

# Economic Review

3/2014



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# Economic Review

3/2014



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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

APRC	Annual percentage rate of charge
BIR	Base interest rate
BOP	balance of payments
BTC	Bulgarian Telecommunications Company
b.p.	basis points
CEECs	Central and East European countries
CEFTA	Central European Free Trade Association
CFP	Consolidated Fiscal Programme
CIF	Cost, insurance, freight
CIS	Commonwealth of Independent States
CZK	Czech koruna
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
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
PBoC	People's Bank of China
PLN	Polish zloty
PMI	Purchasing Managers' Index
p.p.	percentage points
PPP	Purchasing Power Parity
CIS	Commonwealth of Independent States
RON	Romanian new leu
WTI	West Texas Intermediate

# Summary

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In the third quarter of 2014 the global economic indicator decreased insignificantly to a level showing a slight moderation in global economic growth, still remaining relatively high. The USA continued to report improved economic activity expectations unlike the pessimistic expectations in the euro area, Japan and China. In the second and the beginning of third quarter world trade volumes continued to increase, with US foreign trade growth again outstripping that of the euro area. Over the third quarter global inflation continued to slow down on an annual basis, with developed economies contributing mostly to the total market price index moderation along with the weak dynamics of major commodity and energy product prices in international markets. In October the IMF revised downwards its outlook of the global economic growth in 2014 and 2015. This negative change compared to the April IMF forecast was due to the lower than expected economic growth in developed and developing countries over the first half of 2014 and the risks caused by the geopolitical tensions in Ukraine and the Middle East.

Lower international commodity, fuel and food prices contributed to the year-on-year fall in nominal exports of goods from Bulgaria between January and August 2014. Despite the decline in international prices, nominal goods imports remained broadly unchanged as a result of the increased imported volumes which led to a rise in the trade deficit balance and a decline in the BOP current and capital account surplus over the same period. More essential recovery of nominal export growth rates is expected in the beginning of 2015 if the projections of slowing rates of decline in world commodity, fuel and food prices in euro until end-2014 and their stabilisation in the first quarter of 2015 materialise in the context of gradually accelerating external demand. At the same time, import growth rates are expected to outpace those of exports which will lead to an increase in trade deficit balance and to a further decline in the positive balance of the current and capital accounts at the end of the first quarter of 2015.

The liquidity pressure on the banking system leading to the conservatorship imposed upon Corporate Commercial Bank and Commercial Bank Victoria had a strong effect on monetary aggregate dynamics at the close of June 2014. Some time deposits were withdrawn from the banking system, boosting currency in circulation, and other time deposits were transformed into overnight deposits. Liquidity buffers held by banks and deliberately required by the BNB, as well as the measures to preserve banking and financial system stability contributed to restoring confidence. As a result, deposits increased and growth in currency in circulation slowed down in the following months. In the fourth quarter of 2014 and first quarter of 2015 growth rates of currency in circulation and broad money are expected to gradually moderate.

The ECB cut interest rates on main refinancing operations, marginal lending and deposit facility, which led to a significant decrease in euro area interbank money market rates. In June domestic interest rates responded to this decline, though remaining almost unchanged in September. By the end of 2014 and in the first quarter of 2015 interest rates on time deposits are expected to retain their gradual downward trend due to the sustained ample banking liquidity, high household savings rates, comparatively low demand for credit and indirect effects of the ECB's unconventional monetary policy measures. Payments on depositors' guaranteed amounts in Corporate Commercial Bank which will increase liquidity in the economy may also add to the decline of deposit interest rates. Lending rates are also expected to decrease slightly as a result of the falling cost of attracted bank funds.

Economic activity accelerated in the second quarter of 2014. However, the worsened business expectations and sentiment, as reflected in declines of short-term economic indicators between June and



October 2014, signal a decrease in domestic demand until the end of 2014 and in early 2015. The slow economic recovery in Bulgaria's major trading partners is expected to continue, resulting in moderate rates of real growth in goods and services exports. In tandem with the slowing domestic demand, the positive contribution of net exports to GDP growth is likely to remain low over the next few quarters. These developments are anticipated to result in a slowdown of the quarterly GDP growth rate in the last quarter of 2014 and the first quarter of 2015.

Between January and October 2014 HICP continued to decline, its annual rate of change reaching -1.5 per cent in October (-0.9 per cent at the end of 2013). Deflation in 2014 was largely driven by the continued transport fuel price declines reflecting world oil prices, as well as decreased prices of telecommunications services, air transport, dental services and durable goods under the influence of domestic factors. A slight trend toward shrinking deflation was formed at the end of the review period, reflecting price rises in electricity for households by 1.7 and 10.1 per cent in July and October and in unprocessed food prices over the third quarter.

In the fourth quarter and early 2015 inflation is expected to remain negative at moderating decline rates. This will mainly reflect the October increase in regulated prices of electricity for households and, to a lesser extent, lower deflation in energy products and core inflation.

# 1. External Environment

In the third quarter of 2014 the global economic indicator decreased insignificantly to a level showing a slight moderation in global economic growth, still remaining relatively high. The USA continued to report improved economic activity expectations unlike the pessimistic expectations in the euro area, Japan and China. In the second and the beginning of third quarter world trade volumes continued to increase, with US foreign trade growth again outstripping that of the euro area. Over the third quarter global inflation continued to slow down on an annual basis, with developed economies contributing mostly to the total market price index moderation along with the weak dynamics of major commodity and energy product prices in international markets. In October the IMF revised downwards its projections of the global economic growth in 2014 and 2015. This negative change compared to the April IMF forecast was due to the lower than expected economic growth in developed and developing countries over the first half of 2014 and the risks caused by the geopolitical tensions in Ukraine and in the Middle East.

## Current Business Situation

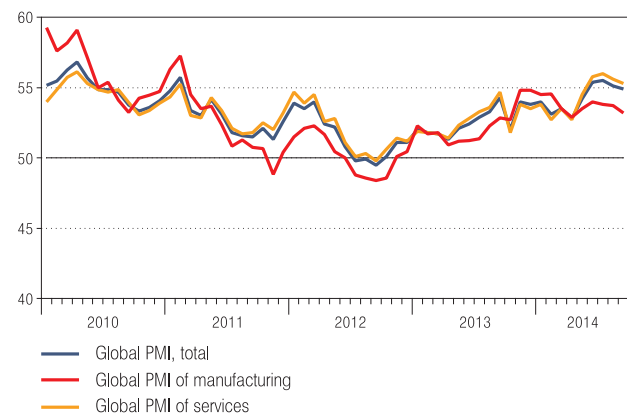
In the third quarter of 2014 the global economic indicator decreased somewhat, still staying at a level high above the 50 percentage points limit and showing slight moderation in global economic activity, still remaining relatively high. As in the second quarter, expectations in the services sector between July and September remained more optimistic than those in manufacturing. Expectations of lower input prices had the major contribution to the higher value in the services sector, while manufacturing recorded the highest expectations of new orders and lower input prices.

Economic indicator developments show differences across regions. US robust PMIs suggest an increase in economic activity, while expectations in the euro area, Japan and China were more pessimistic.

In the second and the beginning of the third quarter world trade volumes continued to increase, with the annual growth rate of US foreign trade further outstripping that of the euro area.

Over the third quarter average monthly global inflation continued to slow down on an annual basis. Developed economies contributed most, with decreased prices of major commodity and energy products in international markets being an important factor for this.

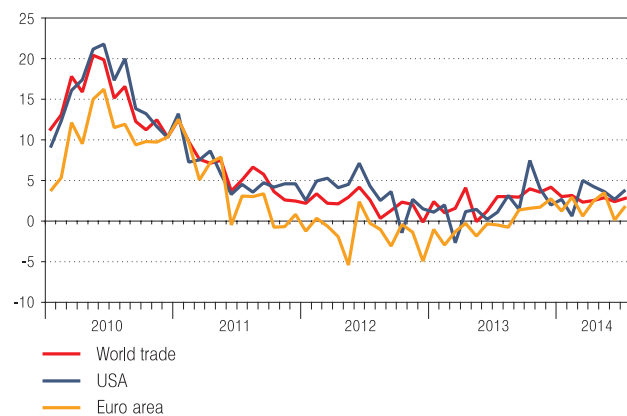
Global PMI



Source: JP Morgan.

World Trade

(annual rate of volume growth, per cent)



Source: CPB Netherlands Bureau for Economic Policy Analysis.

In October the IMF revised downwards its projections of global economic growth in 2014 and 2015<sup>1</sup>. This negative change compared to the IMF April forecast was due to the lower than expected economic growth in developed and developing countries over the first half of 2014 and the risks caused by geopolitical tensions in Ukraine and the Middle East.

## Euro Area

Over the second quarter euro area real GDP increased by 0.7 per cent on an annual basis against 1 per cent growth in the previous quarter<sup>2</sup>. All expenditure components had a positive contribution to this growth, except for net exports displaying a negative contribution. Annualised data suggest great divergences in real GDP rates of change across euro area countries. Economic growth in Germany and France decelerated to 1.3 per cent (from 2.3 per cent in the previous quarter) and 0.1 per cent (from 0.8 per cent in the previous quarter). Spain reported growth of 1.2 per cent against 0.5 per cent in the first quarter, and Italy's GDP declined by 0.2 per cent against a 0.4 per cent drop in the previous quarter. Cyprus recorded the largest GDP drop (2.5 per cent) and Latvia the strongest growth (3.5 per cent).<sup>3</sup>

On a quarterly basis, real GDP in the euro area posted zero growth against 0.2 per cent growth in the previous period. GDP components with a positive contribution to growth were household consumption (0.2 percentage points), and net exports (0.1 percentage points). Inventories (-0.2 percentage points) and investment (-0.1 percentage points) had negative contributions. Government consumption remained neutral to growth (0 percentage points). A quarterly decline was observed in Germany (0.2 per cent), Italy (0.2 per cent) and Cyprus (0.3 per cent)<sup>4</sup>.

Leading economic indicators of the euro area posted declines in the third quarter of 2014, with the EC economic sentiment index falling to 99.9 in September (previous value: 100.6), and the business climate indicator to 0.07, from 0.16 in August. The EC consumer confidence

<sup>1</sup> World Economic Outlook: Legacies, Clouds, Uncertainties. International Monetary Fund. October, 2014.

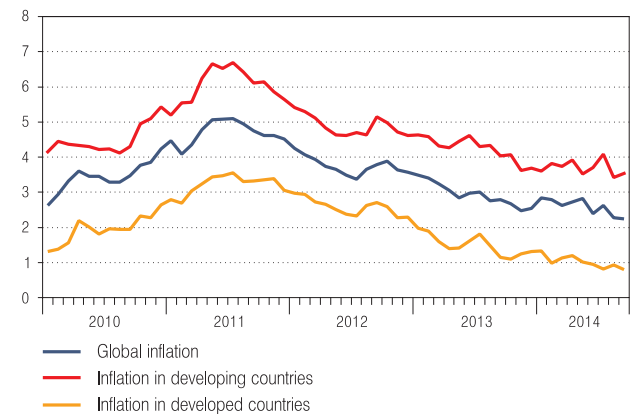
<sup>2</sup> Eurostat data.

<sup>3</sup> No data published about Ireland and Luxembourg.

<sup>4</sup> No data published about Ireland, Greece and Luxembourg.

## Inflation Measured through CPI

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

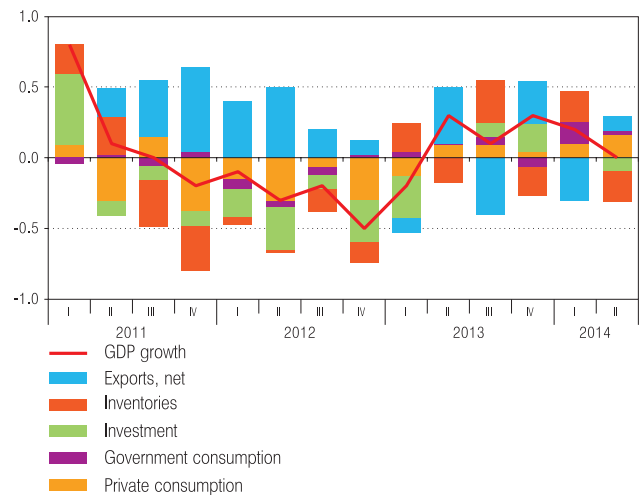


Note: The World Bank measures the change of CPI in individual groups as a weighted average of CPI changes in the countries of the group. For calculating the weights of the countries, real GDP based on purchasing power parity is used. Groups include only World Bank Member States classified by the World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

Source: World Bank.

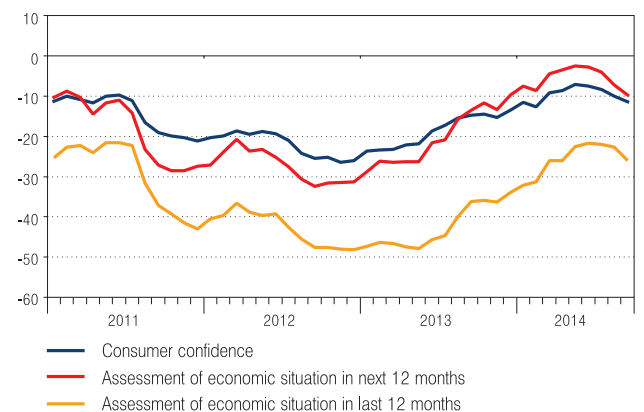
## Contribution to Real GDP Growth in the Euro Area by Component (Quarterly)

(per cent; percentage points)



Source: Eurostat.

## Euro Area Consumer Confidence Indices



Source: European Commission.

index in the euro area also decreased to -11.4 in September, from -10 in August. PMIs for the euro area decreased, while remaining above the neutral level of 50, which signals a positive economic activity pattern. In September the composite PMI was 52 (against 52.5 in August) and manufacturing and services PMIs reached 50.3 and 52.4 respectively (against 50.7 and 53.1 in August).

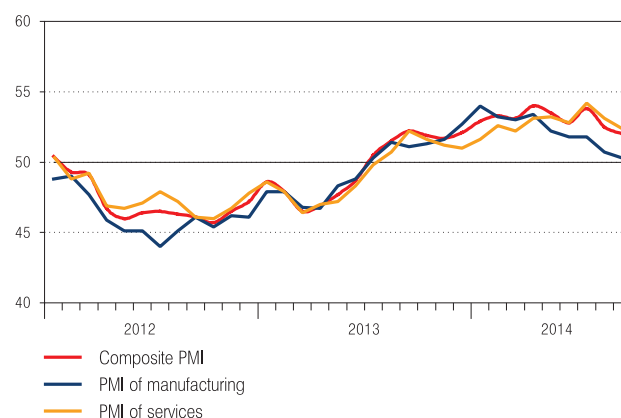
According to the latest ECB forecasts of September 2014, GDP growth will range between 0.7 and 1.1 per cent in 2014 (previous forecast: 0.6–1.4 per cent), between 0.6 and 2.6 per cent in 2015 (previous forecast: 0.6–2.8 per cent) and between 0.6 and 3.2 per cent in 2016 (previous forecast: 0.5–3.1 per cent). In October the IMF projects GDP growth to reach 0.8 and 1.3 per cent in the euro area for 2014 and 2015 (previous forecast: 1.1 and 1.5 per cent). Given economic indicator developments in the third quarter, it may be expected that quarterly economic growth in the euro area will be positive, but close to zero.

In September euro area annual inflation came to 0.3 per cent compared with 0.4 per cent in August and July. Low inflation reflected mainly energy price declines, while prices of food, industrial goods (excluding energy products) and services registered a slight increase. Euro area core inflation was 0.8 per cent on an annual basis, compared with 0.9 per cent in August.

In September negative annual inflation was recorded in Greece (-1.1 per cent), Spain (-0.3 per cent), Italy (-0.1 per cent), Slovenia (-0.1 per cent) and Slovakia (-0.1 per cent). Annual inflation (0.2 per cent) in the Netherlands, Belgium and Estonia was lower than the euro area average, while that in Cyprus and Portugal remained unchanged on an annual basis. Inflation was highest in Finland (1.5 per cent), Austria (1.4 per cent)<sup>5</sup> and Latvia (1.2 per cent). Annual inflation in Germany stood at 0.8 per cent for a third consecutive month, unlike France where it moderated to 0.4 per cent, from 0.5 per cent in August. Inflation trends show an increasing number of countries with low inflation or deflation. In August 2013 two euro area countries recorded negative inflation, while in September 2014 their number rose to five.

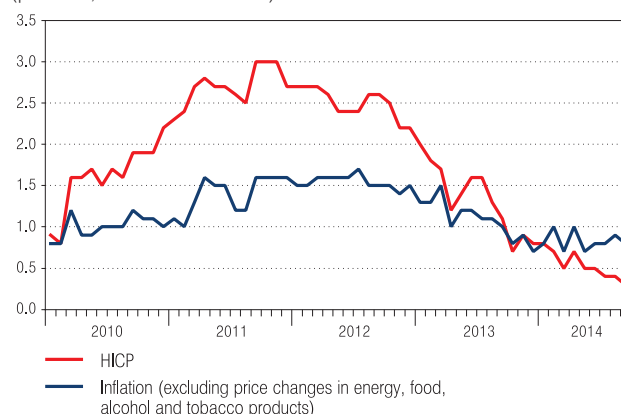
<sup>5</sup> Preliminary data.

## Manufacturing and Services PMIs



## Euro Area Inflation Rate

(per cent, on an annual basis)



According to the ECB forecasts of September 2014, euro area inflation is estimated at 0.5–0.7 per cent in 2014 (previous forecast: 0.6–0.8 per cent), 0.5–1.7 per cent in 2015 (unchanged from the previous forecast) and 0.7–2.1 per cent in 2016 (previous forecast: 0.6–2.2 per cent). The IMF projections (World Economic Outlook, October 2014) show that euro area inflation will be 0.5 and 0.9 per cent in 2014 and 2015 (previous estimate: 0.9 and 1.2 per cent).

Euro area labour market continued to improve slowly in the second quarter of 2014. From April to June employment rose by 0.4 per cent and unemployment declined by 0.2 percentage points to 11.5 per cent. In August the highest unemployment level was recorded in Greece (27 per cent),<sup>6</sup> Spain (24.4 per cent) and Cyprus (15.4 per cent), with slight declines in the three countries. Austria and Germany still recorded the lowest values at 4.7 and 4.9 per cent.

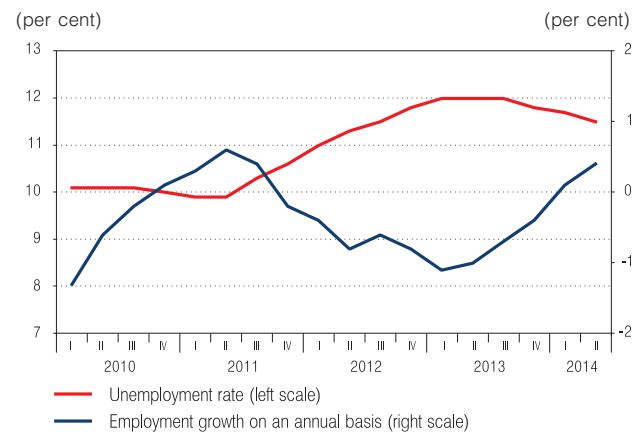
The expected unemployment indicator over the next twelve months included in the EC consumer confidence index shows worsening consumer expectations concerning labour market developments. Its average value rose to 21.5 from 16.5 in the second quarter.

At its meeting of 4 September, the ECB Governing Council took a decision to cut interest rates on main refinancing operations, marginal lending facility and deposit facility by 10 basis points. The main refinancing operations rate was set at 0.05 per cent, the marginal lending rate at 0.30 per cent and the deposit facility rate at -0.20 per cent, with effect from 10 September. The ECB also stated that no further cuts should be expected. If inflation remains low for an extended period of time, additional non-conventional measures will be taken.

Besides key interest rate cuts, two additional programmes were announced at the meeting to improve the effectiveness of ECB monetary policy transmission mechanism. In the fourth quarter of 2014 the ECB will initiate purchases of simple and transparent asset-backed securities (ABS) with underlying assets consisting of claims against the euro area non-financial private sector

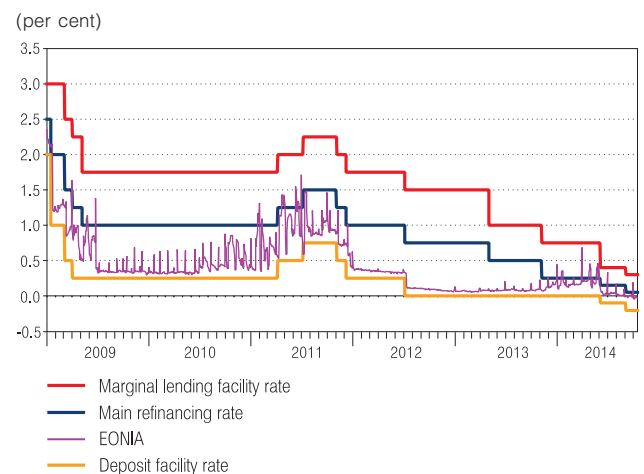
<sup>6</sup> Latest available data refer to June 2014.

## Euro Area Unemployment Rate and Employment Growth



Source: Eurostat.

## ECB Interest Rates and EONIA



Source: ECB.



(including mortgages). The adoption of asset-backed securities purchase programme (ABSPP) was expected by market participants and the effect of its announcement had already been incorporated in the prices of financial instruments before the ECB meeting.

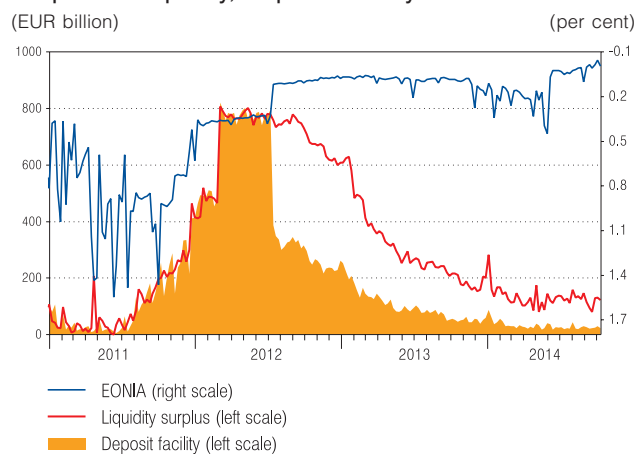
The ECB also decided that from October 2014 the Eurosystem would engage in a third programme of purchasing euro-denominated covered bonds issued by euro area banks (CBPP3). The first two programmes were announced in the context of rather different financial market conditions with the aim to further ease financing costs for banks and improve liquidity in the covered bond market. The third programme is intended to boost significantly the ECB balance sheet figure. The ECB anticipates that implementation of ABSPP, CBPP3 and forthcoming TLTROs would boost the ECB balance sheet figure to the 2012 value. On 2 October operational details on ABSPP and CBPP3 programmes were published.

At the end of August, EONIA displayed negative values following the expectations of some investors about further policy rate cuts. In early September EONIA overnight interest rate was positive, but close to zero. After 4 September when the ECB took the decision to cut policy rates by 10 basis points, a more lasting trend was formed toward negative values of EONIA. From 10 September (when the ECB's decision on interest rates became effective) to 10 October inclusive EONIA averaged -0.01 per cent.

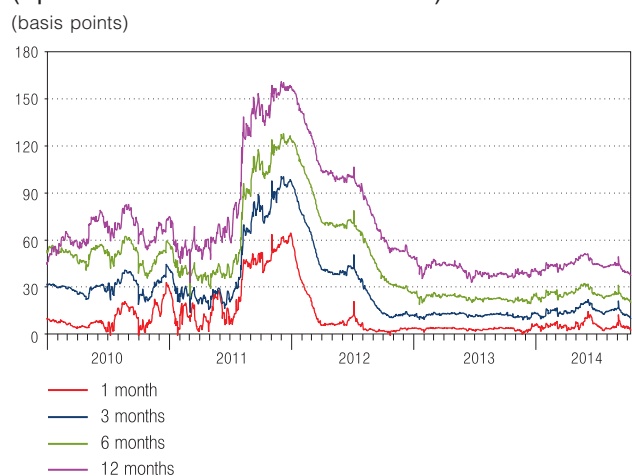
Between 2011 and the end of the third quarter of 2014 overnight interest rates moved closely with deposit facility rates. After the 4 September cuts, EONIA values were rather closer to the rate on main refinancing operations than to the rate on the deposit facility. This trend reflects the gradual decrease in the volume of excess liquidity since early 2014, its value reaching about half the level recorded at the end of 2013.

Major factors for the decreased surplus include repayments on the three-year operations of December 2011 and February 2012, lower demand for funds provided through main refinancing operations and the weak interest in the first ECB targeted longer-term operation which allotted EUR 82.6 billion among 255 banks,

### Surplus of Liquidity, Deposit Facility and EONIA



### Credit and Liquidity Risk Premium (Spread between EURIBOR and OIS)



boosting net<sup>7</sup> liquidity by EUR 47 billion. By 10 October, the volume of excess liquidity was EUR 121.9 billion (against EUR 138.7 billion by the end of the second quarter).

EURIBOR interest rates on interbank market deposits have followed a downward trend since end-May 2014. On 10 October 2014 one-month interest rates were 0.01 per cent (-9 basis points on end-June 2014), and those with maturities of six and 12 months reached 0.18 per cent (-13 basis points on end-June) and 0.33 per cent (-16 basis points on end-June). Credit and liquidity risk premia measured by the spread between EURIBOR and OIS declined. Risk premia in the three- and six-month segments reached a level of 10 basis points (-5 basis points on end-June) and 20 basis points (-5 basis points on end-June).

As of 10 October 2014 market expectations derived from the prices of three-month EURIBOR futures contracts pointed to stabilisation of euro area reference interest rate at 0.05 per cent at least until mid-2016.

## The United States

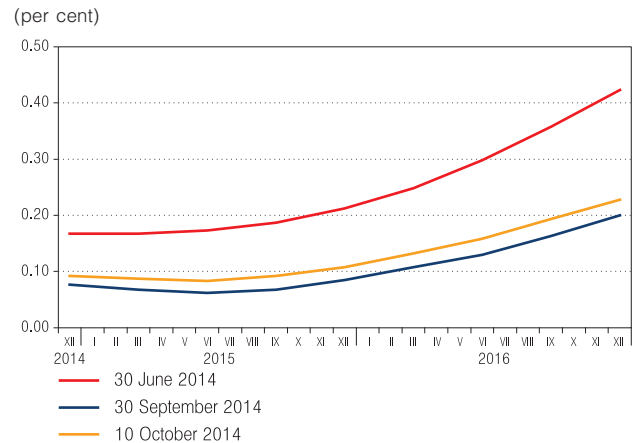
Over the second quarter of 2014 US economic growth accelerated to 2.6 per cent on an annual basis against 1.9 per cent in the first quarter and 3.1 per cent in the fourth quarter of 2013. On a quarterly basis, 1.1 per cent growth was reported compared to a 0.5 per cent decline in the first quarter. The economic growth recovery in the second quarter was due to the significant export growth and revival in investments and inventories which declined mostly in the first quarter due to the hard winter.

