans extended by banks exceed a certain volume criterion. The size of the reduction in the interest rate will be graduated linearly depending on the percentage by which a counterparty exceeds its benchmark stock of eligible loans. The rate may be reduced at most to the level of the deposit facility rate effective as of the date of conducting the operation. As regards the previous outstanding TLTROs, the Governing Council decided to introduce an additional voluntary repayment possibility for the funds obtained during these operations, and the settlement will be performed in June 2016, coinciding with that of the first TLTRO II operation. This will allow banks to roll over their old loans under the TLTROs into new loans under TLTRO II which will be implemented under more favourable financial conditions.

As of 8 April 2016 the cumulative amount of the assets purchased under the three asset purchase programmes (PSPP, CBPP3 and ABSPP) came to EUR 670.8 billion, EUR 166.8 billion and EUR 19.2 billion, respectively. In addition, EUR 7.3 billion was allotted in the seventh Targeted Longer-Term Refinancing Operation conducted on 24 March. As a result of ECB operations and programmes, as of 8 April the amount of excess liquidity in the euro area banking system increased to EUR 743.5 billion from EUR 660.8 billion at the end of December 2015. The ECB balance sheet figure reached EUR 2.953 trillion.

The increased amount of excess liquidity resulted in a further decline in EONIA which reported an average value of -0.26 per cent for the 4 January – 8 April 2016 period (-0.16 per cent for the fourth quarter of 2015). The volume of overnight deposits traded in the euro area's interbank market increased slightly as their daily average value between 4 January and 8 April 2016 came to EUR 13.8 billion (against EUR 11.1 billion in the fourth quarter of 2015).

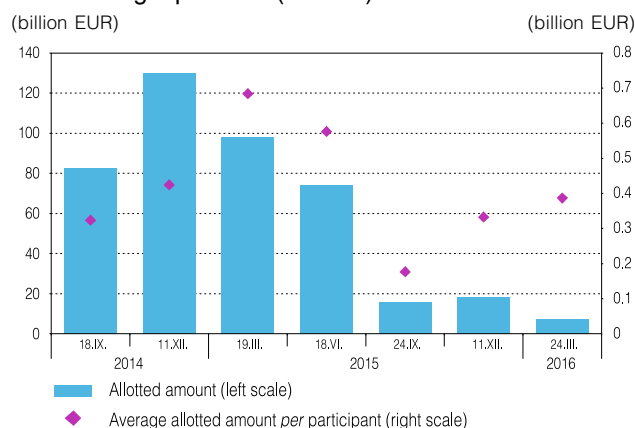
EURIBOR interest rates on interbank market deposits continued to follow a downward trend, their value declining in all maturity sectors to a negative territory. As of 8 April 2016 one-month interest rates reached -0.34 per cent (-13 basis points from end-December 2015), and those with maturities of six and 12 months fell to -0.13 per cent and -0.01 per cent, respectively (by -9 and -7 basis points, respectively, *vis-à-vis* end-December).

## The United States

In 2015 US real GDP rose by 2.4 per cent, as in 2014. Over the fourth quarter of 2015 growth slowed down to 0.3 per cent on a quarterly basis (0.5 per cent in the previous quarter), reflecting mainly the decline in total investment and lower growth in government consumption.

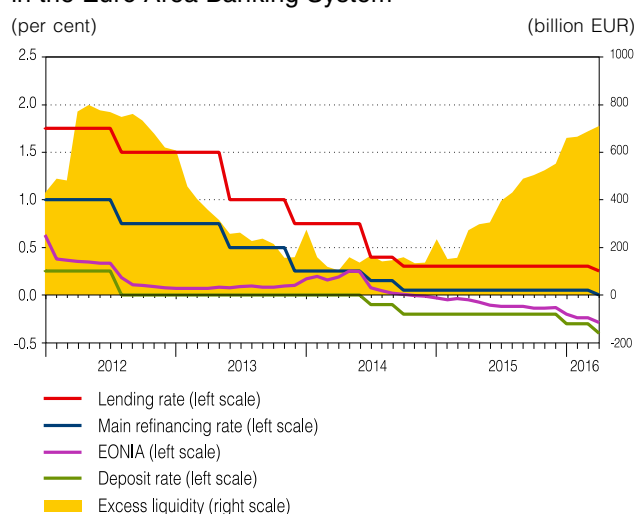
Economic data released in early April 2016 indicate a moderation in US real GDP growth. In the first quarter of 2016 divergent changes in US leading economic indicators were observed. Industrial production indicators displayed an upward trend after the strong decline in the previous quarter, while most other leading indicators

## Allocation of Funds on ECB Targeted Longer-Term Refinancing Operation (TLTRO)



Source: ECB.

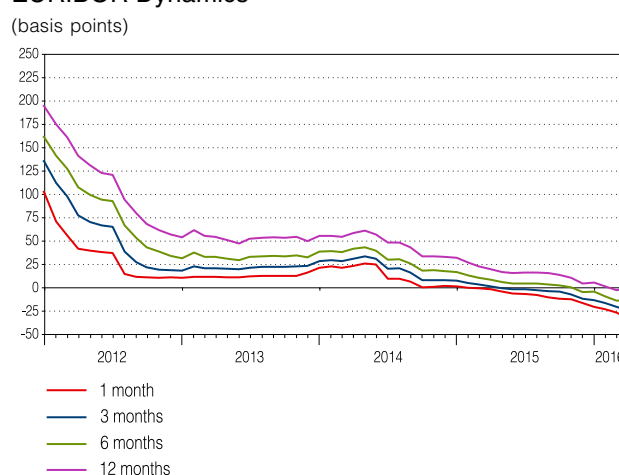
## ECB Interest Rates, EONIA and Excess Liquidity in the Euro Area Banking System



Note: Average EONIA data for the month.

Source: ECB.

## EURIBOR Dynamics



Source: ECB.



of economic activity either decreased slightly, or stabilised. The ISM-PMI of services showed a volatile pattern, its average value between January and March remaining above the cut-off limit of 50, though lower than the average value for the previous quarter. While consumer confidence indicators also underwent mostly a downward change over the first quarter, the average value of both major indicators remained at a relatively high level. The monthly growth rate of consumer expenditure was positive in January and February, even though it did not follow developments in retail sales which decreased over the period.

Inflation measured by the personal consumption expenditure deflator(PCE)<sup>1</sup> went up in the fourth quarter of 2015 and in January 2016. However, this trend was discontinued in February amid declining fuel prices. In January and February the annual growth rate of core inflation (excluding food and fuel prices) stabilised at 1.7 per cent.

US labour market conditions continued to improve in the first quarter. Unemployment remained close to the level of 5 per cent, and the average quarterly number of new employees in the US non-agricultural sector was 209,000.

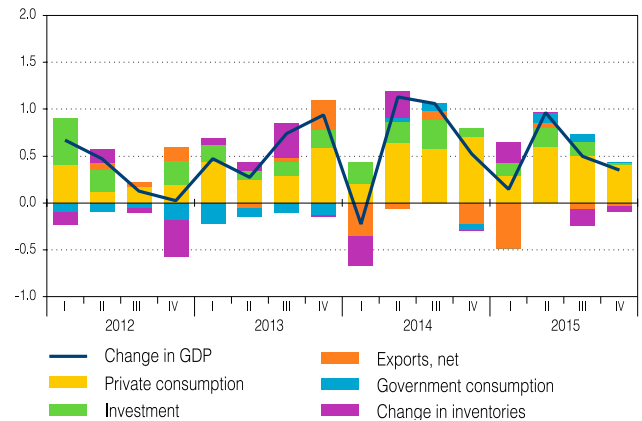
At its 15–16 March 2016 meeting, the FOMC decided to left unchanged the monetary policy, retaining the current federal funds rate corridor of 0.25–0.50 per cent. This decision was justified by the still low inflation rate and risks surrounding GDP growth and stemming from expectations of adverse developments in the global economy.

Individual forecast releases of the FOMC members about adequate federal funds rate levels at the end of 2016, 2017 and 2018 and the long-run equilibrium level were revised downwards reflecting their preferences of a more gradual rise in interest rates. FOMC members expect that inflation will reach the target of 2 per cent in the next two to three years.

<sup>1</sup> Dynamics of this index is taken into account by the Federal Reserve System in making its monetary policy decisions.

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

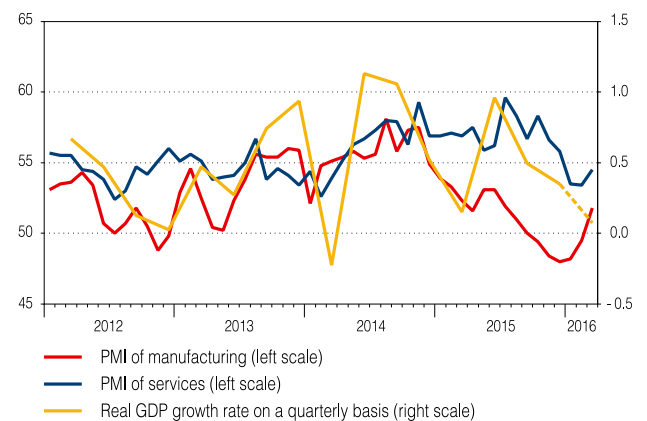
(per cent; percentage points)



Source: Bureau of Economic Analysis.

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

(per cent)

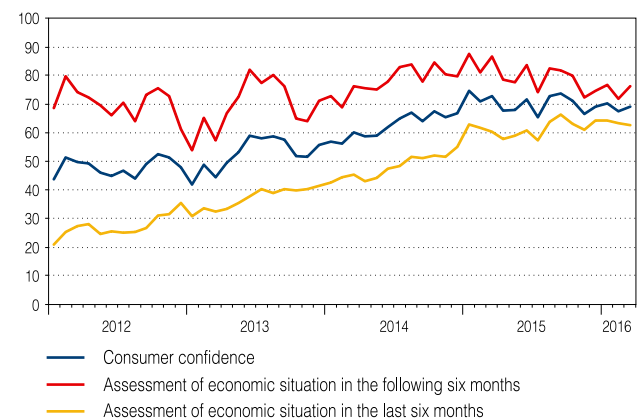


Note: The dotted line shows the economic growth forecast for the USA according to the Federal Reserve Bank of Atlanta model (GDPNow™).

Sources: Institute for Supply Management and Bureau of Economic Analysis (BEA), Federal Reserve Bank of Atlanta and BNB calculations.

## US Consumer Confidence Indices

(2000 = 100)

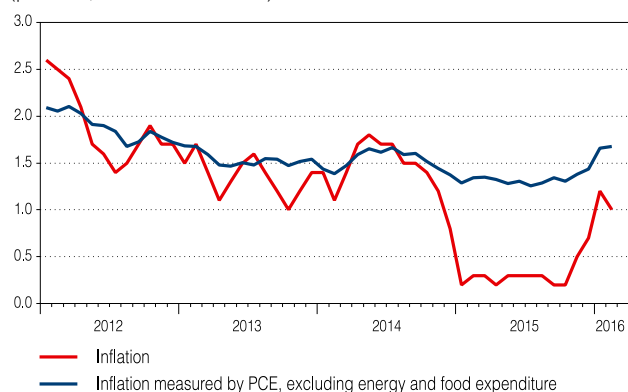


Source: The Conference Board.



## US Inflation Rate

(per cent, on an annual basis)



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

Source: Bureau of Labor Statistics.

## China

In the first quarter of 2016 China's GDP rose by 6.7 per cent on an annual basis from 6.8 per cent in the fourth quarter of 2015, while increasing by 1.1 per cent on a quarterly basis driven mainly by investment in real estate and infrastructure and, to a lesser extent, by services. Mid-April data show that economic growth stabilisation in China over the first months of 2016 was largely due to enhanced lending and activated investment programmes of the government.

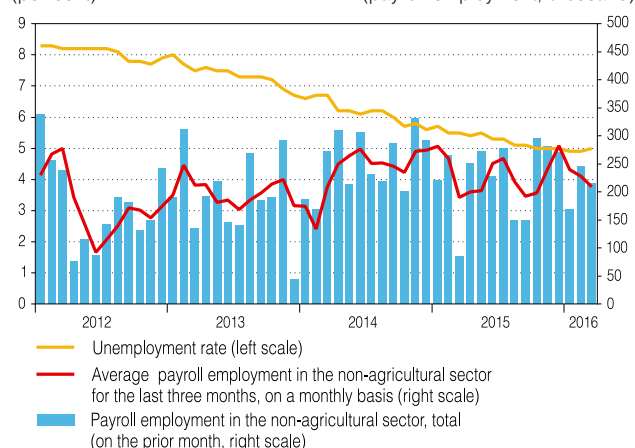
In the first quarter manufacturing and services PMIs displayed similar developments: a decline in January and February and a rise in March. The main reason behind this dynamics was the Chinese new year holidays. Despite the seasonal fluctuations, data derived from PMI components show expectations of stabilisation and even acceleration of economic growth under the influence of monetary and fiscal stimuli. Public investment in infrastructure and real estate prompted growth in industrial production which accelerated on an annual basis to 6.8 per cent in March. Among the sub-sectors, production of cement and steel increased most significantly.

In the first quarter of 2016 China's inflation rate accelerated on an annual basis to 2.3 per cent largely due to the higher food prices. Food price rises reflected primarily seasonal factors related to the Chinese New Year. The increase in real estate prices also accelerated in the first quarter of 2016, which was most pronounced in large cities.

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

(per cent)

(payroll employment, thousand)

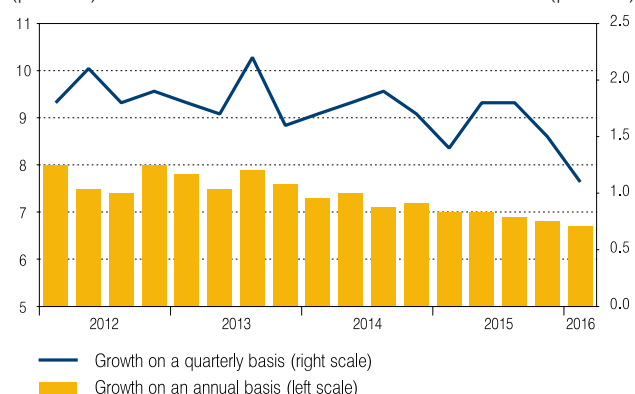


Source: Bureau of Labor Statistics.

## Quarterly and Annual Rate of Change of China's GDP

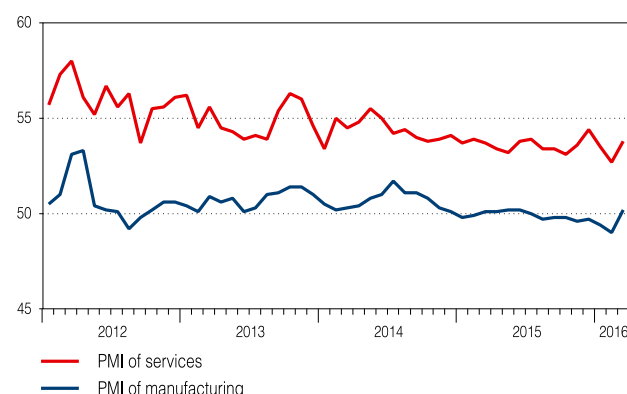
(per cent)

(per cent)



Source: National Bureau of Statistics of China.

## Services and Manufacturing PMIs in China



Source: China Federation of Logistics and Purchasing.

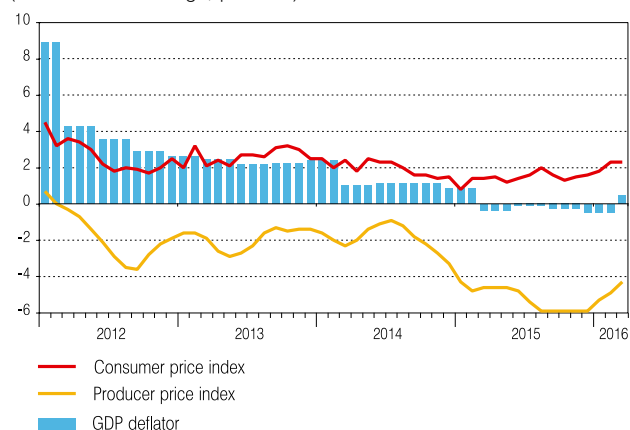
The policy pursued by the People's Bank of China also contributed to economic growth stabilisation in the first quarter of the year through stimulating credit activity. The central bank cut the rate on its minimum reserve requirements of commercial banks by 50 basis points to 17 per cent, with its approximate effect estimated at CNY 700 billion growth (USD 107 billion) in the banking system funds used to extend new loans.

In the first quarter of 2016 the downward trend in China's foreign exchange reserves began to slow down, and they rose by USD 10.3 billion to USD 3.21 trillion. The central bank contributed to this development through introducing stringer capital control and limiting renminbi depreciation.

At the Fourth Session of the 12th National Committee of the Chinese People's Political Consultative Conference held in early March, Chinese Premier Li Keqiang announced targeted annual economic growth of 6.5 to 7.0 per cent in 2016. In addition, Chinese authorities declared that a comparatively more expansionary monetary policy would be pursued throughout the current year, and the government would introduce measures to stimulate the real estate market through fostering mortgage lending.

### China's Price Indices

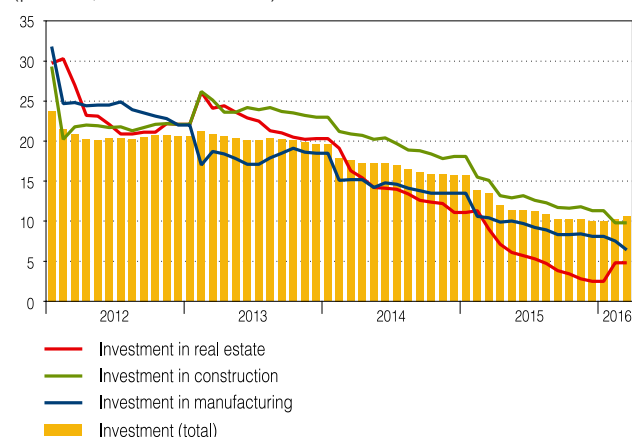
(annual rate of change, per cent)



Source: National Bureau of Statistics of China.

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

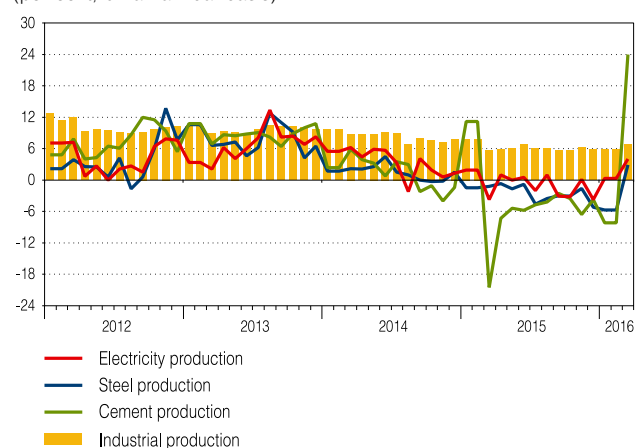
(per cent, on an annual basis)



Source: National Bureau of Statistics of China.

### Industrial Output and Output in Selected Sub-sectors in China

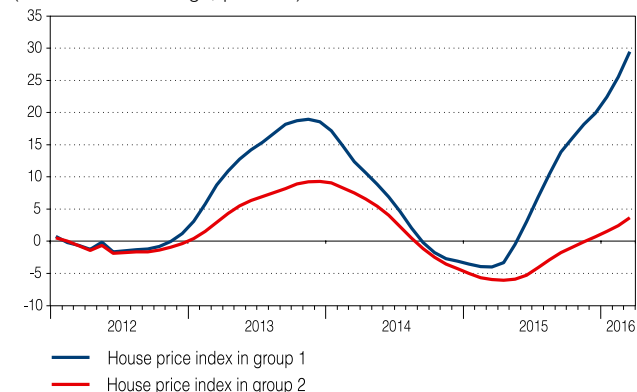
(per cent, on an annual basis)



Source: National Bureau of Statistics of China.

### House Prices in China

(annual rate of change, per cent)



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

Source: National Bureau of Statistics of China.

## International Commodity Prices

### Crude Oil

In the first quarter of 2016 the average crude oil price continued to decline on both quarterly and annual basis, reaching USD 34.4 *per barrel*. This decline was due to the continued global excess supply driven by both the increased OPEC crude oil production and subdued demand as a result of higher temperatures in the winter season. Since mid-February a volatile increase in Brent prices has been observed, reflecting lower supply by Iraq, Nigeria and United Arab Emirates along with slower than expected growth in Iran's exports. Expectations that major oil-producing countries would reach an agreement at the Doha meeting on 17 April to retain their production at the January 2016 level also pushed up oil prices. However, negotiating countries failed to reach an agreement, thereby prompting another oil price declines.

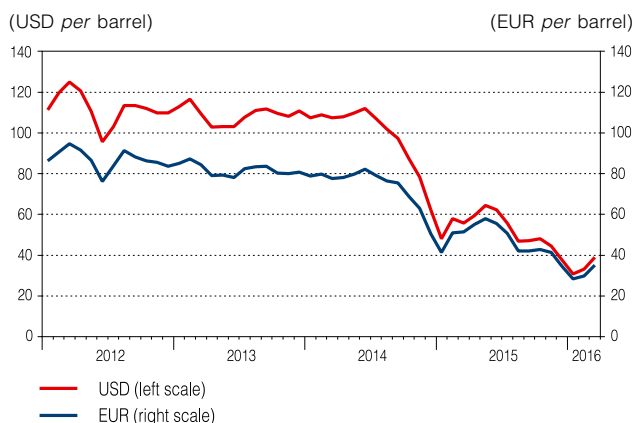
According to the International Energy Agency (IEA), there are still global excess supplies of crude oil. In the second and third quarters of 2016 IEA estimates show an increase in world-wide demand for crude oil which in combination with a certain decline in oil output in non-OPEC countries would lead to a price rise above the level of the first quarter of this year.

Oil price expectations in the second and third quarters of 2016, based on crude oil futures prices in March, *i.e.* prior to the Doha meeting in April, pointed to its increase to a level of USD 40–45 *per barrel*.

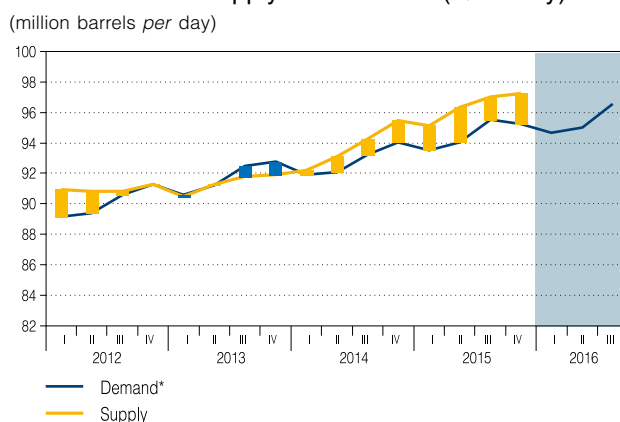
### Major Raw Material and Food Prices

In the first quarter of 2016 the metals price index published by the ECB and measuring metal prices in euro decreased by 20.0 per cent on an annual basis (down 21.7 per cent in US dollars) and by 1.2 per cent on a quarterly basis. This drop was due to the weaker, not yet recovered demand by China which is the main consumer of metals in the world, as well as to the higher level of global inventories. In March the increase in China's public investment in infrastructure and real estate started to exert an upward pressure on the prices of major industrial metals (ferrous and non-ferrous, excluding

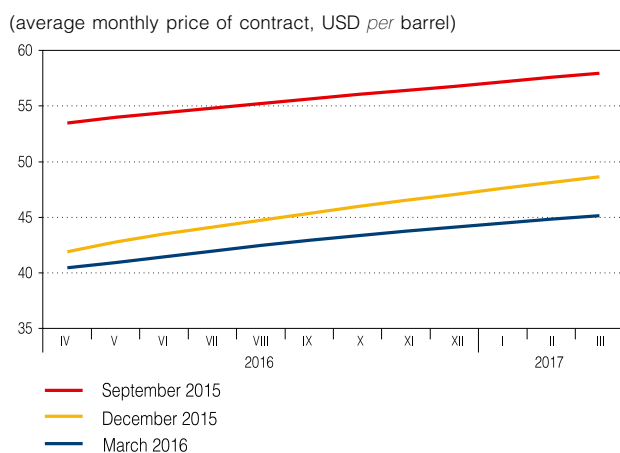
### Brent Crude Oil Prices



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



### Brent Crude Oil Futures Prices



precious metals). Given the measures to stimulate China's economic growth, a quarter-on-quarter slowdown in the decline rate of major metal prices in euro, including copper, is expected in the second and third quarters of 2016.

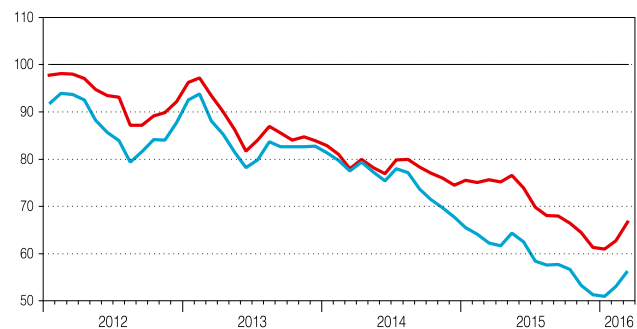
In the first quarter of 2016 the food price index in euro decreased by 4.8 per cent (down 6.9 per cent in US dollars) from the corresponding period of 2015 reflecting the increasing global supply. Over the period euro prices of all index sub-components declined on an annual basis. In the first quarter of 2016 the annual decrease in wheat prices was 16.0 per cent (down 17.9 per cent in US dollars), reflecting both the high level of inventories worldwide and expected good harvests in the USA and the EU. This outlook is a major factor for the expected quarter-on-quarter decline in international food prices in euro over the second and third quarters of 2016. Nonetheless, this decline is expected to moderate due to the weaker estimates of the new crop in India and Australia.

Based on our projection of major raw material and food price dynamics, it is expected that over the second half of the year the terms of trade in Bulgaria will improve compared to the first half of 2016.

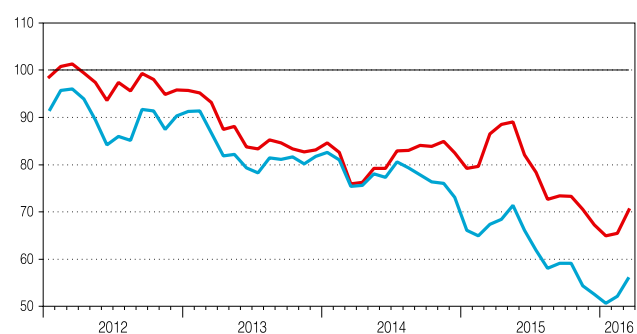
## Price Indices of Major Raw Materials and Commodity Groups

(2011 = 100)

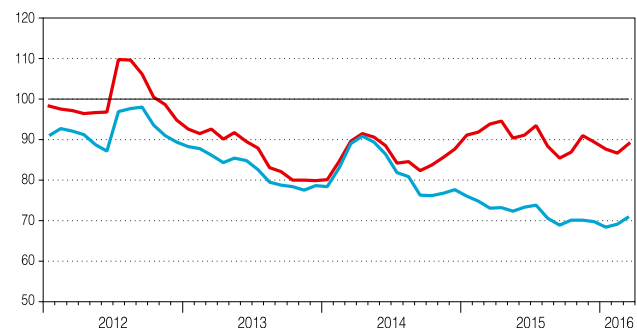
### Metals



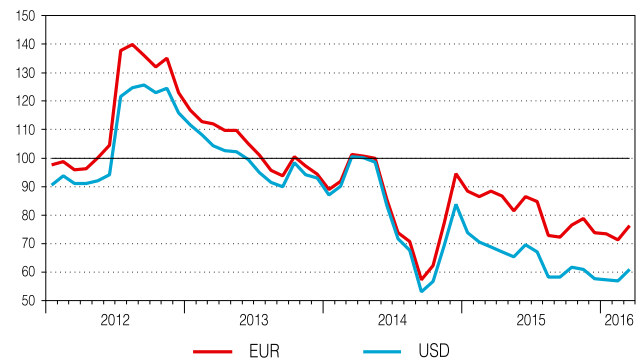
### Copper



### Food



### Wheat



Sources: ECB and BNB calculations.

## 2. Financial Flows, Money and Credit

The upward trend in the current and capital account surplus recorded in 2015 was sustained in early 2016. In the second and third quarters of 2016 the current and capital account surplus is expected to increase as a share of GDP, reflecting the rise in the current account surplus due mainly to a further contraction of the trade balance deficit, which will offset the expected lower capital account surplus.

In early 2016 funds attracted from the non-government sector in the banking system continued to increase driven by the high savings rate, a trend which is expected to be sustained in the following quarters.

Lending remained low reflecting the weak demand and the measures initiated by banks to optimise their balance sheets in the past year and in the first two months of 2016. This pertains mostly to the asset quality review carried out in all banks in Bulgaria. In the context of a recovering economic activity and a continuous decrease in lending rates, the decline in claims on the non-government sector is expected to gradually subside. Interest rates on new time deposits are projected to continue to decrease slowly over the projection horizon, which coupled with the high banking system liquidity will contribute to a further decline in lending rates.

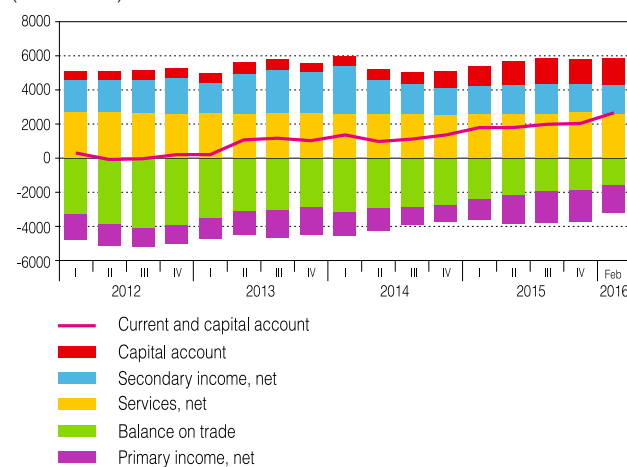
### External Financial Flows

The current and capital account surplus posted a year-on-year increase in 2015, and this trend was sustained in early 2016. The lower trade deficit and higher capital account surplus were the main factors behind this dynamics. The lower trade deficit reflected both higher real growth in exports as compared with imports and favourable terms of trade over the period. The higher capital account surplus was a result of the increase in capital transfers received under EU programmes. The year-on-year increase in the current and capital account surplus at the close of 2015 and in early 2016 was partly limited by increasing outgoing payments on the investment income.

Despite slower growth of external demand for Bulgarian goods and services and decreasing international prices of major commodity groups, nominal exports of goods steadily increased on an annual basis in 2015 and in early 2016, with exports of investment goods having the largest positive contribution.<sup>2</sup> Concurrently, the increase in nominal imports was limited by the moderate

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

(million EUR)



Source: BNB.

<sup>2</sup> The wearing off of the one-off effect of specific factors limiting exports in 2014 contributed positively to the increase in the physical volume of exports in 2015. With the completion of the repair works and construction of new oil production capacities in 2015, the sector's activity was recovered.

domestic demand and decreasing international prices of major commodity groups. As a result of these developments, in February 2016 the trade deficit continued to contract on an annual basis.

As of February 2016 the surplus in the services trade balance accumulated in the last 12 months slightly went down on the end of 2015, with a stronger decrease in nominal imports of services reported in the first two months as compared with the year-on-year fall in imports of services. In February earnings from tourism posted a decline on an annual basis, reflecting the lower number of tourists from Romania, Russia and Greece. The fall was offset by stronger exports of other business services.<sup>3</sup>

Accelerated economic growth in Bulgaria and the increased gross operating surplus of the total economy were the major reasons behind higher outflows under the reinvested profit, and dividend and distributed profit items in 2015, which resulted in a significant increase in the deficit under the primary income item. The February 2016 data suggest that the deficit on the account accumulated over the last 12 months contracted compared with that reported in December 2015 due to lower income outflows from direct investments in the first two months of 2016 compared with the corresponding period of 2015.

In 2015 and early 2016 the secondary income account surplus displayed an upward trend on an annual basis due mainly to the accelerated utilisation of funds under finishing EU operational programmes with an implementation period between 2007 and 2013.

In the second and third quarters of 2016 the current account surplus is expected to increase as a share of GDP compared to its 2015 level. Current developments associated with a contraction in the trade balance deficit and a decrease in the services balance surplus as a share of GDP are anticipated to be sustained. The capital account and secondary income account surpluses are projected to start decreasing as a share of GDP due to a completion of the 2007–2013 programming period and still early stages of implementing the operational programmes

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

## Flows on Balance of Payments Accounts

(million EUR)

	2014	2015	January – February 2016
<b>Current account</b>	<b>364.6</b>	<b>609.0</b>	<b>168.3</b>
Trade balance	-2 776.6	-1 916.6	-31.6
Services, net	2 514.2	2 703.5	95.3
Primary income, net	-988.6	-1 817.9	-55.9
Secondary income, net	1 615.6	1 640.0	160.5
<b>Capital account</b>	<b>959.6</b>	<b>1 418.0</b>	<b>178.1</b>
<b>Financial account</b>	<b>-2 087.3</b>	<b>-938.7</b>	<b>1 250.4</b>
<b>Changes in reserves</b>	<b>1 807.3</b>	<b>3 729.7</b>	<b>-775.0</b>

Source: BNB.

financed by EU funds for the 2014–2020 programming period. As a result of the developments described above, the positive current and capital account balance is expected to slightly grow as a percentage of GDP in the second and third quarters of 2016 compared with 2015.

In 2015 the financial account was negative, with the assets on the account decreasing stronger than liabilities. This was largely ascribable to banks' transactions and the inflow of foreign direct investment in Bulgaria. In 2015 banks' foreign assets exhibited a stronger decline than their foreign liabilities. As a result, the flow of banks' net assets was negative amounting to BGN 1501 million. In early 2016 the financial account reported a positive balance, reflecting the significant fall in banks' liabilities in the form of other investment.<sup>4</sup>

In 2015 liabilities on foreign direct investment (reporting the inflow of foreign direct investment in Bulgaria) remained at 3.6 per cent of GDP, with the share of the equity capital sub-item recording an increase. Foreign direct investment inflow was weaker in the first two months of 2016 compared with the corresponding period of 2015.<sup>5</sup>

The financial account balance was also influenced by government transactions. Despite the new external debt issued in March 2015, general government sector liabilities for 2015 went down reflecting repayments made on government bonds issued in international capital markets and on a bridge bank loan disbursed at the end of 2014. In early 2016 this trend was sustained, and general government sector foreign liabilities continued to decrease.

Positive net flows on the current and capital account, as well as the inflow of funds on the financial account led to an increase in gross international reserves to EUR 3729.7 million in 2015 according to the balance of payments data.<sup>6</sup> In February 2016 gross international reserves posted an increase by EUR 2554.2 million for the recent 12 months. In February 2016 the international reserve coverage of the average

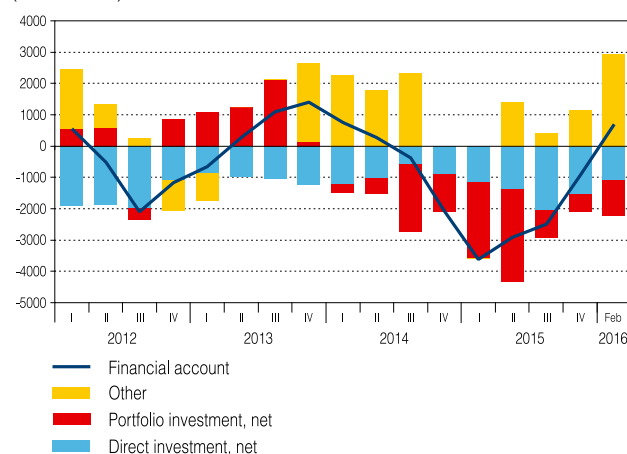
<sup>4</sup> A more detailed analysis of banks' activities is presented in the Monetary and Credit Aggregates section of Chapter 2.

<sup>5</sup> Preliminary data subject to revision.

<sup>6</sup> Valuation adjustments and price revaluation excluded.

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

(million EUR)



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

Source: BNB.

### Banks' Flows on Balance of Payments Financial Account

(million EUR)

	2014	2015	January – February 2016
<b>Direct Investment</b>			
assets	27.9	-0.8	-0.6
liabilities	106.1	275.5	0.0
<b>Portfolio Investment</b>			
assets	-309.4	-787.0	206.0
liabilities	-50.6	1.4	1.8
<b>Other investments</b>			
assets	1 085.5	-2 023.0	925.4
liabilities	-235.4	-1 586.7	-202.2
<b>Total assets</b>	<b>804.1</b>	<b>-2 810.8</b>	<b>1 130.8</b>
<b>Total liabilities</b>	<b>-179.9</b>	<b>-1 309.8</b>	<b>-200.3</b>
<b>Net assets</b>	<b>983.9</b>	<b>-1 501.0</b>	<b>1 331.1</b>

Source: BNB.



nominal imports of goods and non-factor services remained high (8.4 months) over the last 12 months, posting an increase against February 2015 (7.3 months).

In January 2016, Bulgaria's gross external debt decreased on the end of 2015, particularly the external debt of banks and the government. The decrease in the government external debt reflected mainly residents' purchases of Bulgarian government securities issued in international markets from non-residents.<sup>7</sup> The share of long-term debt in Bulgaria's total gross external debt remained unchanged on end-2015 and accounted for 77.1 per cent.

In the context of a continued interest rate decrease in international financial markets, in early 2016 favourable conditions for taking up foreign debt from Bulgarian residents were sustained. This was evidenced by an annual increase of about 7 per cent in financial credit transactions declared by non-residents and a rise in the share of long-term loans to 49.3 per cent against 29.3 per cent in January 2015.

## Monetary and Credit Aggregates

Monetary and credit aggregates dynamics in the first two months of 2016 reflected the continued increase in funds attracted from the non-government sector amid yet weak lending activity. Factors impacting the dynamics of lending were the weak demand and optimisation of credit portfolios by banks.

The annual growth rate of M3 broad monetary aggregate accounted for 7.1 per cent in February 2016. As in 2015, overnight deposits continued to have the strongest contribution to M3 growth, with money outside MFIs and deposits with an agreed maturity of up to two years having a relatively lower contribution.

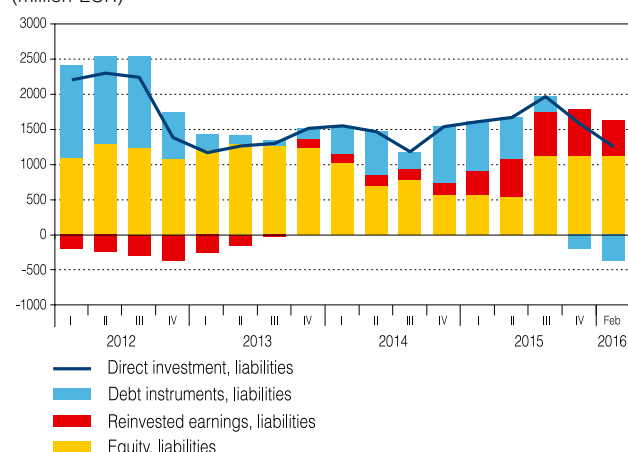
In early 2016 the upward trend in funds attracted from the non-government sector<sup>8</sup> in the bank-

<sup>7</sup> Government Debt Management Bulletin, the Ministry of Finance, February 2016 <http://www.minfin.bg/bg/statistics/1>

<sup>8</sup> Non-government sector's deposits include deposits of households, non-financial corporations and financial corporations. Deposits of households and non-financial corporations occupied the largest share in deposits of the non-government sector (95 per cent on average for 2015) and therefore the analysis is focused on these two sectors.

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

(million EUR)



Source: BNB.

## Gross External Debt in January 2016

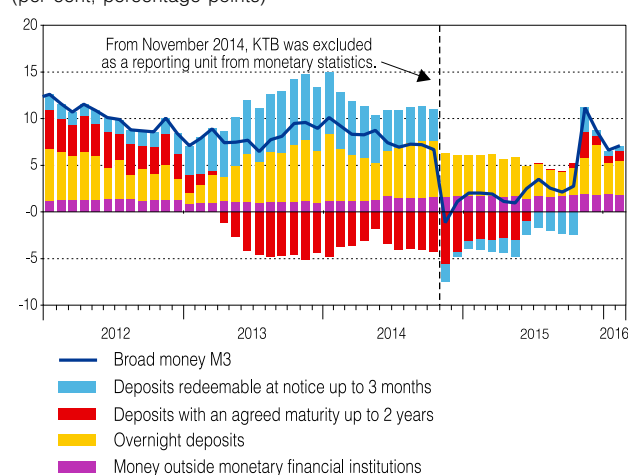
(million EUR)

	Amount	Change	
		On December 2015	Last 12 months
General government	5 468.8	-107.5	-161.1
Central bank	0.0	0.0	0.0
Banks	4 018.4	-108.0	-1 325.8
Other sectors	11 728.4	-7.5	-252.2
FDI: Intercompany loans	12 636.3	-16.1	-3 258.9
<b>Total</b>	<b>33 851.8</b>	<b>-239.2</b>	<b>-4 998.0</b>

Source: BNB.

## M3 and Its 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: BNB.

ing system was sustained. In February 2016 household deposits posted year-on-year growth of 6.7 per cent amounting to BGN 42.9 billion, remaining the major source of attracted funds growth. In the first two months of 2016 households' preferred form of saving funds changed, due mainly to lower deposit rates. While in 2015 savings were channelled mainly to time deposits, overnight deposits were the preferred ones in the first months of 2016. In terms of currency structure, households retained their preference of depositing mostly in national currency.

Deposits of non-financial corporations posting a 14.3 per cent annual increase in February 2016 reached BGN 17.7 billion. While in 2015 growth was driven by the increase in overnight deposits amid the negative contribution of deposits with an agreed maturity, since early 2016 both overnight deposits and time deposits of non-financial corporations exhibited an increase. The higher contribution of lev deposits to total growth of funds attracted from corporations observed since mid-2015 was sustained.

As a result of the increase in the funds attracted from residents, the effective implicit rate of minimum required reserves reached 9.32 per cent in March 2016.<sup>9</sup> Commercial banks' deposits with the BNB comprised 8.29 percentage points of the required reserves and the remaining 1.03 percentage points were in the form of recognised cash balances.<sup>10</sup>

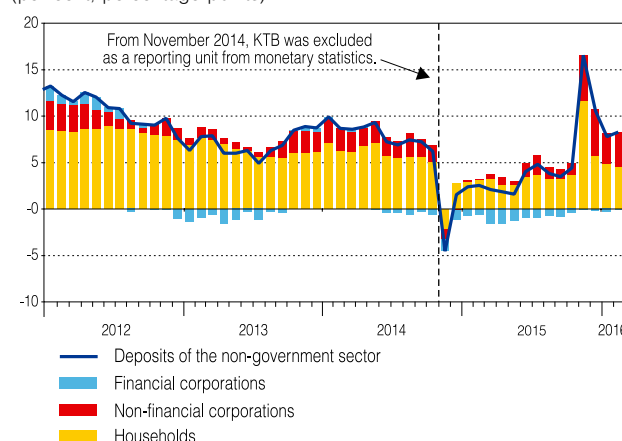
In February 2016 the growth rate of reserve money accounted for 14.8 per cent (43.0 per cent in December 2015). This was a result of both the faded base effect, due to a strong increase in bank reserves started at the end of 2014, and decreased banks' deposits with the BNB in early 2016. Banks' funds with the BNB went down due to a decline in excess reserves, reflecting the amendments to new Ordinance

<sup>9</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.

<sup>10</sup> Article 4 of the new BNB Ordinance No 21 (effective as of 4 January 2016) removes the recognition of banks' funds in the TARGET2-BNB national system component as reserve assets.

## Annual Growth of the Non-government Sector Deposits and Contributions by Sector

(per cent, percentage points)

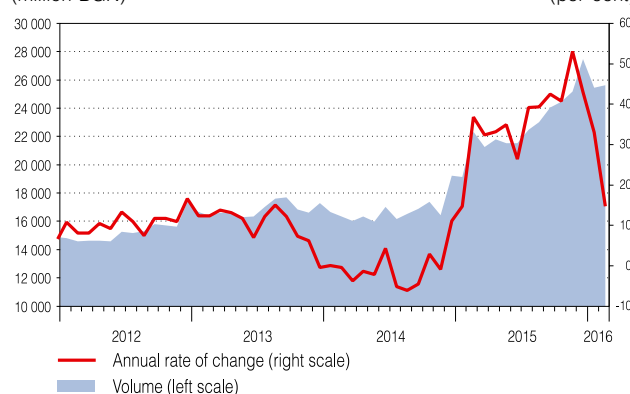


Source: BNB.

## Reserve Money

(million BGN)

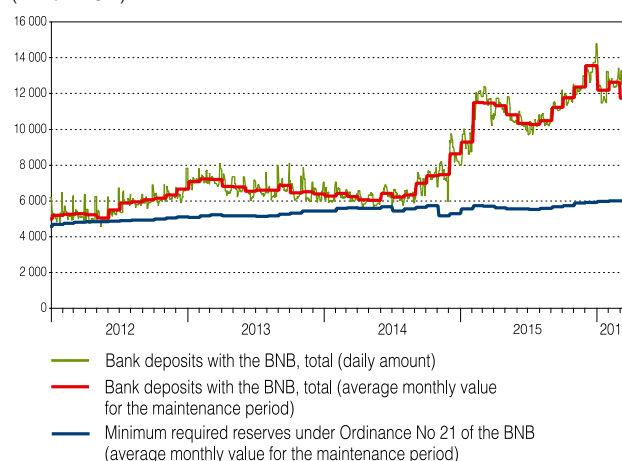
(per cent)



Source: BNB (monetary statistics).

## Bank Deposits with the BNB

(million BGN)



Source: BNB.

No 21,<sup>11</sup> concerning the interest rate conditions on banks' excess reserves with the BNB. In accordance with the new ordinance, the BNB applies on the excess reserves the interest rate on the deposit facility of the ECB when this interest rate is negative. In early 2016 the interest rate was -0.30 per cent and as of 16 March it was cut to -0.40 per cent. Excess funds on banks' minimum reserve accounts with the BNB over the required minimum under Ordinance No 21 came to 93.5 per cent on an average daily basis in March 2016 (127.8 per cent in December 2015).

Banknotes and coins in circulation, increasing by 11.8 per cent in February 2016 on an annual basis (9.8 per cent in December 2015), continued to have a positive contribution to the annual growth of reserve money.

The upward trend in the banking system liquidity was sustained. In February 2016 the liquid asset ratio<sup>12</sup> accounted for 37.59 per cent (36.71 per cent in December 2015).

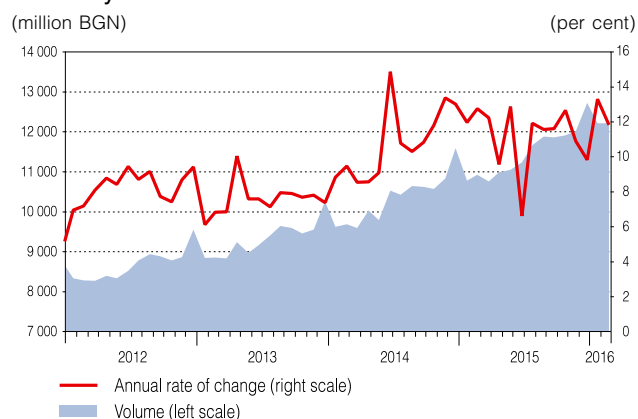
Banks managed their liquid resources mostly through foreign currency trading with the BNB. In January 2016 reserve currency trade between banks and the BNB retained its 2015 trend of banks being a net purchaser, while in February and March banks' sales of euro exceeded purchases. In March 2016 net purchases of banks from the BNB amounted to EUR 0.7 billion for the last 12 months.

In February 2016 bank loans to non-financial corporations and households went down by 1.9 per cent on an annual basis. The reluctance of corporations and households to assume new debt obligations amid still uncertain economic environment and prudent lending policy continued to determine the weak lending activity in

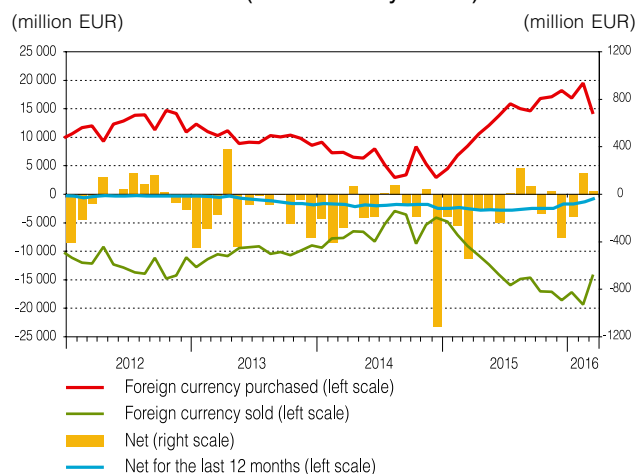
<sup>11</sup> New BNB Ordinance No 21 on the Minimum Required Reserves Maintained with the Bulgarian National Bank by Banks entered into force on 4 January 2016. With the new Ordinance No 21, a definition of 'excess reserves' of banks held with the BNB is introduced. In addition, in accordance with the new ordinance, the BNB applies on the excess reserves the interest rate on the deposit facility of the ECB when this interest rate is negative. The zero interest rate remains applicable to excess reserves when the interest rate on the deposit facility of the ECB is positive or zero. In the new ordinance, the recognition of banks' funds in accounts in the TARGET2-BNB national system component as reserve assets was discontinued. For further details, see Economic Review, 4/2015, p. 29–30.

<sup>12</sup> See Ordinance No 11 of the BNB.

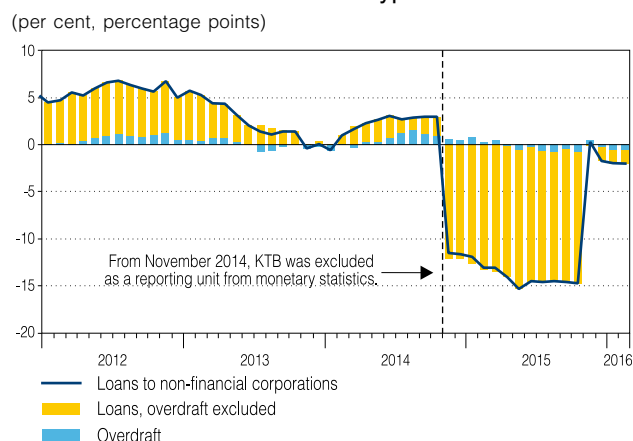
## Currency in Circulation



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



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



the first two months of 2016. In addition to these factors, the decline in the bank lending reflected measures initiated by banks in 2015 and early 2016 to optimise their credit portfolios. As a result, bad and restructured loans exhibited a decrease.

Loans to non-financial corporations went down by 2.0 per cent on an annual basis in February 2016. Over the first two months of 2016 the volume of new loans<sup>13</sup> to non-financial corporations almost matched the 2015 level and in February 2016 amounted to BGN 1.1 billion on average for the last 12 months. The share of newly extended lev loans to corporations slightly decreased from the previous year to 45.0 per cent on average in recent twelve months, while that in euro and US dollars increased to 52.4 per cent and 2.6 per cent.

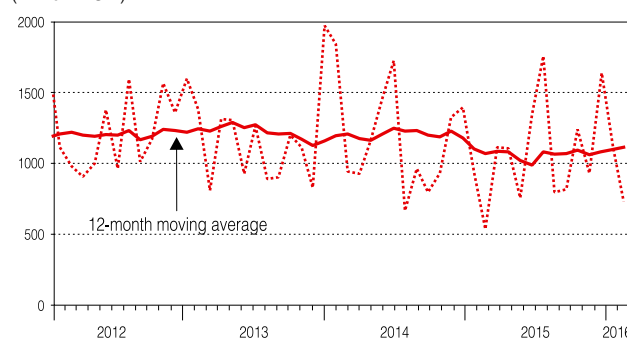
In the first two months of 2016 the decline in claims on households accelerated on an annual basis compared with the second half of 2015 accounting for 1.7 per cent in February 2016. The upward trend in new loans to households was sustained: housing and consumer loans had a positive contribution and other loans retained their level.