US leading economic activity indicators declined slightly in the third quarter, though remaining relatively high, which gives grounds to expect that economic growth in the third and fourth quarters will be close to, but lower than that in the second quarter due to the exhausted base effect of the recovery of inventories.

According to preliminary data, consumer confidence measured by the University of Michigan index was 86.4 percentage points in October

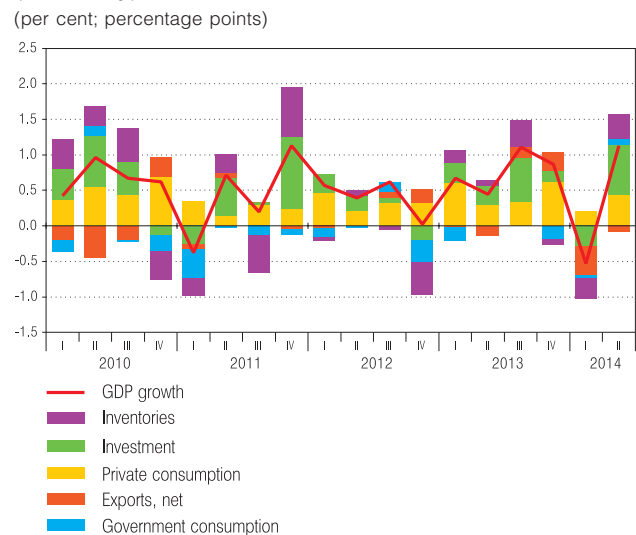
<sup>7</sup> Three-year LTRO repayments and the difference between last and previous MRO allotment are deducted from calculations of the net effect of operation.

## Expected Reference Interest Rate in the Euro Area Based on EURIBOR Futures



Source: European Banking Federation.

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



Source: Bureau of Economic Analysis.

against 84.6 in September and 82.5 in August. Leading Consumer Confidence Index of the Conference Board<sup>8</sup> indicated broadly positive though more volatile developments in the third quarter.

Data on the monthly growth rate of consumer expenditure and retail sales in the USA in the third quarter confirmed to a great extent the positive dynamics in consumers' expectations. Following the zero monthly growth reported in July individual consumer spending increased by 0.5 per cent in August. In July and August monthly retail sales rose by 0.3 and 0.6 per cent respectively, while in September they fell by 0.3 per cent on a monthly basis.

In September manufacturing ISM-PMI went down to 56.6 points against 59 points in August and 57.1 in July. The dynamics of ISM-PMI for the services sector was similar in the third quarter. Both indicators remained above the 50 percentage point limit, with values exceeding it signalling an increase in economic activity.

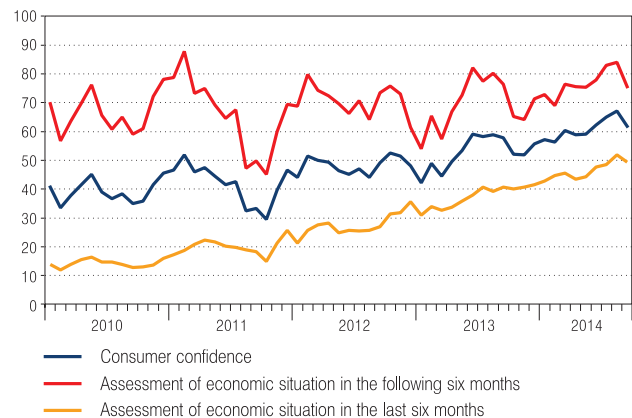
During the third quarter the housing sector of the US economy continued to recover, although at a slower pace than other sectors. In July the S&P/CaseShiller 20-City Composite House Price Index continued to increase (by 6.7 per cent on an annual basis) though slower than in the previous two months. Data on new construction and building permits in the third quarter suggest a strong volatility on a monthly basis, posting an increase in September by 6.3 per cent and 1.5 per cent respectively. The employment in the construction sector went up by 62,000 persons in the third quarter of 2014 against 52,000 persons in the previous quarter. In October the National Association of Home Builders (NAHB) index dropped to 54 points from 59 points in September when it reached its highest level since November 2005.

In August the annual inflation rate measured by the personal consumption expenditure deflator

<sup>8</sup> The Conference Board is non-profit business membership and research group organization. It counts approximately 1200 public and private corporations and other organisations as members, encompassing 60 countries. It publishes several widely tracked economic indicators. The organization was founded in 1916 as the US National Industrial Conference Board. Over time it experienced a number of reorganisations. The current name was adopted in 1970 when it became an international organization.

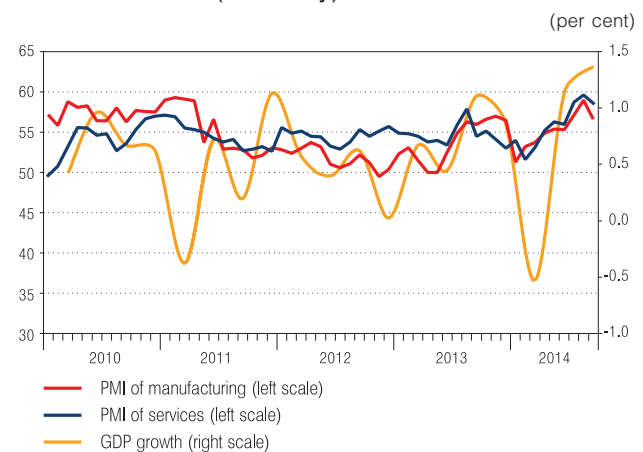
## US Consumer Confidence Indices

(2000 = 100)



Source: The Conference Board.

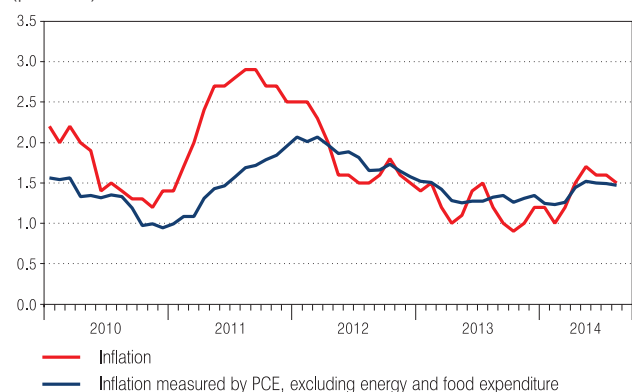
## US Manufacturing and Services ISM-PMIs and GDP Growth (Quarterly)



Source: Institute for Supply Management.

## US Inflation Rate (on an Annual Basis)

(per cent)



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

Source: Bureau of Labor Statistics.

(PCE) decreased to 1.5 per cent from 1.6 per cent in July. In August the annual growth rate of the core inflation (excluding food and energy prices) stabilised at 1.5 per cent for a fourth consecutive month.

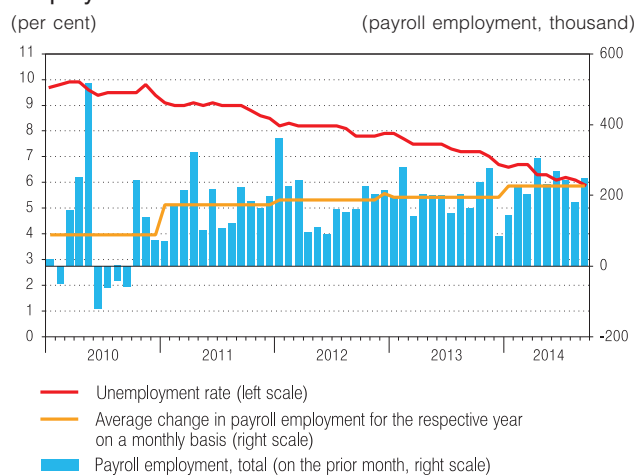
The annual growth rate of consumer price index, the other measure of the US inflation, posted an increase by 1.7 per cent on an annual basis in August against 2 per cent in July and 2.1 per cent in June. Core CPI annual growth rate decreased to 1.7 per cent in August against 1.9 per cent in the previous three months.

In the third quarter and in the beginning of the fourth quarter of 2014 the expectations of consumer price inflation in the period of one to five years, a component of the University of Michigan consumer confidence index, predominantly decreased. Based on preliminary data in October 2014 short-term inflationary expectations fell to 2.8 per cent from 3 per cent in September, while long-term inflationary expectations remained at 2.8 per cent for a second consecutive month. In the fourth quarter of 2014 and the first quarter of 2015 inflation in the USA is expected to remain below 2 per cent on an annual basis.

The positive labour market dynamics in the USA was sustained in the third quarter of the year. In September the unemployment level went down to 5.9 per cent against 6.1 per cent at the end of the second quarter. In September the number of employed in the US non-agricultural sector rose by 248,000 compared to the increase of 129,000 in August and 243,000 in July. The average monthly number of employed in the non-agricultural sector rose by 224,000 in the third quarter against 267,000 in the previous quarter.

At its meeting of 16–17 September the Federal Open Market Committee (FOMC) decided to cut the purchases of assets under the Federal Reserve Third round of quantitative easing (QE3) by USD 10 billion, which resulted in a monthly decrease of this amount to USD 15 billion. The amount of purchased US government bonds under the programmes reached USD 10 billion (previous value: USD 15 billion) and that of purchased mortgage-backed securities was USD 5 billion (previous value: USD 10 billion). At its meeting of 28–29 October the Federal

### US Unemployment Rate and Changes in Payroll Employment



Source: Bureau of Labor Statistics.

Open Market Committee decided to cease the programme.

The policy of reinvesting the receipts of maturing government securities from the US Federal Reserve balance sheet in new US government securities and the receipts from government-sponsored agencies' unsecured and mortgage bonds, available in the US Federal Reserve balance sheet, in new mortgage bonds remained unchanged.

The target for the federal funds interest rate was kept unchanged (at 0 to 0.25 per cent). No change occurred in the current interest rate forward guidance under which the adequacy of implemented measures will be assessed on the basis of a wide range of information.

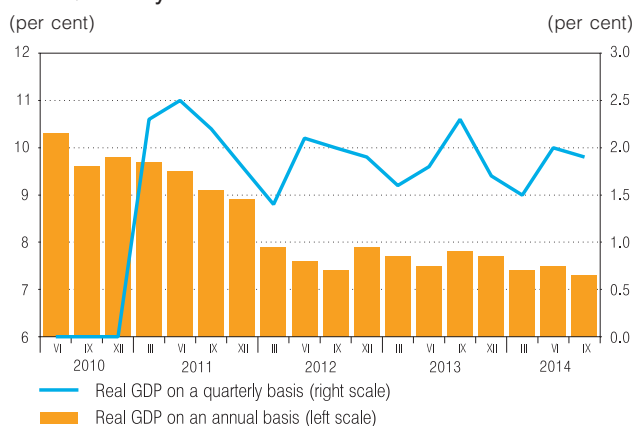
## China

In the third quarter of 2014 GDP growth in China posted an year-on-year slowdown to 7.3 per cent which was close to the expected rate of 7.2 per cent. Compared with the second quarter of 2014 when GDP reported annual growth of 7.5 per cent, the latest data suggest slower growth of investment and higher exports, which only partly offset the lower domestic demand growth. Quarterly data for the third quarter indicate GDP growth of 1.9 per cent against 2.0 per cent in the second quarter.

In September the annual growth rate of industrial output came to 8.0 per cent, indicating a partial recovery against the surprisingly low growth rate of 6.9 per cent in August. Data suggest a moderating rate of growth after a period of strong output growth stimulated by the government. Following a 2.2 per cent decline in electricity production (on an annual basis) in August, in September growth recovered to 4.1 per cent.

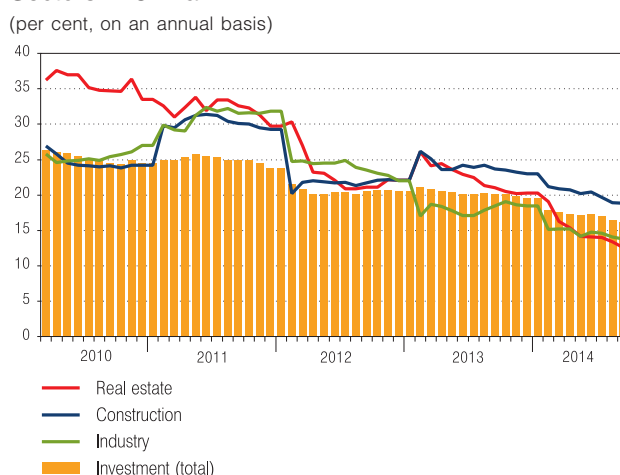
In the third quarter the authorities of China initiated a series of small, but targeted economic incentives to cope with the economic slowdown. In mid-September the central bank announced the provision of liquidity in the amount of CNY 500 billion (about USD 81 billion) to five large state-owned banks to support lending. The liquidity provided by the central bank was in the form of a three-month low-interest deposit. The authorities decided also to decrease the amount of the initial contribution for the buyers of a second dwelling, and to ease the existing

### China's GDP Growth on an Annual and Quarterly Basis



Source: National Bureau of Statistics of China.

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



Source: National Bureau of Statistics of China.

### Industrial Production and Electricity Generation



Source: National Bureau of Statistics of China.



ban on extending mortgages to buyers of a third dwelling.

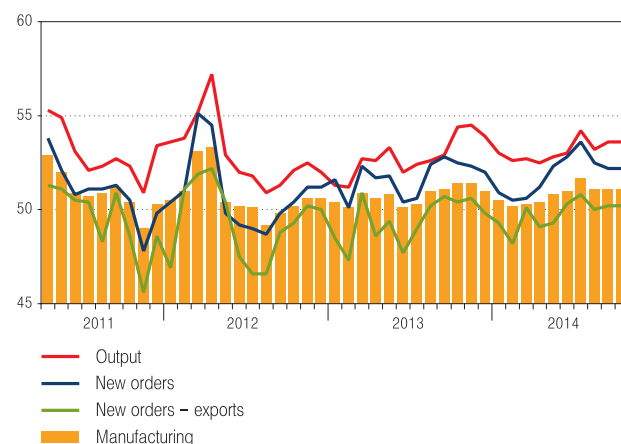
In the third quarter of 2014 the manufacturing PMI experienced no significant changes reflecting to a certain degree the economic stimuli of the Chinese authorities. In September the manufacturing PMI was 51.

In September the inflation rate in China went down to 1.6 per cent on an annual basis against 2.0 per cent in August and 2.3 in July. The decline in the price index was due both to the components of food and non-food goods reflecting the downward trend in global inflation. The annual deflation of producer prices accelerated its negative trend to reach -1.8 per cent in September on an annual basis against -1.2 per cent in August.

In August growth in house prices in China moderated to 1.2 per cent on an annual basis against 2.8 per cent in July and 4.3 in June. House prices posted another drop on a monthly basis (-0.8 per cent in July and June and -0.5 per cent in May), reflecting to a great extent the stronger supply compared with the growth rate of demand and the policy of more conservative standards applied by commercial banks to loan application assessments.

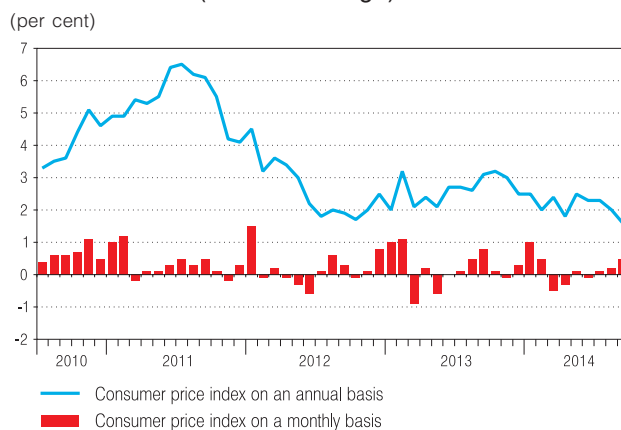
By the end of the third quarter and the beginning of the fourth quarter of 2014 the central bank of China added several times net liquidity on the interbank market trying to shift inter-bank market rates close to 3 per cent. These measures comply with the announced intents for launching a target 'mini-stimulus' package aimed to smooth the economic slowdown and to recover lending and domestic demand. The growth rate of M2 monetary aggregate moderated to 11.6 per cent annually in September against 12.8 per cent in August and 13.5 per cent in July. Following the strong decline in lending in July and despite the significant monthly data volatility on lending, August and September saw an increase in bank loans.

### Manufacturing, Output and New Orders PMIs (Rate of Change) in China



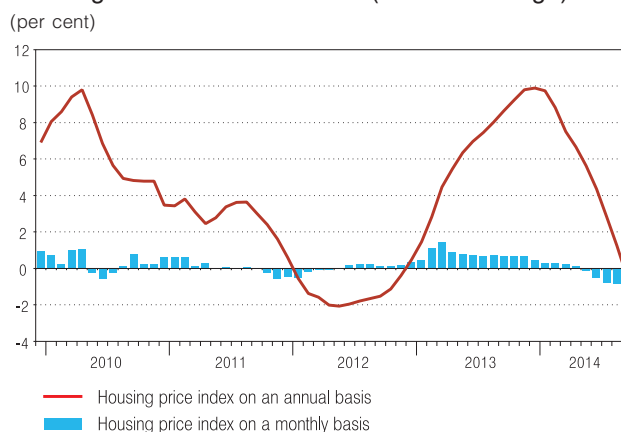
Source: China Federation of Logistics and Purchasing.

### Inflation Indices (Rate of Change) in China



Source: National Bureau of Statistics of China.

### Housing Price Indices in China (Rate of Change)

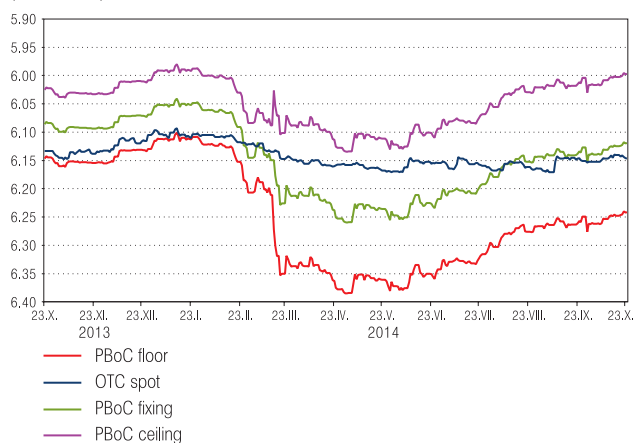


Source: National Bureau of Statistics of China.

After the unexpected decline in major monetary and credit aggregates, the Chinese central bank commented data for the first time in a brief statement in July. According to the Bank the most important factor behind the reported decline was the change in interbank regulations (adopted in May), which affected mainly non-bank lending. Weaker demand for loans and the launch of more conservative policies of risk management in large banks were specified as additional factors.

In the third quarter the China's central bank renewed the measures stimulating the appreciation of the national currency against the US dollar and over-the-counter market quotations approached the central bank exchange rate.

#### Renminbi Exchange Rate and Trading Band Set by the Chinese Central Bank (CNY/USD)

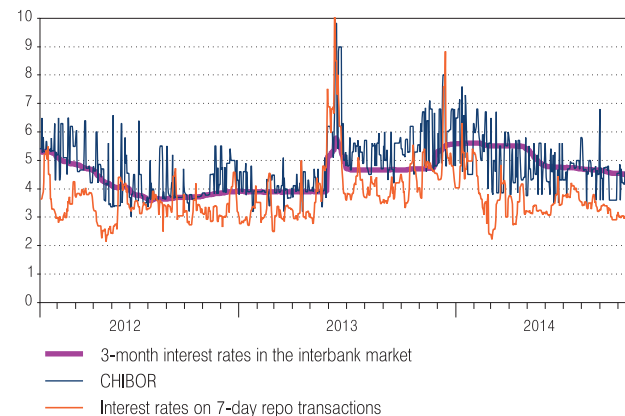


Note: Inverted left-hand scale.

Source: People's Bank of China.

#### Interbank Market Interest Rates in China

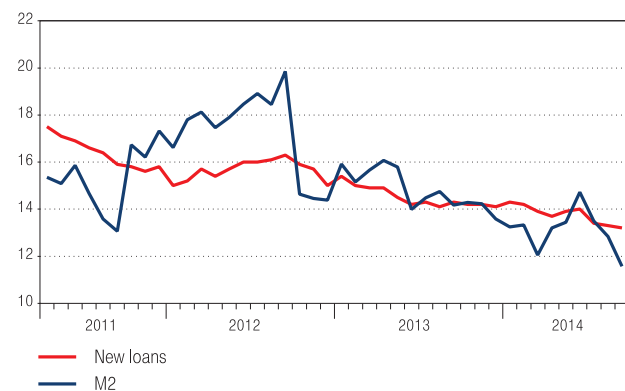
(per cent)



Source: People's Bank of China.

#### Bank Lending and Money Supply (Rate of Change) in China

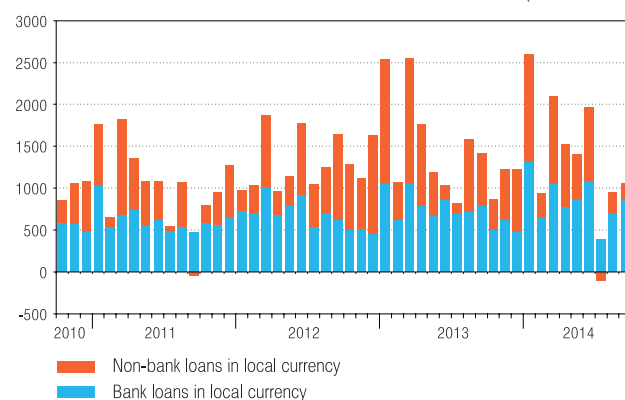
(per cent, on an annual basis)



Source: People's Bank of China.

#### New Loans in China

(billion RMB)



Source: People's Bank of China.

## International Commodity Prices

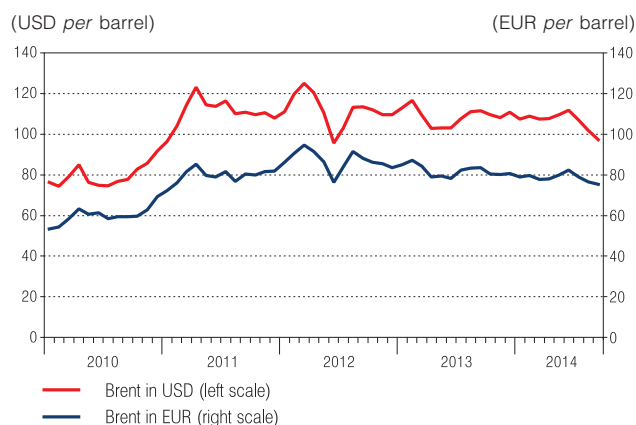
### Crude Oil

In the third quarter of 2014 the price of Brent crude oil in US dollars decreased by 7.3 per cent, trading on average at USD 102.1 (EUR 77) per barrel. In October the oil price continued to decrease and by the middle of the month it reached USD 83.8 per barrel indicating the lowest value from end-2010. The oil price decline reflected the increased output, including also from OPEC member states and the weak demand for petroleum products worldwide. The major factor behind the higher global supply relates to the increased extraction of shale gas in the USA resulting in surpluses of crude oil in the North Atlantic region. Concurrently, OPEC member states have not yet agreed on reducing output which will push up the oil price.

According to the International Energy Agency (IEA) forecast of October 2014 global demand for crude oil by the end of 2014 and early 2015 will remain limited as the world economic growth forecast was revised downwards. At the same time, oil supply has increased since early 2014 due to higher production both in OPEC countries and outside them. These two factors are expected to have a downward effect on the oil price (on an annual basis) in the following two quarters.

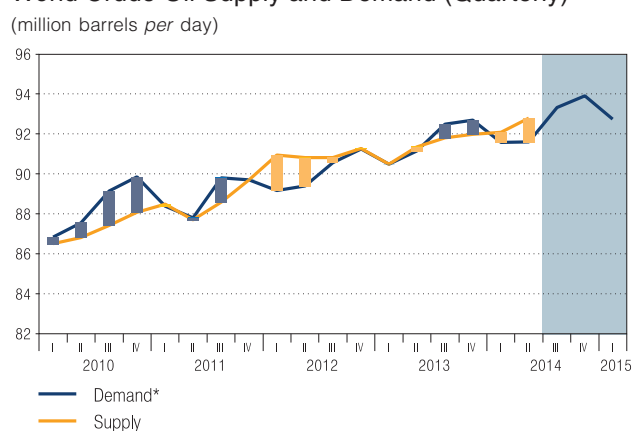
In June expectations for oil prices, monitored through futures prices, increased from March, due mainly to the uncertainty of oil supplies as a result of geopolitical tensions in Ukraine. The strong decline in oil prices in the following months changed market sentiments and in September expectations were for a rise in oil prices. These expectations reflect a possible decrease in global supply from OPEC member states to be agreed upon at their meeting on 27 November 2014. Taking into account the market sentiments, the oil price is expected to move within the range of USD 100–110 per barrel in the fourth quarter of 2014 and in the first quarter of 2015.

### Crude Oil Prices



Source: World Bank.

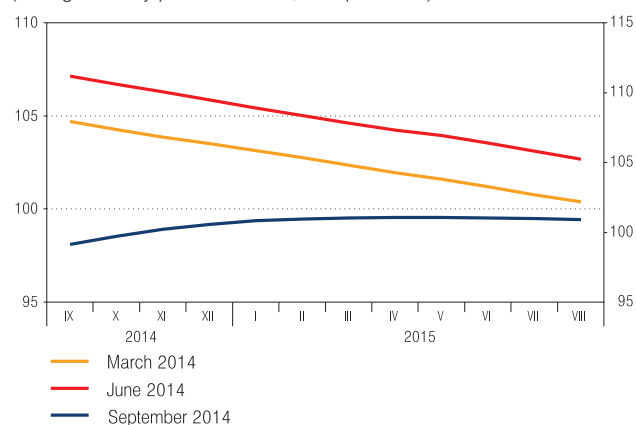
### World Crude Oil Supply and Demand (Quarterly)



\* Including the October 2014 IEA forecast about crude oil demand in the second half of 2014 and the first quarter of 2015.  
Source: IEA.

### Brent Crude Oil Futures Prices

(average monthly price of contract, USD per barrel)



Source: JP Morgan.