According to the results of the BNB quarterly lending survey, demand for loans by both corporations and households enhanced over the last quarter of 2015. A stronger interest was observed in long-term bank resources, while households exhibited an enhanced interest in housing loans. Over the review period bank standards on corporate loans remained unchanged compared with the previous quarter. The lending policy to households was eased, with the ease of standards being stronger pronounced in consumer loans. Lower costs of attracted resources and their increased amount, along with enhanced competition among banks were the main factors contributing to the ease of the lending policy, according to the survey. The lack of high-yield alternative investment contributed to this effect to a lesser extent. Banks reported that the state of macroeconomic environment and business climate in the fourth quarter in industries with large shares in their credit portfolio also favoured their

<sup>13</sup> The terms 'new' and 'newly extended' are hereinafter referred to as the statistical category 'new business'.

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

(million BGN)

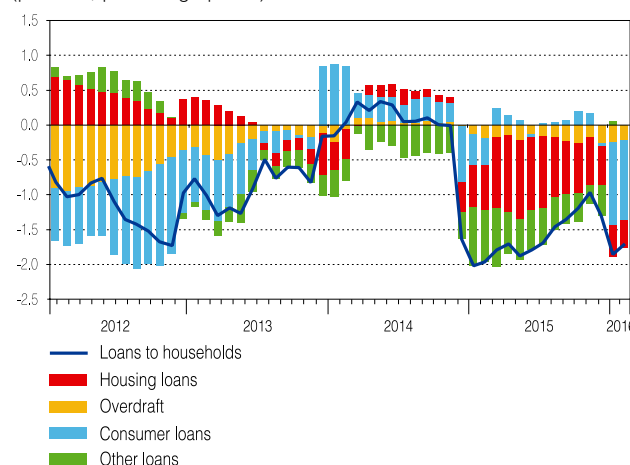


\* For data characterised by significant fluctuations, additionally moving averages computed for suitably selected periods are provided in order to smooth the fluctuations in corresponding time series and present the trends in their development.

Source: BNB.

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

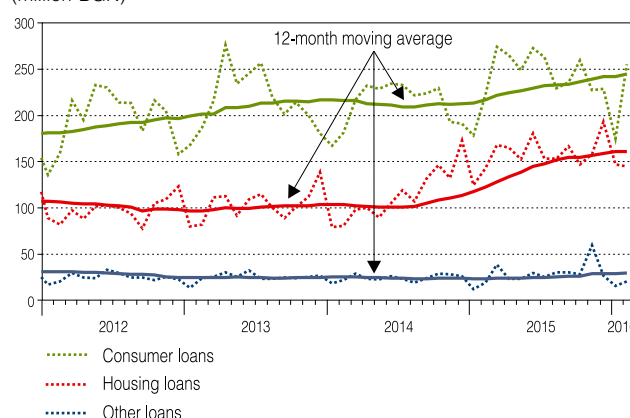
(per cent, percentage points)



Source: BNB.

## New Loans to Households (Monthly Volumes)

(million BGN)



Source: BNB.

lending policy. Concurrently, credit and collateral risks continued to contribute to tightening of credit standards. Banks' expectations for the first quarter of 2016 point to a further increase in demand for loans by households and non-financial corporations. Concurrently, they suggest a stronger ease of consumer and housing credit standards and a weaker ease of corporate credit standards.

In the second and third quarters of 2016 funds attracted from the non-government sector in the banking system are anticipated to continue growing as the high propensity of households to save was sustained. In the context of recovering domestic demand and a continuous decrease in lending rates, the decline in claims on the non-government sector is expected to gradually subside over the projection horizon.

## Interest Rates

Interbank money market rates posted a decrease in all maturities in the beginning of the year. An important factor behind the interest rate decrease was the enforcement of the new Ordinance No 21 on 4 January 2016. As of early 2016 the BNB applies the ECB deposit facility rate on banks' excess reserves, thereby accelerating the transmission of the ECB's monetary policy on interbank money market quotations in Bulgaria<sup>14</sup> (see the research topic entitled *The Effect of the ECB Monetary Policy on Interest Rates in Bulgaria*). Since early 2016 the decline in the average values between bid and offer quotations of unsecured deposits in all maturities traded in the interbank money market accelerated. In the first quarter of 2016 interest rates in maturities of up to two months became negative. The accelerated decline in the interest rates on three-month interbank deposits led to narrowing of the spread with the analogues euro area index to 23 basis points. Six-month and twelve-month deposits exhibited a decline on December 2015 by 38 and 50 basis points, respectively.<sup>15</sup>

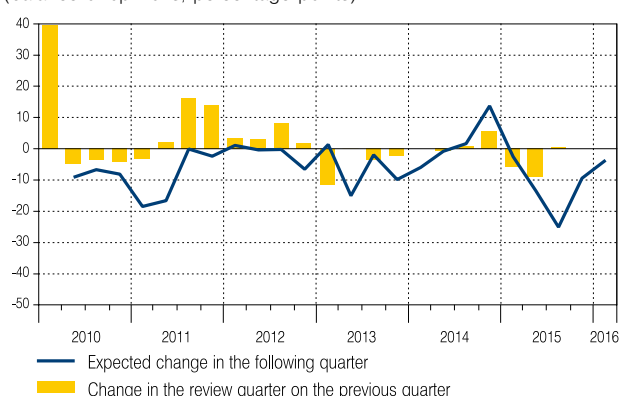
<sup>14</sup> For further details on the ECB interest rates and euro area interbank money market, see Chapter 1.

<sup>15</sup> The analysis in the paragraph is based on the average value of SOFIBOR and SOFIBID quotes for unsecured deposits in levs of various maturities traded in the interbank money market.

## Changes in Credit Conditions

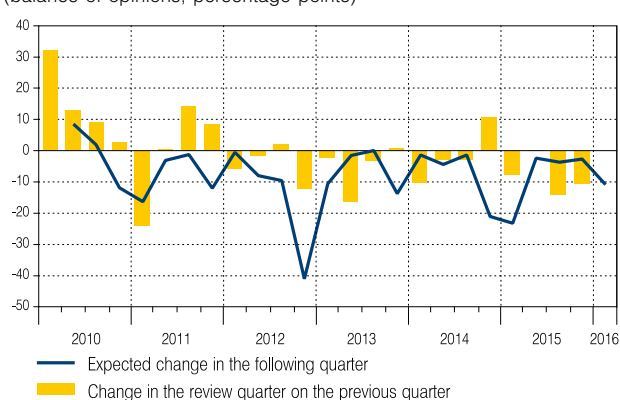
### a) corporate loans

(balance of opinions, percentage points)



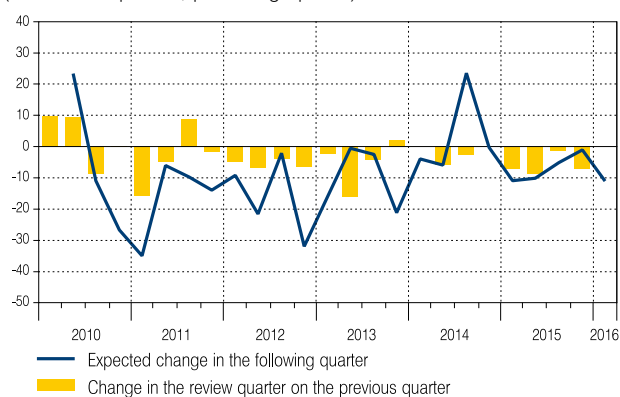
### b) consumer loans

(balance of opinions, percentage points)



### c) housing loans

(balance of opinions, percentage points)



Note: These 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'). All opinions are weighted by the bank's market share in the relevant credit segment. Expectations are shown in the charts by shifting the data a quarter forward.

Source: BNB.



However, the spread between EONIA and LEONIA depends not only on the ECB monetary policy but also on the current state of Bulgaria's money market: a small number of transactions in small volumes. This explains the strong fluctuations recorded in LEONIA and in the spread accordingly. In February 2016 the spread narrowed compared with December 2015, amounting to 16 basis points. By the end of the first quarter it again widened to reach 28 basis points. This reflected the retained LEONIA's level at 0.00 per cent (from the last transaction at the end of February due to lack of transactions in March 2016<sup>16</sup>) amid further EONIA fall, a result of another cut in the ECB deposit facility rate in March.<sup>17</sup>

Further growth of funds attracted from the non-government sector amid low interest rates and limited investment alternatives continued to push down deposit rates. In February 2016 the average weighted interest rate on new time deposits of non-financial corporations and households accounted for 1.1 per cent (1.2 per cent in December 2015). Interest rates on new time deposits of households continued to decrease, while those of financial corporations reported at the close of the previous year remained unchanged.

Compared with end-2015, interest rates on deposits in levs and euro went down, while those in US dollars exhibited a slight increase. In February 2016 the share of funds attracted from households and non-financial corporations in foreign currency, the bulk of them in euro, accounted for 41.5 per cent matching the level reported at the end of 2015.

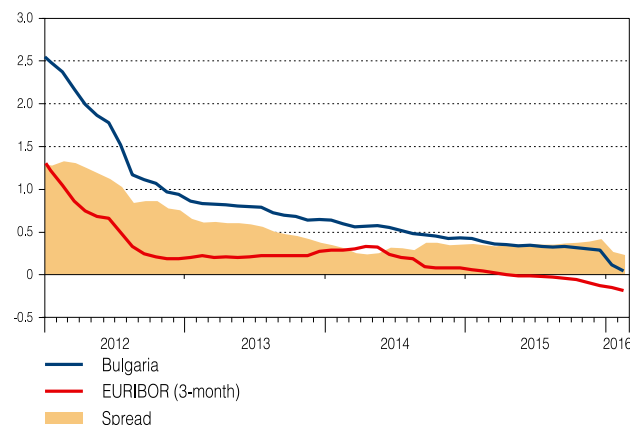
The variation of interest rates across banks shows that the average interest rate at which banks attract new time deposits from households in levs between end-November 2015 and end-February 2016 contracted by 4 basis points, accounting for 1.41 per cent. The standard deviation

<sup>16</sup> In line with Chapter 2, Article 8 of the Rules and Procedures for Preparing LEONIA Reference Index, where on a particular business day no transactions are concluded in the interbank market for providing unsecured overnight deposits by banks supplying data for LEONIA, the BNB publishes the previous business day's value of LEONIA index. Due to lack of transactions in the 1–30 March 2016 period, the value of LEONIA index was equal to its value of the date when the last transaction was concluded, *i.e.* 29 February 2016, which was 0.00 per cent.

<sup>17</sup> See Chapter 1.

## Interest Rates on Three-month Deposits

(per cent; percentage points)

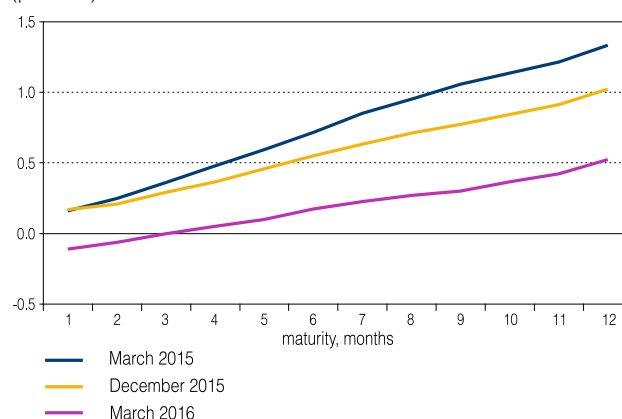


Note: Values for Bulgaria reflect the average value of SOFIBOR and SOFIBID quotes for unsecured three-month deposits in levs.

Sources: BNB, ECB.

## Yield Curve of Interbank Money Market Instruments

(per cent)

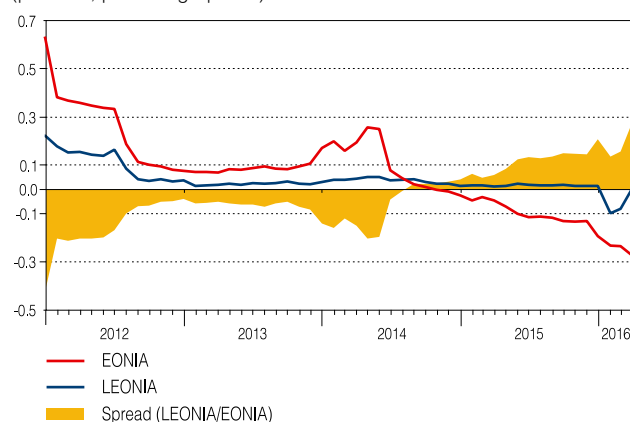


Note: Values reflect the average value of SOFIBOR and SOFIBID quotes for unsecured three-month deposits in levs.

Source: BNB.

## Interbank Money Market Interest Rates on Overnight Deposits

(per cent; percentage points)



Source: BNB.

tion also fell by 4 basis points to 0.61 per cent. Over the review period the number of banks offering time deposit rates of up to 1.5 per cent increased, while banks offering rates of over 1.5 per cent decreased.

The retained downward dynamics in lending rates in early 2016 continued to be driven by the low cost of attracted funds and high liquidity in the banking system. Enhanced competition in the banking system also encouraged banks to offer more favourable lending rates.

In the first two months of 2016 interest rates on new loans to non-financial corporations continued to decrease on both lev loans and loans denominated in euro and US dollars. Compared with end-2015, the decline was stronger pronounced in loans denominated in levs and US dollars, and in February 2016 interest rates on these loans accounted for 6.1 per cent and 6.6 per cent, respectively. The interest rate on transactions in euro slightly decreased to 6.4 per cent.<sup>18</sup>

Since early 2016 the downward dynamics in the cost of loans for households has been also sustained. In February 2016 APRC on consumer loans was 11.4 per cent and on housing loans 6.3 per cent.<sup>19</sup> The trend observed since August 2015 was sustained: the decrease in the cost of consumer loans reflected the decrease in interest expenditure and the increase in the implicit rate of non-interest service charges. The fall in APRC on housing loans continued to reflect the decline in both interest rate and non-interest rate components of charges. In February 2016 the average interest rate on new housing euro loans went down by 13 basis points from end-November 2015 to 5.89 per cent, according to the breakdown by bank. The standard deviation fell by 4 basis points to 0.70 per cent. In line with the downward trend in lending rates compared with November 2015, the number of banks extending loans at an interest rate up to 6 per cent increased, while the number of banks extending new housing loans at higher interest rates decreased.

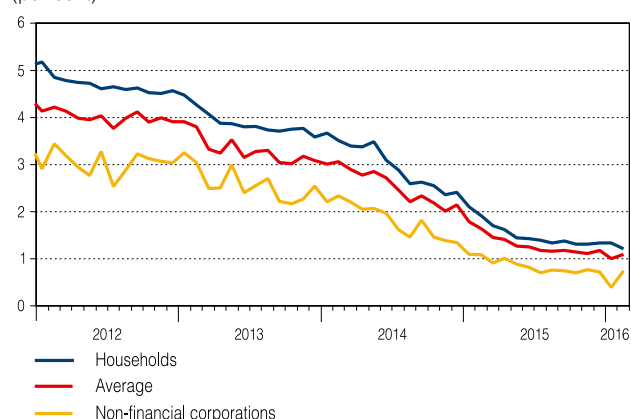
<sup>18</sup> The above values are the weighted average of the interest rates on loans to non-financial corporations on a 12-month basis.

<sup>19</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 Time Deposits

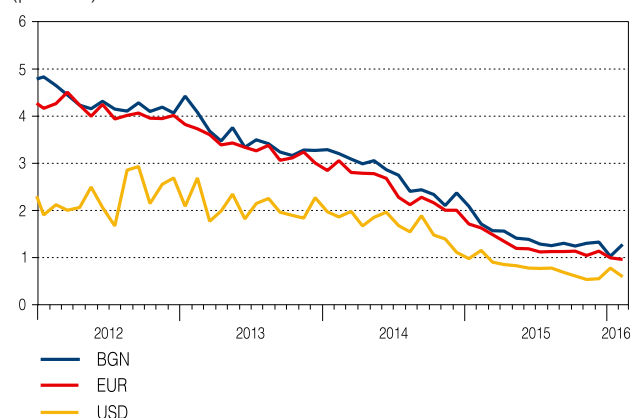
### a) by sector

(per cent)



### b) by currency

(per cent)

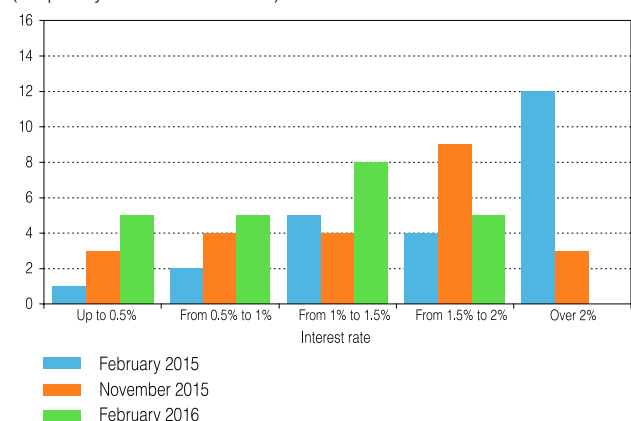


Note: The average interest rate is calculated for all sectors, maturities and currencies weighted by the relevant volumes of new deposits.

Source: BNB.

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

(frequency – number of banks)



Source: BNB.



Interest rates on new time deposits are expected to continue slightly decreasing in the second and third quarters of 2016. The downward trend is expected to be sustained due to the projected further increase in funds attracted in the banking system and money market conditions in both the euro area and Bulgaria. The retention of the downward trend in the interest rates on new loans over the projected horizon will depend on the cut in interest rates on attracted funds amid high liquidity in the banking system. The introduction of a negative interest rate on bank excess reserves with the BNB since early 2016 also could contribute to the decrease in lending rates, provided banks are likely to assume credit risk.

In the first quarter of 2016 the yield of Bulgarian government securities auctions on the primary market decreased. Demand for government securities exceeded supply but the investor interest was weaker compared with the same period of the previous year. This was probably attributable to the option provided for by the 2016 State Budget Law for issuing government securities on international capital markets in the amount of BGN 3.9 billion and the preference of some Bulgarian investors to purchase securities of this issue.

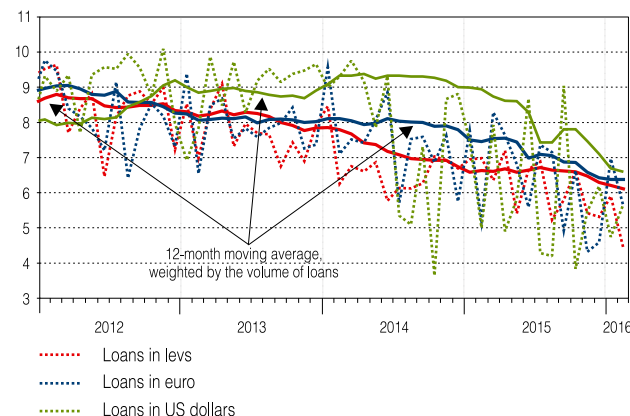
The average annual yield of government securities with a maturity of ten years and six months, and three years at the auctions conducted in the first quarter was the lowest in the respective maturity segment since 2000, accounting to 2.58 per cent and 0.36 per cent, respectively. The yield of government securities with a maturity of ten years and six months attained in January was also significantly lower than the yield upon the first opening of the benchmark issue in January 2015 (3.09 per cent).

The yield of the benchmark issue with a maturity of ten years and six months placed in January 2015 on the secondary market, which was used as a reference for assessing the degree of convergence, declined somewhat at the end of the quarter compared with February (from 2.67 per cent to 2.66 per cent).

On 14 March 2016 the Ministry of Finance successfully issued a new double tranche of Eurobonds: seven-year (1.9 per cent coupon) government securities amounting to EUR 1.144

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

(per cent)



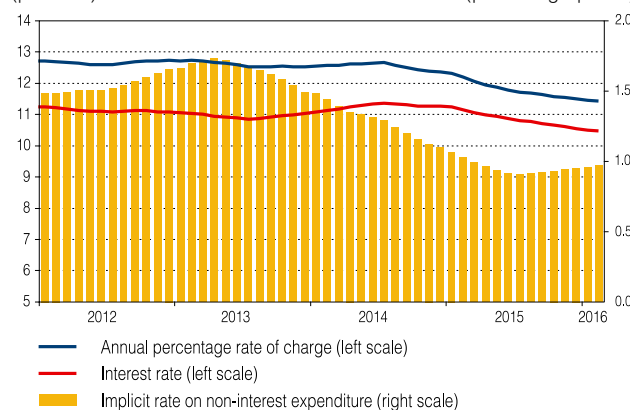
Source: BNB.

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

### a) consumer loans

(per cent)

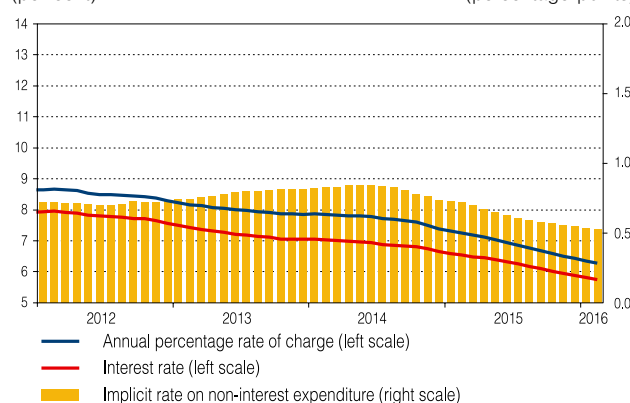
(percentage points)



### b) housing loans

(per cent)

(percentage points)



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

Source: BNB.

billion and 12-year (3.0 per cent coupon) government securities amounting to EUR 850 million. The average annual yield at issue was 2.156 per cent on seven-year and 3.179 per cent on 12-year government securities. Compared with the triple tranche of Eurobonds with a maturity of seven, 12 and 20 years placed in March 2015, the yield attained in March 2016 on seven-year government securities went down by 23 basis points, while that on 12-year government securities increased by 45 basis points. The lower yield of newly issued seven-year bonds reflected the higher investor demand for government securities in the shorter maturity segment of the debt curve.

The new ECB monetary policy measures announced in March 2016 had an effect on the debt market at the end of the first quarter of 2016 resulting in a decrease in the yield of both government securities of euro area countries and all Bulgarian Eurobonds. Concurrently, since early 2016 the spread between Bulgarian Eurobonds maturing in 2017 and the German benchmark securities has narrowed.

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

Government revenue and expenditure policy and budget financing operations affected the allocation of liquidity between economic sectors.<sup>20</sup>

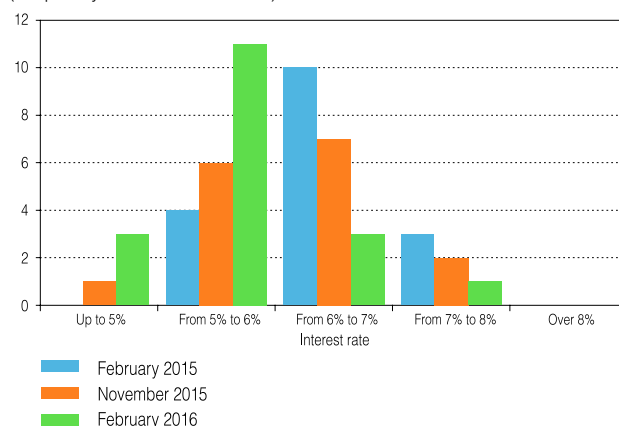
In the fourth quarter of 2015 the net inflow of funds from the external sector to the budget accounted for about 2.5 per cent of GDP for the quarter, with the bulk of it including current and capital grants received under the EU Structural and Cohesion Funds.

In the third quarter of 2015 the government's fiscal policy had no significant effect on the distribution of liquidity resources to the non-government non-bank sector, but at the close of the year a significant portion of the budget resources was distributed to this sector. Investment expenditures on projects of the 2007–2013 programming period completed at the end of 2015,

<sup>20</sup> For more details on financial flows between the budget and other sectors, see *Economic Review*, May 2004, p. 28. The sign '+' of the respective financial flow indicates that as a result of its operations the budget provided net funds to the respective sector, while the sign '-' means that the budget withdrew net funds from the respective sector.

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

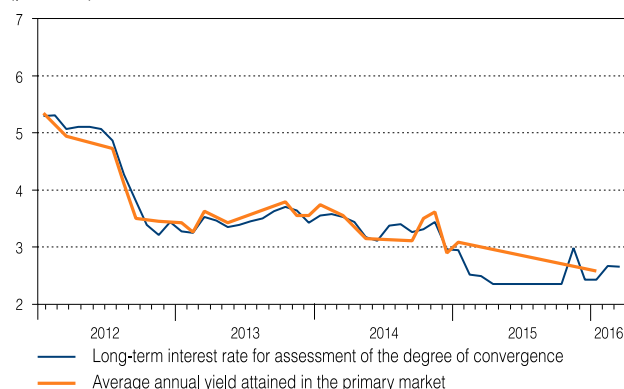
(frequency – number of banks)



Source: BNB.

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

(per cent)



Source: BNB.

which was co-financed with the EU funds, increased. A portion of these expenditures was financed by EU funds, and the costs incurred within the national co-financing were reflected in a decrease of the government deposit with the BNB. In the fourth quarter the financial sector (the BNB excluded) was a net beneficiary of liquidity from the budget, though in a low amount, as maturing government securities (BGN 776 million) exceeded insignificantly the volume of government securities issued on the primary market (BGN 562 million nominal value).

Based on monthly preliminary data of mid-April 2016, it may be concluded that in the first quarter of the year the external sector will be the main source of liquidity for the consolidated state budget. Operations on net debt financing, mainly as a result of the issue of Eurobonds on international capital markets and the funds received from the EU in the first quarter, contributed to this effect. As of March 2016 funds under the EU Structural and Cohesion Funds on both the previous (2007–2013) and the new financial frame (2014–2020), totalling BGN 993 million, were received. Funds attracted from the external sector and the expected budget surplus for the period, to a lesser extent, were the factors behind the increase in the government deposit with the BNB by BGN 4792 million in the first quarter of the year.

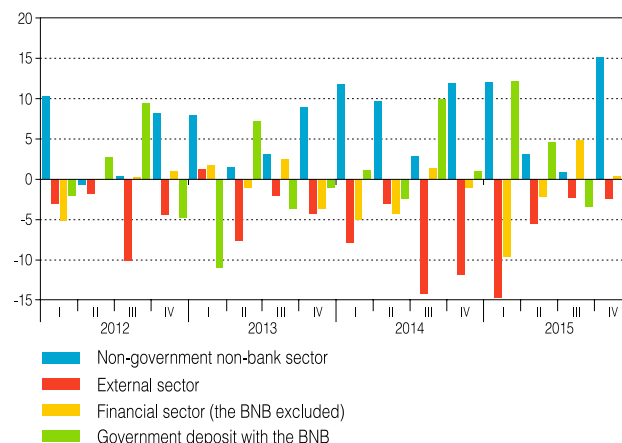
As a result of the government issuing policy in the external and domestic market, in the first quarter of 2016 the financial sector (excluding the BNB) is also expected to be a source of liquidity for the budget. The significant volume of the issue acquired by this sector in international capital markets in March<sup>21</sup> is expected to exceed the net negative issue of government securities in the domestic market (amounting to BGN 450.5 million).