## Major Raw Material and Food Prices

In the third quarter of 2014 international prices (in euro) of major goods groups continued to decrease. The metals price index published by the ECB decreased by 7.2 per cent on an annual basis in the third quarter of 2014. The prices of iron ore decreased most significantly due to commissioning of new production capacities in Australia<sup>9</sup>. Over the same period the copper price (in euro) decreased by 1.3 per cent on an annual basis, reflecting lower demand by China which consumes about the half of the world metal production<sup>10</sup>.

Market expectations for metal prices (in euro) point to a moderating decline (on an annual basis) in the fourth quarter of 2014 and a stabilisation in the first quarter of 2015. The factors behind this dynamics in the fourth quarter involve slower growth of global economic activity, weaker Chinese demand and strong global supply.

In the third quarter of 2014 the food price index decreased by 1.4 per cent (in US dollars), while the euro price posted a decline of 1.5 per cent. The price dynamics among groups was rather divergent. Meat and drinks reported the strongest price increase, with the price hike of drinks reflecting the drought in Brasil which resulted in a deficit of coffee supply. Cereals and wheat prices went down significantly on an annual basis: by 31.8 per cent and 30.4 per cent respectively, with the decline reflecting mainly the abundant harvest.

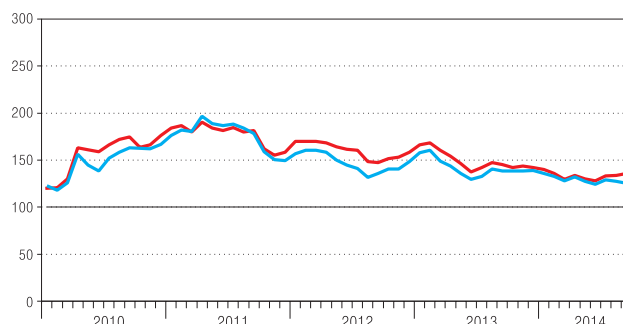
Our expectations for the fourth quarter of 2014 and the first quarter of 2015 point to a rise of the food price index, with individual groups showing divergent developments. Currently, there are no indications of risks to the harvest related to weather conditions.

If expectations for metal, food and crude oil prices materialise, the terms of trade in Bulgaria would improve, thus contributing to higher nominal growth of exports *vis-à-vis* imports in early 2015.

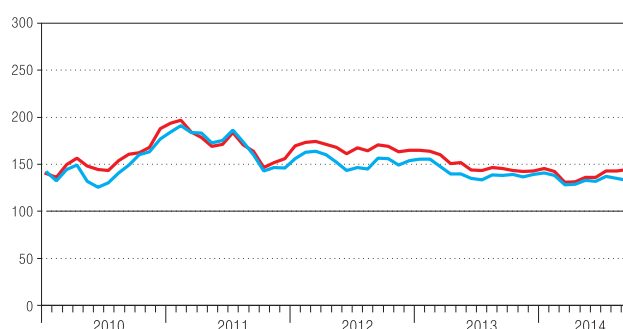
## Price Indices of Major Raw Material and Commodity Groups

(2009 = 100)

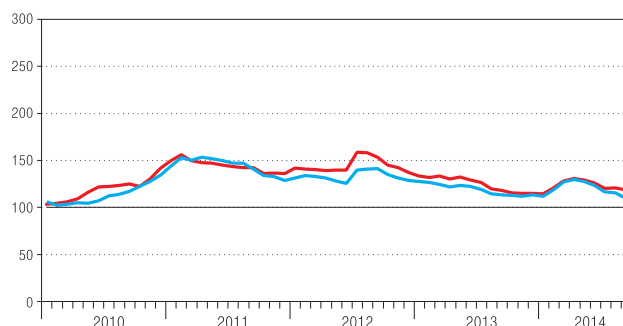
### Metals



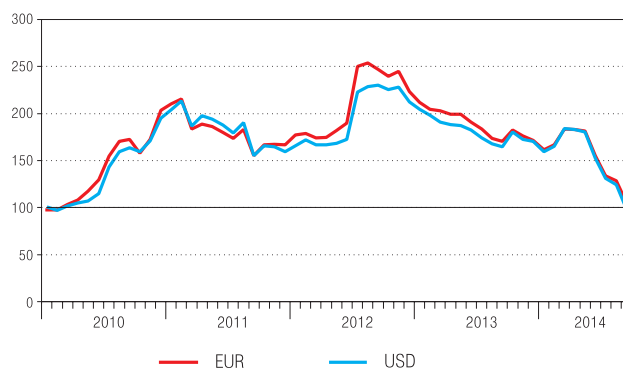
### Copper



### Food



### Wheat



Sources: ECB and BNB calculations.

<sup>9</sup> IMF, Commodity Market Monthly, October 2014.

<sup>10</sup> World Bank, Commodity Markets Outlook, October 2014.

## The Effect of ECB Monetary Policy Measures in 2014 on the Euro Area Financial Market and Bulgaria's Banking System

*In 2014 the ECB cut interest rates on its main refinancing operations, the marginal lending facility and set a negative interest rate on the deposit facility. In addition, the ECB announced a series of targeted longer-term refinancing operations and launched an asset-backed securities purchase programme and a covered bond purchase programme. Low euro area inflation was the reason behind the implementation of the series of conventional and non-conventional measures of the ECB. These measures were also intended to encourage bank lending and economic growth in the euro area. Since they impact the selected indicators through various channels, they have divergent effects by size and time on the cost of financial instruments. The analysis is aimed to present these effects and the channels of influence of ECB measures on the Bulgarian banking system so far, and to outline further possible developments in the following months.*

The steady euro area inflation decline has started in the second half of 2012 and is still continuing. In May and November 2013 the ECB cut interest rates on its main refinancing operations, on lending and deposit facilities. However, the harmonised index of consumer prices continued to decrease and inflation was significantly under the ECB target for inflation of below, but close to 2 per cent over the medium term. The low inflation rate was the major reason for the ECB to initiate new measures intended to decrease short-term interest rates and to encourage bank lending in the euro area. At the meeting on 5 June 2014 the interest rate on main refinancing operations was cut to 0.15 per cent (by 10 basis points), on the lending facility to 0.40 per cent (by 35 basis points), and a negative interest rate of -0.10 per cent (down 10 basis points) was set on the deposit facility.

In addition to the deposit facility the negative interest rate applied also to: (i) banks' average reserve holdings in excess of the minimum reserve requirements; (ii) government deposits held with the Eurosystem that exceed certain thresholds; (iii) Eurosystem reserve management services accounts if not currently remunerated; (iv) participants' account balances in TARGET2; (v) non-Eurosystem NCB balances (overnight deposits) held in TARGET2; and (vi) other accounts held by third parties with Eurosystem central banks when stipulated that they are not currently (at the time the decision was taken) remunerated or are remunerated at the deposit facility rate.

At the meeting on 5 June 2014 additional measures<sup>1</sup> for providing liquidity were launched: the programme of conducting targeted longer-term refinancing operations (TLTROs) was announced. The term of operations is about four years and they will be conducted quarterly from September 2014 to June 2016. These operations are aimed at encouraging growth in lending to the euro area non-financial private sector by providing long-term financing to banks at favourable conditions. The main objective of this measure is to enhance the efficiency of the ECB monetary policy transmission mechanism which was disturbed by the fragmentation of euro area financial markets following the onset of the debt crisis in the region in 2010.<sup>2</sup>

In the period after the ECB meeting on 5 June the published macroeconomic indicators signalled a slowdown in the euro area economic activity. Data on GDP growth for the second quarter of 2014 reveal stagnation, and the negative dynamics of the leading economic indicators for the June–August period point to expectations for a continuous slowdown in the euro area economic activity, which would lead to a further inflation decline. In July and August the euro area HICP inflation decreased to 0.4 per cent on an annual basis. Concurrently, medium-term outlook for inflation was also subdued.<sup>3</sup>

Reported economic indicators for the June–August period were the reason behind the additional measures for decreasing interest rates and providing liquidity adopted by the ECB at the 4 September meeting. Interest rates on its main refinancing operations and the marginal lending facility were decreased by another 10 basis points and the deposit facility rate to -0.20 per cent. On the one hand, the decrease in the deposit facility rate is technical in nature and is intended to sustain the corridor between the rates of the marginal lending facility and the deposit facility necessary for the effective money market functioning. On the other hand, a further decrease of main refinancing operation rates had a favourable effect on the conditions under which banks may borrow funds through the targeted operations.<sup>4</sup> At the same meeting, the ECB announced an asset-backed securities purchase programme (ABSPP) and a covered bond purchase programme (CBPP3), through which the Bank could directly control money supply growth instead of being entirely dependent on banks' interest in liquidity facilities provided by the ECB (including TLTROs).

<sup>1</sup> For more information on the ECB measures launched, see the Economic Review issue 2/2014.

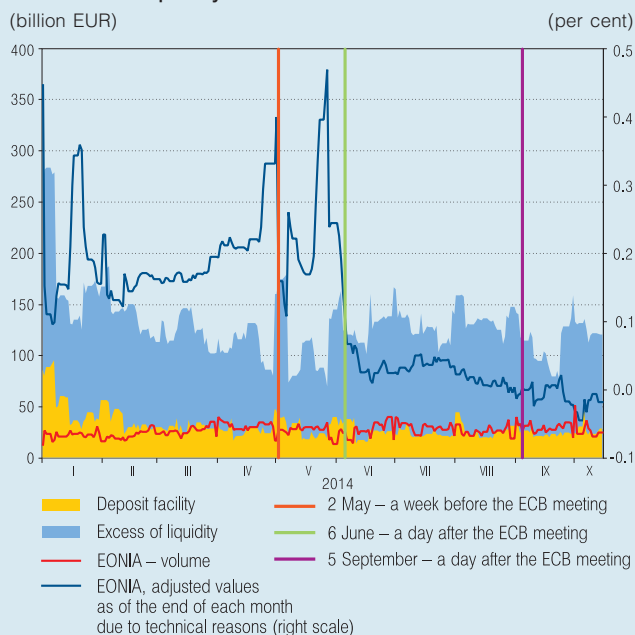
<sup>2</sup> For more information see the research study of Al-Eyd, A., Berkmen S. P., 2013, *Fragmentation and Monetary Policy in the Euro Area*, IMF Working Paper 13/208, in which the main factors contributing to euro area financial market fragmentation are analysed and the effects of fragmentation on the ECB monetary policy transmission mechanism are assessed.

<sup>3</sup> Measured through inflation-linked swaps.

<sup>4</sup> The interest rate on targeted longer-term operations (TLTROs) is fixed for the period of each individual operation and is equal to the interest rate on main refinancing operations (MROs) by the time of conducting the operation plus a spread of 10 basis points.



## Excess of Liquidity and the EONIA



Note: The excess of liquidity is calculated as a difference between the funds on the deposit facility and receivables on the marginal lending facility plus current account funds exceeding the amount of required reserves.

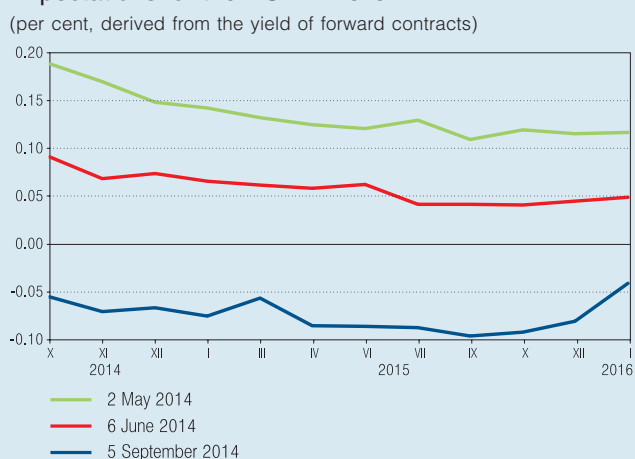
Source: ECB.

Following the ECB decisions of June and September the cost of financial instruments traded in the euro area money market increased significantly as the reference rates decreases had a direct effect on short-term market rates. Concurrently, the uncertainty surrounding the expectations for interest rate developments in the future<sup>5</sup> subsided which prompted a change in the cost of financial instruments with a longer maturity.

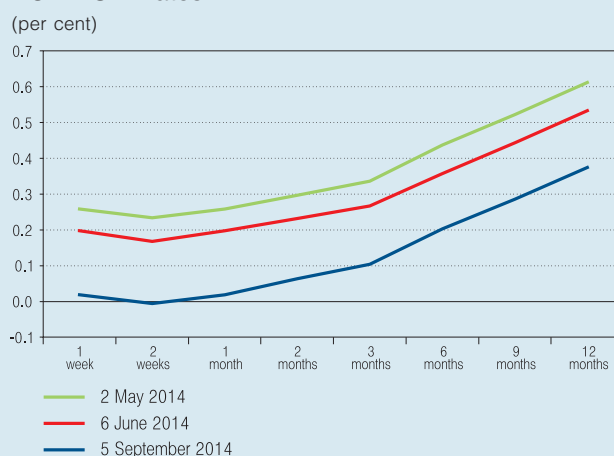
During the three reserve maintenance periods<sup>6</sup> after the ECB June meeting, the euro area reference overnight rate EONIA gradually went down but remained positive. The average EONIA for the period in which the deposit rate was set at -0.10 per cent amounted to 0.02 per cent.<sup>7</sup> Following the decrease in the deposit facility rate by another 10 basis points (to -0.20 per cent) short-term money market rates decreased to negative levels, with the average EONIA amounting to -0.01 per cent from the beginning of the maintenance period in September (10 September) until 10 October 2014. The main reason why EONIA did not fall significantly below 0 per cent was that there was no substantial increase in excess liquidity in the banking system following the September targeted longer-term refinancing operation (18 September). At the end of the ninth maintenance period (from 10 September to 7 October) the excess liquidity rose to EUR 126 billion against EUR 118 billion at the end of the preceding maintenance period.

Despite the negative EONIA levels the volume of trade of overnight deposits on the money market remained relatively stable, with the average daily value amounting to EUR 29 billion in the June–September period (against an average of EUR 27 billion in May). No significant changes occurred in recourses to the deposit facility. The average daily volume of funds from early June until the end of September amounted to EUR 25 billion (down EUR 3 billion compared with the average daily volume in May).

## Expectations for the EONIA Level



## EURIBOR Rates



<sup>5</sup> Measured through the yield of forward contracts based on EONIA.

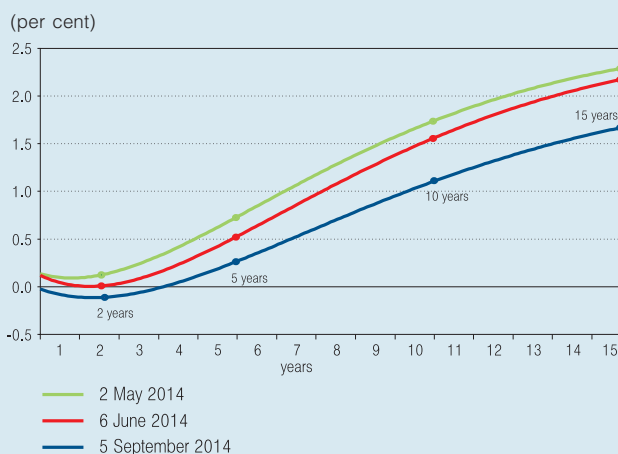
<sup>6</sup> 'Maintenance period' means the period over which compliance with minimum reserve requirements of credit institutions with the respective national central banks is calculated. Compliance with the reserve requirement is determined on the basis of the institutions' average daily reserve holdings over the maintenance period. Institutions' holdings of minimum required reserves are remunerated at the rate of the Eurosystem's main refinancing operations. The maintenance period begins on the settlement date of the first main refinancing operation following the Governing Council meeting on the monetary policy.

<sup>7</sup> The calculation of the average EONIA value excludes end-of-month values which are impacted by technical factors.

Immediately after the decrease of euro area reference rates, EURIBOR rates on interbank market deposits in all maturity segments and the yield of futures contracts based on three-month EURIBOR reported a decline. After the ECB meeting of 4 September interest rates on interbank market unsecured deposits went down to negative values in the segments of up to two weeks.

A downward trend was also observed in repo rates and in yields of government securities of euro area countries. The yield of euro area benchmark government securities experienced a stronger decline in the medium- and long-term sectors resulting in a significant flattening in the yield curve.<sup>8</sup> As of 10 October negative yields were observed in the two-year maturity sector of German, Finnish, Dutch, Austrian, Belgium, French and Slovakian government securities, while the yield of Irish government securities in this segment was close to 0 per cent.

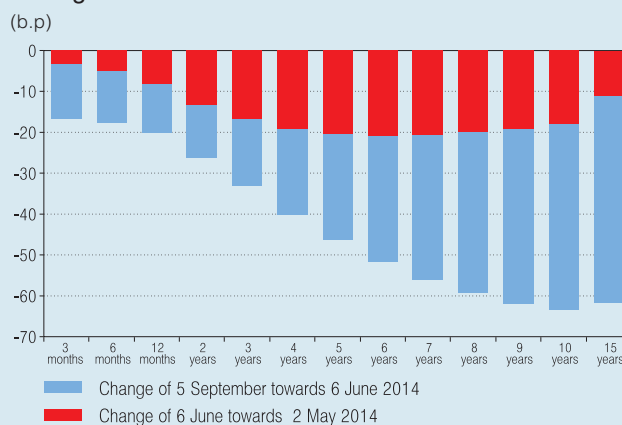
### Euro Area Yield Curve



Note: The yield curve shown is calculated by the ECB and is based on the spot prices of government securities with 'AAA' credit rating issued by euro area central banks.

Source: ECB.

### Change of Euro Area Yields



Source: ECB.

The programmes for outright purchases of asset-backed securities and covered bonds (ABSPP and CBPP3) affect the cost of these assets due to new demand created by the ECB but have also an effect on the cost of many other financial instruments, including government securities, corporate bonds, money market financial instruments, etc. On the one hand, these effects reflect the similar features of these assets, which make them to a certain extent substitutes in some investor portfolios resulting in a correlation between their prices. On the other hand, the increase of the liquidity in the financial system as a result of purchases of these instruments also has an effect on the financial market dynamics due to the need of reinvesting free liquid funds. Asset purchase programmes and targeted longer-term refinancing operations affect the price of financial instruments prompting a change in economic agents' expectations as to the direction of the ECB medium-term monetary policy resulting in a money base increase. However, the main task of targeted longer-term refinancing operations is to stimulate euro area lending growth by providing loans to banks at favourable conditions.

Following the measures initiated by the ECB to facilitate banks' access to finance<sup>9</sup>, since early 2012 euro area interest rates on bank loans steadily went down, with interest rates on loans to non-financial corporations falling to a historical low in August 2014. Although the downward trend is observed in most countries in the region, the difference between the euro area core and periphery countries<sup>10</sup> remained significant. This impedes the effective functioning of the ECB monetary policy transmission mechanism to the real sector. Targeted operations and the asset-backed securities and covered bond purchase programmes launched by the ECB in 2014 were intended to improve the effectiveness of euro area monetary policy transmission mechanism, thus helping to ease the access to and the cost of bank financing. The effect of these measures on the volume and cost of financing for the euro area non-financial private sector is to be observed.

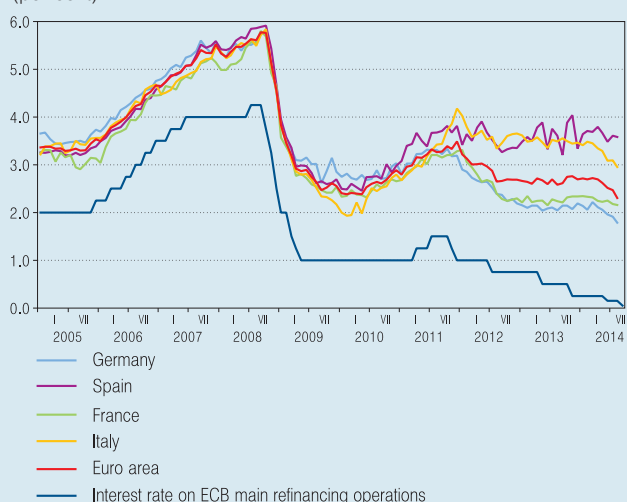
<sup>8</sup> The yield curve represents the relationship between the market return and the remaining term to maturity of debt securities, known also as a term structure of interest rates.

<sup>9</sup> For further details on these measures, see the box entitled *Impact of the Additional ECB Measures on the Money Market and the Government Securities Markets in the Euro Area*, the Economic Review, issue 4/2011.

<sup>10</sup> The countries in the periphery are commonly considered Greece, Italy, Portugal and Spain, while the euro area core includes Germany, France, Belgium and the Netherlands.

### Interest Rates on Loans to Non-financial Corporations in the Euro Area\*

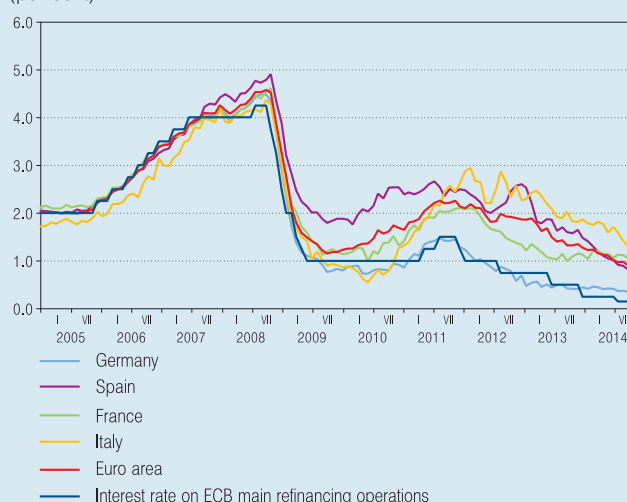
(per cent)



\* Interest rates on loans to euro area non-financial corporations are weighted by the volume of extended loans with various maturities.  
Source: ECB.

### Interest Rates on Time Deposits in the Euro Area\*

(per cent)

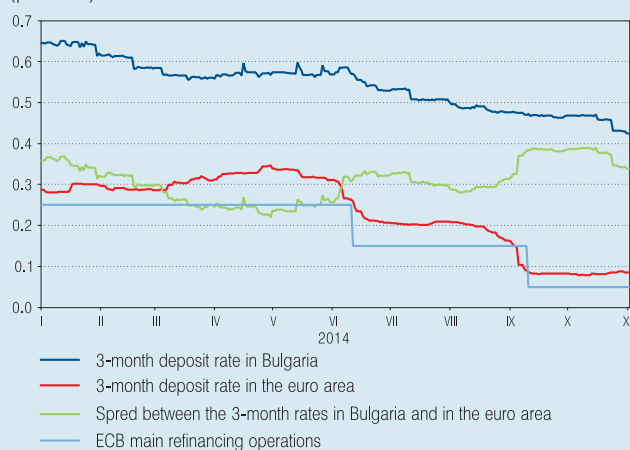


\* Interest rates on time deposits in the euro area are weighted by the volume of attracted deposits with various maturities.  
Source: ECB.

ECB measures, including reference interest rate cuts, had no direct effect on bank savings products. However, credit institutions may decrease their deposit interest rates in order to preserve the interest rate differential between credit and deposit products, which is the major revenue source. According to Paries et al. (2014)<sup>11</sup> the pass-through of policy interest rates on deposit rates should weaken when interest rates approach zero levels. The authors see the reason for that in the fact that customers may decrease their holdings of deposits when faced with a fall in the opportunity cost of holding banknotes, effectively setting a limit on how low interest rates on deposits may fall. Indications of this are observed in the average deposit rates in Germany and France (Chart above) where interest rate patterns did not change significantly after ECB reference rate cuts in 2013 and June 2014. Given the resistance of deposit rates in Germany and France to pass further policy rate cuts, the ECB measures of September 2014 are likely to have a limited effect on the level of euro area bank deposit rates.

### Money Market Interest Rates in Bulgaria and the Euro Area

(per cent)



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

Sources: BNB, ECB.

To sum up, ECB's monetary policy measures in 2014 had a significant effect on the price of instruments traded in euro area financial markets. Their effect on the real economy, however, will largely depend on the expected improvement of the monetary policy transmission mechanism functioning.

Since Bulgaria is not a member of the euro area, the ECB's monetary policy has no direct effect on Bulgaria's monetary conditions and the banking system. Concurrently, the currency board arrangement in Bulgaria and the use of the euro as a reserve currency, are prerequisites for a partial ECB's monetary policy transmission to the Bulgarian financial system. ECB monetary policy decisions related to changes in reference interest rates affect indirectly and mainly the banking sector in Bulgaria dominated by foreign banks and branches of the EU (occupying 68.2 per cent of total banking assets by end-June 2014). This transmission mechanism works through two main channels.

The first channel relates to the funds attracted from the Bulgarian money market and from the parent

<sup>11</sup> Paries, M., Moccero, D., Krylova, E., Marchini, C., 2014, *The retail bank interest rate pass-through. The case of the euro area during the financial and sovereign debt crisis*, ECB Occasional paper No 155, September 2014.

banks of Bulgarian subsidiaries and foreign bank branches. Overall, ECB monetary policy adjustments have a comparatively rapid effect on the domestic money market quotations, though decreasing in the long run compared to internal factors associated with market agents' assessment of the economic uncertainty and the relevant risk premium. Since the second half of 2009 the spreads between Bulgarian interbank money market rates and those in the euro area have followed a downward trend, reflecting the contracted risk premium in the Bulgarian economy. From December 2009 to September 2014 the average rates for the three-month interbank deposit in Bulgaria fell by 6.5 percentage points, of which 3.4 percentage points were due to the decreased spread of respective rates in the euro area. ECB interest rate cuts in June and September 2014 affected Bulgarian money market rates which posted a decline. Stronger decreases were observed after the June decision unlike that of September when no significant changes occurred. In parallel, the three-month EURIBOR dropped more essentially than the relevant rates in Bulgaria as a result of the two ECB decisions, contributing to the spread expansion since June. The Bulgarian money market plays only a supporting role in managing bank liquidity due to its comparatively small share in disposable financial resources of banks, with a downward trend observed since 2011 to reach 1.8 per cent of banking system liabilities in June 2014.