Developments in financial flows generated in the process of external and internal economic factor interaction contributed to growth in international foreign exchange reserves. In March 2016 the market value of international reserves (assets on the Issue Department balance sheet) rose from

<sup>21</sup> In line with the press release of the Ministry of Finance of 15 March 2016, Bulgarian investors acquired 33 per cent of the issue's volume with a maturity of seven years and 25 per cent of the issue's volume with a maturity of 12 years.

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

(share of GDP)



Sources: MF, BNB.

the previous year by EUR 1.1 billion amounting to EUR 21.4 billion (BGN 41.8 billion). According to the currency board framework principles, the increase in international reserves corresponded to the increase in the Issue Department balance sheet liabilities. Liabilities dynamics in the first quarter of 2016 was mainly driven by the increased obligations to the government and budget organisations due to the issue sold in international capital markets, reduced liabilities to banks and banknotes and coins in circulation.

In the second and third quarters of 2016 banks' funds with the BNB are expected to remain at comparatively high levels, tending to decrease somewhat. The dynamics of the government deposit with the BNB will reflect mainly the government issuing policy on the domestic market and the budget balance over the projection horizon. Currency in circulation is expected to continue growing with a tendency toward a gradual slowdown in the annual growth rate.

# 3. Economic Activity

In the fourth quarter of 2015 real GDP increased by 0.7 per cent. Over this quarter net exports contributed most to growth reflecting the stronger exports than imports growth in goods and services in real terms on a quarterly basis. Private consumption and gross fixed capital formation had also a positive contribution to growth.

Short-term economic indicators over the fourth quarter of 2015 and the first quarter of 2016 give mainly positive signs about the economic development. The anticipated continuous recovery of demand for goods and services, retained low oil prices, positive sentiment of households and firms, together with the high capacity utilisation rate will create conditions for boosting employment and companies' investment activities. Still, the high uncertainty surrounding the international situation is likely to continue to contribute to a more cautious investment and expenditure policy of the firms. Quarterly GDP growth in the second and third quarters will slightly moderate from the corresponding quarters of 2015 due to lower government investment, yet slow growth rate of private investment and lower positive contribution of net exports to GDP growth.

## Current Economic Environment

In the fourth quarter of 2015 quarterly growth<sup>22</sup> of real GDP accounted for 0.7 per cent, with net exports having the main positive contribution to it due to a stronger increase in exports of goods and services compared to import growth. Growth of private consumption and public investment accelerated gradually throughout the year, and in the fourth quarter also contributed positively to overall growth. Government consumption did not contribute significantly to the real GDP change.

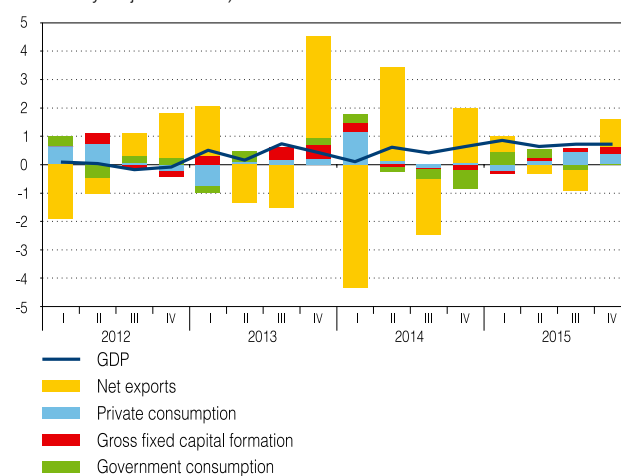
Indicators tracking firms and households' sentiment (NSI business climate and consumer confidence) remained at comparatively high levels in early 2016. In March the business climate indicator picked up, with improvements observed in all sectors, excluding services. Expectations of the future economic activity for the total economy continued to suggest positive sentiment.

In the second and third quarters of 2016 investment activity of corporations is expected to remain weak due to the dampening effect of the

<sup>22</sup> The quarter-on-quarter analysis in this section 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, quarter-on-quarter percentage points, 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: NSI, BNB calculations.

uncertain economic environment. On the other hand, conditions for recovering the investment activity of corporations and employment are created by the increasing demand amid positive sentiment of corporations, low petroleum prices and a continued period of high production capacity utilisation in industry. The improvement of the labour market and more optimistic consumer sentiment reported in January 2016 in the NSI survey are expected to be reflected in further growth of quarterly private consumption in the second and third quarters of 2016.

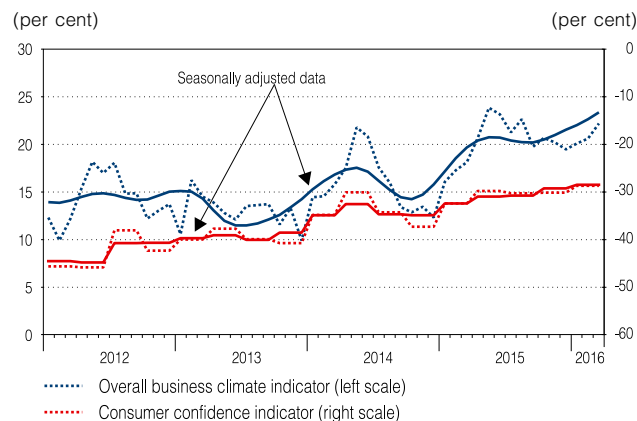
Government investment is projected to have a negative contribution to GDP growth in the first quarter of 2016 and to continue decreasing in the second and third quarters of 2016 as a result of the delayed initiation of new investment projects financed by EU funds in the new 2014–2020 programming period. Government consumption is projected to have a low positive contribution to growth.

In the second and third quarters of 2016 goods and services exports are expected to increase at slightly higher rates than imports of goods and services.

Based on these component developments, in the second and third quarters of 2016 quarterly real GDP growth is anticipated to be weaker than that in 2015, with the slowdown likely to affect also annual growth.

The external environment remains a source of uncertainty. Slower than expected growth rates in Bulgaria's major trading partners would contribute to lower than projected domestic growth, whereas stronger declines in oil prices and their prolonged retention at low levels could stimulate consumption and reduce production costs of firms, thereby increasing growth beyond the expectations. If firms continue to invest cautiously, and the expected recovery of private investment is postponed, lower than expected economic growth would be observed. Risks in both directions exist also to public investment.

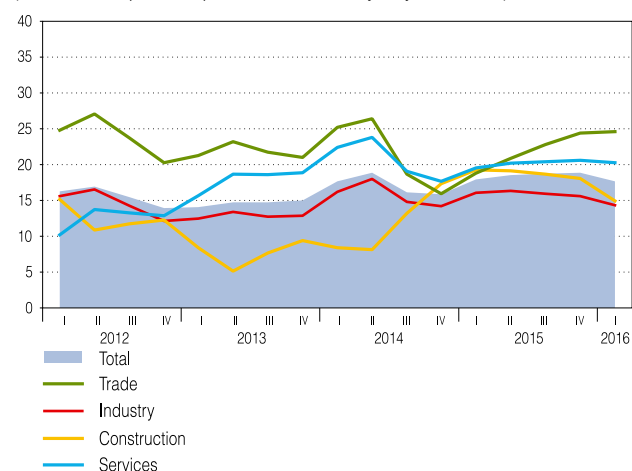
## Business Climate and Consumer Confidence



Sources: NSI, BNB calculations.

## Expectations about Future Economic Activity

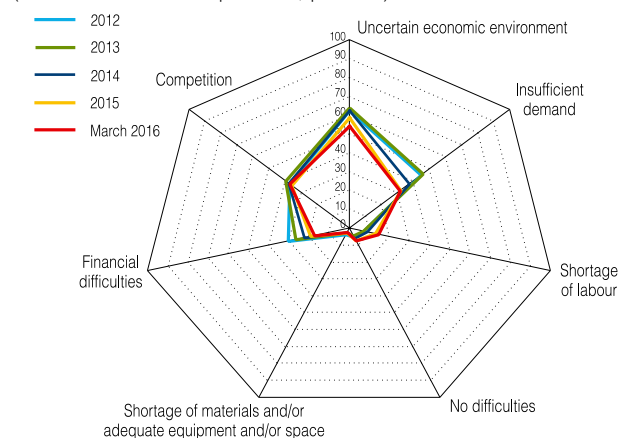
(balance of opinions, per cent; seasonally adjusted data)



Sources: NSI, BNB calculations.

## Factors Limiting Economic Activity of Corporations

(relative share of all corporations, per cent)



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

Sources: NSI, BNB calculations.

## Real GDP Growth by Component of Final Use

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

	2013				2014				2015			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Consumption incl.	-0.5	0.0	-0.2	-0.1	4.9	-1.6	-1.3	-0.8	0.1	0.7	1.0	0.9
Household consumption	-1.2	0.2	0.3	0.3	1.8	0.2	-0.2	0.1	-0.4	0.3	0.7	0.6
Government final consumption expenditure	-2.6	3.3	-3.2	2.5	4.2	-1.2	-1.2	-7.1	5.3	3.9	-3.1	-0.6
Collective consumption	-0.1	1.5	2.8	1.3	-0.2	-1.0	-3.0	-1.3	0.9	0.2	0.5	0.4
Gross fixed capital formation	1.4	0.0	2.1	2.2	1.4	-0.4	-0.2	-0.9	-0.4	0.4	0.6	1.1
Exports of goods and non-factor services	5.8	1.9	1.4	1.1	-5.0	4.5	-2.5	7.3	4.0	-3.2	-1.9	5.6
Imports of goods and non-factor services	2.7	4.0	3.7	-4.3	1.9	-0.9	0.6	3.8	3.0	-2.7	-0.8	3.9
GDP	0.5	0.2	0.7	0.4	0.1	0.6	0.4	0.6	0.9	0.6	0.7	0.7

Source: NSI.

## Household Behaviour

In the fourth quarter of 2015 household consumption continued to improve amid retaining the high savings rate. According to national accounts data, employment continued to slightly increase in the fourth quarter of 2015, indicating an increase in most economic sectors. The growth rate of household income from remuneration accelerated in the fourth quarter of 2015 as compared with the changes observed in the previous three quarters of the year (both annually according to non-seasonally adjusted data on wage bill and average wage *per* employee and quarterly according to seasonally adjusted national account data).<sup>23</sup>

Based on Labour Force Survey, in the fourth quarter of 2015 labour supply by households remained low due to a quarterly decrease in labour force in the second half of 2015.<sup>24</sup> The increase in the economic activity rate<sup>25</sup> in the fourth quarter and in most part of 2015 was driven mainly by the fall in the number of working-age persons. The number of discouraged

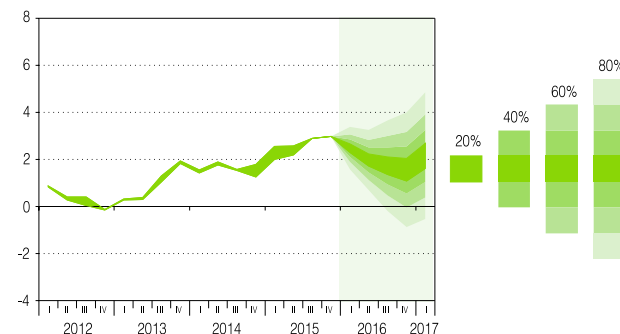
<sup>23</sup> Quarter-on-quarter rates of change in seasonally adjusted data indicate recent developments in indicators that are not subject to base effects in the corresponding period of prior year.

<sup>24</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>25</sup> The labour force participation rate is the proportion between economically active persons (labour force) and the population of the same age.

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

(per cent)

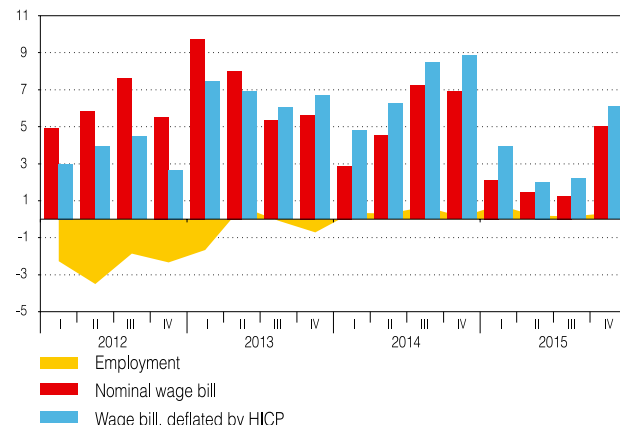


Note: The fan chart shows the expert views of the forecasters on the uncertainty surrounding the projected value based on a probability distribution. The reporting period shows revisions of GDP growth estimates. The middle band of the chart, depicted in the darkest colour, includes the central projection 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: BNB.

## Employment and Nominal Wage Bill

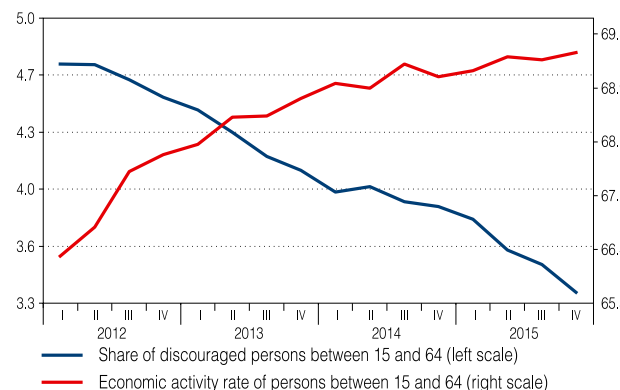
(annual change, per cent)



Sources: NSI – SNA, BNB calculations.

## Economic Activity and Share of Discouraged Persons

(per cent, seasonally adjusted data) (per cent, seasonally adjusted)



Sources: NSI – SNA, BNB calculations.



persons continued to go down in the fourth quarter of 2015.

Based on Labour Force Survey seasonally adjusted data, in the fourth quarter of 2015 the unemployment rate<sup>26</sup> continued to decrease, reaching 8.7 per cent (7.9 per cent according to non-seasonally adjusted data) and reflecting mainly the lower number of longer-term unemployed persons (jobless for more than a year). As a result, the share of long-term unemployed persons went down to 4.7 per cent of labour force (according to seasonally adjusted data). The seasonally adjusted unemployment rate<sup>27</sup> based on the Employment Agency data also decreased slightly in the fourth quarter and the first three months of 2016 to reach 9.3 per cent (9.9 per cent according to non-seasonally adjusted data) in March 2016.

The adjusted national account data show that household consumption in the fourth quarter rose by 0.6 per cent on a quarterly basis. Retail trade volumes also increased on a quarter-on-quarter basis. Early 2016 saw positive indications for consumption development. In the first two months of 2016 retail trade volumes increased further compared to the average in the fourth quarter of 2015, with the group of food, drinks and tobacco contributing most to this growth. Concurrently, the consumer confidence indicator went up due to prevailing better expectations of households for their financial position and the level of unemployment reported in the NSI Consumer Survey.<sup>28</sup>

The household savings rate increased slightly in the fourth quarter of 2015 and remained comparatively high. The NSI Household Budget Survey data show that the share of savings

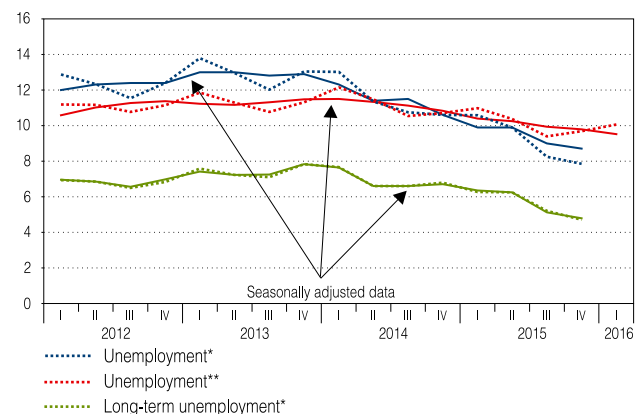
<sup>26</sup> Unemployment rate is the proportion between the number of unemployed and the labour force based on Labour Force Survey data.

<sup>27</sup> The definition of the unemployment rate according to the Employment Agency corresponds to that referred to in footnote 27, 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>28</sup> Final results of the Consumer Survey represent balances of opinions and are calculated as a difference between the relative shares of positive and negative opinions on raised issues. The composite consumer confidence indicator is calculated as the arithmetic mean of expectation balances in the following 12 months for the development of: financial position and savings of households, the overall economic situation in the country and unemployment (the latter with the sign reversed).

## Unemployment Rate

(per cent, share of the labour force)



\* NSI data.

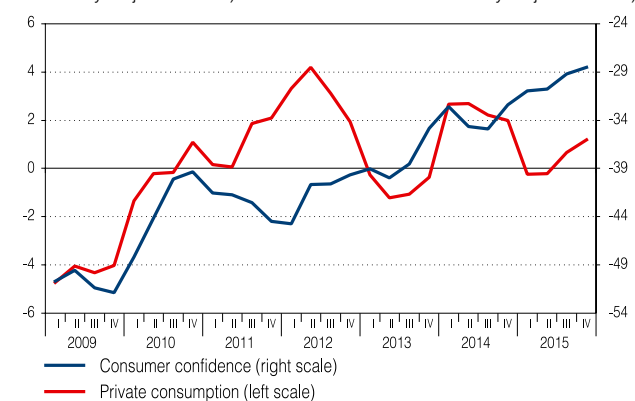
\*\* Employment Agency data.

Sources: NSI – SNA, Employment Agency, BNB calculations.

## Private Consumption and Consumer Confidence

(annual change, per cent, seasonally adjusted data)

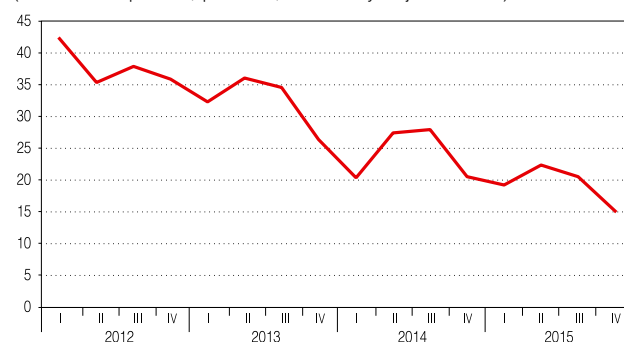
(per cent, seasonally adjusted data)



Sources: NSI – Consumer Survey, BNB calculations.

## Household Unemployment Expectations in the Following 12 Months

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

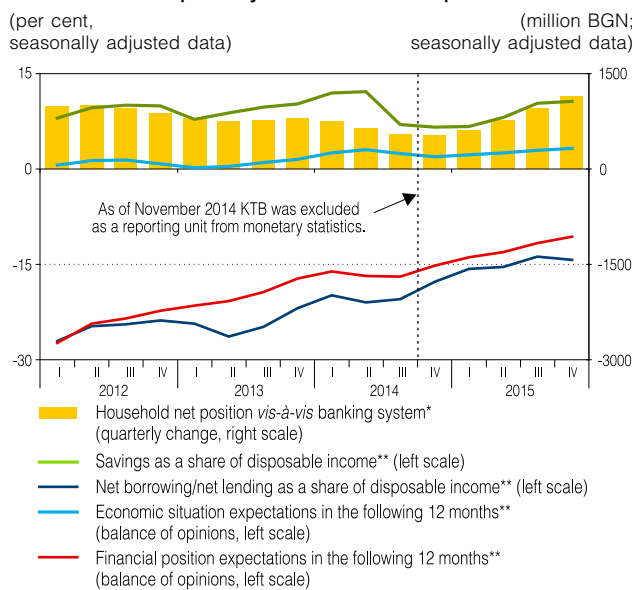


Source: NSI – Consumer Survey.

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 Consumer Survey of January 2016). Net assets of households measured by their net position *vis-à-vis* the banking system (BNB monetary statistics) continued to increase over the fourth quarter.

Against the background of low energy product prices and recovering demand for goods and services, there are preconditions for increasing firms' labour costs without distorting their competitive positions. Hence, corporations' expectations about the number of personnel reflect the continuous recovery of labour demand by firms in most sectors. In the short term, these factors are likely to contribute to employment growth and higher labour income, which is expected to support household consumption. In the second and third quarters of 2016 consumer demand is projected to increase, the household savings rate to remain high and labour supply to be relatively low. The risks to this projection are balanced and relate mainly to factors which could affect consumer confidence, as employment and labour income.

## Household Propensity to Save and Expectations



\* BNB data.

\*\* NSI data.

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

## Employment and Income Dynamics

	2013				2014				2015			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
(per cent, quarter-on-quarter; seasonally adjusted data)												
Employees	-0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.1
Nominal wage <i>per employee</i> *	3.1	0.8	0.8	1.3	1.6	1.3	1.4	0.7	-0.6	0.6	0.2	1.8
Real wage <i>per employee</i> **	2.7	1.4	0.9	1.4	2.6	1.9	1.9	0.7	-0.8	0.7	0.9	1.7
Wage bill, nominal terms	3.0	0.7	0.6	1.3	1.4	1.7	1.2	0.8	-0.1	0.8	0.6	2.1
Wage bill, real terms**	2.7	1.3	0.8	1.3	2.4	2.2	1.8	0.8	-0.4	0.9	1.4	2.0
(per cent, on corresponding quarter of previous year, non-seasonally adjusted data)												
Employees	-1.7	0.7	-0.1	-0.7	0.3	0.3	0.7	0.1	0.8	0.2	0.2	0.3
Nominal wage <i>per employee</i> *	12.3	8.6	6.2	6.6	3.5	4.3	7.3	7.3	1.3	0.9	-0.1	3.7
Real wage <i>per employee</i> **	9.9	7.4	6.9	7.7	5.4	6.1	8.5	9.2	3.1	1.5	0.9	4.8
Wage bill, nominal terms	9.7	8.0	5.3	5.6	2.9	4.5	7.2	6.9	2.1	1.4	1.3	5.0
Wage bill, real terms**	7.4	6.9	6.0	6.7	4.8	6.3	8.5	8.8	3.9	2.0	2.2	6.1

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

\*\*Data deflated by HICP.

Sources: NSI – SNA, BNB calculations, Eurostat.

## Retail Trade Turnover

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

	2013				2014				2015				2016
	I	II	III	IV	I	II	III	IV	I	II	III	IV	January-February
Retail trade, excluding motor vehicles and motorcycles	0.9	4.2	0.1	1.1	7.4	0.8	1.1	0.0	0.3	-0.1	-0.1	0.5	1.0
incl.													
Food, drinks and tobacco products	-4.6	3.7	3.3	-0.5	19.8	1.3	-1.0	-1.4	0.6	-0.3	-1.1	-0.6	17.3
Textile, clothing, footwear and leather	-0.3	7.4	6.0	-2.3	0.0	4.7	3.8	-2.6	-7.4	2.1	-0.3	2.4	6.8
Household appliances, furniture and other household goods	1.6	2.6	2.0	2.0	-0.9	0.7	0.4	2.1	2.4	-0.2	0.4	-1.1	0.3
Computer and communication equipment	11.4	-0.8	-2.8	8.5	-3.6	-3.2	-1.3	-0.1	0.7	-0.6	-0.6	-0.7	-13.9
Pharmaceutical and medical goods, cosmetics and toiletries	5.7	5.6	4.5	2.4	3.8	1.0	1.6	3.5	2.6	0.7	1.3	1.7	-0.6
Unspecialised shops with different kinds of goods	-4.9	13.5	-3.2	0.6	1.9	2.1	1.4	-2.9	2.0	1.3	-0.5	-1.9	-1.6
Automobile fuels and lubricants	-4.2	5.6	-5.2	-1.3	5.8	-1.2	9.3	-3.0	5.2	-5.4	-2.9	7.1	-6.0

Source: NSI, short-term business statistics.

## Fiscal Policy Effects on the Economy

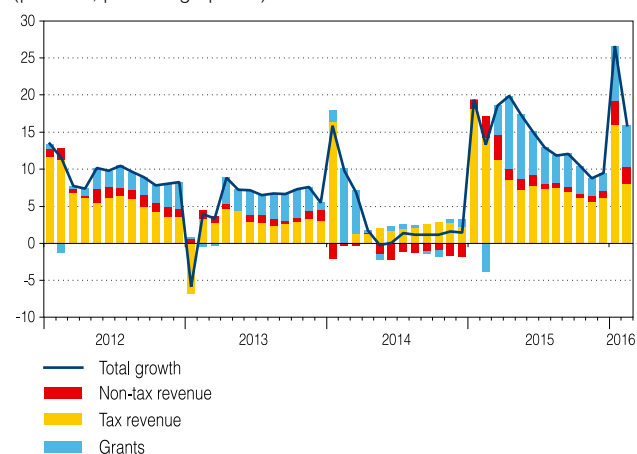
Quarterly data on consolidated fiscal programme performance show that the cash-based budget deficit for 2015 came to BGN 2484 million (2.9 per cent of GDP). The general government ESA 2010 deficit was BGN 1774 million (2.1 per cent of GDP).

In 2015 fiscal policy affected economic activity mainly through public investment made, which had a significant contribution to the growth in gross fixed capital formation overall in the economy for a third consecutive year. 2015 was the last year of implementation of projects from the 2007–2013 EU programming period and this was the reason behind the sizeable increase in government sector investment in real terms. At the same time, current government expenditure in 2015 had a positive, though limited, contribution to the increase in domestic demand due both to the slight increase in government consumption and the moderate increase in the transfers to households.

The first two months of 2016 saw buoyant government revenue growth largely due to windfall revenue from indirect tax receipts in January. On the one hand, these could be explained by the early 2016 receipts from VAT on higher public expenditure payments in December 2015, and, on the other hand, by the one-off higher receipts from excise duty resulting from the excessive stockpiling in the commercial network of cigarettes subject to excise taxes prior to

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

(per cent; percentage points)



Sources: MF, BNB calculations.

the early 2016 tax rate increase.<sup>29</sup> The advance payments under the 2014–2020 financial framework also contributed to budget revenue growth.

Between January and February 2016 budget expenditure went down by 5.4 per cent mainly due to the almost complete lack of investment under the new EC operational programmes. Interest expenditure also reported a sizeable fall on an annual basis resulting from the high payments made in the previous year when the last interest payment on USD-denominated global bonds was effected. Operating expenditure, subsidies and the contribution to the EU budget also reported a decline.

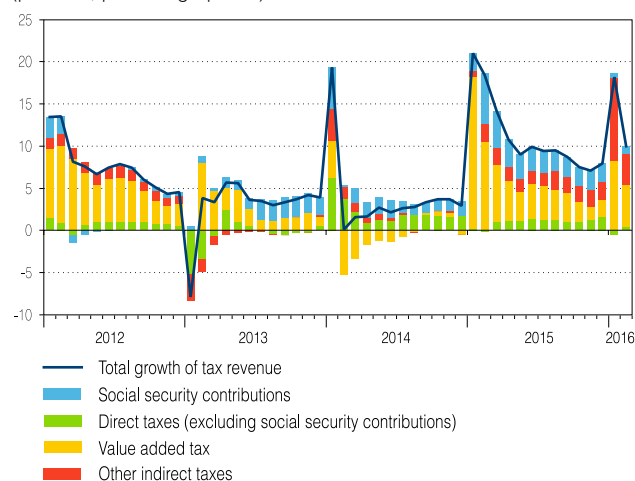
In February social payments went up 5.9 per cent on an annual basis, reflecting mainly higher healthcare spending. Compensation of employees reported an annual increase of 2.2 per cent, with the more significant rise in wage expenses in municipality budgets and social insurance being offset somewhat by the low growth in wage expenses in the state budget.

The dynamics of current non-interest government expenditure in early 2016 indicates that in the first quarter of 2016 government consumption will have a low positive contribution to GDP growth. The effect of the higher health care and wage expenditure (comprising 67 per cent of the nominal government consumption for 2015) will probably outstrip the effect of the decrease in operating expenditure.

According to preliminary data and MF estimates, CFP balance in the first quarter of 2016 was positive (BGN 1856.0 million or 2.1 per cent of GDP) largely due to higher tax revenues and grants, and the sizeable reduction of capital expenditure. Budget revenue performance in the second and third quarters of 2016 will continue to be positively influenced by the regulatory changes in force as of early 2016 (the increased tobacco and fuel excise duties and higher minimum insurance thresholds and minimum wage) and by the expected acceleration

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

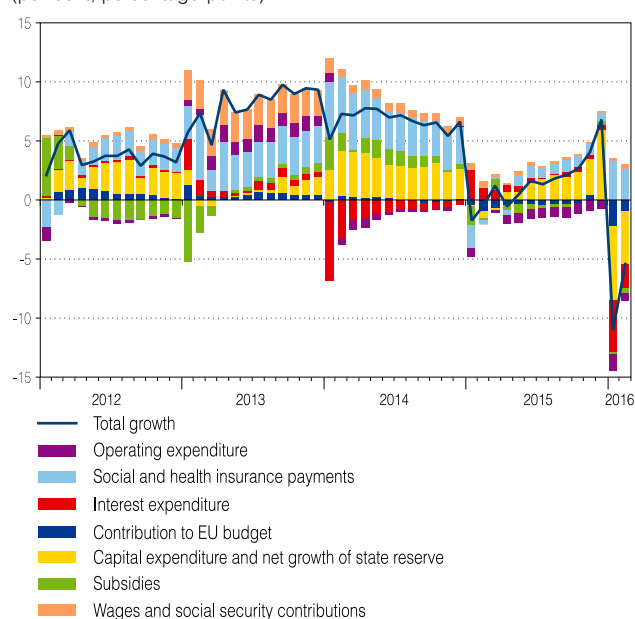
(per cent; percentage points)



Sources: MF, BNB calculations.

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

(per cent; percentage points)



Sources: MF, BNB calculations.

<sup>29</sup> According to the monthly bulletin of the Ministry of Finance for January 2016, significant growth is reported in the excise duty on tobacco products released for consumption in the tax period for December 2015 to which the 2015 tax rates were applied. Since the beginning of 2016 the overall minimum excise duty on cigarettes was increased from BGN 148 to BGN 161 per 1000 cigarettes.

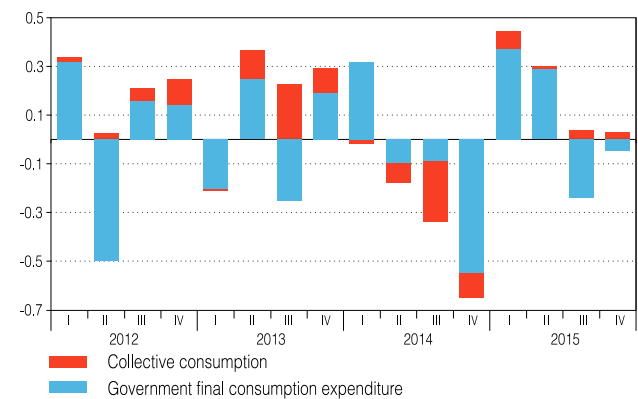
of the annual growth of private consumption and compensation *per* employee.

The MF estimates set out in the Convergence Programme for the 2016–2019 period and the report on the Consolidated Fiscal Programme for the first two months of the year confirm the expectations of a significant reduction in public investment in the second and third quarters of 2016. This dynamics will contribute to a contraction of gross fixed capital formation in total economy during this period.

Based on the current government expenditure dynamics observed in the beginning of the year and the parameters laid down in the 2016 State Budget Law, we expect public consumption to have a limited positive contribution to GDP growth in the second and third quarters of the year.

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

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



Sources: NSI, BNB calculations.

### Revenue, Expenditure and Budget Balance on the Consolidated Fiscal Programme for 2015–2016

Consolidated Fiscal Programme	2015								2015		2015		2016	
	I		II		III		IV		January – December		January – February <sup>1</sup>		January – February <sup>1</sup>	
	million BGN	per cent <sup>2</sup>	million BGN	per cent <sup>2</sup>	million BGN	per cent <sup>2</sup>	million BGN	per cent <sup>2</sup>	million BGN	per cent <sup>2</sup>	million BGN	per cent <sup>2</sup>	million BGN	per cent <sup>2</sup>
<b>Total revenue and grants</b>	7 795.1	18.5	8 508.4	12.0	7 858.7	6.4	8 051.1	2.5	32 213.4	9.5	4 761.6	13.3	5 519.4	15.9
Tax revenue	5 937.4	14.2	6 348.7	6.2	6 282.3	6.6	6 287.2	5.6	24 855.6	7.9	3 850.2	18.4	4 233.8	10.0
Corporate tax	463.8	2.4	544.6	9.8	230.3	5.0	621.7	21.6	1 860.4	10.8	76.5	45.1	55.6	-27.3
Personal income tax	621.2	-0.2	734.9	8.4	670.5	4.0	704.6	8.1	2 731.2	5.2	398.4	-14.3	427.6	7.3
Value added tax	1 969.4	21.8	1 976.9	5.8	2 136.3	5.3	1 657.3	-5.2	7 740.0	6.5	1 503.7	29.5	1 697.4	12.9
Excise	949.8	11.1	1 056.9	7.9	1 325.9	15.1	1 192.4	13.4	4 525.0	12.0	650.6	10.6	787.1	21.0
Customs duties	39.4	12.5	36.1	2.8	37.8	-9.4	45.7	10.6	159.0	3.8	26.0	11.6	25.9	-0.3
Social and health insurance contributions	1 624.7	16.4	1 727.2	5.2	1 729.1	5.2	1 866.1	5.6	6 947.1	7.7	1 072.7	22.5	1 107.4	3.2
Other taxes	269.1	21.7	272.1	-3.0	152.4	-7.5	199.3	10.4	892.9	5.4	122.4	42.8	132.7	8.5
Non-tax revenue	1 079.8	25.8	939.1	-2.7	832.2	-4.8	859.0	12.8	3 710.1	7.2	669.6	22.0	775.4	15.8
Grants	777.9	50.3	1 220.6	87.9	744.2	20.8	904.9	-20.5	3 647.7	24.9	241.8	-39.9	510.3	111.1
<b>Total expenditure</b>	<b>7 539.2</b>	<b>1.2</b>	<b>7 874.8</b>	<b>2.1</b>	<b>8 115.6</b>	<b>3.1</b>	<b>11 167.9</b>	<b>18.2</b>	<b>34 697.6</b>	<b>6.8</b>	<b>4 867.1</b>	<b>-0.5</b>	<b>4 604.1</b>	<b>-5.4</b>
(incl. the contribution to EU budget)														
Wages and social security contributions	1 415.2	1.4	1 519.3	1.8	1 459.6	-0.8	1 688.9	1.8	6 083.0	1.1	941.7	3.0	962.5	2.2
Operating expenditure	1 004.8	-1.1	1 021.8	-10.8	958.6	-6.3	1 493.8	-3.1	4 479.0	-5.2	616.1	-0.4	586.9	-4.7
Interest	262.8	31.8	46.8	15.2	320.6	18.4	68.2	-1.3	698.3	20.4	215.8	30.1	116.8	-45.9
Social security, assistance and social care	3 388.3	0.4	3 503.6	4.2	3 472.1	2.5	3 577.3	-0.1	13 941.2	1.7	2 213.1	-0.6	2 343.1	5.9
Subsidies	400.7	21.9	378.4	-25.8	287.9	-1.2	594.4	41.3	1 661.4	7.1	204.8	-4.5	184.8	-9.8
Capital expenditure and state reserve growth	765.4	-2.6	1 201.6	26.3	1 497.8	16.6	3 423.4	78.3	6 888.2	39.4	449.3	-5.9	230.4	-48.7
Contribution to the EU general budget	301.9	-13.4	203.4	-4.5	119.2	-14.1	321.9	26.5	946.4	-0.9	226.3	-17.4	179.7	-20.6
	million BGN	difference <sup>3</sup> (million BGN)	million BGN	difference <sup>3</sup> (million BGN)	million BGN	difference <sup>3</sup> (million BGN)	million BGN	difference <sup>3</sup> (million BGN)	million BGN	difference <sup>3</sup> (million BGN)	million BGN	difference <sup>3</sup> (million BGN)	million BGN	difference <sup>3</sup> (million BGN)
<b>Budget balance, on a cash basis</b>	<b>255.9</b>	<b>1 130.6</b>	<b>633.6</b>	<b>755.3</b>	<b>-257.0</b>	<b>225.6</b>	<b>-3 116.8</b>	<b>-1 522.8</b>	<b>-2 484.2</b>	<b>588.7</b>	<b>-105.5</b>	<b>582.7</b>	<b>915.2</b>	<b>1 020.8</b>

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

<sup>1</sup> Based on monthly reports on the implementation of budget and EU fund accounts of first-level budget spending entities.

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

<sup>3</sup> Budget balance changes on the same period of previous year.

Source: BNB.

## Behaviour of Firms and Competitiveness

In the fourth quarter of 2015 real value added growth rate in total economy accelerated slightly to 0.3 per cent on a quarterly basis from 0.2 per cent in the previous quarter. All economic sectors, excluding the agricultural one, contributed positively to value added growth. Gross value added in industry increased to 1 per cent in the fourth quarter of 2015 (0.6 per cent in the third quarter). The real component of industrial turnover indicator of the NSI short-term statistics also reported an increase in the fourth quarter of 2015 in both the domestic and external markets. In construction, value added rose by 1.6 per cent in the fourth quarter of 2015. Although the data on the construction production index (at constant prices)<sup>30</sup> reported a decline in both civil and building construction in the same quarter, the indicator was revised upwards for the period starting from the beginning of 2014. The review period saw a slight increase in the number of new dwellings permits issued. Services value added continued to increase in the fourth quarter of 2015, with financial and insurance activities, real estate activities and professional, scientific and technical activities<sup>31</sup> sub-sectors contributing positively to growth over the review period.

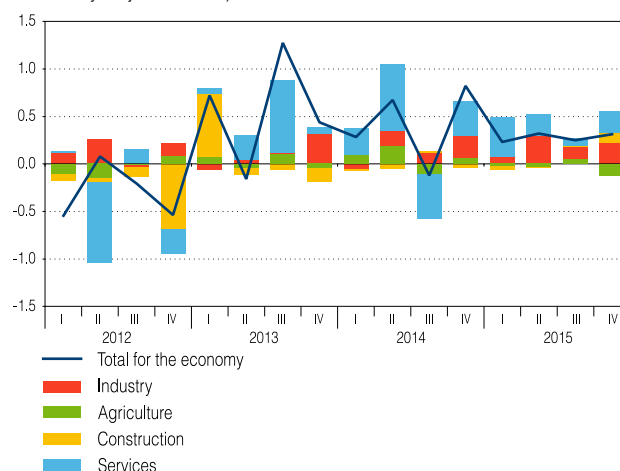
Available data on the turnover indices in industry and trade for the January–February 2016 period from the NSI short-term business statistics indicate that value added should have grown in the first quarter of 2016, while the construction production index declined. On average, between January and February 2016, the volume of sales in industry in both the domestic and external markets increased compared with the average for the fourth quarter of 2015. Over the January–February 2016 period retail trade volumes (at constant prices) also went up on the 2015 fourth-quarter average. These developments suggest a further recovery of domestic demand in the first quarter of 2016.

<sup>30</sup> In early 2016 construction production indices for the previous year are recalculated on the basis of the comprehensive annual data from the structural business statistics.

<sup>31</sup> Professional, scientific and technical activities; administrative and support service activities sub-sector according to A10 breakdown of economic activities.

### Value Added Growth and Contribution by Sector

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

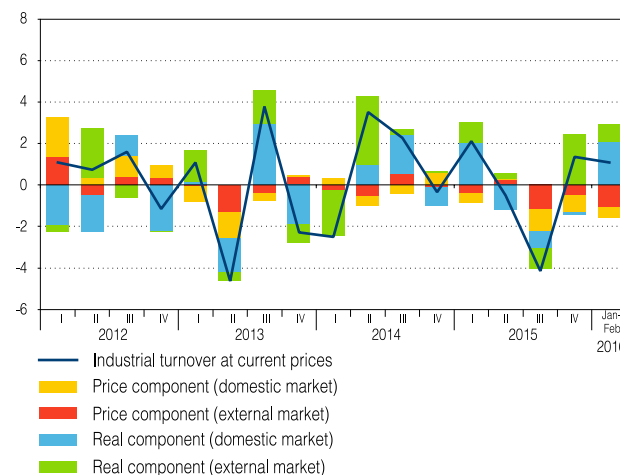


Note: Non-additive data on contributions due to direct seasonal adjustment of value added and its components.

Sources: NSI, BNB calculations.

### Industrial Turnover Dynamics

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



Sources: NSI, BNB calculations.



Corporations' investment activity remained subdued. According to national accounts data and BNB calculations (based on national accounts data and quarterly non-financial accounts of the general government sector published by the NSI) the overall increase in fixed capital investment of 1.1 per cent in real terms on a quarterly basis in the fourth quarter of 2015 was due to the higher capital expenditure on the consolidated fiscal programme, while private investment decreased. Gross operating surplus also declined in the second half-year, with the agricultural sector and industry having the main negative contributions to this fall in the indicator in the fourth quarter of 2015.

Corporations' policy regarding the staff head-count remained prudent. In the fourth quarter of 2015 employment in the total economy increased slightly, with the agricultural sector, as well as the information and communication sector and public services being the main positive contributors to this growth. The continuous increase in corporations' employment expectations in the following three months, and the recovery of economic activity give grounds to project that employment will continue to increase gradually in the second and third quarters of 2016.

As a result of stabilised employment and higher gross value added, labour productivity continued to grow on a quarter-on-quarter basis in the fourth quarter of 2015. The indicator posted an increase in all sub-sectors.

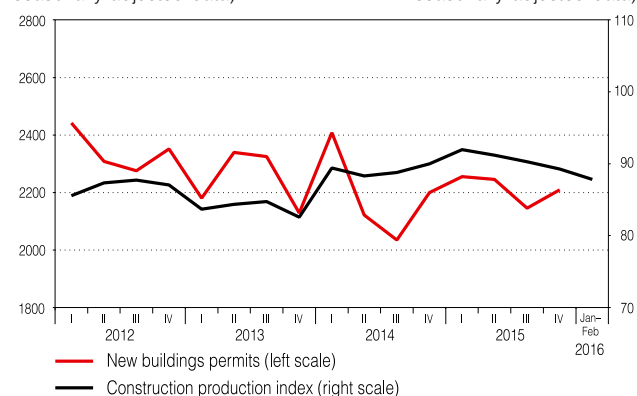
The nominal compensation *per* employee accelerated on both a quarterly and annual basis in the fourth quarter of 2015. This reflected higher wages in industrial sub-sectors and most services sub-sectors, unlike the agricultural sector and trade where wages declined.

Given the weaker labour productivity growth compared with that in compensation *per* employee, nominal unit labour costs in industry and in the total economy posted a slight increase in the fourth quarter of 2015 on both a quarterly and annual basis. This indicator declined in real terms in the total economy, but went up in industry.

Due to the sustained high capacity utilisation rate in 2015, the production factor and total

## Construction Production Dynamics and New Buildings Permits Issued

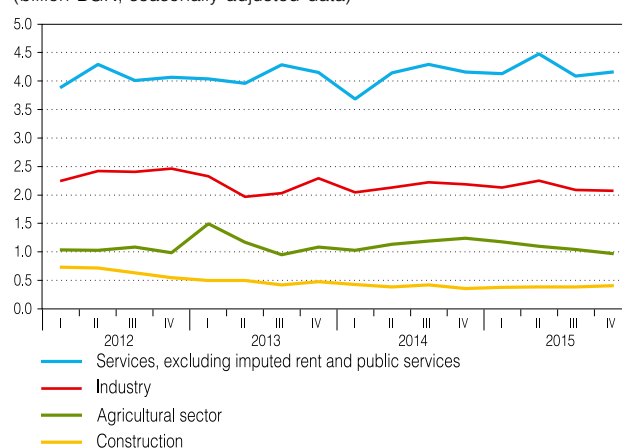
(number of buildings; seasonally adjusted data) (2010 = 100; seasonally adjusted data)



Sources: NSI, BNB calculations.

## Gross Operating Surplus at Current Prices

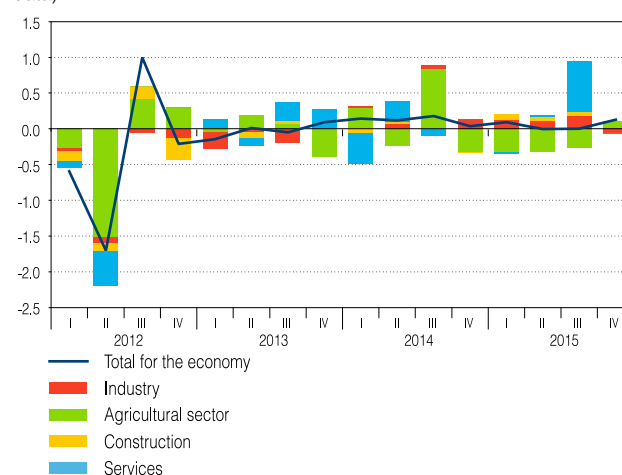
(billion BGN; seasonally adjusted data)



Sources: NSI, BNB calculations.

## 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.

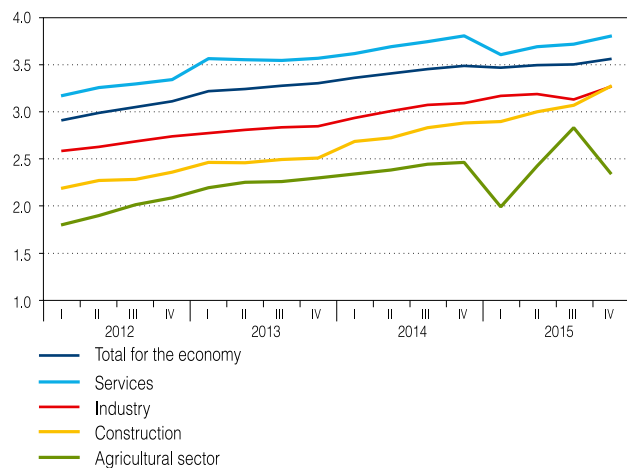
Sources: NSI, BNB calculations.

factor productivity capital continued to be the main positive contributors to real GDP growth in the fourth quarter of 2015. The low contribution of labour reflects mainly the weak employment dynamics.

The recovery of economic activity and improved sentiment and expectations of firms in the context of sustained high capacity utilisation amid low oil prices are expected to contribute to a long-lasting trend toward real growth. However, the uncertain economic environment still remains an important factor limiting the investment activity and expenditure policy of firms. As a result, private investment and employment growth are expected to remain weak in the second and third quarters of 2016.

### Compensation per Employee at Current Prices

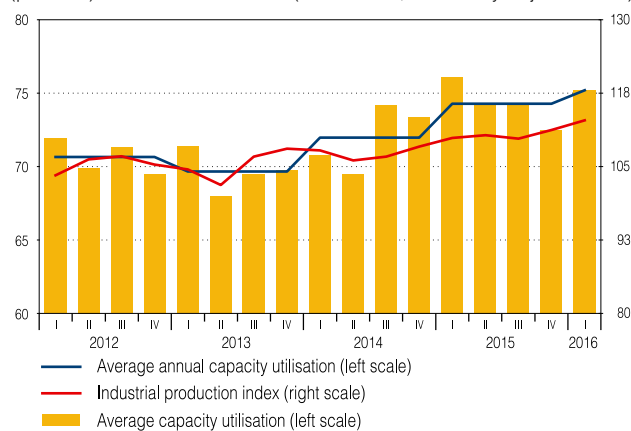
(thousand BGN; seasonally adjusted data)



Sources: NSI, BNB calculations.

### Industrial Production Index and Production Capacity Utilisation in Industry

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

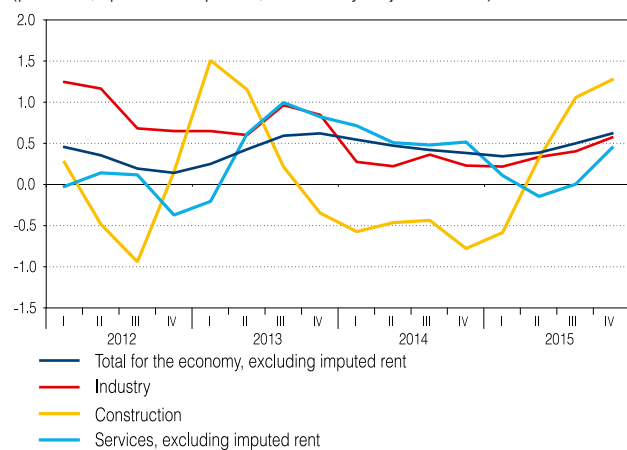


Note: Data on industrial production index for the first quarter of 2016 refer to January and February 2016.

Sources: NSI, BNB calculations.

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

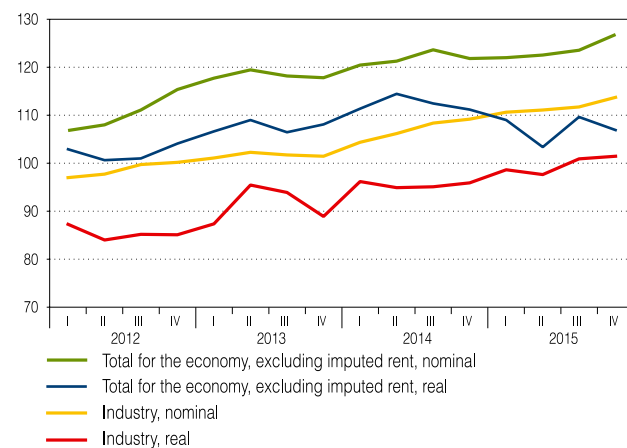
(per cent, quarter-on-quarter; seasonally adjusted data)



Sources: NSI, BNB calculations.

### Unit Labour Costs

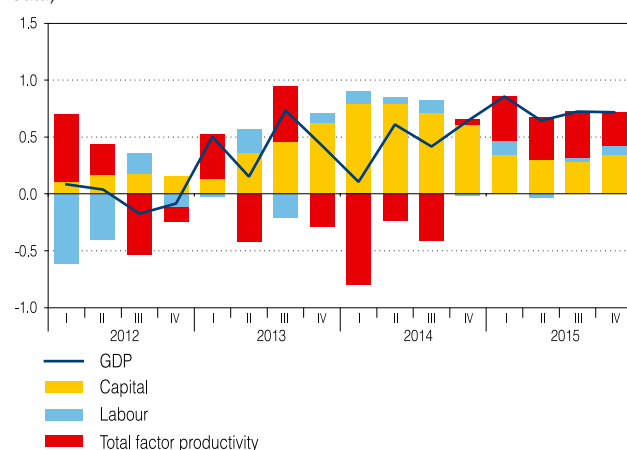
(2010 = 100; seasonally adjusted data)



Sources: NSI, BNB calculations.

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

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



Sources: NSI, BNB calculations.

## Gross Value Added Growth

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

	2013				2014				2015			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Agriculture, forestry, hunting and fishing	1.4	-0.8	2.1	-0.9	1.9	3.9	-2.0	1.3	-0.5	-0.7	1.0	-2.7
Mining and quarrying, manufacturing, production and distribution of electricity, gas and water	-0.3	0.2	0.1	1.5	-0.3	0.8	0.6	1.1	0.3	1.4	0.6	1.0
Construction	11.2	-1.2	-0.8	-2.2	-0.2	-0.8	0.1	-0.7	-0.6	0.0	0.2	1.6
Trade, repair of motor vehicles and motorcycles, transport, storage and mail services, hotels and restaurants	1.1	-0.6	2.4	0.4	-0.3	1.2	-1.6	-0.5	0.7	0.1	0.3	0.2
Creation and dissemination of information and author products; telecommunications	0.7	0.0	1.0	-0.2	0.1	0.4	0.5	0.9	1.3	1.5	0.0	0.0
Financial and insurance activities	0.7	2.5	-2.2	-2.0	0.2	2.7	-2.8	0.4	1.3	-0.2	-1.0	1.7
Real estate activities	-0.3	-0.4	-0.3	0.0	0.2	0.0	1.3	0.9	0.4	0.4	0.0	0.6
Professional activities and scientific research; administrative and ancillary activities	-0.8	4.3	-1.2	1.7	2.1	-0.5	-0.1	0.6	0.8	1.0	0.6	1.2
Public administration, education, human health and social work activities	-1.5	0.1	3.2	-0.2	2.0	1.6	-1.0	1.7	0.4	0.5	0.6	-0.8
Culture, sport and entertainment; other activity; activities of households as employers; non-identified activities of households producing goods and services for own use; activities of extraterritorial organisations and bodies	0.9	0.5	2.9	3.5	-2.5	1.9	1.2	1.3	-1.1	-1.0	-1.0	1.5
<b>Gross value added, total for the economy</b>	<b>0.7</b>	<b>-0.2</b>	<b>1.3</b>	<b>0.4</b>	<b>0.3</b>	<b>0.7</b>	<b>-0.1</b>	<b>0.8</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>	<b>0.3</b>

Source: NSI.