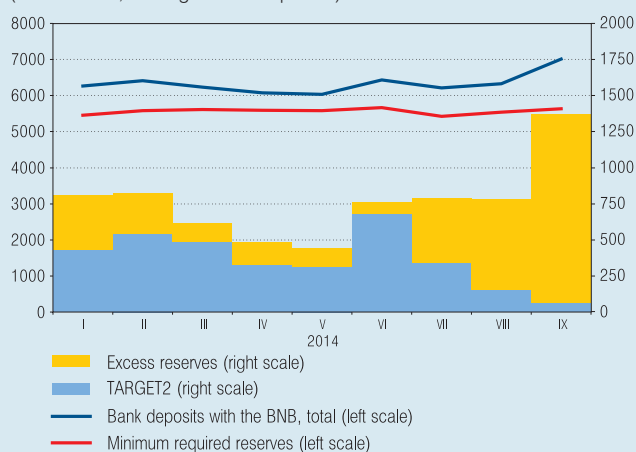
In terms of the funds attracted from parent banks, ECB monetary policy transmission works through their cost which depends partially on money market rates in the euro area. Similar to the money market, these funds also have a limited and subsiding effect as Bulgarian banks have pursued a policy of reducing their liabilities to the parent banks since the end of 2008, with their share reaching 7.0 per cent of all attracted funds in June 2014.

The second transmission channel passes through bank assets, affecting especially lending interest rates, excess reserves and foreign assets of banks. Rates on loans to households<sup>12</sup> and corporations in Bulgaria, formed by the banks, are usually calculated by adding a mark-up over a set market index (such as EURIBOR and SOFIBOR). Thus, declines in both indices since June should result in a decrease of lending interest rates over the following months provided that the current fixed mark-ups are retained. Under these assumptions, the developments in the interest rates on new loans are expected to reflect money market rates with a certain lag over the following months which will depend on the banks' methodology in setting their reference interest rates. Since the second quarter of 2014 real interest rates on loans to households and corporations have followed a downward trend driven by both the slowing consumer price deflation and decreased nominal interest rates. Given the projected further moderation in deflation over the coming quarters and our expectations of declining interest rates on loans, the downward trend in real lending interest rates is expected to continue, which – all other things being equal – should ultimately have a favourable effect on domestic demand dynamics.

Other indicators recognising indirectly ECB monetary policy effects on Bulgaria's financial markets include the level of excess reserves maintained by banks with the BNB and net foreign asset dynamics. Bulgarian banks are characterised by high liquidity resulting from significant inflows of attracted funds from residents and comparatively low demand for borrowings. Part of liquid funds which banks fail to place in the domestic market is accumulated on their accounts in the BNB or in TARGET2 and another part is invested in foreign assets or is used to reduce their foreign liabilities. Last two years' declines in euro area interbank market rates as a result of the ECB's monetary policy led to an increase in Bulgarian banks' balances, mainly in the TARGET2 system. On the one hand, current accounts in TARGET2 had the advantage of being entirely risk-free excess liquidity used by banks at any moment to cover liquidity needs, on the other hand – their interest rate being 0 per cent. The June and September decisions of the ECB to introduce a negative rate on the deposit facility and on bank accounts in TARGET2 led to restructuring of domestic bank excess reserves over the required minimum under Ordinance No 21. In July banks started to transfer most of their balances in TARGET2 to the accounts in the Bulgarian payment system which bears no negative interest on closing balances.

#### Bank Deposits with the BNB

(million BGN, averages for the period)



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

Source: BNB.

<sup>12</sup> Amendments to the Law on Consumer Credit of 23 July 2014 require banks to use reference interest rates on consumer and housing loans. This rate represents a market index (LIBOR, EURIBOR, SOFIBOR) and/or indicators published by the Bulgarian National Bank and/or the National Statistical Institute, or a combination thereof.

As regards bank foreign assets and liabilities, no significant changes occurred between July and September 2014. However, retention of negative interbank overnight market rates in the euro area for a longer period is expected to limit alternative investment opportunities of banks outside Bulgaria. This may lead to a decline in external exposures of banks and further increase in their deposits with the BNB, and to a possible domestic credit expansion. However, the uncertain political and economic situation in Bulgaria could eventually have a dampening effect on the increase of bank exposures in the domestic market, probably leading to a rise in banks' foreign assets even on negative returns, or to accelerate the process of repaying foreign liabilities.

The policy pursued by banks in managing their excess liquidity has a direct effect on the BNB balance sheet. Increased funds of banks on their accounts with the BNB since mid-2012 boosted the liabilities on the Issue Department balance sheet. Since the aggregate amount of monetary liabilities of the Bulgarian National Bank may not exceed the lev equivalent of gross international reserves under the Law on the BNB, fluctuations of excess reserves of banks on their accounts in the Bulgarian payment system and on TARGET2 accounts, reflecting their dependence on euro area interbank market developments, have also an effect on gross international reserves, *i.e.* Issue Department assets.

Finally, ECB monetary policy measures in 2014 had a significant effect on the price of instruments traded in euro area financial markets. Economic effects of the ECB measures have not yet unfolded in the euro area, and they will broadly depend on the effective functioning of the monetary policy transmission mechanism. Good monetary stimulus efficiency would lead to better access and price of financing for euro area banks which may have a favourable effect on the cost of financing of the non-financial private sector in this region. The effect of the ECB's monetary policy related to changes of reference interest rates on the cost of attracted funds by Bulgarian banks is limited as the portion of these funds which is directly dependent on euro area money market rates and domestic money market represents just a small share of total banks' attracted funds. As regards lending interest rates, possible effects could be seen with a certain lag over the following months assuming that banks would retain their risk premium assessments. The ECB's monetary policy has a significant effect on banks' excess reserves as a result of limited investment opportunities in the euro area which, in turn, affects the BNB balance sheet. If euro area financial market uncertainty decreases in the future and the ECB returns to its policy of increasing interest rates, on the one hand, and the economic uncertainty in Bulgaria declines, on the other hand, excess reserves on banks' accounts with the BNB which are on the rising path since June 2014 may, other things being equal, go down which could decrease the level of international foreign currency reserves.



## 2. Financial Flows, Money and Credit

Lower international commodity, fuel and food prices contributed to the fall in nominal exports of goods from Bulgaria between January and August 2014. Despite the decline in international prices, nominal goods imports remained broadly unchanged as a result of the increased imported volumes which led to a rise in the trade deficit balance and a decline in the BOP current and capital account surplus over the January–August 2014 period. More essential recovery of nominal export growth rates is expected in the beginning of 2015 if the projections of slowing rates of decline in world commodity, fuel and food prices in euro until end-2014 and their stabilisation in the first quarter of 2015 materialise in the context of gradually accelerating external demand. At the same time, import growth rates are expected to outpace those of exports which will lead to an increase in trade deficit balance and to a further decline in the positive balance of the current and capital accounts at the end of the first quarter of 2015.

The liquidity pressure on the banking system leading to the conservatorship imposed upon Corporate Commercial Bank (KTB) and Commercial Bank Victoria had a strong effect on monetary aggregate dynamics at the end of June 2014. Some time deposits were withdrawn from the banking system, boosting currency in circulation, and other time deposits were transformed into overnight deposits. Liquidity buffers held by banks and deliberately required by the BNB, as well as the measures to preserve banking and financial system stability contributed to restoring confidence. As a result, deposits increased and growth in currency in circulation slowed down in the following months. In the fourth quarter of 2014 and first quarter of 2015 growth rates of currency in circulation and broad money are expected to gradually moderate.

The ECB cut interest rates on main refinancing operations, marginal lending and deposit facility, which led to a significant decrease in euro area interbank money market rates. In June domestic interest rates responded to this decline, though remaining almost unchanged in September. By the end of 2014 and in the first quarter of 2015 interest rates on time deposits are expected to continue gradually declining due to the sustained ample banking liquidity, high household savings rates, comparatively low demand for loans and indirect effects of the ECB's unconventional monetary policy measures. Payments on depositors' guaranteed amounts in Corporate Commercial Bank which will increase liquidity in the economy may also add to the decline in deposit interest rates. Lending rates are also expected to slightly decrease as a result of the falling cost of attracted bank funds.

Given the interaction of external and internal economic factors and resulting financial flows, Bulgaria's international foreign exchange reserves (excluding valuation adjustments and price revaluation) posted a year-on-year increase of EUR 548.3 million in August 2014 (based on BOP data). The market value of international reserves<sup>11</sup> (assets on the Issue Department balance sheet) rose by EUR 1128.8 million to BGN 30.5 billion (EUR 15.6 billion) at the end of October 2014.

Issue Department balance sheet changes on an annual basis reflected mainly changes in the

<sup>11</sup> The market value of international reserves includes changes stemming from transactions, valuation adjustments and price revaluation.

### External Cash Flows in Foreign Currency

(EUR million)

External flows	2013	January–September 2013	January–September 2014
<b>Total for the period</b>	<b>-429</b>	<b>-509</b>	<b>1 170</b>
<b>Purchases and sales of euro</b>	<b>-1 429</b>	<b>-1 152</b>	<b>-1 217</b>
at tills	-21	-18	-23
banks, incl.	-1 408	-1 135	-1 194
purchases from banks	35 169	26 366	22 528
sales to banks	-36 577	-27 501	-23 722
<b>Flows on accounts of banks, the MF, etc.</b>	<b>1 000</b>	<b>643</b>	<b>2 387</b>
Minimum required reserves	-92	237	40
Government and other depositors	1 091	406	2 347

Note: The table shows only foreign currency inflows and outflows in the Issue Department balance sheet. Lev inflows to and outflows from the Issue Department balance sheet are not reported. Transactions between accounts in foreign currency and levs in the Issue Department balance sheet liabilities are not reported either, as they do not lead to changes in gross international reserves.

Source: BNB.

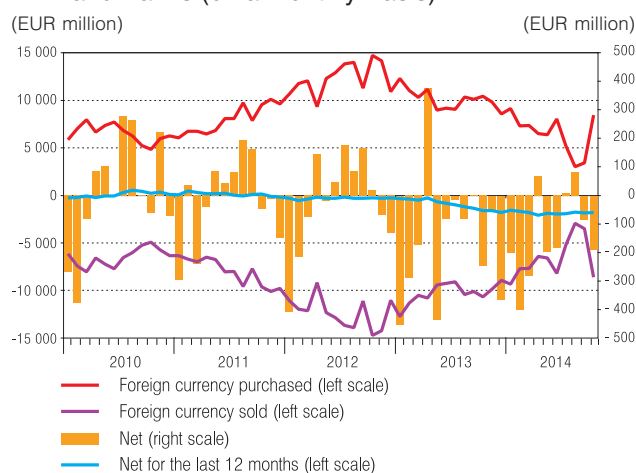
liabilities side (BNB monetary obligations).<sup>12</sup> They stemmed primarily from the increased liabilities to the government and budget organisations as a result of EUR 1493 million received from the ten-year Bulgarian Eurobonds issued on 26 June 2014 on international capital markets. Growth in circulating banknotes and coins also had a contribution to this, though to a lesser extent. At the same time, liabilities to banks declined on an annual basis by end-October due to the decreased bank funds in TARGET2-BNB<sup>13</sup> and lower excess reserves on minimum reserve requirement accounts.<sup>14</sup>

The flows prompting changes in international reserves in line with the currency board principles reflected economic agents' demand for cash in foreign currency or levs. In the first ten months of 2014 currency trade volumes between banks and the BNB retained the 2013 trend of BNB sales exceeding purchases of foreign currency. The negative balance was partially offset by the positive balance of currency trade between the BNB and budget organisations.

In August the reserve coverage of the average nominal imports of goods and non-factor services over the last 12 months came to 6.5 months.

In the fourth quarter of 2014 and the first quarter of 2015 international reserve developments will be driven by changes in the Issue Department balance sheet liabilities. Any decline in the funds of a given liabilities component will have a downward effect on international reserves, and *vice versa*. Over the same period, currency in circulation will further add to the annual growth in liabilities on the Issue Department balance sheet and international reserves. Dynamics of bank deposits with the BNB will reflect their policy in managing reserves and deposit inflows into the banking system. The government deposit

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



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

Source: BNB.

<sup>12</sup> The Law on the BNB Article 28, paragraph 1 provides that 'the aggregate amount of the monetary liabilities of the BNB shall not exceed the lev equivalent of gross international reserves,' with that equivalent based on the fixed exchange rate.

<sup>13</sup> The national system component of the Trans-European Automated Real-time Gross settlement Express Transfer system for the euro (TARGET2).

<sup>14</sup> The analysis of total bank reserves, bank funds in TARGET2-BNB and excess reserves refers to the values at the end of the review period.

value will depend on budget implementation until year-end and in the first quarter of the next year, as well as on budget deficit financing sources. Eurobond issue sold in June on international capital markets will further contribute to the higher government deposit with the BNB over the last quarter of 2014, while USD global bond repayments in January 2015 will decrease its amount, pushing down international reserves. Repayments of guaranteed deposits at KTB<sup>15</sup> will lead to a drop in Bulgarian Deposit Insurance Fund's deposit which is part of the Issue Department balance sheet liabilities, contributing to the fall of international reserves in December 2014.

## External Financial Flows

Between January and August 2014 the surplus of the overall current and capital account balance contracted primarily as a result of the trade deficit growth. The decrease of nominal goods exports observed since the year start was sustained in August, reflecting largely declining international commodity prices, unlike the drop in real terms observed only in the first quarter of 2014. International prices depressed also nominal goods imports. The decline, however, was compensated by the increased physical volumes due to growing domestic demand and corresponding demand for imported goods.<sup>16</sup>

In the first eight months services trade balance improved insignificantly on the corresponding period of the prior year. The increased services exports reflected mainly growth in transport services exports and to a much lesser extent exports of tourist and other services. Data on foreigners visiting Bulgaria for vacation and trips show that a year-on-year decline was observed in July and August which is likely to reflect unfavourable weather conditions. Over the review period, imports of services grew on an annual basis due primarily to imports of other services (excluding transport and tourist).

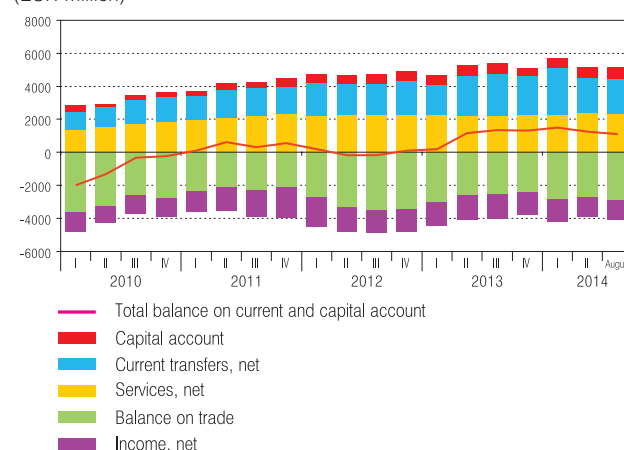
Income account deficit for the period January – August 2014 shrank from the same period

<sup>15</sup> On 6 November 2014 the BNB Governing Council revoked the license of Corporate Commercial Bank to conduct bank transactions. See the BNB press release of 6 November 2014.

<sup>16</sup> For a more detailed analysis of exports and imports of goods, see Chapter 3.

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

(EUR million)



Source: BNB.

## Flows on Balance of Payments Accounts

(EUR million; cumulative since the beginning of the year)

	January – August 2013	January – August 2014
<b>Current account</b>	1 257.7	808.8
Trade balance	-1 399.4	-1 861.2
Services balance	1 807.2	1 885.0
Income account	-976.7	-788.2
Current transfers, net	1 826.7	1 573.2
<b>Capital account</b>	252.1	477.9
<b>Financial account</b>	-1 375.9	1 031.6
FDI in Bulgaria	1 173.9	1 221.4
<b>Changes in reserves</b>	-396.6	750.9

Source: BNB.

of 2013. Decreased outflow payments on the investment income contributed most significantly to this, while flows on the credit side of this item remained broadly unchanged. The fall in investment income repayments was primarily due to the lower outflows on *Dividends and distributed profit* and *Income from other capital (interest)* of the *Direct investment* sub-item.<sup>17</sup> Such dynamics corresponds to the lower gross operating surplus in 2013 *vis-à-vis* 2012 and lower dividends, distributed profit and interest paid to foreign investors.

The positive balance of net current transfers declined between January and August 2014 compared to the same period of the previous year mainly due to the lower current transfers to the general government sector, other than EU grants. The remaining items under net current transfers remained close to the values of the same period of 2013.

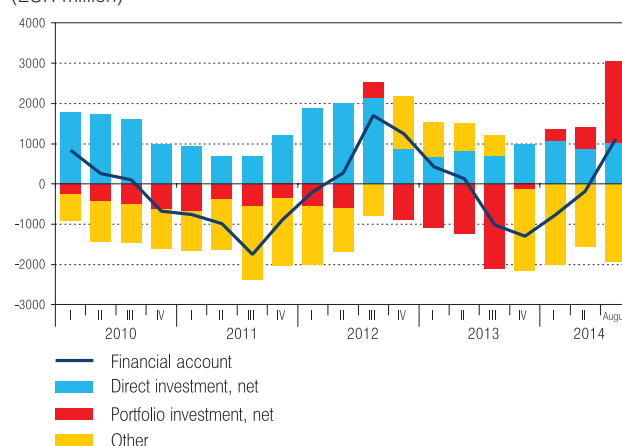
In the fourth quarter of 2014 and the first quarter of 2015 the current and capital account surplus is expected to continue decreasing on an annual basis, reflecting trade balance deficit growth. From the beginning of 2015, stronger acceleration of nominal goods export growth is expected if the projections of stabilisation in world commodity, fuel and food prices in euro materialise in the context of gradually accelerating external demand. Concurrently, imports are expected to grow at faster rates than exports over the fourth quarter of 2014 and the first quarter of 2015 on an annual basis driven by import price developments and to a lesser extent by domestic demand. Slower export revival would result in trade deficit expansion and lower surplus or a possible low deficit in the overall current and capital account balance.

The financial account was positive between January and August 2014 as a result largely of the June issue of government debt sold in international capital markets and subsequent inflows in early July 2014.

Over the same period, FDI inflows picked up from the corresponding period of 2013.<sup>18</sup> This rise reflects growth in other net capital (changes

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

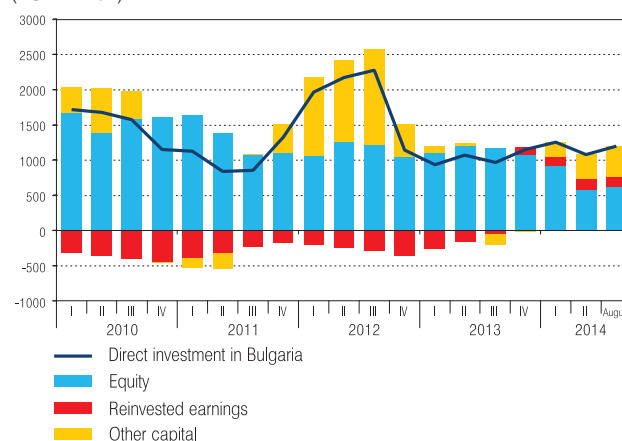
(EUR million)



Source: BNB.

## FDI in Bulgaria by Type of Investment (on an Annual Basis)

(EUR million)



Source: BNB.

## Banks' Flows on Balance of Payments Financial Account

(EUR million; cumulative since the beginning of the year)

	January – August 2013	January – August 2014
<b>Net direct investment</b>	<b>87.4</b>	<b>17.8</b>
abroad	3.4	0.0
in Bulgaria	84.0	17.8
<b>Net portfolio investment</b>	<b>-347.5</b>	<b>297.7</b>
assets	-375.3	343.2
liabilities	27.8	-45.5
<b>Other investment</b>	<b>-1 573.9</b>	<b>-1 337.3</b>
assets	-1 073.9	-1 020.2
liabilities	-500.0	-317.0
<i>Portfolio and other investment</i>	<i>-1 921.4</i>	<i>-1 039.5</i>
<b>Total</b>	<b>-1 834.0</b>	<b>-1 021.7</b>

Source: BNB.

<sup>17</sup> Preliminary data, subject to revision.

<sup>18</sup> Preliminary data, subject to revision.

in net obligations between companies with foreign interest and foreign direct investors on financial, bond and trade credits), while the *Equity* sub-item recorded a significant decline. This was primarily due to the *Banks* sector where the acquisition of Crédit Agricole, Bulgaria by Corporate Commercial Bank was the most important factor. By end-2014 and early 2015 FDI growth is likely to slow down as a result of the increased internal political uncertainty and deteriorated economic environment.

Banks continued to increase their foreign assets and decrease foreign liabilities between January and August. This trend, however, was less pronounced than in the same period of 2013 and reversed temporarily after the conservatorship imposed upon KTB and CB Victoria. In June banks returned to Bulgaria funds invested in foreign assets with the aim more likely to ensure additional liquidity. In July and August bank foreign assets increased and foreign liabilities decreased.

In August 2014 Bulgaria's external debt posted an increase on the end of 2013, reflecting higher obligations of the general government sector due to Bulgarian government bonds issue in the end of June 2014 on international capital markets. In August these obligations were reflected in long-term external debt growth compared with the end of 2013. Intercompany lending also posted an increase in August.

The decreased external debt of other sectors over the first eight months was mainly due to lower liabilities of the transport, storage and communications sector (by EUR 446.8 million), followed by financial intermediation (EUR 168.3 million) and construction (EUR 121.4 million).<sup>19</sup>

In August there were no signs of essential changes in the conditions for access of residents to new external financing and for external debt service by domestic economic agents. Variations in the statistics of declared new loans and external debt service remained within customary limits. Hence, it could be said that favourable financing and external debt service conditions were sustained in the first eight months of 2014.

<sup>19</sup> Excluding trade and bond loan liabilities from the sectoral breakdown.

### Gross External Debt in August 2014

(EUR million)

	Amount	Change	
		December 2013	Last 12 months
General government	4 775.6	1 363.7	1 486.7
Central bank	0.0	0.0	0.0
Banks	5 607.4	-243.8	-493.1
Other sectors	11 948.2	-691.9	-156.3
FDI: intercompany loans	15 870.6	438.8	-17.6
<b>Total</b>	<b>38 201.9</b>	<b>866.8</b>	<b>819.7</b>

Source: BNB.

## Monetary and Credit Aggregates

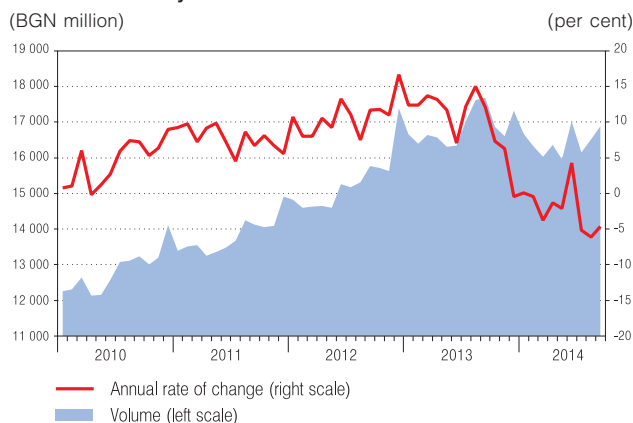
The liquidity pressure on the banking system at the end of June when Corporate Commercial Bank and CB Victoria were placed under conservatorship had a strong effect on monetary aggregate dynamics at the close of the second and the beginning of third quarters. Part of the time deposits was withdrawn from the banking system, boosting currency in circulation, and another part was transformed into overnight deposits. In July, as in August and September, confidence in the banking system was restored, which led to an increase in bank deposits and slower growth of currency in circulation. This was coupled with a change in the behaviour of banks which until June 2014 maintained higher end-month excess reserves with the BNB compared to the average monthly level. This trend, however, was reversed between July and September when lower reserves were maintained at the end of month. Another factor affecting bank reserve management was the ECB monetary policy involving interest rate cuts on the main refinancing operations and marginal lending facility and a negative interest rate on the deposit facility.<sup>20</sup>

Following a decline in the annual growth of reserve money between February and May, its rate accelerated in June followed by another trend reversal over the July to September period. By end-September reserve money posted a 4.6 per cent decrease on an annual basis. Its dynamics reflected lower bank deposits with the BNB, while the contribution of currency in circulation to reserve money growth dropped, though remaining comparatively high by the end of the review quarter. In September currency in circulation rose by 10.8 per cent on an annual basis (7.4 per cent in December 2013 and 14.9 per cent in June 2014).

Decreased bank deposits with the BNB on an annual basis resulted from the changed bank policy in managing end-month excess reserves since July and the continuing decline in their account balances in TARGET2-BNB since the second quarter of 2013. These developments were coupled with an increase in bank excess

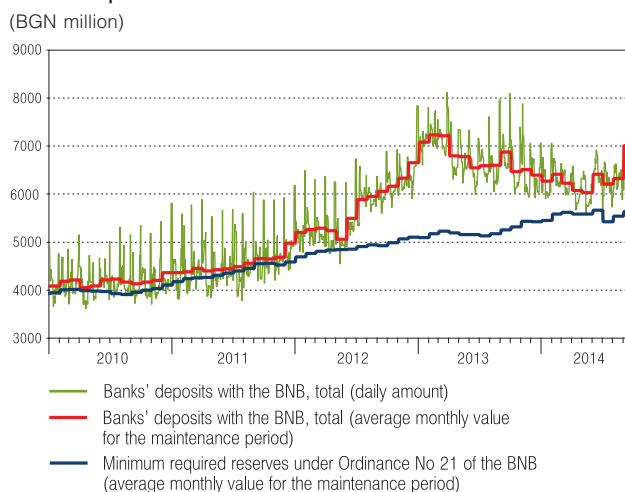
<sup>20</sup> For more details, see Chapter 1.

### Reserve Money



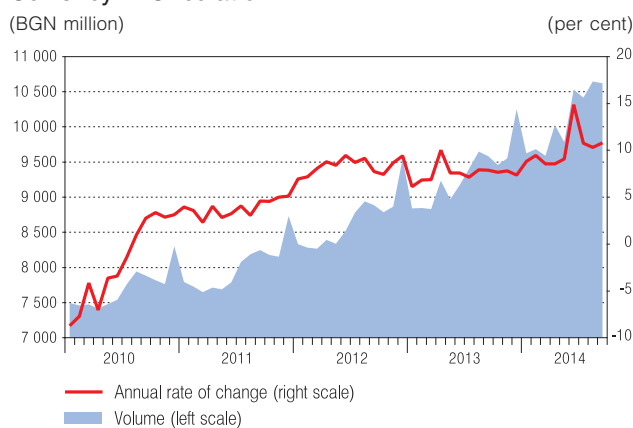
Source: BNB.

### Bank Deposits with the BNB



Source: BNB.

### Currency in Circulation



Source: BNB.



reserves from the beginning of the third quarter, and especially in September, which may be explained by the lack<sup>21</sup> of investment alternatives outside Bulgaria due to ECB decisions of June and September to cut interest rates on the main refinancing operations and marginal lending facility and set a negative interest rate on the deposit facility. Bank funds held as minimum reserves recorded a decline in July and an increase in August and September, reflecting changes in the deposit base.