## Exports and Imports of Goods and Services

In 2015 nominal exports and imports of goods picked up by 5.2 per cent and 1.1 per cent on an annual basis, respectively.<sup>32</sup> According to non-seasonally adjusted GDP data, in 2015 real annual growth in exports of goods came to 8.4 per cent on an annual basis, while real imports of goods increased by 5.2 per cent. Cross-checking the changes in exports and imports of goods in nominal and real terms shows that the dynamics in global prices contributed negatively to the nominal growth of international trade flows in 2015.

External trade dynamics by quarter was divergent. Following the sizeable increase in international trade flows on an annual basis in the first half of 2015, the third quarter saw a moderation in the real growth of exports and imports, while the nominal one reported a decline due to the fall in international prices. In the fourth quarter of 2015 the annual growth of international trade flows accelerated influenced by the increasing physical volumes and the lower decline of international prices on an annual basis. In nominal terms, the recovery was more pronounced in exports than in imports. The late 2015 trend toward an increase in nominal exports remained sustained in early 2016, while nominal imports declined on an annual basis.

<sup>32</sup> Foreign trade data.

## Net Exports of Commodity Groups by Use, January–December 2015

	Balance, million EUR	Change*, million EUR	Exports growth**, per cent	Imports growth**, per cent
Consumer goods	558.2	-63.5	7.3	9.4
Raw materials	-257.8	-307.9	4.0	7.4
Investment goods	-1725.3	548.5	16.4	2.4
Energy resources	-1650.7	679.2	-12.0	-19.6
Other exports	-86.7	2.3	23.3	4.6
<b>Total</b>	<b>-3162.3</b>	<b>858.2</b>	<b>5.2</b>	<b>1.1</b>

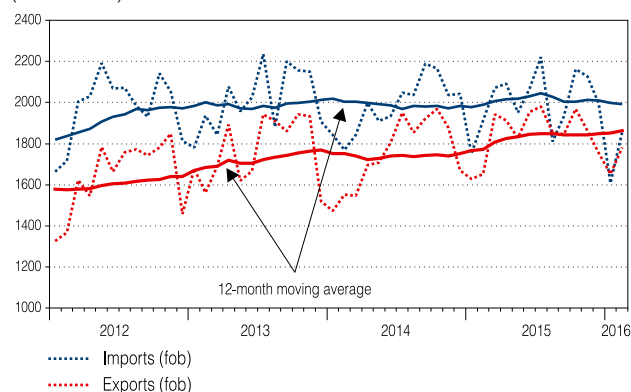
\* Balance change on the corresponding period of previous year.

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

Source: BNB.

## Dynamics of Exports and Imports of Goods

(million EUR)



Source: BNB.

In the second and third quarters of 2016 real growth of exports and imports of goods is expected to increase on an annual basis, with the faster exports than imports growth being sustained, which will contribute to the contraction of the trade deficit as a per cent of GDP. Real exports dynamics will comply with the expectations about the external demand for Bulgarian goods, while real imports of goods will reflect mainly the projected increase in consumption in Bulgaria. Falling prices of major commodity groups in the international market will continue to subdue exports and imports dynamics in nominal terms – a trend that will be more pronounced in exports of goods.

According to the balance of payments data, in 2015 exports and imports of services rose on 2014. The 2015 national accounts data indicate that as regards exports of services this is the result mainly of increased real volumes, while in the imports of services the increase in prices had a leading role. In the fourth quarter of 2015 nominal exports of services reported a sizeable growth on an annual basis due to the higher real volumes, while nominal imports remained almost unchanged, and the imported real volumes decreased. The early 2016 is characterised by a decline in the exports and imports of services on an annual basis, but the data are preliminary and subject to revision.

In the second and third quarters of 2016 real exports of services is expected to increase on an annual basis, but the growth will be limited due to the lower income under the travel sub-item resulting from a slowdown in the economic activity in key trading partners for Bulgaria's tourist sector. On the other hand, real imports of services are expected to decrease on an annual basis.

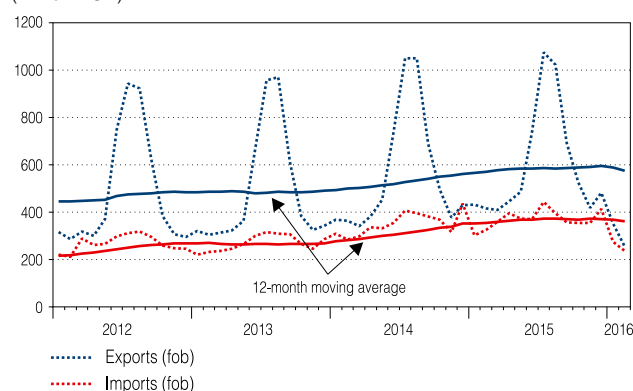
In 2015 exports of goods to EU Member States increased by 7.9 per cent on an annual basis in line with the improvement of EU economic activity. Exports to Germany, Italy and Romania contributed most markedly to this growth. Exports of machines<sup>33</sup> and chemical products<sup>34</sup> contributed most significantly to the dynamics of exports

<sup>33</sup> In this chapter, it should read the machines, vehicles, appliances, instruments and weapons group under the Combined Nomenclature.

<sup>34</sup> In this chapter, it should read chemical products, plastics and rubber under the Combined Nomenclature.

### Dynamics of Exports and Imports of Services

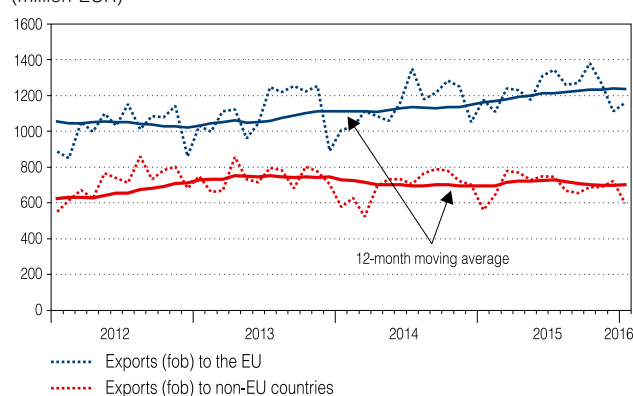
(million EUR)



Source: BNB.

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

(million EUR)



Source: BNB.

to EU Member States by commodity group. In the course of 2015 annual nominal growth of exports to EU Member States moderated and in January 2016 posted a decline on January 2015. This decline reflected mainly the falling international prices of major export commodity groups, such as energy and metals. In 2015 exports to non-EU countries rose by 0.6 per cent on an annual basis, with the strongest growth observed in exports to the USA. The annual growth of exports to non-EU countries recovered at the end of 2015 and in early 2016, following a drop observed in the third quarter of 2015, with the higher exports of machines being the main factor behind the recovery. In 2015 the share of exports to EU Member States increased at the expense of that to non-EU countries.

Nominal exports of all commodity groups under the Combined Nomenclature excluding energy products<sup>35</sup> and metals<sup>36</sup> posted an increase on an annual basis in 2015. In January 2016 exports of energy products and metals continued to decline on an annual basis, with the exports of food products also contributing negatively to total exports of goods.<sup>37</sup> The exports of machinery and chemical products had the most sizeable positive contribution to overall exports growth in 2015 and early 2016.

In 2015 and the beginning of 2016 exports of machines increased on an annual basis, reflecting both higher exported volumes and higher prices.<sup>38</sup> A sizeable increase in the nominal exports of this group was observed in both exports of EU and non-EU countries. Exports of machines are expected to continue to increase sustainably in the second and third quarters of 2016 driven by enhanced external demand.

In 2015 nominal exports of energy products posted a decrease on an annual basis due to lower petroleum product prices in international

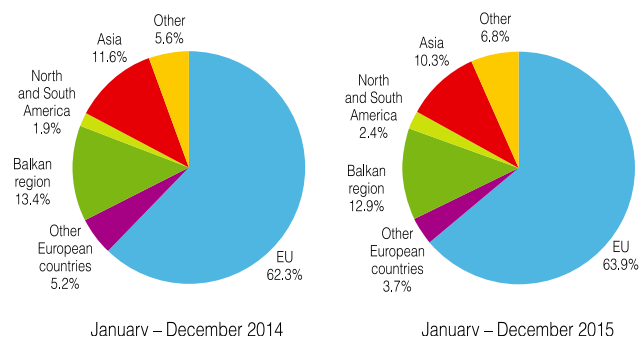
<sup>35</sup> In this chapter, it should read mineral products and fuels group under the Combined Nomenclature.

<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 animal and plant products, food, drinks and tobacco group under the Combined Nomenclature.

<sup>38</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 2015.

## Geographical Breakdown of Exports of Goods



Source: BNB.

## Exports by Commodity Group, January–December 2015

	Million EUR	Change* (million EUR)	Growth** (per cent)	Contribution** (percentage points)
Wood products, paper, ceramics and glass	1 213.4	110.5	10.0	0.5
Machines, vehicles, appliances, instruments and weapons	5 658.8	859.1	17.9	3.9
Mineral products and fuels	3 102.0	-346.0	-10.0	-1.6
Base metals and related products	3 663.3	-4.5	-0.1	0.0
Animal and vegetable products, foods, drinks and tobacco	3 747.3	52.5	1.4	0.2
Textiles, leather, clothing, footwear and other consumer goods	3 064.8	147.0	5.0	0.7
Chemical products, plastics and rubber	2 798.7	324.8	13.1	1.5
<b>Total exports</b>	<b>23 248.3</b>	<b>1 143.3</b>	<b>5.2</b>	

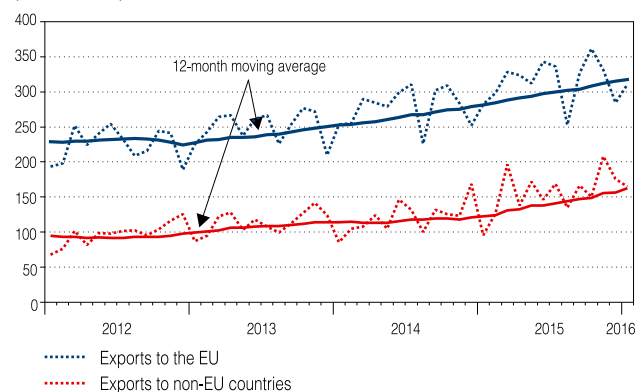
\* Change on the corresponding period of previous year.

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

Source: BNB.

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

(million EUR)



Source: BNB.

markets. Concurrently, exported physical volumes rose on 2014.<sup>39</sup> The decline in nominal terms continued also in January 2016, with both exports to EU Member States and non-EU countries reporting a fall on an annual basis. In the second and third quarters of 2016 exported volumes are expected to continue to increase, but the falling international prices of petroleum products on an annual basis will limit nominal exports in this group.

In 2015 exports of base metals remained at a level close to that reported in 2014. The second half year was characterised by lower exports compared with the corresponding period of 2014. The trends of the second half year reflected both the fall in prices and in exported physical volumes.<sup>40</sup> In January 2016 nominal exports of metals continued to decline on an annual basis, with both prices and exported physical volumes going down.<sup>41</sup> By geographical breakdown, the reduction in the exports of metals in 2015 and early 2016 was due mainly to the lower exports to non-EU countries. In the second and third quarters of 2016 the nominal exports of metals is expected to go down on an annual basis due to the annual fall in metal prices in euro and US dollars in international markets and to the lower exported volumes as a result of the excess metal supply worldwide.

The nominal exports of animal and plant products increased in 2015, though in the third and fourth quarter of the year it reported a decline on an annual basis due to the lower exported physical volumes.<sup>42</sup> The drop in this group's exports continued in January 2016. In nominal terms, declines on an annual basis were reported in both exports to EU Member States and non-EU countries. Over the projection horizon, nominal exports of the group is expected to sustain its upward trend driven by higher

<sup>39</sup> According to the Balance of Payments of Bulgaria, January 2016, p. 56 and using the quarterly export deflators of the mineral fuels, oils and related products group under Standard International Trade Classification (SITC) in 2015.

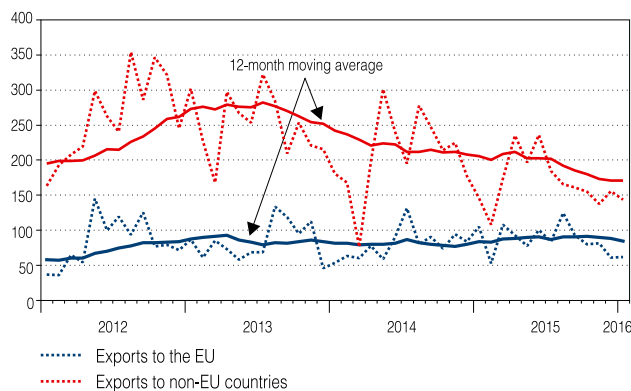
<sup>40</sup> The quarterly export deflators for the precious and other non-ferrous metals under SITC were used to estimate the price effect in the third and fourth quarters of 2015.

<sup>41</sup> According to the Balance of Payments of Bulgaria, February 2016, p. 53.

<sup>42</sup> The quarterly export deflators for the food and live animals group under SITC were used to estimate the price effect in 2015.

## Exports of Mineral Products and Fuels

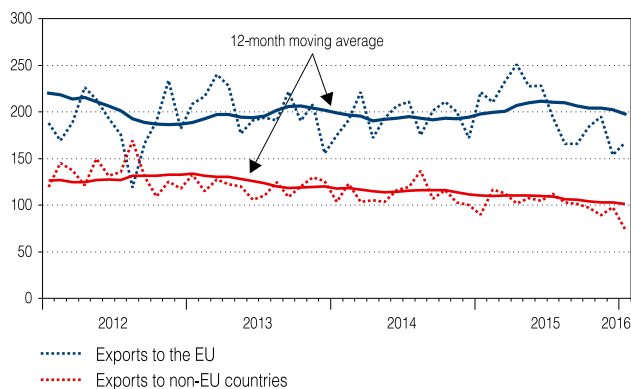
(million EUR)



Source: BNB.

## Exports of Base Metals and Related Products

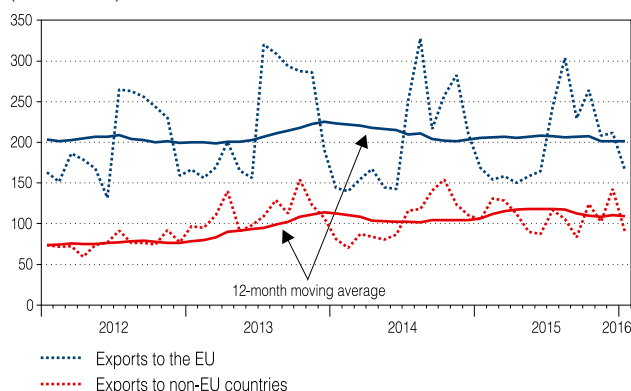
(million EUR)



Source: BNB.

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

(million EUR)



Source: BNB.



external demand. Growth, however, will be held back by the expected decline in international food prices.

In 2015 and early 2016 exports of chemical products<sup>43</sup> rose markedly on an annual basis, with exports to EU Member States contributing most substantially to this growth. Plastic products, fertilisers and medicines were the sub-groups with the most marked contribution to the growth in the exports of chemicals. Both larger physical volumes and higher prices contributed positively to the nominal growth of exports in this group.<sup>44</sup> In the second and third quarters of 2016 exports in the group are expected to continue growing on an annual basis at rates close to the ones reported in the fourth quarter of 2015 due to higher external demand.

According to balance of payments data, exports of services rose by 6.1 per cent in 2015 despite the reported decrease in earnings from tourism. Other business services and in particular technical<sup>45</sup> and consultant services<sup>46</sup> had the most substantial positive contribution to the growth of exports of services. In 2015 earnings from tourism decreased by 3.6 per cent, with NSI data reporting a fall of nearly 5.8 per cent in foreigners travelling for tourism in Bulgaria compared with 2014. The decline was mainly due to a smaller number of visits from Romania, Russia and Greece. In the beginning of 2016 exports of services declined markedly on an annual basis in all sub-items except for the travel sub-item.<sup>47</sup>

In 2015 nominal imports (CIF) of goods posted an increase of 1.1 per cent on 2014. The comparison between the real and nominal annual growth of imports of goods for 2015 based on non-seasonally adjusted GDP data shows that this growth was attributable to the increase in imported physical volumes. Raw materials contributed most markedly to nominal growth of imports of goods by use, with their growth matching the annual increase in industrial turno-

<sup>43</sup> The chemical products, plastics and rubber group under the Combined Nomenclature.

<sup>44</sup> The quarterly export deflators for the chemicals and chemical products group under SITC were used to estimate the price effect in 2015.

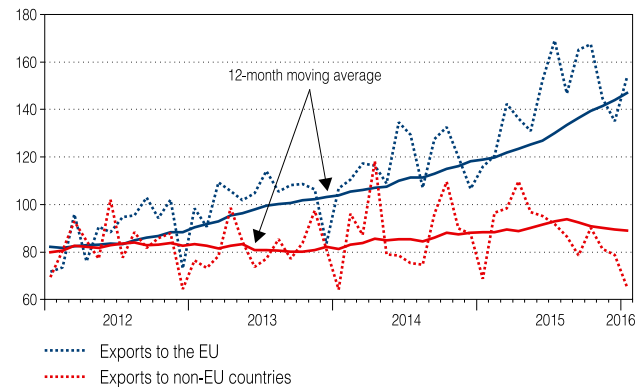
<sup>45</sup> Technical, trade-related, and other business services.

<sup>46</sup> Professional and management consulting services.

<sup>47</sup> Preliminary data subject to revision.

## Exports of Chemical Products, Plastics and Rubber

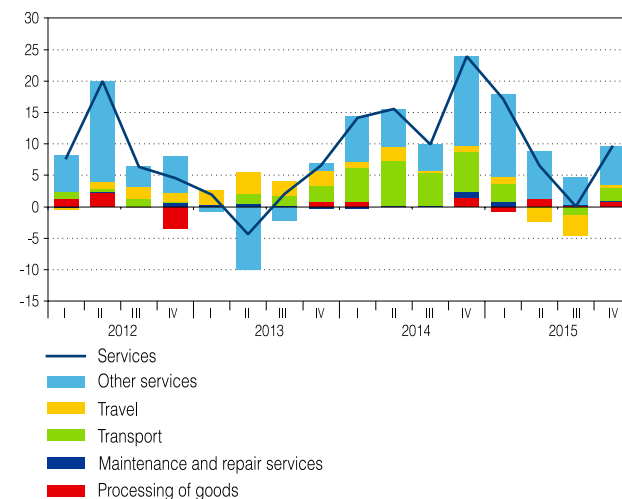
(million EUR)



Source: BNB.

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

(per cent; percentage points)



Source: BNB.

## Imports of Commodity Groups by Use, January–December 2015

	million EUR	Change* (million EUR)	Growth** (per cent)	Contribution** (percentage points)
Consumer goods	5 594.8	480.4	9.4	1.8
Raw materials	9 740.6	669.3	7.4	2.6
Investment goods	6 733.3	157.2	2.4	0.6
Energy resources	4 213.4	-1 027.7	-19.6	-3.9
Other imports	128.5	5.6	4.6	0.0
<b>Total imports (cif)</b>	<b>26 410.5</b>	<b>284.9</b>	<b>1.1</b>	

\* Change on the corresponding period of previous year

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

Source: BNB.

ver and production. Consumer goods also were of great importance for imports dynamics in 2015. Although total imports of goods grew in 2015, the second half year saw a decline on an annual basis. The beginning of 2016 gives indications that this trend will be sustained, with exports of raw materials and energy resources having the most sizeable negative contribution which could be explained by the falling international prices of major commodity groups.

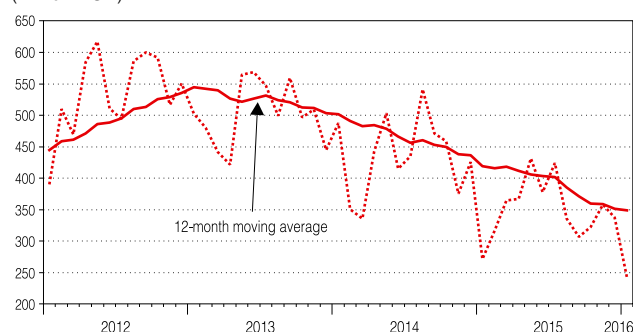
In 2015 imports of goods from EU Member States increased by 5.7 per cent on an annual basis and by the close of the year the annual growth rate accelerated. Imports from Germany and Italy had the largest positive contribution to this growth. January 2016 saw a decline in imports from EU Member States, largely due to the drop in imports from Germany and Greece. Imports from non-EU countries recorded a 3.6 per cent fall in 2015 compared with 2014, this dynamics being underpinned mainly by imports from Russia. The downward trend in imports from non-EU countries from the second quarter of 2015 continued in the beginning of 2016, and Russia still had the largest negative contribution thereto. Imports from this country is made up almost entirely of petrol products, and the reported decline was due to the falling international prices thereof. In 2015 and the beginning of 2016 the share of imports from the EU grew on an annual basis and in January 2016 reached 50.5 per cent.

In 2015 an annual decline was reported only in the imports of energy resources and by the end of the year it moderated – a trend that remained sustained also in early 2016. The registered drop in imports of energy resources in both 2015 and 2016 was due to the falling international prices of petrol products,<sup>48</sup> while physical volumes reported an increase. Reflecting the expectations of a continuous annual decline in the price of petrol in US dollars and in euro, the nominal imports of energy products will remain subdued in the second and third quarters of 2016.

<sup>48</sup> According to the Balance of Payments, January 2016, p. 56, and February 2016, p. 53 and using the quarterly import deflators of the mineral fuels, oils and related products group under the SITC in 2015.

### Imports of Energy Resources

(million EUR)



Source: BNB.

Imports of the raw materials group grew on an annual basis in 2015 and was of key importance to the overall growth of imports of goods. However, the fourth quarter of 2015 saw moderate imports growth in the group, and in January 2016 imports declined. The assessment of price changes shows that the growth in the group in 2015 reflected the higher imported volumes, while the falling prices of most goods had a limiting effect on this group's imports.<sup>49</sup> In the second and third quarters of 2016 imports of raw materials are expected to continue to be limited by the decreasing international prices of major commodity groups.

Imports of consumer goods registered sizeable annual growth in 2015. Food, drinks and tobacco contributed most to it, and the pharmaceuticals and cosmetics sub-group continued to play a major role. In early 2016 this group's imports continued to grow, albeit at lower annual growth. Imports of the group are projected to grow in the second and third quarters of 2016 driven by the expected increase in private consumption.

In 2015 nominal imports of investment goods increased on 2014 reflecting both the higher physical volumes and the year-on-year price rise.<sup>50</sup> Imports of vehicles had the largest contribution to the growth in this group. Throughout 2015 the imports dynamics of this group was divergent and in the second half year imports of investment goods declined on an annual basis. A similar trend was observed also in January 2016, with the imports of other investment goods having the largest contribution thereto. As a result of the expected investment dynamics, our projections for the second and third quarters of 2016 point to low dynamics of investment goods' nominal imports.

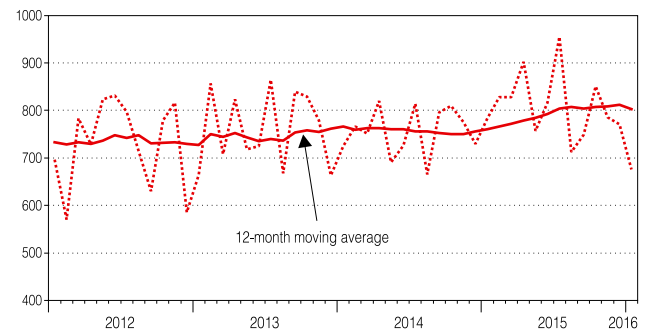
According to balance of payments data, services imports saw a 5.3 per cent year-on-year rise in 2015, with imports of services related to

<sup>49</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 2015.

<sup>50</sup> The quarterly import deflators for the machines, equipment and vehicles group under SITC were used to estimate the price effect in 2015.

## Imports of Raw Materials

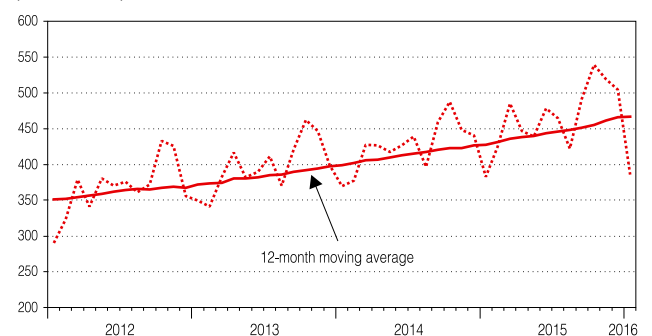
(million EUR)



Source: BNB.

## Imports of Consumer Goods

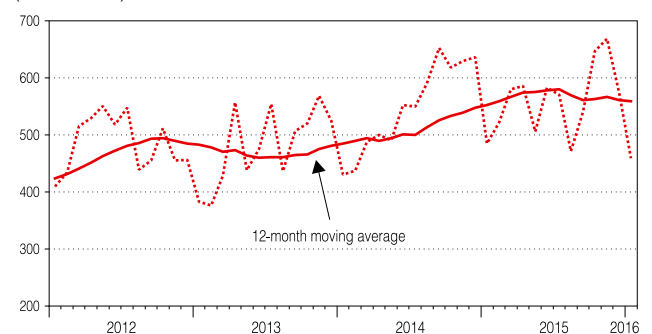
(million EUR)



Source: BNB.