As a result of the developments and structure of attracted funds in the banking system, the effective implicit rate of minimum required reserves reached 8.85 per cent<sup>22</sup> in September, with bank reserves with the BNB comprising 7.77 percentage points, and the remaining 1.08 percentage points comprising cash and funds on banks' settlement accounts in the TARGET2-BNB system.<sup>23</sup>

Money multiplier measures the interrelation between reserve money dynamics and money stock in the economy. Banks' policy to maintain low excess reserves at the end of month along with further decreases in the balances on their settlement accounts in TARGET2-BNB in the context of sustained high inflows of attracted funds in the banking system contributed to the growth of the money multiplier to 4.2 on average in the January to September period (against 3.8 in the same period of 2013).

Broad money experienced a gradual downward trend since early 2014, with its annual growth reaching 7.2 per cent in September. Overnight deposits and those redeemable at notice of up to three months again had the strongest contribution to the broad money dynamics, while deposits with an agreed maturity of up to two years retained their negative contribution. The period from January to May was marked by a moderate

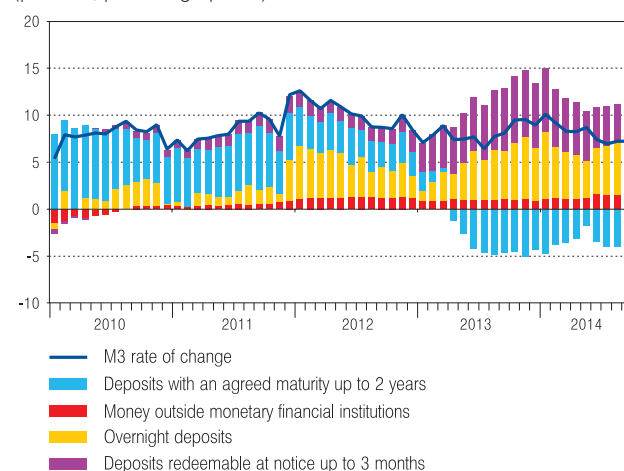
<sup>21</sup> In September 2014 excess reserves on banks' minimum reserve accounts with the BNB over the required minimum under Ordinance No. 21 came to 21.9 per cent on an average daily basis (9.1 per cent by the end of 2013 and 2.1 per cent in June 2014).

<sup>22</sup> According to Article 3, paragraph 1 of BNB Ordinance No 21, the rate of minimum required reserves for funds attracted from residents is 10 per cent of the deposit base, from non-residents 5 per cent and from the state and local government budgets 0 per cent.

<sup>23</sup> See Article 4 of Ordinance No 21 of the BNB.

## Annual M3 Growth Rate and Contribution of Individual Components

(per cent; percentage points)

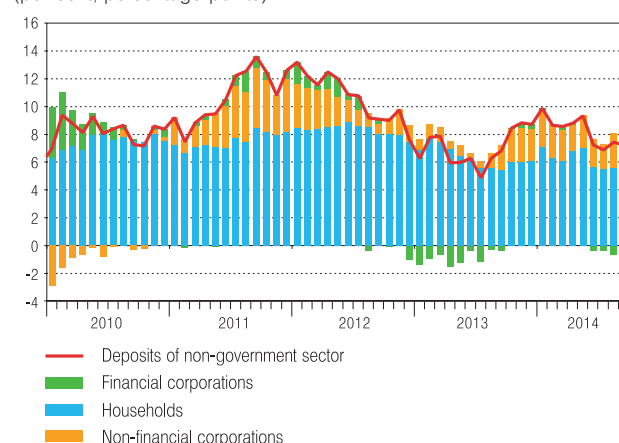


Note: The contribution of marketable instruments is not shown on the chart since it was insignificant to broad money growth.

Source: BNB.

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

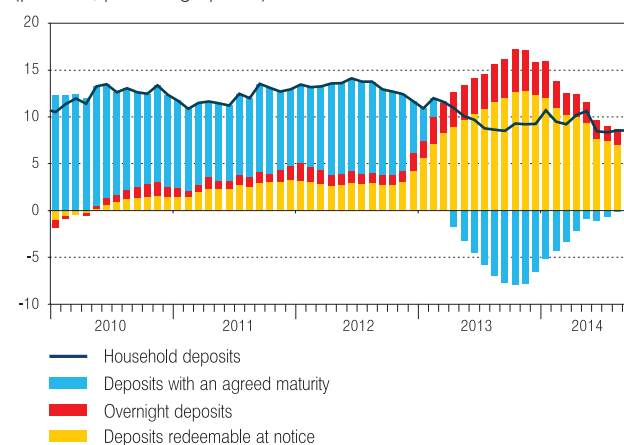
(per cent; percentage points)



Source: BNB.

## Annual Growth of Household Deposits and Contributions by Type of Deposit

(per cent; percentage points)



Source: BNB.

decrease in the positive contributions of the former two components and a drop in the negative contribution of the latter. These developments were driven by both the considerable growth in deposits with non-taxable interest over 2013 and the 2 percentage point reduction of the tax on time deposit interest to 8 per cent since early 2014. At the same time, both the positive contribution of overnight deposits and to a much lesser degree money outside MFIs started to rise since June, with the negative contribution of deposits with an agreed maturity of up to two years picking up and the contribution of those redeemable at notice of up to three months going down. The trend observed since the end of the second quarter reflected mainly non-financial corporations' behaviour toward transformation of time into overnight deposits.

By end-June growth in deposits attracted from the non-government sector slowed down to 7.2 per cent annually<sup>24</sup> (8.7 per cent by end-2013). The major factor for this was the lower growth rate of household deposits (8.6 per cent) at the end of September, while the slower growth of deposits attracted from non-financial corporations had a much smaller contribution. By end-September total household and corporate deposits came to BGN 55.4 billion against BGN 54.4 billion in May, prior to the withdrawal of deposits at the end of June. The currency structure shows that the share of lev-denominated deposits in the total amount of non-government sector's funds continued to outstrip the share of foreign currency deposits. However, since July their contribution (especially euro-denominated deposits) to the overall deposit growth has increased. By the end of September 44.1 per cent of household and corporate deposits in the Bulgarian banking system were denominated in foreign currency (43.3 per cent by end-June).

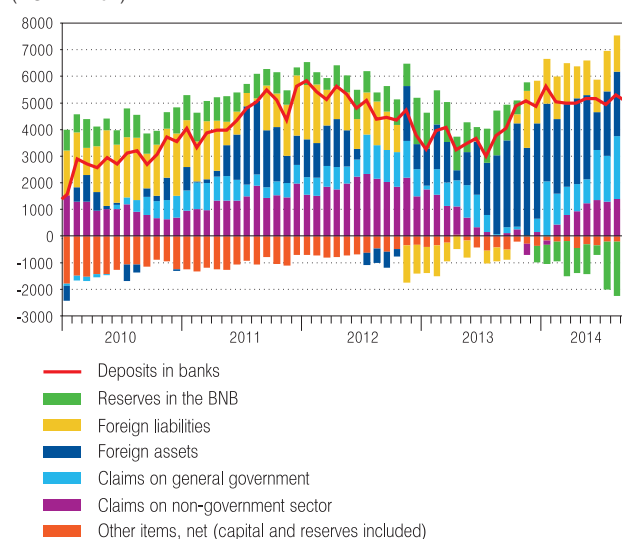
The trend toward restructuring in the type and maturity of household deposits<sup>25</sup> was sustained, though starting to gradually subside since the

<sup>24</sup> The analysis reflects annual changes in the balances based on the analytical reporting of other monetary financial institutions.

<sup>25</sup> This trend started in the fourth quarter of 2012 as a result of the introduction in early 2013 of a 10 per cent tax on time deposit interest.

## Changes in Bank Balance Sheet Items (on an Annual Basis)

(BGN million)

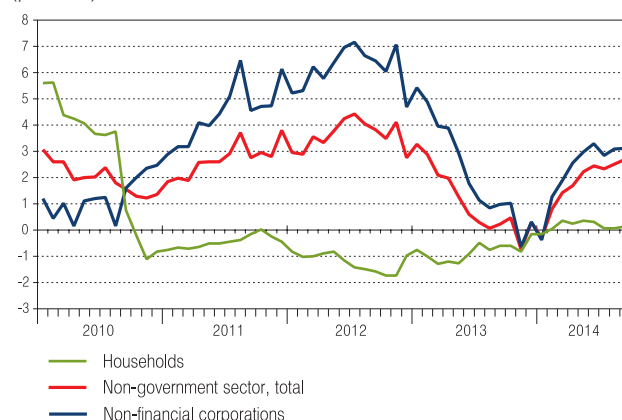


Note: These changes are based on balances from the analytical reporting of other monetary financial institutions. The positive value of changes in foreign liabilities corresponds to their decrease. From mid-2012, bank funds in TARGET2 had a stronger effect on bank reserve changes.

Source: BNB.

## Claims on Non-government Sector (growth on an annual basis)

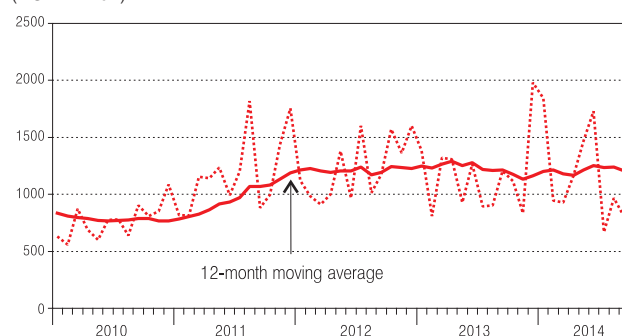
(per cent)



Source: BNB (monetary statistics: monetary survey).

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

(BGN million)



Source: BNB.

end of 2013. Growth rates of deposits redeemable at notice of up to three months and overnight deposits outside the scope of the tax on time deposit interest posted declines, while deposits with an agreed maturity reported a gradual fall in their decline rates to reach low positive growth on an annual basis in September.

In the January to September period the retained high household savings rate continued to push up attracted funds in the banking system, irrespective of the short-term negative effects of end-June. Banks used a significant portion of available funds to invest in Bulgarian government securities, to increase claims on the non-government sector and foreign assets and to cut, though to a lesser extent, foreign liabilities. Reflecting their policy in managing foreign assets and liabilities, net foreign assets of banks reached BGN 4.0 billion in September.

After recording a downward trend throughout 2013, the annual growth of claims on the non-government sector began to accelerate from February 2014 to reach 2.7 per cent by end-September (up BGN 1.5 billion, including net purchases of loans to the amount of BGN 170 million). Claims on non-financial corporations rose 3.1 per cent on an annual basis (0.3 per cent by end-2013). Sector breakdown shows that manufacturing, operations in real property and energy had the major positive contributions to the overall annual growth of loans to corporations.<sup>26</sup> More essential negative contributions were recorded by construction, hotels and restaurants and other activities.

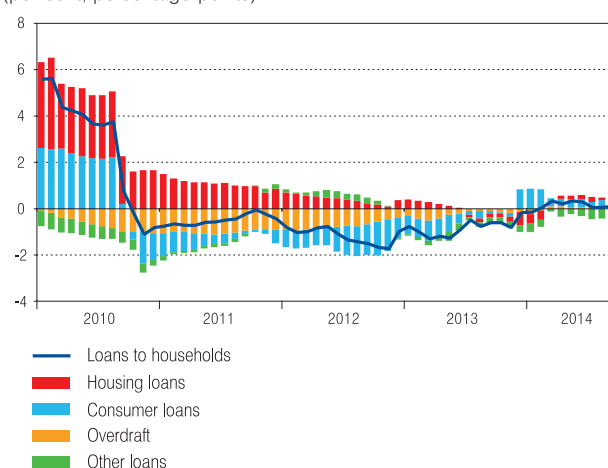
New corporate loans statistics<sup>27</sup> points to a comparatively stable volumes since 2012, with a slight upward trend starting at the end of 2013. Between January and September new loans accounted for BGN 10.5 billion (BGN 10.0 billion a year earlier). The trend most of the extended new loans to be with a maturity of over five years was sustained, with their average monthly volume comprising 48.1 per cent of all new loans to non-financial corporations.

<sup>26</sup> Production and distribution of electricity, heating and gaseous fuels.

<sup>27</sup> The terms "new" and "newly extended" hereinafter referred to as the statistical category "new business".

## Annual Growth of Loans to Households and Contribution by Type of Loans

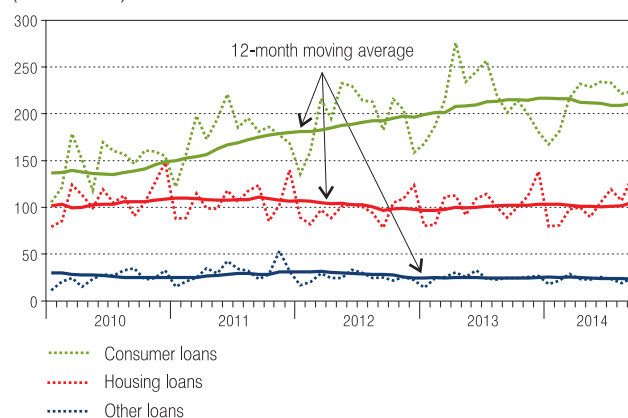
(per cent; percentage points)



Source: BNB.

## New Loans to Households (Monthly Volumes)

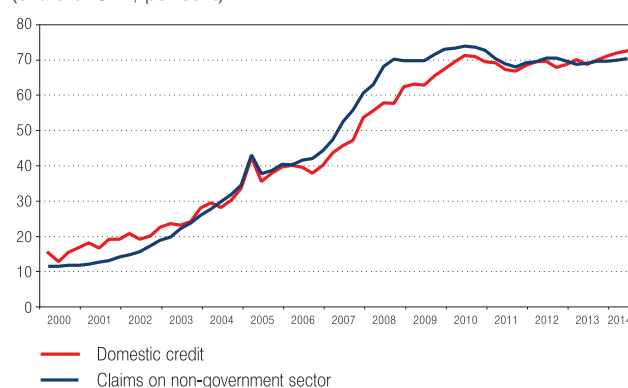
(BGN million)



Source: BNB.

## Domestic Credit

(share of GDP, per cent)



Note: Share of GDP under ESA 95.

Source: BNB.

Household lending tended to stabilise from the end of 2013 after a continued period of decline (from end-2010 to 2013). By end-September the amount of loans to households posted growth of 0.1 per cent on an annual basis (a fall of 0.2 per cent in December 2013). Overdraft, housing and consumer loans increased by 0.8, 0.2 and 0.8 per cent respectively, while other loans decreased by 8.3 per cent. In September the volume of new consumer loans retained its slight downward trend, while the levels of newly extended housing loans and other loans remained relatively stable.

Over the second quarter the increased claims on the non-government sector and lower nominal GDP led to a rise in the *claims on non-government sector to GDP* ratio to 72.6 per cent (71.6 per cent for 2013).

Summarised results of the BNB quarterly lending survey show a slight increase in demand for loans by corporations over the third quarter of 2014. Household demand for consumer and housing loans also posted growth, with greater values registered by the latter, as seen in the balance of opinions. Concurrently, banks eased their credit standards for consumer loans of households and corporations, while the easing for housing loans was less pronounced. Based on banks' reports the macroeconomic environment and credit risk contributed most strongly to credit policy tightening. The volume and cost of attracted funds and the competition among banks contributed further to easing the standards. However, this refers to lower extent to the profitability from alternative investment and the collateral-related risk. In the fourth quarter of 2014 banks expect that corporate lending standards will tighten, standards for housing loans will remain unchanged and those on consumer loans will be eased.

Growth rates of currency in circulation and broad money are expected to gradually slow down in the fourth quarter of 2014 and the first quarter of 2015.<sup>28</sup> Major factors behind these devel-

<sup>28</sup> Revocation of the KTB license by a BNB Governing Council decision of 6 November 2014 and payments on depositors' guaranteed amounts in KTB as of 4 December 2014 will prompt serious changes in monetary and credit aggregates which increases the forecast uncertainty.

## Changes in Credit Standards Applied to Corporate Loans

(balance of opinions)



## Changes in Credit Standards Applied to Consumer Loans

(balance of opinions)



## Changes in Credit Standards Applied to Housing Loans

(balance of opinions)



Note: The charts present banks' balance of opinions defined as a difference in percentage points between the percentage of banks responding 'tightened considerably' and 'tightened somewhat' and the percentage of banks responding 'eased considerably' and 'eased somewhat'. All responses are weighted according to banks' market share in the respective credit segment. The expectations are shown in the charts by shifting the data a quarter forward.

Source: BNB.

opments are expected to be driven by weak domestic demand in the context of persistently high household savings rates, low investment activity and continuous deflation over the forecast horizon. Funds attracted from residents in the banking system are anticipated to continue exceeding significantly demand for loans in the economy, which will be reflected in maintaining high banking system liquidity. Uncertainty surrounding these expectations ensues from a possible stronger worsening of economic agents' expectations amid continuous political instability in Bulgaria which would contribute to substantially lower growth rates of monetary and credit aggregates in the following two quarters. A possible weakening of external demand, if economic growth of Bulgaria's main trading partners slows down, may pose additional risk of a lower growth rate of monetary and credit aggregates.

Banks' foreign assets and liabilities dynamics over the forecast horizon is surrounded by uncertainty associated with the effects of ECB monetary policy which limits banks' opportunities for high-yield investment alternatives outside the country. However, the uncertain political and economic situation in Bulgaria could eventually have a dampening effect on the increase of bank exposures in the domestic market, forcing banks either to raise their foreign assets, delivering even negative returns, or to accelerate the process of repaying foreign liabilities.

## Interest Rates

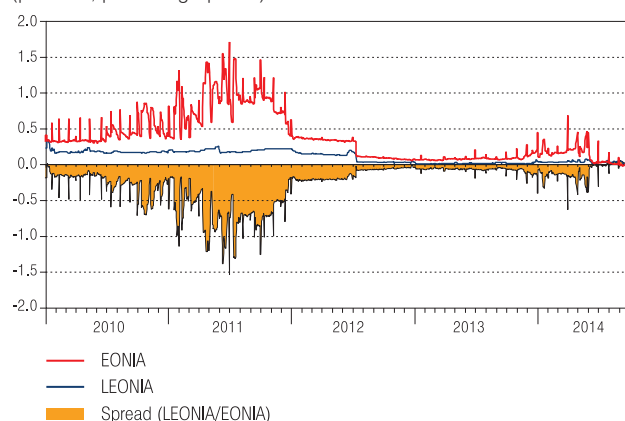
Between January and May 2014 the interbank market rates on overnight deposits and those with maturity of up to three weeks tended to gradually increase, while the downward trend in quotations with a maturity of over one month continued. The June to September period saw a decrease in deposit rates on all interbank market deposits. The dynamics of Bulgarian money market interest rates continued to reflect still high liquidity of Bulgarian banking system and was also impacted by the ECB monetary policy.

The ECB cut interest rates on main refinancing operations and marginal lending facility by 10 basis points in June and September, which led to a significant decrease in euro area inter-

## Interbank Money Market Interest Rates

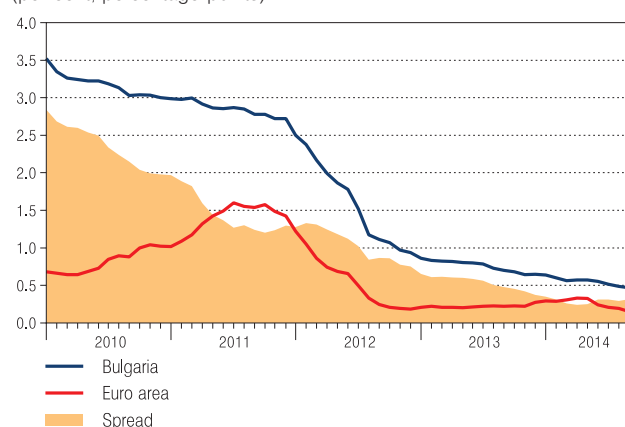
### a) Overnight deposits

(per cent; percentage points)



### b) Deposits with a maturity of three months

(per cent; percentage points)



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

Source: BNB.



bank money market rates<sup>29</sup>. Money market interest rates in Bulgaria responded to a larger extent to the June cut and to a lesser extent to that in September.

The average value of EONIA went down to 0.08 per cent in June against 0.21 per cent on average for the first five months of the year and in September it even turned negative. LEONIA exhibited a lower decline accounting for 0.03 per cent in June against 0.04 per cent on average for the January to May 2014 period, while in September it did not react to the euro area interest rate cut and remained unchanged at 0.03 per cent. The stronger EONIA decline compared with LEONIA after the ECB interest rate cuts led to a gradual narrowing of the negative spread between the two indices since mid-2014, while in August and September it became positive amounting to 2 basis points.

Between June and September quotations of three-month interbank deposits<sup>30</sup> dropped by 8 basis points compared with the first five months of 2014 accounting for 0.51 per cent on average. The stronger fall in euro area three-month interest rates than quotations in Bulgaria prompted widening of the spread between the average index of the three-month SOFIBOR and SOFIBID and the EURIBOR by 3 basis points in the third quarter compared with the January–May period.

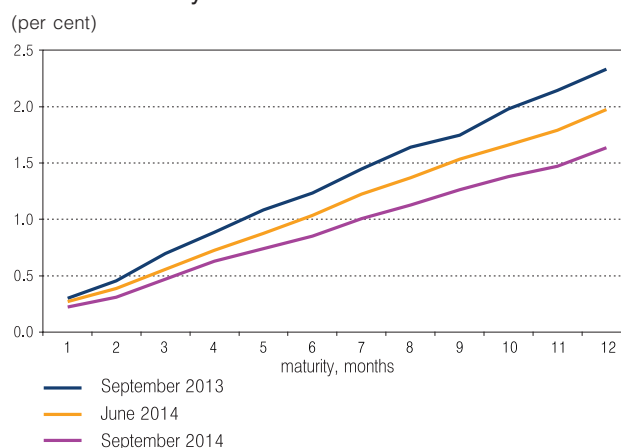
Quotations in long-term maturity sectors of the yield curve in the interbank money market retained their downward trend formed in the second half of 2010. In September the annual decline in the six-month maturity came to 38 basis points while in the 12-month maturity it came to 70 basis points.

Robust growth of deposits from residents and comparatively low demand for bank products continued to be the factors responsible for the downward trend in interest rates on new time deposits of households and non-financial corpo-

<sup>29</sup> See the Highlights *The Effect of ECB Monetary Policy Measures in 2014 on the Euro Area Financial Market and Bulgaria's Banking System*.

<sup>30</sup> Comments are based on the average value between the quotations of SOFIBOR unsecured deposits in levs and SOFIBID three-month deposits.

## Interbank Money Market Yield Curve

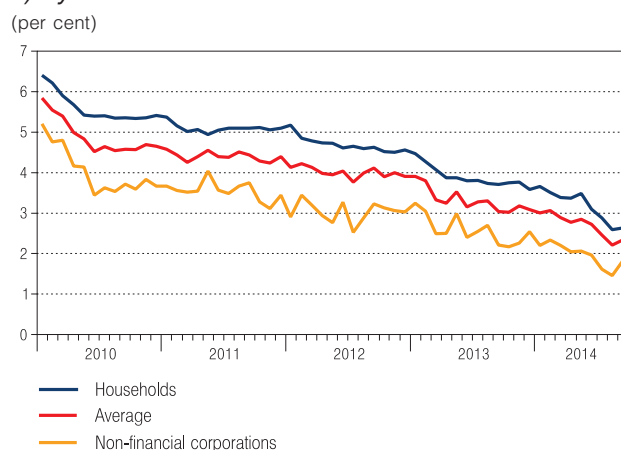


Note: The values reflect the average value of SOFIBOR and SOFIBID quotes of unsecured deposits in levs.

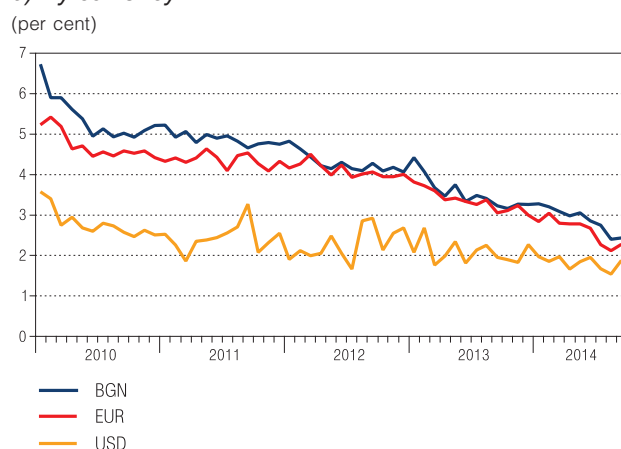
Source: BNB.

## Interest Rates on New Time Deposits

### a) By sector



### b) By currency



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

Source: BNB.



rations, which was sustained in the first nine months of 2014. By September the average weighted interest rate on new time deposits accounted for 2.3 per cent (3.1 per cent in December 2013). Interest rates on new time deposits in all currencies posted a decline on end-2013, with the interest rates on deposits denominated in levs and euro experiencing a stronger decrease. In terms of maturity, since early 2014 a stronger decline was reported in deposits with a maturity of one to three months, from six to twelve months and from one to two years.

Regarding the distribution of interest rates by bank on new household time lev deposits, in September 2014 compared to June 2014, the number of banks offering rates in the up to 3 per cent band and from 3 to 4 per cent increased, while those offering rates within the 4 to 5 per cent and within 5 to 6 per cent band decreased. The average interest rate on time lev deposits dropped by 60 basis points to 2.81 per cent in the third quarter and the standard deviation fell by 8 basis points to 0.99 percentage points.

The downward trend in the average cost of financing in the banking system<sup>31</sup> was sustained (from 2.81 per cent in late 2013 to 2.09 per cent in September 2014) reflecting the dynamics of the cost and volumes of attracted funds.

Interest rates on new loans to non-financial corporations in levs continued to decline in the first nine months of 2014. Concurrently, interest rates on new corporate loans in euro stabilised around the levels reached at the end of the previous year. In September the average interest rate on new loans to non-financial corporations denominated in levs amounted to 6.9 per cent and those denominated in euro came to 8 per cent.<sup>32</sup>

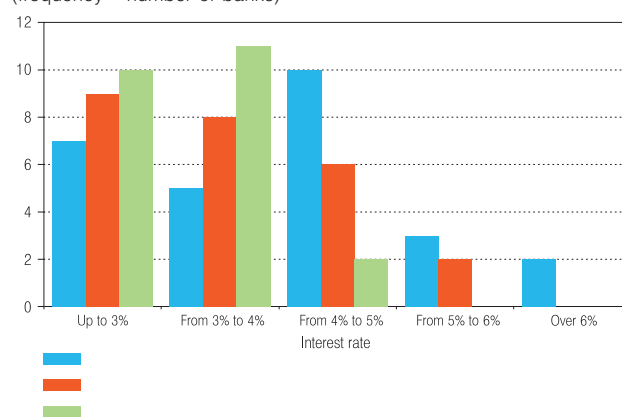
Interest rates on new consumer loans disbursed to households posted some increase in early

<sup>31</sup> The indicator is calculated *ex post* using data of the BNB Bank Supervision Department published on the BNB website as a ratio between interest payments on attracted funds over the last 12 month and the average volume of attracted funds over the same period.