## Imports of Investment Goods

(million EUR)

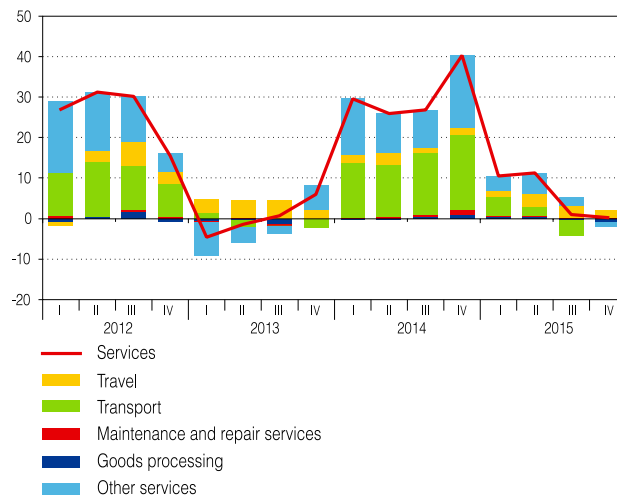


Source: BNB.

maintenance and repair services reporting the most sizeable increase on 2014. At the same time, the increase in expenditure on residents' travel played an essential role for the imports of services dynamics. According to NSI data, Bulgarians' visits abroad increased on an annual basis, with the visits to Greece and Turkey having the most significant contribution to this. The beginning of 2016 gives indications of lower nominal imports of services. However, Bulgarian residents' travel expenditure continue to grow.

### Annual Change of Imports of Services and Contributions by Sub-components

(per cent, percentage points)



Source: BNB.

# 4. Inflation

In the first quarter of 2016 the decrease in end-user prices accelerated, and inflation reached -1.9 per cent in March (-0.9 per cent at the end of 2015). This reflected mainly the continuing decline in international oil prices which contributed to the significant drop in transport fuel prices, as well as in the prices of transport services and some administratively controlled prices affected indirectly by fuel prices. Lower import and domestic prices of certain agricultural products contributed to the deflation reported in the group of foods in March, while the strengthening in the long-term downward trend in the prices of telecommunication services contributed to the deflation in the services group. Prices in other major groups of goods and services remained stable.

In the second and third quarters of 2016 inflation is expected to remain negative, which will be driven mainly by the fall in international fuel, food and commodity prices in the beginning of 2016.

In the first quarter of 2016 end-user prices continued to follow a downward trend, their rate of change reaching -1.9 per cent in March (-0.9 per cent at the end of 2015).<sup>51</sup> Enhanced deflation in early 2016 reflected mainly the stronger deflationary impact of international prices and, to a lesser degree, internal factors.

The early 2013 downward trend in the prices of goods imported into Bulgaria was sustained during the fourth quarter of 2015, driven mainly by lower fuel and commodity prices in international markets.<sup>52</sup> In March 2016 the annual decline in global oil and food prices in euro was 30 and 5.4 per cent, respectively. This appears to be a precondition for declines in the overall indices of domestic producer prices and end-user consumer prices.

The total producer price index (PPI) in the domestic market continued decreasing on an annual basis, its rate of decline reaching 4.0 per cent in February. The sub-sectoral breakdown shows that prices in manufacturing had a significant negative contribution to the change in the total producer price index, reflecting mostly lower producer prices of refined oil products and metals.<sup>53</sup> This trend was transmitted through the supply chain on end-user consumer prices so

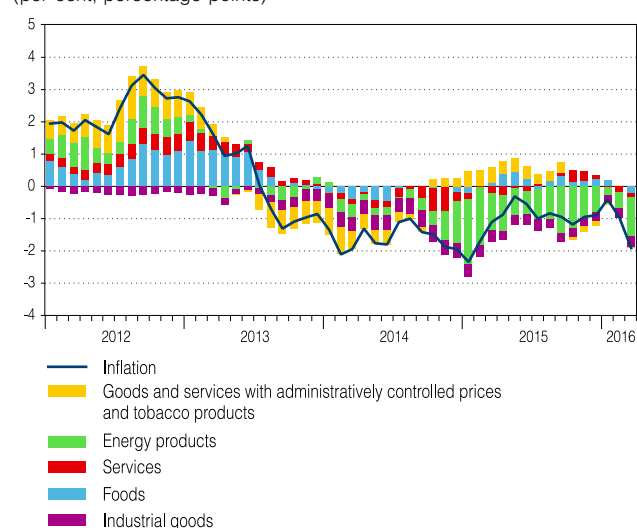
<sup>51</sup> The analysis in this section employs NSI data on HICP.

<sup>52</sup> Import data under the Standard International Trade Classification (SITC).

<sup>53</sup> Production of coke and refined petroleum products, and production of basic metals.

**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: NSI, BNB calculations.

that transportation fuels recorded a considerable drop of 17.4 per cent in March 2016, displaying the largest negative contribution to the change in end-user consumer prices (-1.17 percentage points).

In February the sub-sector related to the production of electricity, heating and gas<sup>54</sup> also had a negative contribution to the annual rate of change in producer prices, consistent with the continuous price decreases of imported natural gas. Lower prices of imported natural gas which reflect indirectly global oil prices gave grounds for the Energy and Water Regulatory Commission (EWRC) to cut the end price of natural gas since 1 January 2016.<sup>55</sup> This, in conjunction with the three consecutive cuts in heating prices in April, July and October 2015, accounted for the negative contribution of administratively controlled prices to the overall inflation over the first quarter of 2016.

In the first two months of 2016 main industrial groupings reported lower prices on an annual basis not only for energy products but also for intermediate consumption products which are a component of firms' production costs. The continued downward dynamics in oil prices and major raw materials in international markets over the following months will continue to be a factor for the retention and/or decrease in end-use consumer prices. Concurrently, producer prices on the domestic market related to the production of consumer non-durables retained their mid-2015 upward trend under the influence of increased prices in processed food,<sup>56</sup> drinks and tobacco products, and partly clothes. Higher domestic producer prices of processed food were passed on end-user consumer prices of processed food which posted annual growth of 1.4 per cent as of March 2016.

Over the same period unprocessed food prices significantly decreased on an annual basis (-4.5 per cent), which was due to the negative contribution of vegetables and meat and meat

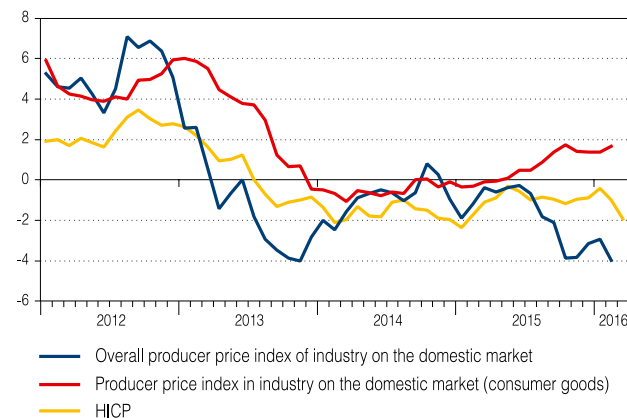
<sup>54</sup> Production and distribution of electricity, heating and gas.

<sup>55</sup> For more information, see: <http://www.dker.bg/newsbg.php?n=2729>

<sup>56</sup> The groups of manufacture of other food products and manufacture of oils and fats had stronger positive contributions to the growth of food producer prices in February, while prices in the group of processing and preserving of meat contributed negatively.

## Rate of Change in Manufacturing PPI and HICP

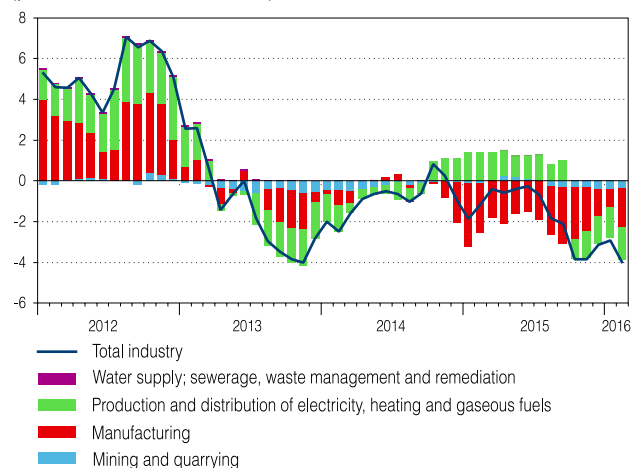
(per cent, on an annual basis)



Source: NSI.

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

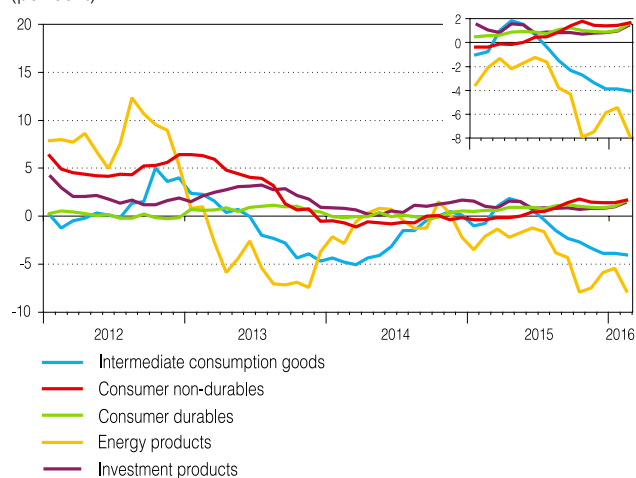
(per cent, on an annual basis)



Source: NSI.

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

(per cent)



Source: NSI.



products groups, thus adding to the food deflation. Vegetable prices reflected seasonal factors, climatic conditions in Bulgaria and imported product prices, resulting in price movements within a relatively wide range for short periods. The decrease in vegetable prices since early 2016 followed the pattern of domestic producer prices in agriculture<sup>57</sup> at the end of 2015 and lower import prices on commodity exchanges in Bulgaria.<sup>58</sup> The ongoing price decline in the meat and meat products group since mid-2014 driven by the drop in import and producer prices was an additional factor for deflation in end prices of unprocessed food.

Producer prices of durable goods on the domestic market reported low positive year-on-year growth in the first two months of 2016 without affecting end prices of non-food goods which exhibited negative inflation at -1.7 per cent in March (against -1.4 per cent at the end of 2015). The annual decrease in consumer prices of non-food goods in the first three months of 2016 was due to downward developments in durable prices unlike non-durable prices posting low positive growth. In the group of durable goods, a comparatively high annual rate of decline since early 2016 was again observed in automobile, computer and television equipment, furniture and furnishings prices. This corresponded to the subdued dynamics of their trade volumes whereby the link between producer prices and end-use prices is ensured. Monthly NSI data on retail trade turnover show a slight increase in consumer demand between January and February 2016, with the group of food, drinks and tobacco products posting the largest positive contribution unlike trade in non-food<sup>59</sup> goods recording a slight decline on an annual basis. Durable goods had a positive contribution to HICP developments over the first quarter of 2016, reflecting the increase in clothing prices

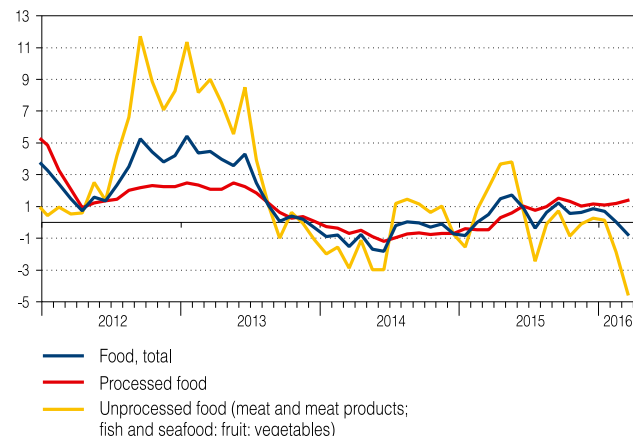
<sup>57</sup> NSI data on price indices of agricultural produce.

<sup>58</sup> Based on State Commission on Commodity Exchanges and Market-places data.

<sup>59</sup> Within the non-food group, declines in trade volumes at constant prices were reported in trade in household appliances, furniture and other household goods, and computer and communication equipment and other consumer goods for the January to February 2016 period, unlike the increased volumes observed in textile, clothing, footwear and leather, and pharmaceutical and medical goods, cosmetics and toiletries.

## Rate of Change of Food Price Index

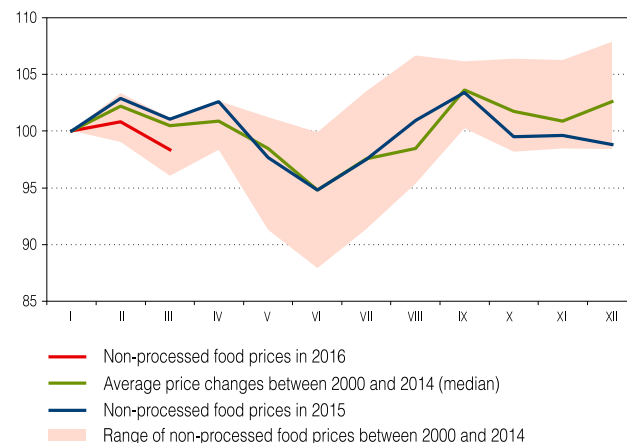
(per cent, on an annual basis)



Sources: NSI, BNB calculations.

## Non-processed Food Price Developments Throughout the Year

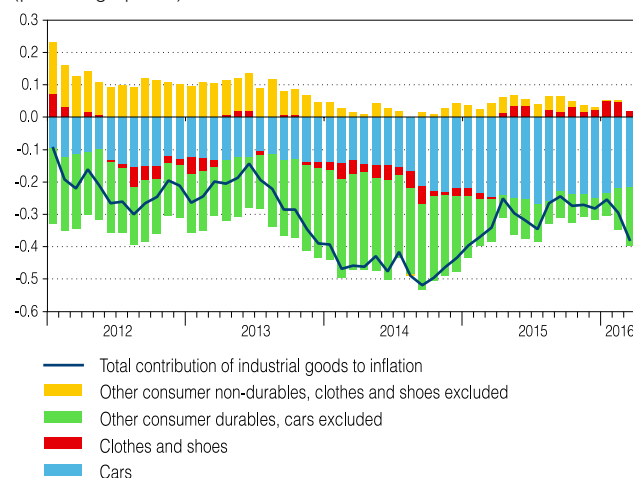
(index; January = 100)



Sources: NSI, BNB calculations.

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

(percentage points)



Sources: NSI, BNB calculations.

amid higher producer prices and accelerating turnover of retail trading in these goods.

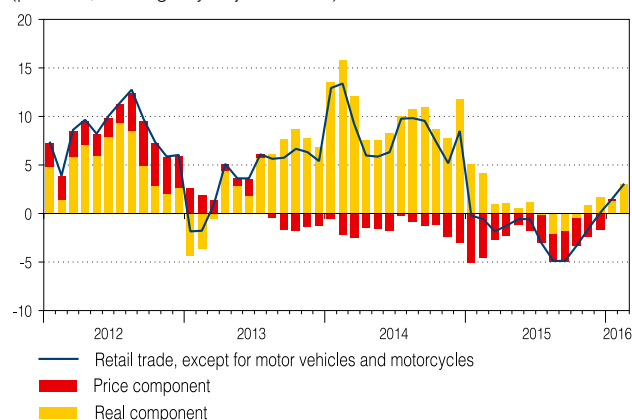
In the first quarter core inflation (including services and non-food prices) was negative reaching -1 per cent in March (from -0.4 per cent at the end of 2015). In addition to the downward non-food price dynamics, accelerating deflation in core HICP components reflected the deflationary process in the group of services since early 2016. In March services inflation (excluding administratively controlled prices) came to -0.5 per cent (0.5 per cent at the close of 2015). This reflected the price drop in transport services as a result primarily of lower prices in air transport, while indirect effects of lower fuel prices on other types of transportation remained limited. The accelerated long-term trend toward cheaper telecommunications services and lower auto insurance prices were additional factors which contributed to forming deflation in the group of services as of March 2016. Catering prices displayed low positive inflation throughout the first quarter in line with reported growth in the prices of processed food.

Higher fees and excise duties introduced since the beginning of the year exerted an upward pressure on the overall inflation. The 47.7 per cent increase in road fees had a 0.1 percentage point contribution to annual inflation, although it was insufficient to compensate the negative contribution of administratively controlled prices of heating and gas supply. Higher excise duties on cigarettes predetermined the acceleration of tobacco inflation to 1.7 per cent in March 2016. When the stocks of cigarettes at old prices run out the commercial network, it may be expected higher inflation in this group over the following months. Medicines prices followed a downward year-on-year trend since the year start.

In March 2016 the diffusion index, showing the share of groups of goods and services with declining prices on an annual basis, rose slightly to 36.6 per cent against 35.5 per cent at the end of 2015. This reflected the increased number of food and non-food sub-groups with declining prices and corresponded to the deflation recorded in these groups in March 2016. Retaining the diffusion index at comparatively high levels gives signals that in the following months

### Annual Growth Rate of Nominal Retail Trade (Excluding Automobile and Motorcycle Trade) and Selected Sub-sectors

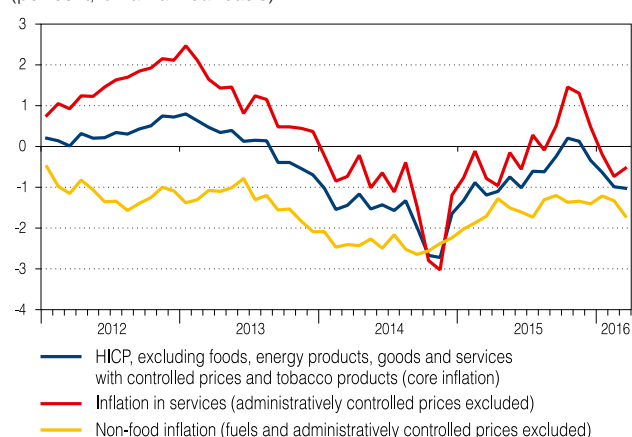
(per cent; working-day adjusted data)



Sources: NSI, BNB calculations.

### Core Inflation

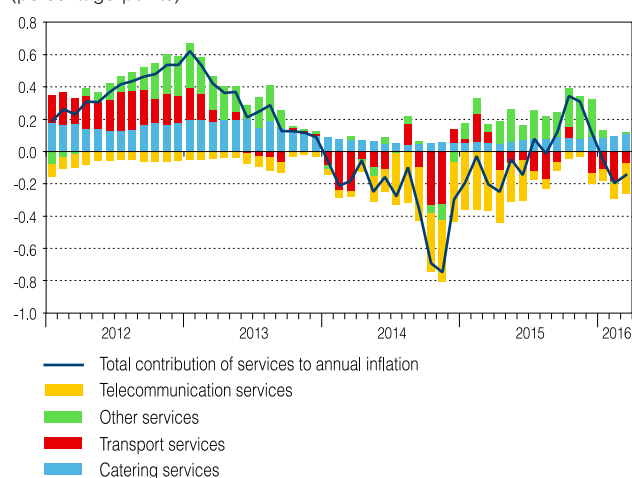
(per cent, on an annual basis)



Sources: NSI, BNB calculations.

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

(percentage points)



Sources: NSI, BNB calculations.

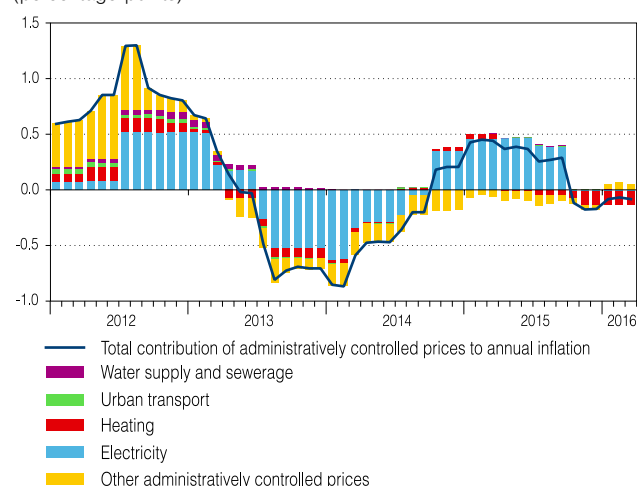
we can expect downward dynamics in consumer prices over the coming months. In the first quarter of 2016 the number of goods and services with rising prices was sustained, and that of groups with growth of prices by more than 1 per cent increased. Due to the small weight of these groups in the consumer basket, the increase in their prices failed to offset the negative contribution of goods and services with deflation.

According to the NSI business survey, in March 2016 most managers in industry, services and retail trade expect that selling prices will remain unchanged in the following three months. The balance of opinions in the services sector continued to be slightly negative due to the larger share of managers expecting price declines as compared with those expecting price rises. Managers' sentiment gives no ground to expect an upward pressure on selling prices in the following months, which is likely to reflect both lower production costs due to lower intermediate consumption goods prices and the ongoing uncertainty of firms about the economic environment, competition and insufficient demand. The NSI business survey shows that insufficient demand continues to be a limiting factor for retail trade firms' activities. Since these firms are closer to end users along the supply chain, there are indications of subdued price dynamics in consumer prices over the coming months. Labour cost policies of firms impacted consumer price dynamics. According to national accounts data, unit labour costs in the total economy rose slightly by 1.1 per cent in nominal terms over the fourth quarter of 2015, declining by 0.7 per cent on average for the year. In addition to declining prices of fuels, food and raw materials, the cautious labour cost policy pursued by firms is a reason for managers to expect retention of selling prices at comparatively low levels in the following months.

Inflation expectations for the second and third quarters of 2016 and related uncertainty are presented in the fan chart on the annual rate of HICP changes.<sup>60</sup> Inflation is anticipated to remain negative over the following two quarters. This will reflect the significant drop in international

<sup>60</sup> For further details, see the box entitled *Measurement and Presentation of Uncertainty in Forecasting Economic Indicators*, Economic Review, 1/2012.

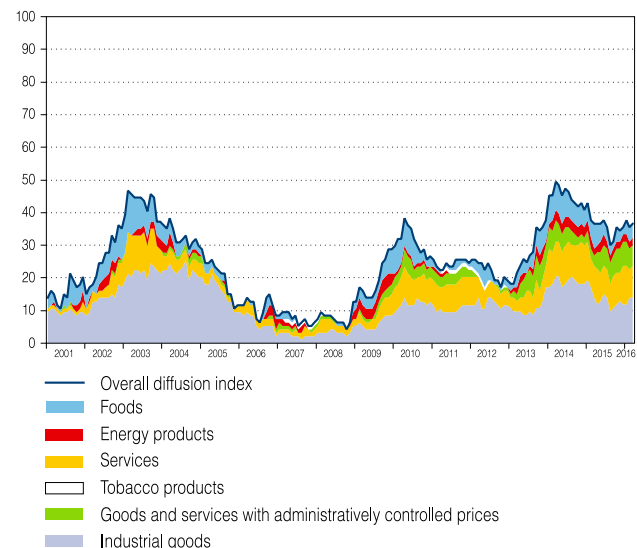
### Contribution of Major Sub-groups of Goods with Administratively Controlled Prices to Overall Inflation (percentage points)



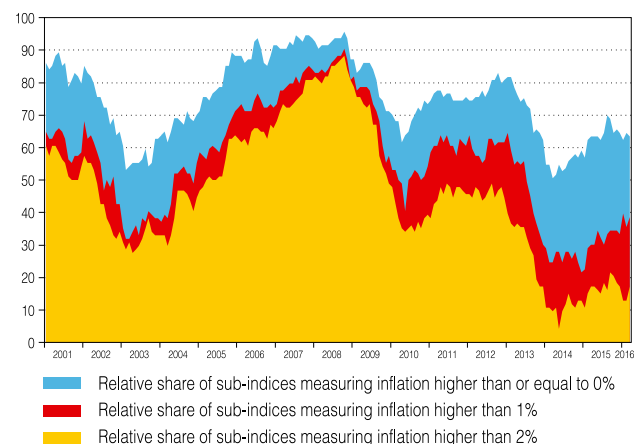
Sources: NSI, BNB calculations.

### 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 declining HICP sub-indices on an annual basis (per cent)



Sources: NSI, BNB calculations.

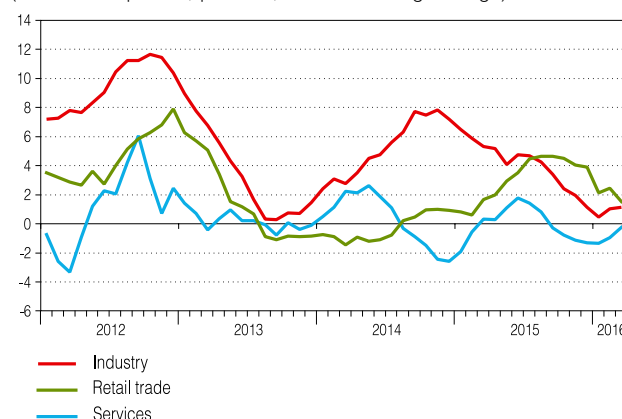
oil prices in early 2016 and our expectations of their slow recovery over the second half of the year. International food prices are expected to decline on both quarterly and annual basis in the next two quarters, pushing down domestic food and catering prices.

Core inflation is expected to have a low negative contribution to the overall inflation in the following months under the influence of indirect effects of lower fuel prices and projected slow recovery of household consumer expenditure along with the conservative expenditure policy maintained by firms. As from April 2016 the European Commission began to cut gradually roaming costs in EU Member States which is a prerequisite for a further reduction in prices of telecommunication services.

Major risks to the outlook relate largely to the possibility that international oil prices will continue to decrease faster than expected. The quality of agricultural harvests in Bulgaria and the region will be another important factor which is likely to affect domestic food prices over the following months. Further price declines in some goods and services may be expected as a result of the cuts in regulated natural gas, heating and electricity prices applied by the EWRC since 1 April 2016.<sup>61</sup> Higher tobacco excise duties since early 2016 and the announced increase of urban transport tickets in Sofia since June will continue to push up the administratively controlled prices.

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

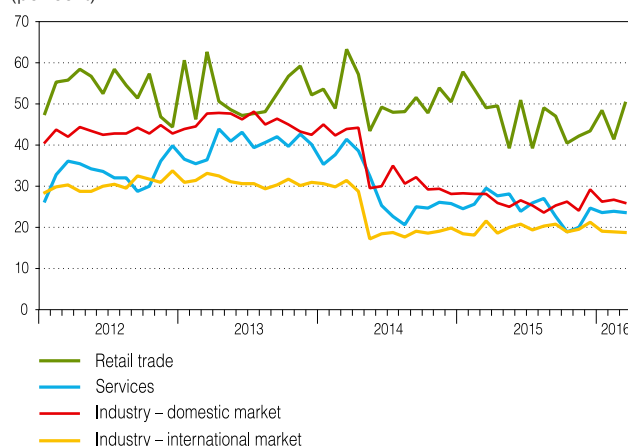
(balance of opinions, per cent, 6-month moving average)



Source: NSI.