<sup>32</sup> The figures below are the weighted average of the interest rates on loans to non-financial corporations on a 12-month basis.

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

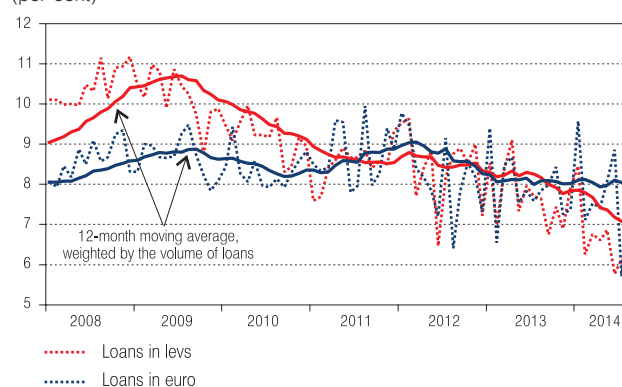
(frequency – number of banks)



Source: BNB.

### Interest Rates on New Loans in Levs and Euro to Non-financial Corporations

(per cent)



Source: BNB.

2014 which was offset by a decrease in non-interest expenditure on these loans (such as fees and commissions). As a result the annual percentage rate of charge (APRC) remained broadly unchanged at 12.5 per cent in September.<sup>33</sup> A factor with a potential impact for the decrease in the non-interest component of the APRC on consumer loans in the third quarter of 2014 was the enforcement as of 23 July of the amendments to the Law on Consumer Credit which remove the fees and commissions accrued by banks on credit utilisation and management. Banks may have reacted to these changes by adjusting upwards the interest rates on consumer credit products provided between July and September.

In the first nine months of 2014 the annual percentage rate of charge on housing loans to households retained its gradual downward trend, started in mid-2010, and in September it accounted for 7.6 per cent. The decline reflected mainly the interest component of the annual percentage rate of charge, while non-interest expenditure remained broadly at the end-2013 levels. As regards housing loans, the effect on the amount of non-interest expenditure as a result of the adopted amendments to the Law on Consumer Credit was weak, with no significant decline in this expenditure observed in the July–September period.

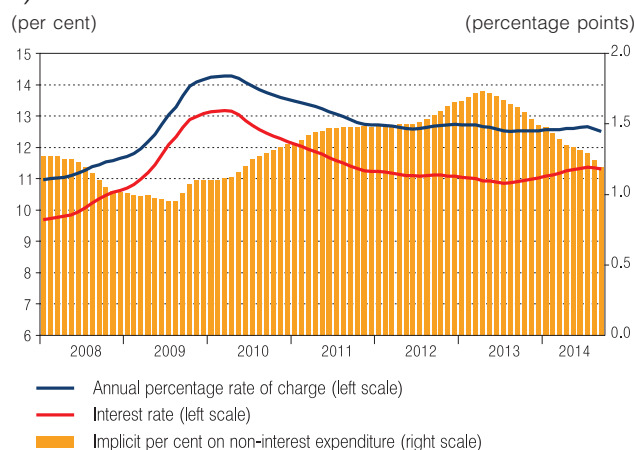
As regards the distribution of interest rates by bank on new housing loans in euro, in September 2014 compared to June 2014 the number of banks offering rates of up to 6 per cent, from 7 to 8 per cent and from 8 to 9 per cent increased at the expense of those offering rates within the 6 to 7 per cent and over 9 per cent bands. Over the same period, the average interest rate level increased by 1 basis points to 6.89 per cent, and the standard deviation went up 96 basis points to 0.97 percentage points.

Between July and September the government issuing policy was aimed at supplying both short-term government securities and medium- and long-term government securities with the bulk of bids of treasury bonds with a

<sup>33</sup> The values below are the weighted average of the APRC and the interest rates on household consumer and housing loans on a 12-month basis.

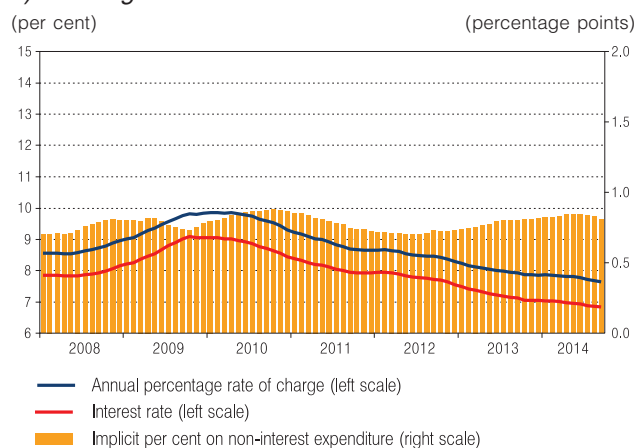
## Interest Rates and Annual Percentage Rate of Charges on New Household Loans

### a) Consumer loans



Source: BNB.

### b) Housing loans

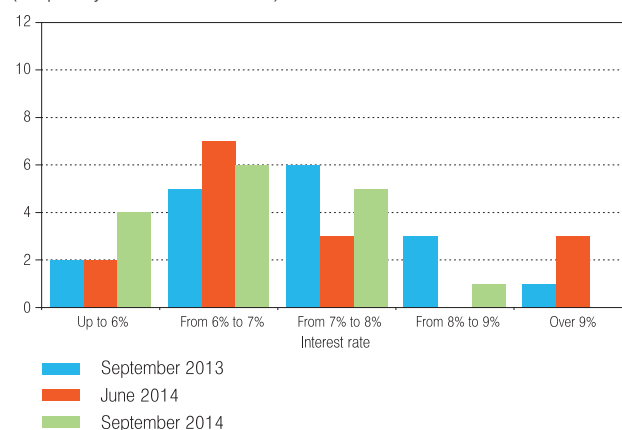


Notes: Interest rates in all maturities and currencies are weighted by the relevant volumes of new loans for a 12-month period. The implicit per cent is the difference between the APRC and the relevant interest rates and reflects the approximate per cent of all non-interest service charges on loans (including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

Source: BNB.

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

(frequency – number of banks)



Source: BNB.

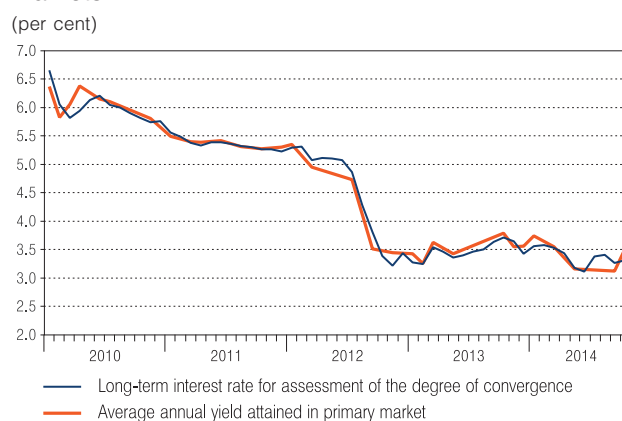
maturity of one year. The decrease in the yield observed since early year and correspondingly the increase in the cost of long-term government securities (with a maturity of 7 years and 10 years and 6 months) issued on the primary market were sustained in the third quarter of 2014. Concurrently, the yield of medium-term issues reported an increase compared to the previous auctions conducted earlier this year. In September 2014 an auction of short-term government securities with a maturity of one year was carried out, with bids approved amounting to BGN 300 million. The yield of 0.78 per cent attained at the auction was higher than the yield of government securities with the same maturity issued in September 2013 (0.60 per cent).

At the September auction of government securities with a maturity of 10 years and six months the yield declined to 3.12 per cent against the yield of 3.16 per cent in the auction carried out in May. In the October reopening of this issue, the average annual yield went up to 3.5 per cent impacted by the lower investor interest. Concurrently, in October, upon the fourth reopening of the five-year government securities issue for the year, the yield attained posted a slight decrease to 2.42 per cent (2.46 per cent in August).

The long-term interest rate on the secondary government securities market, used to assess the degree of convergence<sup>34</sup>, posted some increase in July and August which was entirely due to internal factors (based on market participants' opinion), involving the complex domestic political environment, insufficient supply of new government securities by the Ministry of Finance, banks' reluctance to trade in long-term debt instrument securities and the seasonal decrease in volumes traded in this market. In September the yield at which Bulgarian debt bonds were traded decreased as compared with the summer. In October the long-term interest rate came to 3.31 per cent (3.43 per cent at the end of 2013).

<sup>34</sup> The long-term interest rate for assessing the degree of convergence is based on the yield to maturity on the secondary market according to a long-term security (benchmark) issued by the Ministry of Finance (central government) and denominated in national currency.

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



Source: BNB.

The downward trend in yields observed since the last quarter of 2013 and the upward trend in prices of Bulgarian Eurobonds maturing in July 2017 and traded in the secondary market were reversed in the second half of June. From mid-June until the end of October their prices were characterised by certain volatility, hovering between 107.1 and 108.4 (corresponding to 1.16–1.71 per cent yield). The price of the 10-year benchmark Eurobonds, issued in June 2014 at an yield of 3.055 per cent and maturing in September 2024, went up and, correspondingly, the yield decreased in the August–October period and by the end of October it accounted for 2.92 per cent.

By the end of 2014 and in the first quarter of 2015 interest rates on time deposits are expected to retain their gradual downward trend due to the sustained ample liquidity in the banking system, high household savings rates, comparatively low demand for credit and the ECB policy of providing liquidity through unconventional measures. Payments on depositors' guaranteed amounts in Corporate Commercial Bank since the beginning of December, which will increase liquidity in the economy, may also add to the decline in deposit interest rates. Lending rates are also expected to decrease slightly as a result of the falling cost of attracted bank funds. Risks to the projection relate to the effects of the negative interest rate on ECB deposit facility on euro area interest rates which could decrease the return on foreign assets of Bulgarian banks and to a larger than expected decrease of interest rates on new deposits in Bulgaria. In addition, the internal political uncertainty in the forecast period may affect negatively Bulgarian government securities market and prices, which could prompt an increase in lending interest rates.

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

Government's revenue and expenditure policy and budget financing operations affected the allocation of liquidity across economic sectors<sup>35</sup>.

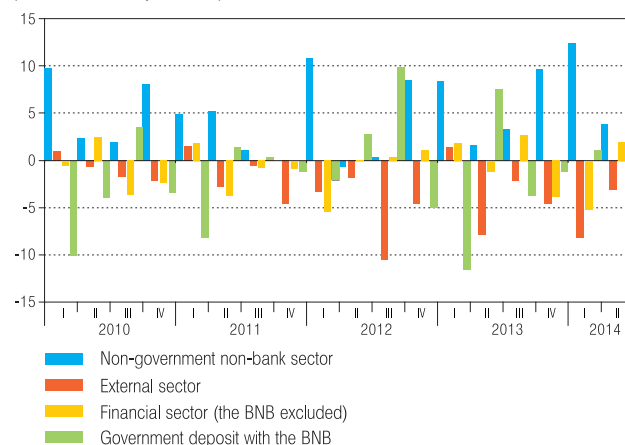
Over the second quarter of 2014 the external sector was one of the main sources of liquidity for the consolidated state budget, the inflow of liquid resources from this sector to the budget accounting for 3.1 per cent of GDP for the quarter. Between April and June receipts from current and capital grants under EU funds in the budget amounted to BGN 619.1 million. Temporarily suspended payments by the EC under the Operational Programme 'Environment' and two axes of the Operational Programme 'Regional Development' had a downward effect on the amount of refunded certified expenditure by the EC under these programmes. The total amount of funds received from the external sector exceeded by BGN 212.9 million the amount of interest paid and repayments on external loans and Bulgaria's contribution to the EU common budget.

The reallocation of liquid funds between the budget and the central bank may be analysed by the change in government and budget organisations deposits with the BNB. Over the second quarter the government deposit with the central bank was used as a source of liquidity for the consolidated government budget accounting for 2.3 per cent of GDP for the quarter. The excess of revenue over expenditure of the BNB deposited in favour of the budget was an additional source of liquidity accounting for 0.3 per cent of GDP for the second quarter.

Financial flows attracted from the external sector and the funds from the reduced government deposit with the BNB were re-allocated mainly to the non-government non-bank sector (including the budget deficit financing, worth BGN 121.7 million

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

(share of GDP, per cent)



Sources: MF, BNB calculations.

<sup>35</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.

over the review period) and to a lower degree to the financial sector (excluding the BNB).

Between April and June the financial sector (excluding the BNB) was a net beneficiary of liquid resources from the consolidated budget. Over the review period the positive net issue of government securities amounted to BGN 810.8 million.

Based on monthly data available by end-October 2014 it may be concluded that in the third quarter of 2014 the external sector have played a key role as a source of liquidity for the general government sector. This is due mainly to the Eurobonds issue sold in international capital markets, the receipts of which were deposited to the government deposit with the BNB in early July. The receipts under EU Cohesion and Structural Funds slightly exceeding the levels of the second quarter, worth BGN 559.5 million, have lesser significance as a source of liquid funds from the external sector in the July–September period. Due to the net negative issue of domestic government securities (BGN 169 million) in the third quarter of 2014, the consolidated budget have provided net liquid funds to the financial sector (excluding the BNB).



# 3. Economic Activity

Economic activity accelerated in the second quarter of 2014. However, the worsened business expectations and sentiment, as reflected in declines of short-term economic indicators between June and October 2014, signal a decrease in domestic demand until the end of 2014 and in early 2015. The slow economic recovery in Bulgaria's major trading partners is expected to continue, resulting in moderate rates of real growth in exports of goods and services. In tandem with the slowing domestic demand, the positive contribution of net exports to GDP growth is likely to remain low over the next few quarters. These developments are anticipated to result in a slowdown of the quarterly GDP growth rate in the last quarter of 2014 and the first quarter of 2015.

In the second quarter of 2014 quarterly growth of real GDP<sup>36</sup> accelerated on the previous quarter under the influence of divergent factors.<sup>37</sup> The export decline in the first quarter, driven by temporary factors,<sup>38</sup> was compensated in the second quarter. Net exports contributed significantly to the quarterly GDP growth. Investment activity remained moderate, with the public sector reducing its investment expenditure in real terms compared to the high levels of the first quarter. However, more optimistic business sentiment prevailing until the second quarter had a positive effect on investment decisions of firms. The upward trend in household consumption was reversed and a quarterly fall was registered due to the worsened consumer sentiment. Government consumption remained broadly unchanged in real terms.

Economic indicators deteriorated between June and October following their strong improvement in the first five months of the year. Negative expectations about future business situation were widespread across all economic sectors coupled with more sizeable worsening of the estimated current business situation in September and October. In July and October consumer confidence indicator declined as a result of the worsened expectations about employment, economic situation and consumers' financial position.

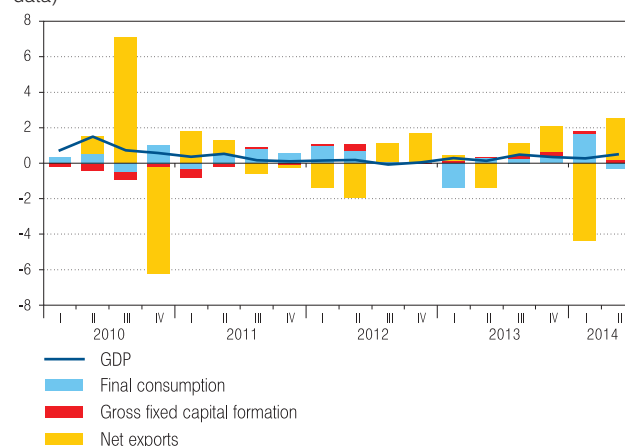
<sup>36</sup> Data in this Chapter are based on ESA 95, unless otherwise indicated.

<sup>37</sup> NSI flash estimates of seasonally adjusted real GDP under ESA 2010 for the third quarter show quarterly growth of 0.5 per cent.

<sup>38</sup> Repair and construction of new oil production capacities over the first quarter led to a drop in goods exports of mineral fuels and distilled products, this group contributing most negatively to the goods and services export decline (see the *Exports and Imports of Goods* section).

## Contribution to GDP Growth by Final Use Component

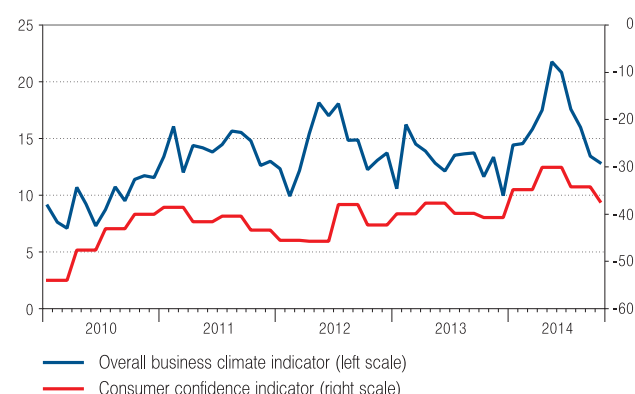
(per cent, quarter-on-quarter percentage points, seasonally adjusted data)



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.

## Business Climate and Consumer Confidence



Sources: NSI, BNB calculations.

The major reason behind these developments is probably the uncertainty stemming from the current political and fiscal situation and the KTB case, on the domestic side, and Ukraine and Russia crisis developments and downside risks to growth in Bulgaria's major trading partners, on the external side. These factors are expected to contribute to the retained high savings rate and to limit consumer and investment demand close to current levels in the quarters ahead.

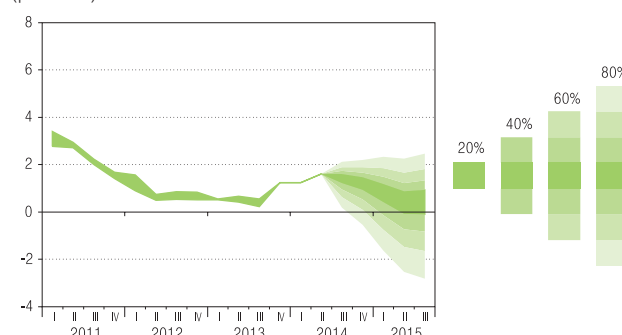
The slow economic recovery in Bulgaria's major trading partners is expected to continue, leading to moderate rates of real growth in goods and services exports. In tandem with the slowing domestic demand, the contribution of net exports to GDP growth is likely to remain low over the next few quarters. Domestic demand is anticipated to be reduced through both lower government investment and consumption and negative household and business sentiment and expectations.

In line with the above quarter-on-quarter dynamics, annual real GDP growth is projected to slow down in the fourth quarter of 2014 and the first quarter of 2015. The weaker domestic demand growth will have the largest contribution to the economic activity slowdown.

The internal uncertainty associated with the political instability and the KTB case may lead to further deterioration of consumer and business expectations of the future economic situation. This could give a stronger motivation to consumers and firms to postpone consumption and investment projects, leading to reduced domestic demand and lower GDP growth. Continuous domestic deflation processes also pose risks

### 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 around the projected value based on probability distribution. The reporting period includes revised 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 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.

### GDP Growth by Component of Final Use

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

	2011				2012				2013				2014	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Consumption	-0.3	0.5	0.9	0.7	1.1	0.8	0.0	0.1	-1.6	0.3	0.3	0.4	1.9	-0.4
incl.														
Household consumption	-0.6	1.0	1.5	0.9	1.4	0.7	0.8	0.6	-5.5	1.3	0.9	1.4	1.1	-0.6
Final government consumption expenditure	0.4	1.4	-0.7	0.2	0.1	-1.2	0.7	0.7	-0.1	1.2	0.4	0.1	1.8	0.5
Collective consumption	1.3	-0.3	-0.6	0.7	0.1	-0.1	0.2	1.4	0.4	1.1	0.7	-0.5	0.3	0.3
Gross fixed capital formation	-2.3	-0.9	0.5	-0.6	0.6	1.7	0.2	-0.1	0.6	0.3	0.9	1.3	0.9	0.8
Exports of goods and non-factor services	5.6	-1.2	3.4	1.4	-5.2	4.3	-1.3	1.8	5.4	-0.3	3.1	0.9	-2.1	2.0
Imports of goods and non-factor services	2.4	-2.3	4.0	1.5	-2.9	6.6	-2.6	-0.6	4.5	1.5	1.9	-1.1	3.8	-1.2
<b>Real GDP growth</b>	<b>0.4</b>	<b>0.5</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>-0.1</b>	<b>0.0</b>	<b>0.3</b>	<b>0.1</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>

Source: NSI.

of limiting investment expenditure of corporations due to lower profits. Possible moderation in economic activity within the European Union is another factor affecting adversely real growth. Furthermore, potential gas supply problems in case of escalation of the Russia–Ukraine conflict may also impact the industrial sector.

## Household Behaviour

The uncertain economic and political environment, comparatively low employment and weak labour income dynamics continued to drive the major trends in household consumption and behaviour in the area of savings and labour supply in the first half of 2014. Available indicators of household behaviour give grounds to expect retention of consumer demand at the levels close to those observed in 2014 and still high savings rate.

According to seasonally adjusted national account data, in the second quarter of 2014 household consumption fell by 0.6 per cent on a quarterly basis. At the same time, it rose by merely 0.3 per cent on an annual basis (seasonally unadjusted data). The consumer expenditure structure suggests quarterly growth of expenses on communications and a decline in all other expenses groups. In the second quarter retail trade volumes also decreased on a quarterly basis, unlike the previous quarters, mainly due to some durable goods groups<sup>39</sup> and automobile fuels and lubricants.

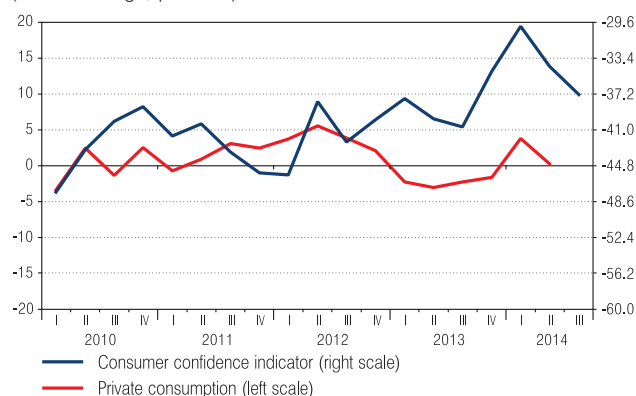
Over the third quarter retail trade turnover grew further indicating that real consumption declines in the second quarter have a temporary nature and are likely to reverse in the third quarter. However, in July and October the consumer confidence indicator reported by the NSI in its consumer survey<sup>40</sup> decreased, reflecting deterioration in all its sub-components. Expectations of the economic situation, household financial position and unemployment also worsened. Changed

<sup>39</sup> Computer and communication equipment and other consumer goods as well as household appliances, furniture and other household goods had the strongest contribution.

<sup>40</sup> Final results of the Consumer Survey represent balances of opinions 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 twelve 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).

## Private Consumption and Consumer Confidence

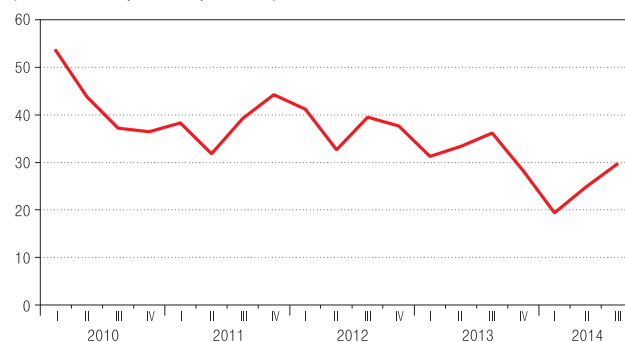
(annual change, per cent)



Sources: NSI Consumer Survey and BNB calculations.

## Unemployment Expectations in the Following 12 Months

(balance of opinions; per cent)



Source: NSI Consumer Survey.

consumer perceptions of the future financial and economic environment and labour market are likely to reflect the political instability and effects of the KTB conservatorship.

Employment remained at relatively low levels despite the slight increase in some sectors, while household income from remuneration posted growth for the total economy but at slow rates and not in all sectors. In the second quarter of 2014 the average wage (seasonally adjusted national account data)<sup>41</sup> increased slower than in the previous quarters in both nominal and real terms, while the wage bill did not change substantially. Slower growth in the annual labour income compared with previous years (according to non-seasonally adjusted data on wage bill and average wage *per employee*) was sustained. Besides comparatively high unemployment, the deflationary processes in Bulgaria and their implications on wage bargaining are behind the above mentioned growth dynamics. In the second quarter stronger growth of remunerations was observed in the sectors with lower average wage as construction, industry, professional, scientific, administrative and ancillary activities. In forestry and fishing and some of the services sub-sectors, as trade, transport, hotels and restaurants, and real estate operations, gross wages went down on both annual and quarterly basis.<sup>42</sup> These divergent sector developments coupled with low employment and worsened household sentiment are expected to retain consumption at close to current levels.

The share of savings in household disposable income<sup>43</sup> (NSI household budget survey data) remained comparatively high in the second and third quarters of 2014. A high share was also reported by households which intend to increase their savings in the following 12 months (consumer surveys of July and October 2014). Households' net assets measured by their net position *vis-à-vis* the banking system (BNB mon-

<sup>41</sup> The seasonal adjustment of indicators, on which the NSI does not officially publish seasonally adjusted data, was made via the TRAMO SEATS programme by using automated set up for diagnostics and optimisation of adjustment parameters.

<sup>42</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>43</sup> Disposable income (based on the household budget survey) is obtained by subtracting tax expenditure, social contributions and transfers from the total income.

### Expectations about the Financial Position and Economic Situation in the Following 12 Months

(balance of opinions; per cent)

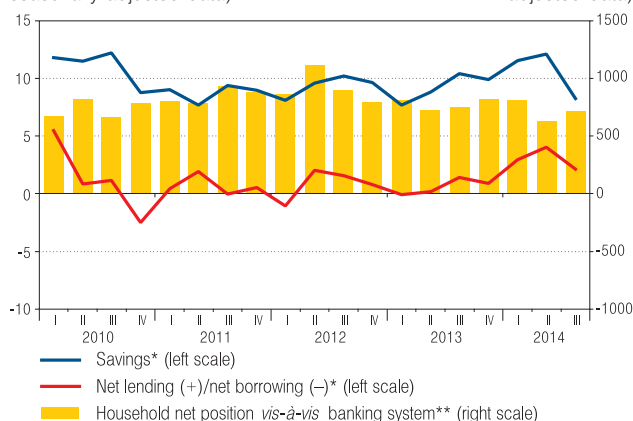


Source: NSI Consumer Survey.

### Household Propensity to Save

(per cent, share of disposable income, average *per* household member, seasonally adjusted data)

(million BGN, quarterly change, seasonally adjusted data)



\* NSI data.

\*\* BNB data.

Sources: NSI Household Budget Survey, BNB.

etary statistics) continued to increase in both the second and third quarters.

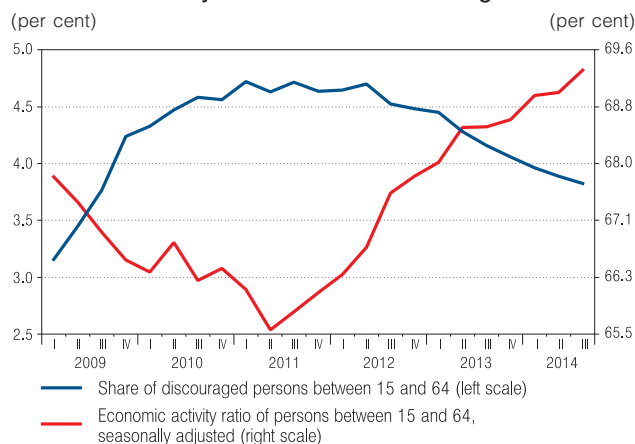
According to the Labour Force Survey, labour supply in the second and third quarters did not change significantly, with the fall in unemployed mostly reflecting the increased employment. Labour force, however, remained broadly unchanged. In the second and third quarters seasonally adjusted economic activity ratio increased on the first quarter as a result mainly of the stronger fall of working-age persons. Discouraged persons continued going down which is likely to stem from migration processes. As labour supply increases stronger in the periods of higher labour demand, in the current situation when expectations of corporations about the number of staff suggest retention of low labour demand, the follow-up labour supply will also be limited.

Based on the Labour Force Survey, the seasonally adjusted unemployment rate decreased slightly in the second and third quarters. Employment Agency data show that the seasonally adjusted unemployment rate<sup>44</sup> also fell slightly in the second quarter and remained broadly unchanged in the third quarter, reaching 11 per cent (10.7 per cent according to non-seasonally adjusted data) in October 2014. The labour force survey shows that the number of long-term unemployed (persons unemployed more than a year) remained comparatively high in the second and third quarters, albeit decreasing as a share of labour force to 6.9 per cent.

Expectations for keeping the consumption levels unchanged and the savings rate high in the second half of 2014 might not materialise due to factors affecting adversely consumer confidence, as political uncertainty, income and employment dynamics and implications for households of placing Corporate Commercial bank under conservatorship. Employment and income, in turn, depend largely on firms' propensity to enhance investment activity and hire additional personnel.

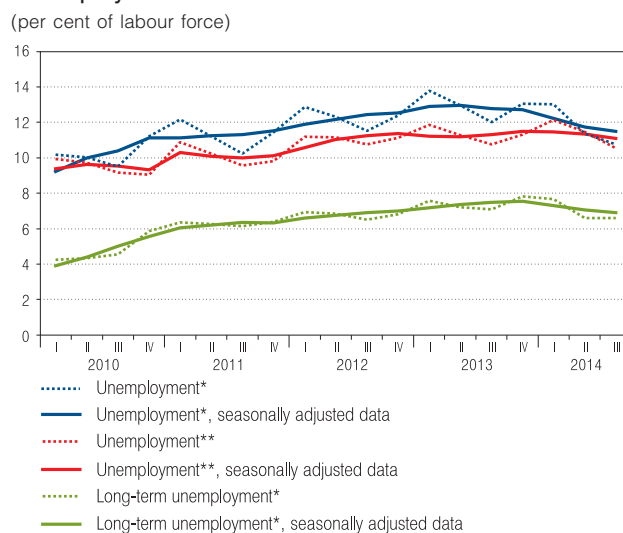
<sup>44</sup> The Employment Agency uses a constant rate of labour force.

## Economic Activity and Share of Discouraged Persons



Sources: NSI Labour Force Survey, BNB calculations.

## Unemployment



\* NSI data.

\*\* Employment Agency data.

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

## Employment and Income Dynamics

	2011				2012				2013				2014	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Per cent on the previous quarter (seasonally adjusted data)														
Employed	-0.2	-0.6	-0.9	-0.6	-0.7	-1.0	0.1	-0.2	-0.2	0.4	-0.2	-0.1	0.2	0.0
Nominal wage <i>per employee</i> *	1.2	2.7	2.1	1.9	1.9	2.4	2.0	1.7	1.5	0.6	0.6	0.9	0.6	0.5
Real wage <i>per employee</i> **	0.5	2.7	1.6	-0.1	2.2	1.9	1.2	1.5	1.2	1.0	0.9	1.6	0.8	0.7
Wage bill, nominal terms	1.2	2.0	1.4	1.6	1.2	1.8	2.0	1.0	1.4	0.6	0.4	0.7	0.5	0.7
Wage bill, real terms**	-1.2	2.0	0.6	0.2	1.7	0.9	1.1	0.7	1.4	0.8	0.5	1.4	1.0	1.1
Per cent on the corresponding period of the previous year (non-seasonally adjusted data)														
Employed	-1.6	-2.3	-2.3	-2.6	-2.3	-3.5	-1.9	-2.3	-1.7	0.7	-0.1	-0.7	0.3	0.3
Nominal wage <i>per employee</i> *	0.5	7.1	8.5	8.8	7.1	7.9	8.5	8.3	9.6	5.9	3.6	4.0	2.5	2.3
Real wage <i>per employee</i> **	-3.8	3.6	5.2	6.1	5.2	6.0	5.4	5.3	7.3	4.8	4.3	5.1	4.4	4.0
Wage bill, nominal terms	-0.8	5.6	7.2	6.3	4.9	5.9	7.7	5.5	7.1	5.4	2.8	3.1	1.9	2.5
Wage bill, real terms**	-5.0	2.1	4.0	3.6	3.0	4.0	4.5	2.6	4.8	4.3	3.5	4.1	3.8	4.2

\* The wage is calculated on the basis of NSI (SNA) data by subtracting employers' social contributions from the compensation of employees and the difference is divided by the number of employees.

\*\* Data deflated by HICP.

Sources: NSI – SNA, BNB calculations, Eurostat.

## Retail Trade Turnover

(per cent on the previous quarter; seasonally adjusted data at constant prices)

	2011				2012				2013				2014		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Retail trade except of motor vehicles and motorcycles incl.	0.4	-0.4	-0.3	0.7	5.8	-1.4	0.0	-0.6	0.8	1.8	1.9	1.4	1.7	-0.4	2.3
Food, beverages and tobacco	0.6	0.3	1.0	1.2	1.6	0.7	0.4	0.6	-3.1	2.9	7.1	-4.3	1.2	1.1	1.7
Textile, clothing, footwear and leather goods	1.9	-1.2	-2.1	-0.2	10.0	-3.9	1.9	1.9	6.7	4.1	2.7	-0.4	-0.1	-1.1	1.3
Household goods and home appliances	-0.5	-2.1	-0.1	1.2	9.2	-0.4	-2.5	-1.1	0.4	1.8	2.8	4.0	0.9	-2.3	1.2
Computers and communication equipment, etc.	-3.8	-0.1	-1.5	0.6	-1.8	-0.3	-0.5	-7.7	2.2	2.7	1.8	5.5	5.9	-3.5	3.8
Pharmaceutical and medical goods, cosmetics and toilet articles	-0.3	3.3	1.8	5.6	3.8	-0.2	0.5	-4.2	-1.4	3.3	3.4	2.7	0.2	-1.3	1.4
Non-specialised stores with different kinds of goods	2.0	0.5	-1.1	0.0	6.2	-2.3	1.1	2.6	2.9	7.0	-2.5	0.5	0.8	0.1	-2.3
Automobile fuels and lubricants	-1.7	-2.1	-1.4	1.1	4.4	0.2	2.5	1.0	-0.9	3.4	-1.3	-2.4	-0.5	-2.1	10.6

Source: NSI Domestic Trade Survey.

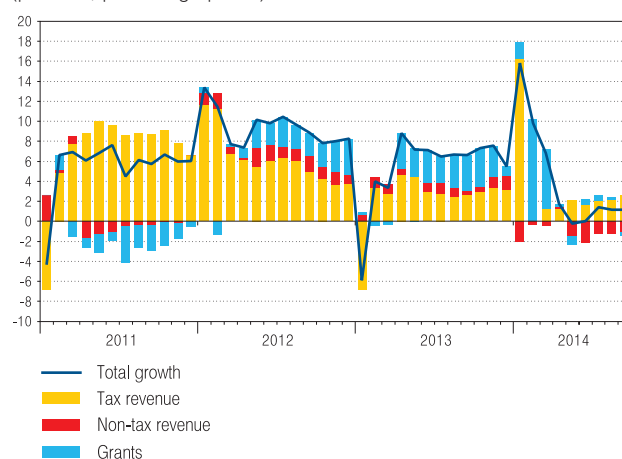
## Fiscal Policy Effects on the Economy

Bulgaria's budget position deterioration continued to deepen in the third quarter, and the trend of relatively low growth of total income and high growth rates of total expenditure since the second quarter was sustained until the end of September. Social and capital expenditure again had the largest contribution to the total expenditure growth whereby government's fiscal policy had a positive impact on total investments and household disposable income.

Between June and September tax revenue growth picked up as a result of favourable developments in direct taxes (excluding social security contributions) and slower rates of decline in indirect taxes. VAT revenue began to recover gradually, reflecting primarily the weaker effect of one-off factors pushing down VAT

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

(per cent, percentage points)



Sources: MF, BNB calculations.



receipts in early 2014 and, to a lesser degree, measures initiated by the caretaker cabinet to improve tax collectability in the Customs Agency. At the same time, VAT and excise duty revenue continued to lag far behind the targeted level in the 2014 State Budget Law. This was largely attributable to the low nominal growth of household consumption impacted by the continued downward price developments. There were no positive results of the above budget framework measures to boost tax collectability for goods involving a higher fiscal risk. The gap between implemented and planned budget revenue increased as a result also of lower non-tax revenue and lagging grants revenue due to temporarily suspended EC payments under the Operational Programme 'Environment' and two axes of the Operational Programme 'Regional Development'.

Despite increasingly clear challenges to the implementation of budget revenue, expenditure continued to rise at relatively high rates which worsened additionally the budget position. Social payments and capital expenditure retained their leading role for total expenses growth. Pensions were indexed at 2.7 per cent from 1 July, as planned, contributing to the increased share of budget transfers in disposable income of households.

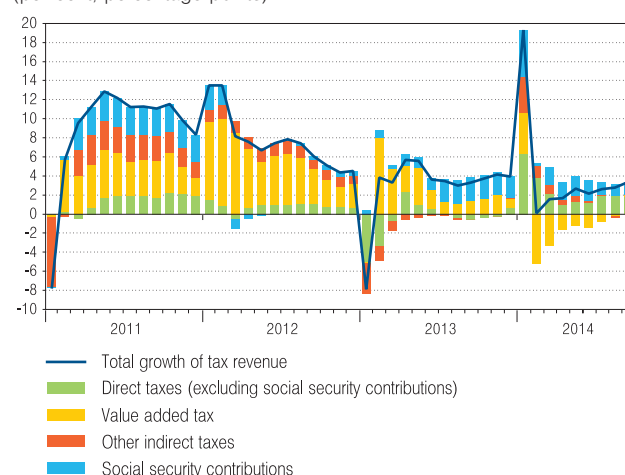
Accelerated spending of EU structural funds continued in the first nine months of 2014 which was the reason for the continued high growth of capital expenditure. Continued work on already launched projects to minimise risks of losses of EU funds at the end of the programme period prevented stronger reduction of public investments which retained their prominent role to total gross fixed capital formation. Concurrently, the time gap in making these expenses and their refunding by the EU continued to affect negatively the accumulated deficit on cash-based consolidated fiscal programme.

In the first half of 2014 general government sector data show that real government capital expenditure continued to grow on an annual basis,<sup>45</sup> while decreasing on a quarterly basis in the second quarter from the high level of the first three months.

<sup>45</sup> ESA 2010 data are used in the analysis due to lack of such data under ESA 95.

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

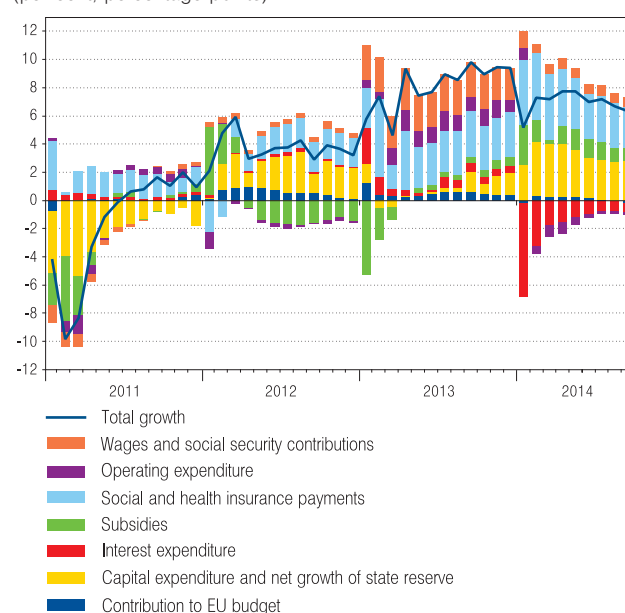
(per cent, percentage points)



Sources: MF, BNB calculations.

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

(per cent, percentage points)



Sources: MF, BNB calculations.

## Revenue, Expenditure and Budget Balance on Consolidated Fiscal Programme for 2013–2014

Consolidated Fiscal Programme	2013										2014				2013		2014	
	I quarter		II quarter		III quarter		IV quarter		Total		I quarter		II quarter		January – September <sup>1</sup>		January – September <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>	million BGN	per cent <sup>2</sup>	million BGN	per cent <sup>2</sup>
Total revenue and grants	6158	3.4	8008	10.2	7142	5.6	7670	2.5	28977	5.5	6576	6.8	7594.9	-5.2	21308	6.6	21556	1.2
Tax revenue	5118	3.3	5767	2.8	5638	3.8	5847	5.7	22370	3.9	5200	1.6	5979.8	3.7	16523	3.3	17075	3.3
Corporate tax	464	-10.9	450	1.3	192	-27.6	446	80.8	1553	5.1	453	-2.4	496.0	10.2	1106	-10.2	1168	5.6
Personal income tax	512	-1.3	596	-6.6	628	15.2	613	2.8	2348	2.2	623	21.6	677.9	13.8	1720	1.7	1935	12.5
Value added tax	1804	16.0	1805	-3.2	1872	2.2	1885	-0.8	7366	3.0	1617	-10.3	1869.3	3.5	5480	4.4	5515	0.6
Excise	806	-5.6	1001	2.5	1185	0.2	1065	2.7	4056	0.2	855	6.1	979.7	-2.1	2991	-0.7	2987	-0.1
Customs duties	32	14.4	34	18.2	44	36.0	36	26.4	146	24.2	35	9.6	35.1	2.1	110	23.5	112	1.3
Social and health insurance contributions	1319	2.3	1587	14.0	1551	10.9	1603	5.7	6060	8.3	1396	5.8	1641.3	3.4	4467	9.6	4681	4.8
Other taxes	182	-4.0	294	10.3	165	-6.7	199	-3.7	840	0.0	221	21.6	280.5	-4.5	649	0.6	677	4.3
Non-tax revenue	886	7.0	1306	11.6	727	-13.6	1031	40.7	3951	10.6	859	-3.1	965.6	-26.0	2919	2.7	2698	-7.6
Grants	153	-11.5	935	91.7	776	59.6	791	-35.1	2656	12.2	518	238.0	649.4	-30.6	1865	62.6	1783	-4.4
Total expenditure (incl. the contribution to EU budget)	6956	4.6	7216	10.8	7497	14.1	8749	8.1	30418	9.3	7451	7.1	7716.6	6.9	21668	9.8	23039	6.3
Wages and social security contributions	1347	12.7	1446	13.7	1424	11.8	1606	9.5	5823	11.8	1396	3.7	1492.4	3.2	4215	12.7	4359	3.4
Operating expenditure	1078	7.3	1113	5.2	1026	6.3	1480	1.9	4697	4.8	1016	-5.7	1145.5	34.1	3223	7.0	3190	-1.0
Interest	319	10.3	61	-13.6	275	72.9	34	-37.2	689	20.3	200	-37.4	40.6	-33.4	655	26.3	511	-22.0
Social security, assistance and social care	3047	4.2	3239	9.8	3202	8.5	3258	8.0	12747	7.6	3375	10.8	3363.5	3.8	9491	7.2	10127	6.7
Subsidies	311	-15.1	340	39.8	279	15.7	487	27.2	1417	14.9	329	5.7	510.2	50.2	928	9.1	1130	21.9
Capital expenditure and state reserve growth	525	-6.3	811	6.7	1077	31.6	1698	10.2	4112	11.7	786	49.5	951.5	17.3	2409	13.0	3021	25.4
Contribution to EU budget	328	6.9	206	28.6	214	31.7	187	3.6	934	15.4	349	6.4	212.9	3.6	747	18.8	700	-6.3
	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)	million BGN	difference <sup>3</sup> (million BGN)	million BGN	difference <sup>3</sup> (million BGN)
Budget balance on a cash basis	-798	-107	792	39	-355	-546	-1079	-468	-1441	-1082	-875	-77	-122	-913	-360	-609	-1483	-1123

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

<sup>1</sup> Based on preliminary monthly data on CFP implementation for 2013 and 2014.

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

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

Source: MF.

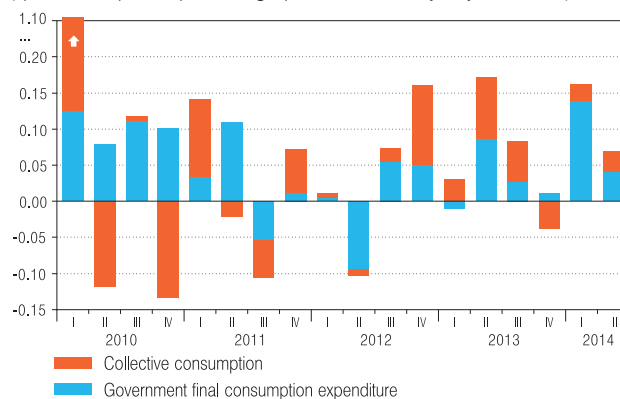
In the second quarter the contribution of government consumption to GDP growth remained positive, albeit lower than in the previous quarter. Government consumption growth tended further to reflect the growth rate of wage and healthcare expenditure. Operating expenditure recorded a minimum decline on the prior-year level.

Draft amendments to the 2014 State Budget Law submitted to the National Assembly on 11 November 2014 provide for an increase in government expenses<sup>46</sup> which may result in still high relative contribution of general government

<sup>46</sup> It was pointed out in the motives for the draft amendment to the 2014 State Budget Law that thanks to the caretaker cabinet's actions, suspended payments to beneficiaries and contractors under operational programmes are expected to be recovered until the end of 2014.

### Contribution of Government Consumption to Real GDP Growth

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



Sources: NSI, BNB calculations.

sector's real investment growth to total investment growth until end-2014. Social payments will continue to be the main instrument for government's fiscal policy to affect household disposable income. Government consumption will further contribute positively to GDP growth over the fourth quarter, with consumption influenced by the additional funds projected under the amended State Budget Law to cover wage and healthcare expenditure deficit.

Given the need to comply with the national fiscal rules under the Law on Public Finance entered into force in 2014 and the Stability and Growth Pact, the budget framework for 2015 should provide for fiscal consolidation measures.

### Behaviour of Firms and Competitiveness

In the second quarter quarterly growth of real value added accelerated slightly from the first quarter to reach 0.6 per cent (seasonally adjusted national account data). The services sector had the major contribution to economic activity growth, while industry added only to a lesser extent to value added growth.

Nominal industrial turnover increased under the influence of higher revenue from domestic and export sales. External market sales revenue posted a decline in the first quarter due to repair and construction of new oil production capacities.<sup>47</sup> Over the second quarter an increase in industrial turnover was registered on both external and internal markets. In July, however, it declined in nominal terms followed by growth in August and September. Volatile developments in revenue from industrial corporations' sales are expected to continue affecting adversely their intentions to launch investment projects and increase the number of staff in the last quarter of 2014 and first quarter of 2015.

After growing in the first quarter, the industrial production index (at constant prices) went down on a quarterly basis in both the second and third quarters. Despite decreased industrial production, higher production capacity utilisation in the industrial sector was recorded in July and October. This discrepancy was due to both the increased production in sub-sectors with higher

<sup>47</sup> MF monthly bulletin on budget implementation, March 2014, p. 6. Information published by LUKOIL Neftochim press centre on its web site is used. See Economic Review, 2/2014, p. 57.

### Value Added Growth and Contribution by Sector

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

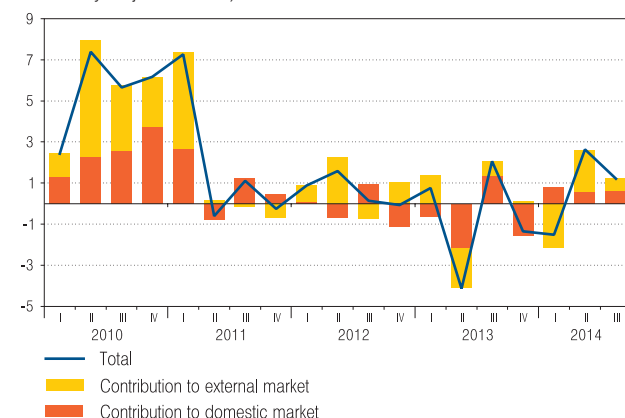


Note: Non-additive data on contributions due to direct seasonal adjustment of value added and its components.

Sources: NSI, BNB calculations.

### Industrial Turnover Dynamics

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

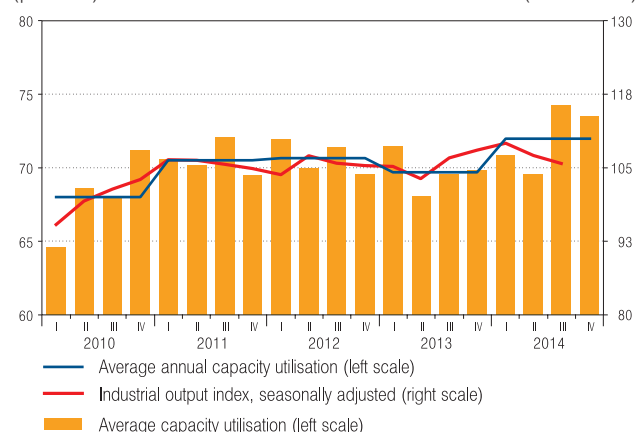


Sources: NSI, BNB calculations.

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

(per cent)

(2005 = 100)



Sources: NSI – Industry Business Survey, BNB calculations.

than average capacity utilisation, as manufacture of basic metals and of fabricated metal products, except machinery and equipment, and declines in sub-sectors with lower than average capacity utilisation, as printing and reproduction of recorded media. If the higher capacity utilisation is sustained in the following quarters, investment activity may improve in some industrial sub-sectors with the aim to boost production capacities. Nonetheless, the prevailing trend of weak investment activity in industry is anticipated to be retained due to the increased uncertainty of international environment and decreased managers' expectations about future economic activity.

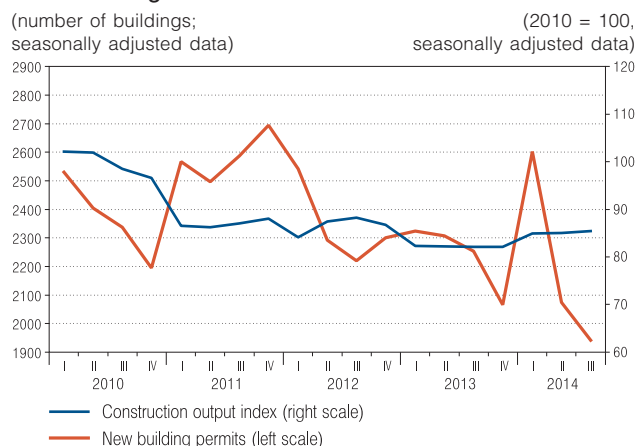
After the slight recovery of economic activity in construction over the first quarter, a quarterly decline was observed in gross value added over the second quarter. The construction output index (at constant prices) remained unchanged from the first quarter and increased slightly in the third quarter. This was mainly attributable to increased civil and engineering construction, whereas residential construction had a negative contribution. So far, no recovery in housing market demand has been observed, with property register data showing weak sales dynamics. Over the first two quarters of 2014 strong growth in started construction of new buildings, especially housing, was reported. This trend, however, was reversed in the third quarter. According to the managers in this sector, the influence of limiting factors, as financial problems and insufficient demand, diminished strongly in 2014.

Quarterly growth of economic activity in the services sector accelerated in the second quarter. The sub-sectors associated with provision of business services, as well as trade<sup>48</sup> had the major positive contribution to gross value added growth in the economy. Financial and insurance activities, creation and dissemination of information and author products, and telecommunications were the sub-sectors providing business services with the largest positive contributions to the growth.

In trade, private consumption declines impacted negatively sales revenue in the second quarter of 2014. The increased uncertainty forced house-

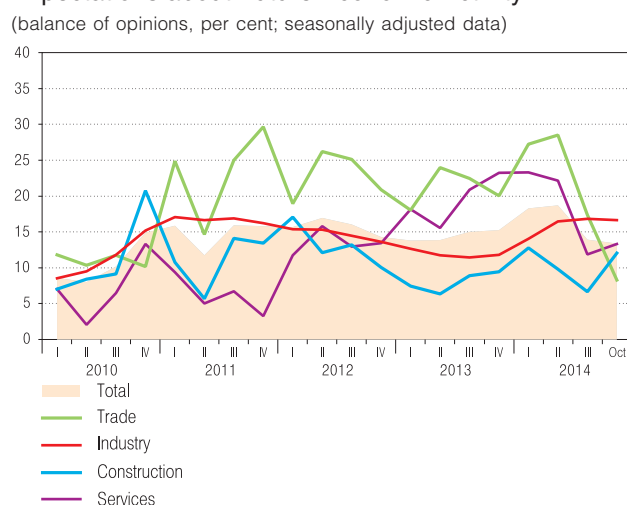
<sup>48</sup> The full name of the sector according to the national accounts is 'trade, cars and motorcycles repair, transport, storage and mail services, hotels and restaurants'.