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

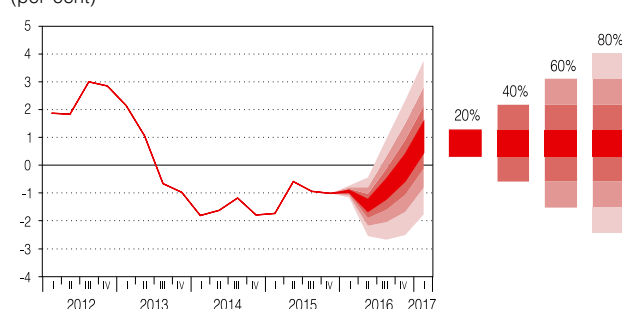
(per cent)



Sources: NSI, BNB calculations.

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

(per cent)



Note: The fan chart shows the expert views of the forecasters on the uncertainty surrounding the projected value based on a 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: BNB.

<sup>61</sup> For more details, see the EWRC press release. <http://www.dker.bg/newsbg.php?n=2760>

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

	Accumulated inflation as of March 2015 (December 2014 = 100)		Accumulated inflation as of March 2016 (December 2015 = 100)		Annual rate of inflation as of March 2016 (March 2015 = 100)	
Inflation (per cent)	-0.3		-1.3		-1.9	
	Rate of inflation by group (per cent)	Contribution, percentage points	Rate of inflation by group (per cent)	Contribution, percentage points	Rate of inflation by group (per cent)	Contribution, percentage points
<b>Food</b>	<b>1.8</b>	<b>0.48</b>	<b>0.2</b>	<b>0.05</b>	<b>-0.8</b>	<b>-0.21</b>
Processed food	-0.3	-0.05	-0.1	-0.01	1.4	0.23
Unprocessed food	5.8	0.52	0.8	0.06	-4.5	-0.44
<b>Services</b>	<b>-1.2</b>	<b>-0.31</b>	<b>-2.2</b>	<b>-0.58</b>	<b>-0.5</b>	<b>-0.15</b>
Catering services	0.2	0.01	0.6	0.03	1.9	0.11
Transport services	-8.9	-0.33	-7.1	-0.27	-1.6	-0.07
Telecommunication services	-0.1	0.00	-2.4	-0.13	-3.6	-0.19
Other services	0.1	0.01	-1.9	-0.21	0.1	0.01
<b>Energy products</b>	<b>-3.2</b>	<b>-0.25</b>	<b>-10.7</b>	<b>-0.62</b>	<b>-17.4</b>	<b>-1.17</b>
Transport fuels	-3.4	-0.24	-11.8	-0.61	-19.4	-0.26
<b>Industrial goods</b>	<b>-1.1</b>	<b>-0.23</b>	<b>-1.4</b>	<b>-0.32</b>	<b>-1.7</b>	<b>-0.38</b>
<b>Goods and services with administratively controlled prices*</b>	<b>0.0</b>	<b>0.00</b>	<b>0.5</b>	<b>0.09</b>	<b>-0.5</b>	<b>-0.08</b>
<b>Tobacco products</b>	<b>0.1</b>	<b>0.01</b>	<b>1.3</b>	<b>0.06</b>	<b>1.7</b>	<b>0.08</b>

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

Sources: NSI, BNB calculations.

## The Effect of the ECB Monetary Policy on Interest Rates in Bulgaria

The currency board framework in Bulgaria, under which the exchange rate of the lev is fixed to the euro, ensures the accomplishment of the major central bank's goal of maintaining price stability in the economy. The fixed exchange rate of the lev *vis-à-vis* the euro, eliminating the lev exchange rate volatility, allows for euro area interest rate changes to have a strong impact on interest rates in Bulgaria. The currency board framework presupposes a direct transmission of the ECB's monetary policy to Bulgaria's economy. The banking system is an instrument for the transmission, with the ECB's monetary policy transmission being facilitated not only by the monetary regime but also by the substantial market share of EU foreign banks and bank branches<sup>1</sup> in Bulgaria.

The negative interest rates applied by the ECB on its deposit facility since mid-2014 and the non-standard monetary policy measures implemented due to the low euro area inflation, which is under the inflation target, prompted a decrease in all euro area interest rates. The present analysis aims to follow how changes in the ECB monetary policy, resulting from the negative interest rates applied to the deposit facility from 2014 until March 2016, spilled over interbank money market rates, deposit and lending rates in Bulgaria<sup>2</sup> under the currency board framework.

Between June 2014 and March 2016 against the background of a very low inflation rate, the ECB launched a series of standard and non-standard monetary policy measures intended to decrease interest rates, thus encouraging lending in the euro area. Higher domestic demand should have put an upward pressure on inflation, thus accelerating the achievement of the ECB inflation target:

- In June 2014 the ECB cut interest rates on its main refinancing operations by 10 basis points to 0.15 per cent, interest rates on the marginal lending facility by 35 basis points to 0.40 per cent and applied a negative interest rate on the deposit facility of -0.10 per cent, down 10 basis points.<sup>3</sup> The ECB implemented additional measures to provide liquidity, including targeted longer-term refinancing operations (TLTROs) intended to boost lending to the euro area non-financial private sector by providing longer-term refinancing to banks under favourable conditions. Under this programme, banks might borrow funds from the ECB at an initial amount of up to 7 per cent of loans extended to the non-financial private sector (housing loans to households excluded) at two consecutive auctions in September and December 2014. Between March 2015 and June 2016 banks are allowed to borrow additional funds under this programme at three-monthly intervals. The programme became the major tool for the ECB to provide liquidity to euro area banks and gradually replaced the preceding programme of three-year longer-term refinancing operations (LTRO).
- In September 2014 the ECB cut the interest rates on its main refinancing operations, the marginal lending facility and the deposit facility by 10 basis points each to reach 0.05 per cent, 0.30 per cent and -0.20 per cent, respectively. In addition, the ECB announced an Asset-Backed Securities Purchase Programme (ABSPP) and a new (third in row) Covered Bond Purchase

<sup>1</sup> By the end of 2015 the market share of EU foreign banks and branches in the assets of Bulgaria's banking system accounted for 75.1 per cent.

<sup>2</sup> For a more detailed analysis of the ECB measures and their effect on Bulgaria's banking system until 2014, see *The Effect of 2014 ECB Monetary Policy Measures on the Euro Area Financial Market and Bulgaria's Banking System*, Economic Review, 3/2014.

<sup>3</sup> In addition to the deposit facility, the negative interest rate was also applied to: (i) banks' average reserve holdings in excess of the minimum required reserves; (ii) general government sector deposits held with the Eurosystem that exceed certain thresholds; (iii) Eurosystem reserve management services accounts if by the date of enforcement of the decision they have not been remunerated; (iv) participants' account balances in TARGET2; (v) non-Eurosystem NCB balances (overnight deposits) held in TARGET2; (vi) other accounts held by third parties with Eurosystem central banks, provided by the date of enforcement of the decision they have not been remunerated at the deposit facility rate.



Programme (CBPP3), with securities issued by euro area banks. The implementation of the programmes started in the fourth quarter of 2014.

- In January 2015 the ECB announced a new package of non-standard monetary policy measures expanding the scope of asset purchases (Expanded Asset Purchase Programme, APP) to include bonds issued by euro area central governments, agencies and European institutions (a new programme: Public Sector Purchase Programme, PSPP). The total volume of monthly purchases of public and private financial instruments was projected to amount to EUR 60 billion, and purchases are intended to be carried out until at least September 2016.<sup>4</sup> Purchases under the Public Sector Purchase Programme started in March 2015.
- In December 2015 the interest rate on the deposit facility was further cut by 10 basis points to -0.30 per cent. As regards the non-standard monetary policy measures, the ECB Governing Council decided: (i) to extend the duration of the extended asset purchase programme (APP) until at least March 2017; (ii) to reinvest the funds from securities purchased under the APP as they mature, for as long as necessary; (iii) to include in the Public Sector Purchase Programme (PSPP) purchases of euro-denominated marketable debt instruments issued by euro area regional and local governments; (iv) to continue to offer ample liquidity by means of the full allotment procedure in its regular refinancing operations, *i.e.* the main refinancing operations (MROs) and three-month longer-term refinancing operations (LTRO) at least until the end of 2017.
- In March 2016 the ECB decided to launch a new package of additional monetary policy measures. As part of it, the ECB cut interest rates on its main refinancing operations by 5 basis points to 0.00 per cent, on the marginal lending facility by 5 basis points to 0.25 per cent and on the deposit facility by 10 basis points to -0.40 per cent. The amount of monthly purchases under the extended Asset Purchase Programme was raised to EUR 80 billion starting from April 2016. A new Corporate Sector Purchase Programme (CSPP) was added for purchase of investment-grade bonds issued by non-bank corporations established in the euro area. The programme will start in June 2016. In addition, the ECB announced that in June 2016 it planned to launch a second programme of targeted longer-term refinancing operations (TLTROs-II), including a series of four targeted longer-term refinancing operations, each with a maturity of four years. Under this programme each bank's borrowing allowance shall equal up to 30 per cent of its loans to the non-financial private sector (housing loans to households excluded) as of 31 January 2016 less the amount of previously borrowed and still outstanding funds under the first two TLTROs conducted in 2014. The interest rate to be applied to amounts borrowed under TLTROs-II equals the main refinancing operations rate. The interest rate may be decreased to the deposit facility rate provided banks increase the net amount of loans to the non-financial private sector (housing loans to households excluded) by more than 2.5 per cent in the 1 February 2016 – 31 January 2018 period.

The transmission of the ECB monetary policy on the monetary conditions in Bulgaria leads first to a change in short-term money market interest rates. From June 2014 to the end of 2015, with the introduction of negative interest rates on the ECB deposit facility, the interbank market rates in the euro area tended to decline faster than those in the Bulgarian money market. This resulted in a gradual increase in the spreads between the interest rates on unsecured deposits with a maturity of up to six months in Bulgaria and in the euro area. The spreads between the interest rates on unsecured deposits with a maturity of over six months declined further. At the end of 2015 euro area money market interest rates reached a negative territory, including for transactions with a maturity of up to six months, while the quotations on the Bulgarian money market remained positive.

The slower decline in the interest rates on deposits with a maturity of up to six months and the increase in their spreads with the respective quotations on the euro area money market was largely due to the differences in the policies in Bulgaria and in the euro area with regard to the remuneration of banks' excess reserves. With the introduction of the negative deposit facility interest rate

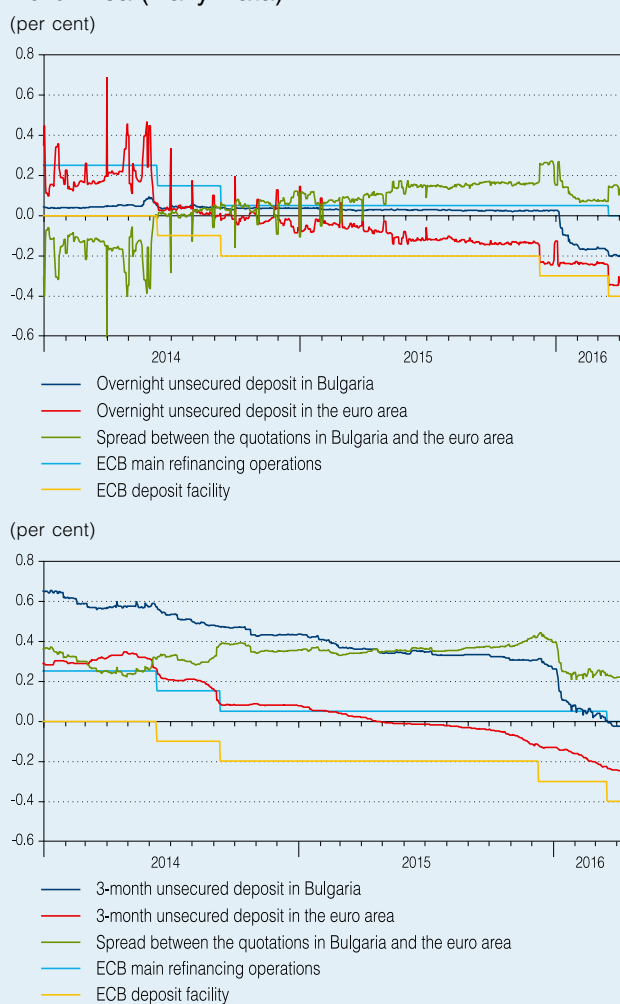
<sup>4</sup> See Details on ECB Public Sector Purchase Programme, Economic Review, 1/2015.

by the ECB, euro area banks started to pay interest to the ECB for the funds maintained under the deposit facility and for their excess reserves, while banks operating in Bulgaria had the opportunity to maintain excess reserves with the BNB without having to pay interest as the interest rate on excess reserves in Bulgaria was set at 0 per cent. The weak credit activity and the sustained high rate of growth in deposits from residents increased bank liquidity.<sup>5</sup> Banks in Bulgaria found it more rational to keep a substantial portion of their holdings on their accounts with the BNB, rather than in deposit products offered in the euro area money market. The difference in the remuneration of the excess reserves in Bulgaria and the euro area also created arbitrage opportunities which helped avoid the negative interest rates in the euro area money market. The low interest rates on deposits in leva and in euro on the Bulgarian money market had an impact on the volumes of the interbank market trading in leva and euro in Bulgaria which fell rapidly since the second half of 2014, with a substantial increase in the transactions in US dollars being observed.

In December 2015 bank deposits with the BNB in excess of the minimum requirement reached 127.8 per cent on average, or BGN 7.6 billion compared to 56.5 per cent, or BGN 3 billion in the corresponding month of 2014. Furthermore, banks reduced their net foreign assets<sup>6</sup> and increased the purchases of government securities issued by the Bulgarian government. The increase in banks' reserves as part of the liabilities of the BNB Issue Department resulted in an increase in BNB's international reserves.

In order to facilitate the transmission mechanism of the ECB policy on the Bulgarian economy, at the end of 2015 the BNB Governing Council adopted a new Ordinance No 21 on the Minimum Required Reserves Maintained by Banks which entered into force on 4 January 2016. The main new provisions in the latter are the introduction of a definition for banks' excess reserves with the BNB and the application of the ECB deposit facility interest rate

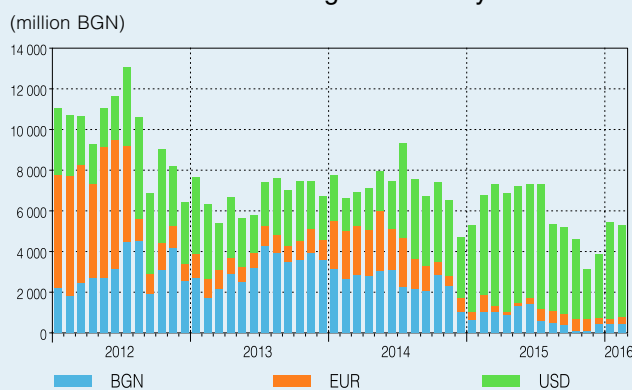
## Money Market Interest Rates in Bulgaria and the Euro Area (Daily Data)



Note: Values reflect the average value of SOFIBOR and SOFIBID quotes for unsecured three-month deposits in leva.

Sources: BNB and ECB.

## Volumes Traded in the Bulgarian Money Market

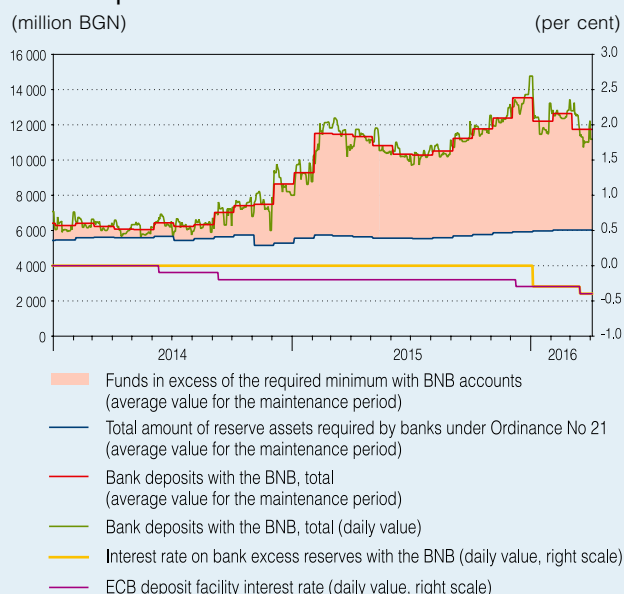


Source: BNB.

<sup>5</sup> The payout of guaranteed deposits at KTB which were split between the other banks in the banking system had an additional effect thereto.

<sup>6</sup> The supervisory measures taken by the BNB (see the box *BNB Precautionary Measures to Counteract External Risks to Bulgaria's Banking System*, Economic Review, 2/2015) also contributed to the decrease in banks' net foreign assets in 2015.

## Bank Deposits with the BNB



Note: Data represent average values of relevant indicators in the reserve maintenance period under Ordinance No 21.

Source: BNB.

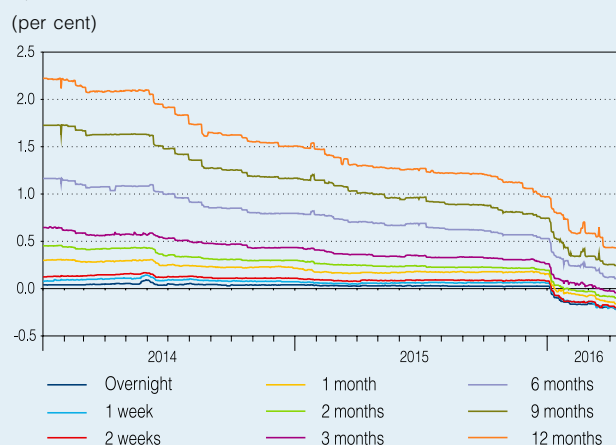
on the excess reserves when this interest rate is negative. The BNB will continue to apply a zero interest rate on excess reserves where the ECB deposit facility rate is positive or nil. As regards the minimum required reserves, the BNB retained its policy of not incurring interest. Under the new Ordinance, the recognition of banks' funds in the TARGET2-BNB national system component as reserve assets was removed.

With the entry into force of the new Regulation No 21 on 4 January 2016, the quotations in levs in the interbank market in Bulgaria decreased sharply. In April quotations with a maturity of three months reached negative levels (from 29 basis points in December 2015 to -4 basis points in the first half of April 2016). Over the same period the spreads between the quotations in the euro area money market also contracted, with that of unsecured deposits with a maturity of three months going down from 42 basis points to 21 basis points. A decline in the spreads was reported also in the quotations with a maturity of over three months. Upon the entry into force of the new Ordinance, bank reserves in excess of the required minimum contracted, with its average daily level in the maintenance period in March 2016 dropping by BGN 2 billion from the average daily level in the December 2015 maintenance period.

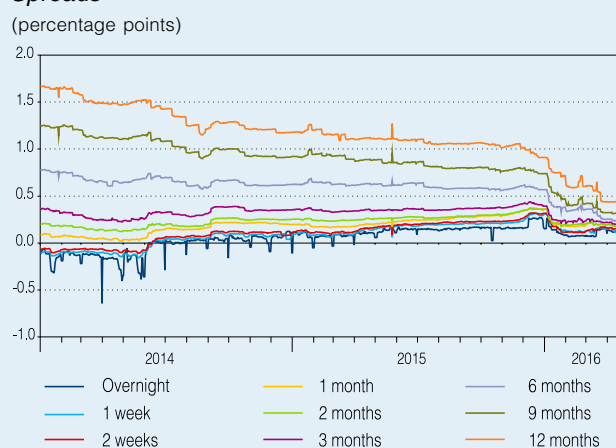
ECB policy coupled with the relatively high growth of attracted funds in the Bulgarian banking system, has a bearing also on the interest rates on new deposits which reached a historical low in late 2015 and early 2016.<sup>7</sup> The lower cost of funds attracted by banks and the decline in the quotations of the interbank market in Bulgaria and in the euro area contributes, albeit with some delay, to the decrease in lending rates.<sup>8</sup> This channel will have a limited impact on the further decrease in

## Money Market Quotations in Bulgaria and Spreads vis-à-vis the Quotations in the Euro Area Money Market (Daily Data)

### Quotations



### Spreads



Note: Values reflect the average SOFIBOR/SOFIBID quotations for unsecured deposits in levs.

Sources: BNB and ECB.

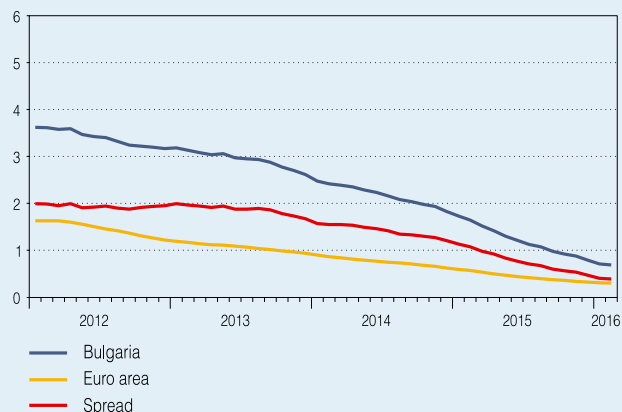
<sup>7</sup> See Sub-section *Interest Rates* of Section 2.

<sup>8</sup> Lending rates in Bulgaria are usually formed by using a benchmark (such as SOFIBOR, EURIBOR, etc.) and a mark-up for the credit risk of the customer. The provisions regarding consumer and housing loans are laid down in the amended Law on Consumer Credit, effective as of 23 July 2014.

## Interest Rates on Deposits with an Agreed Maturity in Bulgaria and the Euro Area

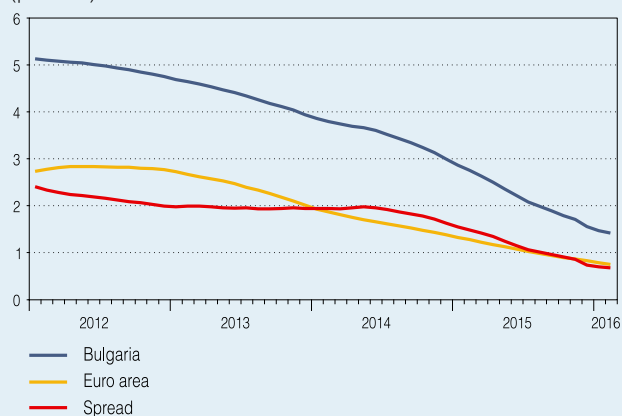
### Non-financial corporations

(per cent)



### Households

(per cent)



Note: Values for Bulgaria are the 12-month weighted averages on deposits *vis-à-vis* households and non-financial corporations in leva and in euro, and the values for the euro area are the 12-month weighted averages for deposits *vis-à-vis* households and non-financial corporations.

Sources: BNB and ECB.

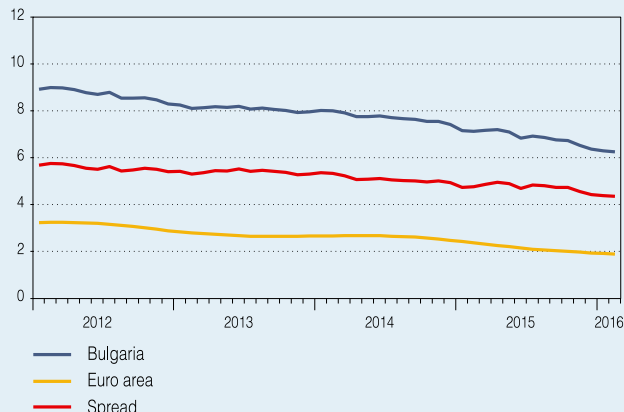
lending rates, and towards the year-end is likely to be exhausted, as in the event of a negative value, the banks using SOFIBOR and EUROBOR quotations as a reference rate usually assume the latter as nil. A downward trend was reported also in the spreads between lending rates in Bulgaria and the euro area on both loans to non-financial corporations and loans to households which reflects the gradual decline in the risk premium in the economy.

In the current phase of the interest rate cycle, a key contributor to the further decline in interest rates on loans in Bulgaria will be the economic growth and financial stability which – all other things being equal – would lead to a decline in borrowers' risk premium.

## Interest Rates on Loans in Bulgaria and the Euro Area

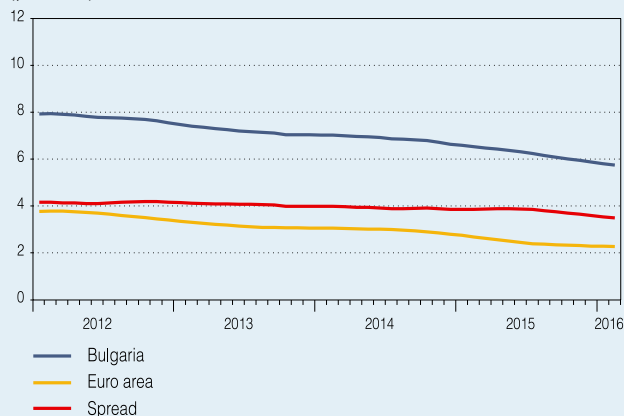
### Non-financial corporations

(per cent)



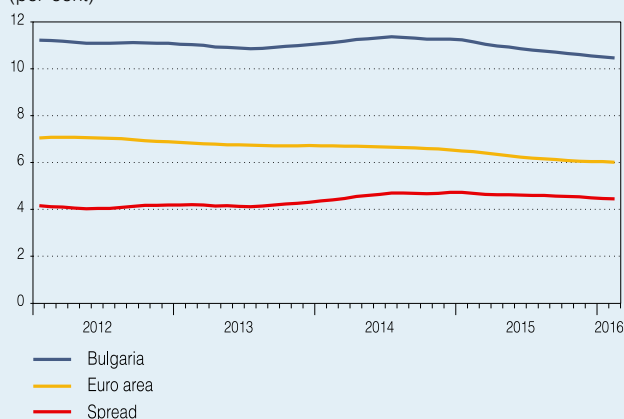
### Housing loans

(per cent)



### Consumer loans

(per cent)



Note: Values for Bulgaria are the 12-month weighted averages for loans in leva and euro and those for the euro area are the 12-month weighted averages for loans in euro.

Sources: BNB and ECB.