## Construction Output Dynamics and New Buildings Permits Issued



Sources: NSI, BNB calculations.

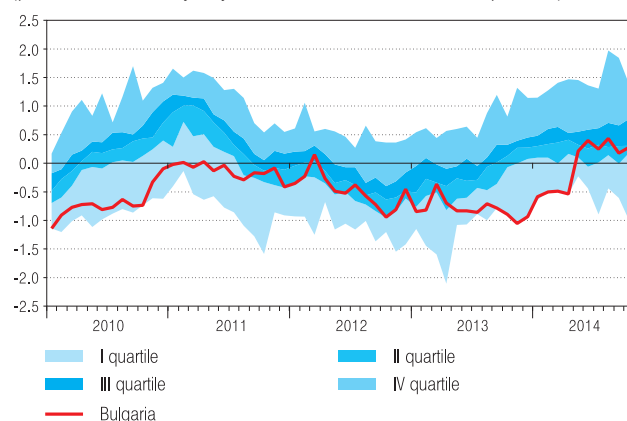
## Expectations about Future Economic Activity



Sources: NSI, BNB calculations.

## EU Industrial Confidence Indicator

(per cent, seasonally adjusted data; data allocated to quartiles)



Note: The chart shows a quartile distribution of the indicator for EU Member States. Each segment contains 25 per cent of the Member States: the lowest includes the first 25 per cent with the lowest values of the indicator, next segment includes the following 25 per cent of the countries with higher values and the highest segment includes the countries with the highest values of the indicator. The values for Bulgaria are presented with a line.

Sources: EC, BNB calculations.

holds to reduce durable goods consumption and redirect demand to non-durable consumer goods. This conclusion can be supported by seasonally adjusted data on trade volumes at constant prices, as reflected in the short-term statistics. Computer and communication equipment and other consumer goods and household appliances, furniture and other household goods had the strongest negative contribution to the decreased sales revenue in the second quarter. In the third quarter, however, demand for fuels<sup>49</sup> was higher than usual for this season.

Managers' expectations about future economic activity decreased compared to the second quarter. From June tensions began to spread to the Bulgarian economy driven by internal factors (political instability and speculative attacks on banks which pushed up pessimism) as reflected in economic indicators for this month. In July business climate and consumer confidence indicator declines coincided with those in the EU, which is likely to reflect escalation of tensions between Ukraine and Russia, EU sanctions against Russia and Russia's response to them.<sup>50</sup> Indicators tracking entrepreneurs' sentiment in industry and construction moved in line with the overall trends within the EU which suggests that internal factors had a slight effect on confidence in these sectors. In addition, managers' expectations were also impacted by their still high assessments of new orders from both Bulgaria and abroad. Services business survey data indicate that internal factors had the strongest negative effect on demand for services and on expectations about future demand which have started to fall since June 2014. In the trade sector, expectations about the business situation and orders to suppliers in the following three months worsened yet from the end of May. These indicators appeared to be most strongly affected by internal factors.

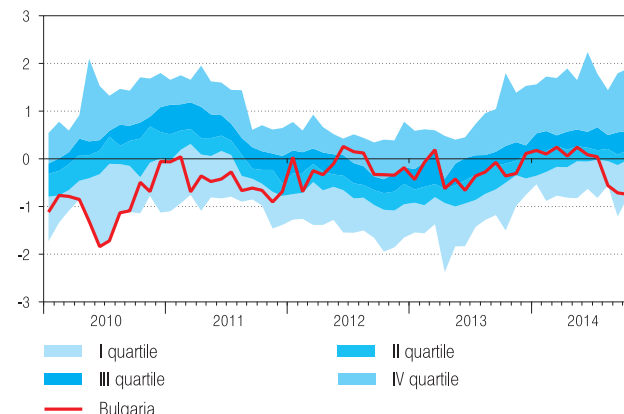
According to national account data, in the second quarter investment in fixed capital went up quarterly in both real and nominal terms. Nominal expenditure on acquisition of fixed assets indicating allocation of investments across sectors shows a decline of investment activity in services. Trade and real estate operations were the sub-sectors with the greatest negative contri-

<sup>49</sup> The full name of the group is 'automobile fuels and lubricants'.

<sup>50</sup> The analysis employs EC business survey data.

## EU Services Confidence Indicator

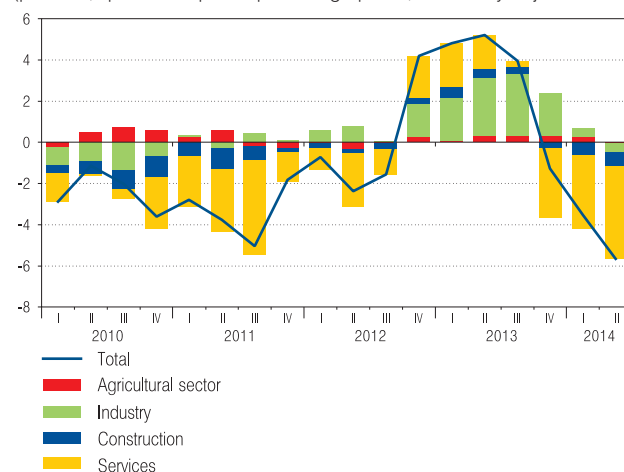
(per cent, seasonally adjusted data; data allocated to quartiles)



Sources: EC, BNB calculations.

## Contribution to the Quarterly Rate of Change in Expenditure on Acquiring Fixed Assets by Industry

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

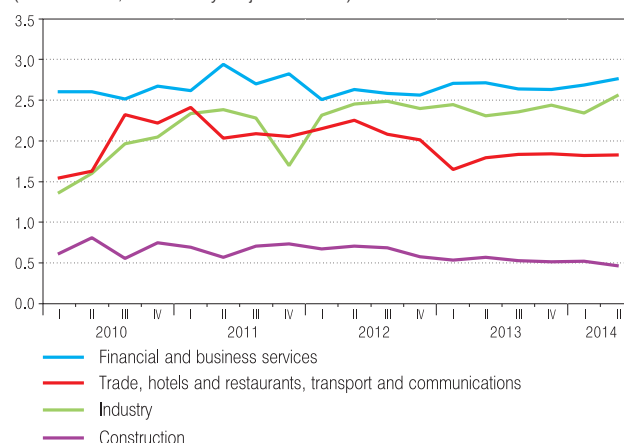


Note: Preliminary quarterly data due to the lack of final data.

Sources: NSI, BNB calculations.

## Gross Operating Surplus at Current Prices

(billion BGN, seasonally adjusted data)



Sources: NSI, BNB calculations.



bution. The continuous uncertainty and possibly deflationary processes in the economy affected negatively managers' intentions to launch investment projects in these sub-sectors.

Gross operating surplus which is approximation for firms' profits and corresponding financial position posted a slight quarterly increase in the second quarter. Sectors providing financial and business services along with industry contributed most significantly to this increase. In the export-oriented industry, growth in exports was probably offset by the continued fall in world prices which in turn contributed to the rise of operating surplus in this sector. On the other hand, the operating surplus of firms providing financial and business services picked up as a result of the higher economic activity rate in Bulgaria over the second quarter and lower labour costs.

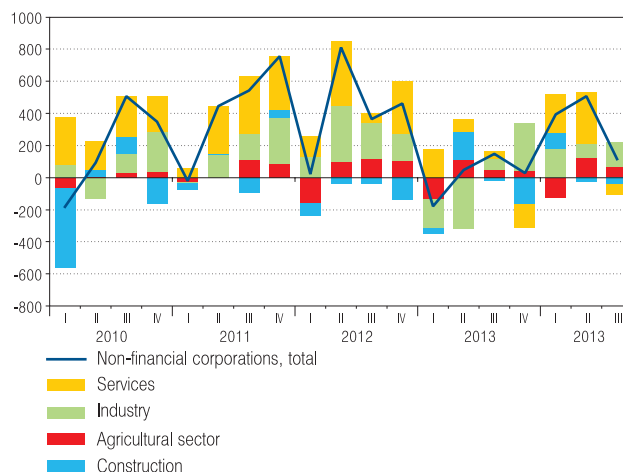
Bank lending to non-financial corporations increased in the second quarter, with trade and real estate operations contributing most strongly to this. Over the third quarter credit growth slowed down due mainly to agriculture and industry. Despite bank credit growth in total economy, in the second quarter the main source of financing, other than gross operating surplus, continued to be foreign direct investment. Inflows went primarily to the services sector except for financial intermediation, with real estate operations contributing most substantially to their growth. In industry, a slight moderation was observed in the positive inflow of financial resources, other than operating surplus, due to higher profits of firms and their self-financing capacities.

Improved economic activity in services over the second quarter contributed to the employment growth. Firms in other sectors remained cautious given the uncertainty surrounding future economic activity. As a result, total employment remained unchanged from the first quarter. Its increase in the services sector is likely to be temporary since managers' expectations about the number of staff began to worsen in May, retaining this trend until October.

In the second quarter labour productivity continued to rise, its growth rate remaining low and similar to that of the first quarter. Its quarterly growth rate in the services sector was close to zero, while industry, which is exposed to stiff competition on international markets, reported the highest growth rate.

## Bank Loans to Non-financial Corporations

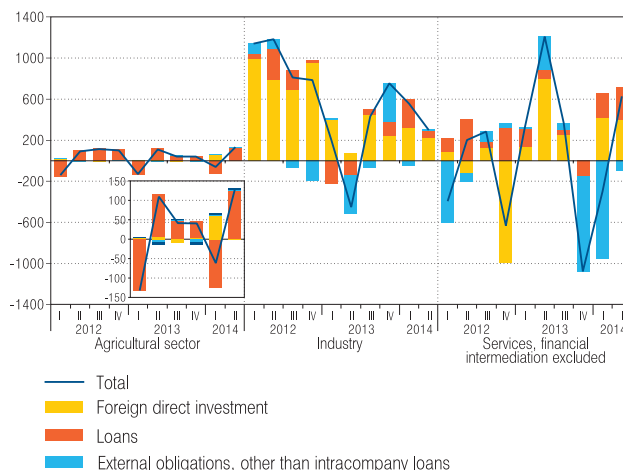
(million BGN, quarter-on-quarter stock change)



Source: BNB.

## Financing Sources\*

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

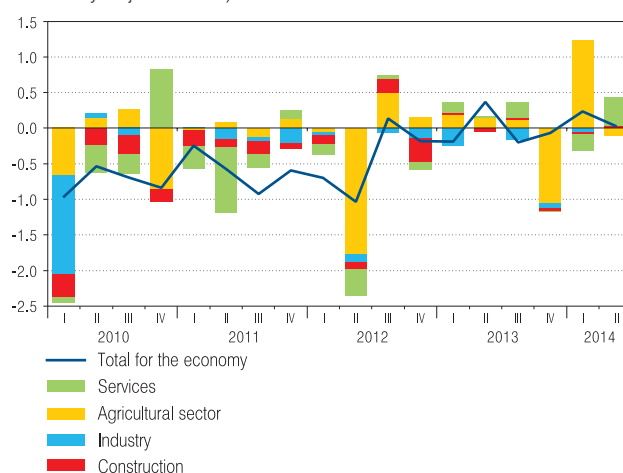


\* The chart displays financing sources other than gross operating surplus.

Source: BNB.

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

(per cent, quarter-on-quarter percentage points, 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.



Labour productivity growth failed to fully offset the increase in compensation of employees, which contributed to growth of nominal unit labour costs in the second quarter compared with the first quarter of 2014. To preserve the competitive positions of industry in international markets the policy of reducing labour costs continued. This trend was also observed in real terms, with real unit labour costs in industry remaining lower compared with the period prior to 2009.

Decomposition of real GDP growth by production factor suggests that the upward trend in the capital contribution was sustained in the second quarter of 2014. The stronger capital contribution to real GDP growth was ascribable to the increased fixed capital investment on the one hand, and higher capacity utilisation rates, on the other hand. Given the slow employment dynamics labour contribution remained insignificant and total factor productivity had a negative contribution to growth.

Accumulation of external and internal factors adding to higher uncertainty is expected to affect adversely the investment activity of corporations. The moderating domestic demand growth coupled with increased uncertainty are also expected to contribute to the slower employment dynamics in the second half of 2014 and the first quarter of 2015.

### Gross Value Added Growth

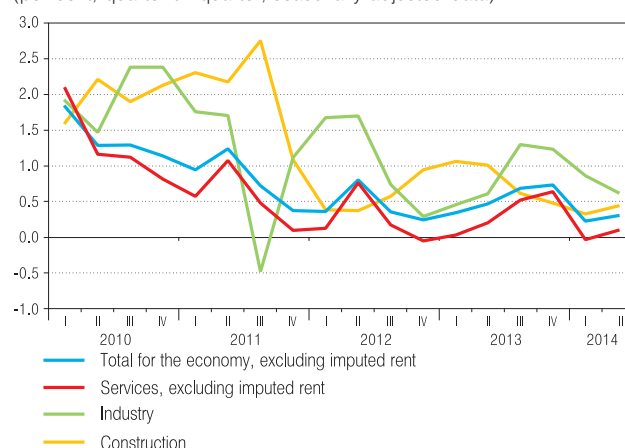
(per cent on the previous quarter; real growth, seasonally adjusted data)

	2011				2012				2013				2014	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Agriculture and forestry, hunting and fishing	2.0	-1.5	0.6	-2.2	-0.9	-3.2	0.0	0.7	1.5	0.8	-0.7	0.3	-1.7	0.5
Mining and quarrying, manufacturing, production and distribution of electricity, heating and gaseous fuels; water supply; sewerage, waste management and remediation activities	3.4	1.1	-0.4	0.1	1.0	0.8	-0.1	0.7	-0.8	0.9	0.0	2.1	0.3	1.3
Construction	-1.5	1.9	1.4	-0.1	-0.7	-0.6	-1.8	-2.3	0.7	-0.3	0.5	-0.5	0.2	-0.4
Trade, cars and motorcycles repair; transport, storage and mail services; hotels and restaurants	-1.3	2.5	-1.4	0.3	1.6	0.1	0.4	0.1	-1.2	0.0	-0.2	-0.3	0.1	0.5
Creation and dissemination of information and author products; telecommunications	1.4	-0.8	0.5	-0.4	-1.3	0.2	0.1	0.3	0.5	0.2	0.5	0.3	0.2	0.5
Finance and insurance activity	-2.7	3.5	-0.3	5.3	-4.4	-6.7	1.8	-1.5	4.3	5.3	-1.5	-6.2	1.6	6.7
Real estate activities	-1.1	1.0	1.1	1.9	-0.7	1.1	-0.4	-0.2	0.3	0.1	0.4	0.3	0.1	0.0
Professional activities and scientific research; administrative and ancillary activities	6.1	-5.5	2.7	3.5	-3.8	1.4	2.7	-0.1	0.5	2.0	-1.1	1.5	1.4	-0.6
General government; education; healthcare and social services	1.8	-2.0	2.1	-3.5	2.3	-0.6	-1.0	2.0	0.1	1.1	0.7	1.3	-1.4	0.9
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	-2.2	-4.1	-0.7	-4.3	-3.0	3.8	0.0	1.2	3.8	-2.0	1.0	-0.3	-0.9	0.7
<b>Gross value added, total for the economy</b>	<b>0.6</b>	<b>0.7</b>	<b>-0.2</b>	<b>0.0</b>	<b>-0.1</b>	<b>0.1</b>	<b>-0.2</b>	<b>0.0</b>	<b>0.2</b>	<b>0.2</b>	<b>0.8</b>	<b>0.6</b>	<b>0.4</b>	<b>0.6</b>

Source: NSI.

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

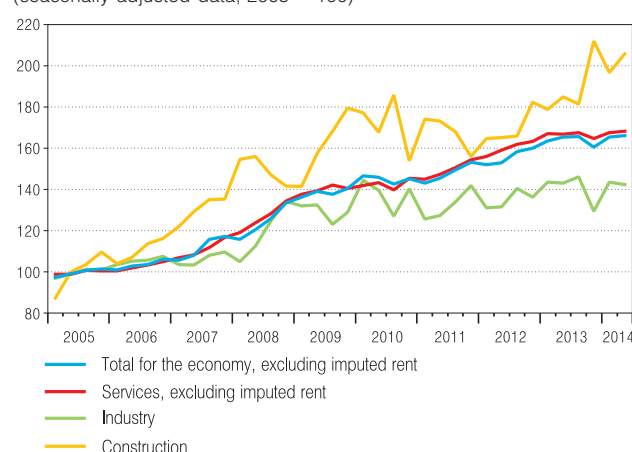
(per cent, quarter-on-quarter; seasonally adjusted data)



Sources: NSI, BNB calculations.

### Nominal Unit Labour Costs

(seasonally adjusted data; 2005 = 100)



Sources: NSI, BNB calculations.

## Real Unit Labour Costs

(seasonally adjusted data; 2005 = 100)



Sources: NSI, BNB calculations.

## Exports and Imports of Goods

In the second quarter and in the beginning of the third quarter of 2014 nominal export and import dynamics continued to be driven by decreases in international prices of groups of goods important for the foreign trade turnover of Bulgaria. According to the balance of payments data for the January–August 2014 period exports (in euro) went down by 2.9 per cent on an annual basis, reflecting mainly the decrease in exports to non-EU countries. Over the same period imports (in euro) remained unchanged on an annual basis as a result of the drop in international prices. In the January–August 2014 period trade deficit came to EUR 1861.2 million, deteriorating by EUR 461.7 million on an annual basis.

According to non-seasonally adjusted GDP data real annual growth in exports of goods came to 2.6 per cent in the second quarter of 2014 (against a decrease of 0.5 per cent in the first quarter of 2014). Based on foreign trade statistics data it may be concluded that cereals,<sup>51</sup> metal ores<sup>52</sup> and the oil seeds and fruit group had the major negative contribution to real growth of exports in the second quarter of 2014, while the negative contribution of oil products,<sup>53</sup> which played a key role in exports contraction in the first quarter, decreased significantly.

Real growth of imported goods in the second

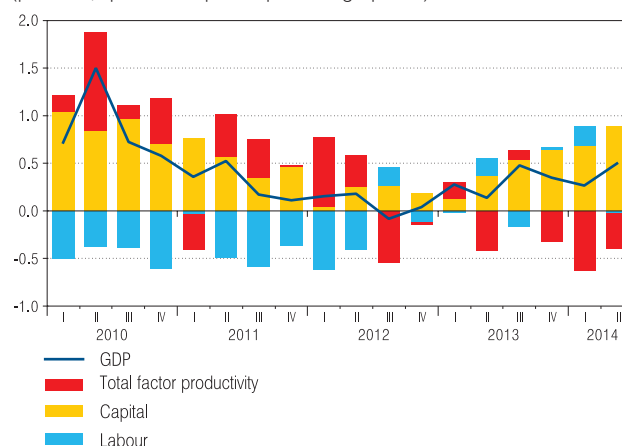
<sup>51</sup> The cereals and mill products group under the Standard International Trade Classification (SITC).

<sup>52</sup> The metal ores and metal scrap group under the SITC.

<sup>53</sup> The oil and refined products under the SITC.

## Contribution of Changes in Production Factors to GDP Growth

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



Sources: NSI, BNB calculations.

## Net Exports of Commodity Groups By Use, January–July 2014

	Balance, million EUR	Change*, million EUR	Export growth**, per cent	Import growth**, per cent
Consumer goods	395.6	132.6	11.4	7.6
Raw materials	-312.7	-455.7	-9.4	-1.1
Investment goods	-961.9	-35.2	8.4	7.1
Energy resources	-1394.1	185.2	-19.1	-15.8
<b>Total</b>	<b>-2325.5</b>	<b>-175.7</b>	<b>-2.8</b>	<b>-1.2</b>

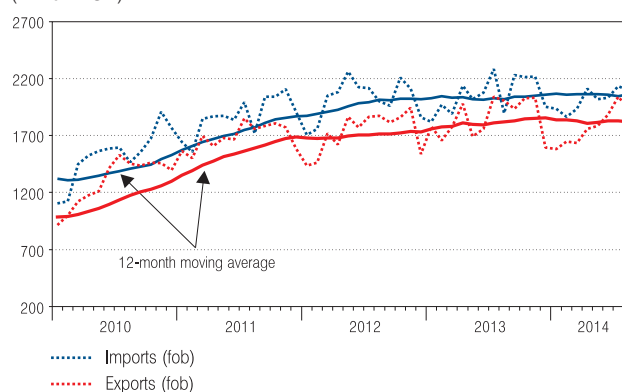
\* Balance change on the same period of previous year.

\*\* Growth of exports and imports for the period (on an annual basis).

Source: BNB.

## Export and Import Dynamics

(million EUR)



Source: BNB.

quarter of 2014 came to 3.4 per cent on an annual basis (against 6.3 per cent in the first quarter of 2014). In the second quarter of 2014 overall dynamics of imported goods was adversely affected by the decline in imported oil products from Russia.<sup>54</sup> This along with the export dynamics of the group, was due mainly to the renovation and building of new oil production capacities.<sup>55</sup>

Cross-checking the changes in exports and imports in nominal and real terms shows that the falls in global prices curbed nominal growth of international trade flows in the second quarter of 2014. The weaker dynamics of exports and imports is confirmed by export and import price indices under the Standard International Trade Classification (SITC), pointing to an annual fall in prices of exports and imports in the second quarter of 2014 by 2.4 and 3.9 per cent respectively.

In the fourth quarter of 2014 exports and imports are expected to recover their nominal growth rates on an annual basis. The recovery of exports is anticipated to be slower due to comparatively low external demand growth. In the first quarter of 2015 export growth is expected to outpace that of imports due to slowing economic growth in Bulgaria and weaker domestic demand. Stronger recovery in exports of oil products is also expected in early 2015. The trade balance deficit is projected to be around 8 per cent of GDP in the fourth quarter of 2014 and in the first quarter of 2015.

A higher than expected trade deficit may materialise due to lower than anticipated external demand which would limit export growth. This scenario would materialise if the EU economic activity slows down and the conflict between Russia and Ukraine sharpens.<sup>56</sup> Lower than projected trade deficit could be realised in the event of a faster increase in demand of Bulgaria's major trade partners and if Bulgarian exporters use exports capacity more flexibly, as well as in the event of further improvement of terms of trade.

Between January and July 2014 exports of goods to EU countries rose by 3.6 per cent

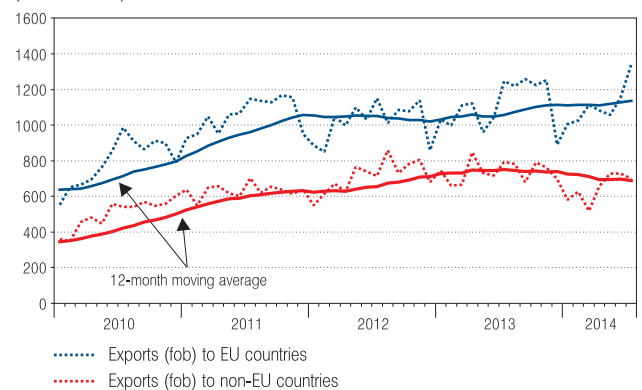
<sup>54</sup> The mineral fuels and distilled products group under the Combined Nomenclature.

<sup>55</sup> See footnote 47.

<sup>56</sup> Chapter One contains more information on the risks to EU economic activity.

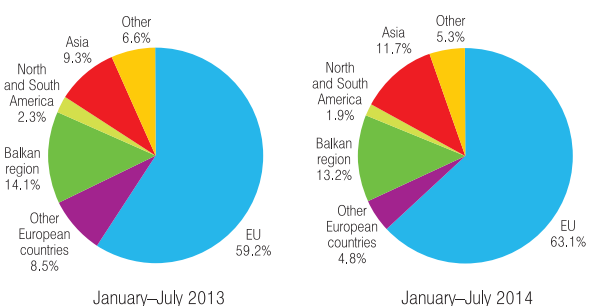
## Dynamics of Exports to EU and non-EU Countries

(million EUR)



Source: BNB.

## Geographical Distribution of Exports



Source: BNB.

on an annual basis, with exports of machines<sup>57</sup> and textile products<sup>58</sup> contributing most strongly to growth. Animal and plant products,<sup>59</sup> and oil products had a negative contribution. Exports to non-EU countries went down 12 per cent largely due to a drop in exports of oil products, and animal and plant products. The share of exports to EU countries increased by 3.9 percentage points on an annual basis between January and July 2014, with the increase being stronger pronounced in the second quarter of 2014. An opposite trend occurred in the share of exports to non-EU countries, which was contracting from mid-2013. In the second quarter of 2014 the share of Bulgarian exports to the EU in total Community imports continued its upward trend following the weaker performance in the first quarter.

Between January and July 2014 exports of most commodity groups reported growth with the exception of oil products (with the largest negative contribution), followed by animal and plant products, and base metals. At the same time, exports of machines continued their steady growth and had the largest positive contribution.

Exports of oil products decreased by 20.9 per cent on an annual basis between January and July 2014, with the decline being mainly ascribable to non-EU countries. The decrease broadly reflected the reduction of exported volumes due to the renovation and building of new oil production capacities. It was more strongly pronounced in the first quarter of the year.<sup>60</sup> In the second quarter the negative contribution of oil products to real growth contracted substantially. The fall in international oil prices contributed further to the lower nominal exports of this group.<sup>61</sup> In the fourth quarter of 2014 exported physical volumes of this group are expected to start recovering. The recovery is anticipated to strengthen in early

<sup>57</sup> In this chapter the machines, vehicles, appliances, instruments and weapons group under the Combined Nomenclature.

<sup>58</sup> In this chapter the textiles, leather, clothing, footwear and other consumer goods group under the Combined Nomenclature.

<sup>59</sup> In this chapter the animal and plant products, foods, drinks and tobacco group under the Combined Nomenclature.

<sup>60</sup> See footnote 47.

<sup>61</sup> According to the Balance of Payments, October 2014, p. 40, and using the quarterly export deflators of the mineral fuels, oils and related products group under SITC for the first and second quarters of 2014.

## Exports by Commodity Group, January–July 2014

	million EUR	Change*	Growth**, per cent	Contribution**, percentage points
Mineral products and fuels	1 845.5	-486.8	-20.9	-3.8
Machines, vehicles, appliances, instruments and weapons	2 778.2	253.6	10.0	2.0
Base metals and related products	2 148.5	-140.6	-6.1	-1.1
Animal and plant products, food, drinks and tobacco	1 751.4	-324.0	-15.6	-2.6
Chemical products, plastics and rubber	1 412.4	125.8	9.8	1.0
Wood products, paper, ceramics and glass	658.6	82.2	14.3	0.6
Textiles, leather, clothing, footwear and other consumer goods	1 734.4	134.8	8.4	1.1
<b>Total exports</b>	<b>12 329.0</b>	<b>-355.0</b>	<b>-2.8</b>	

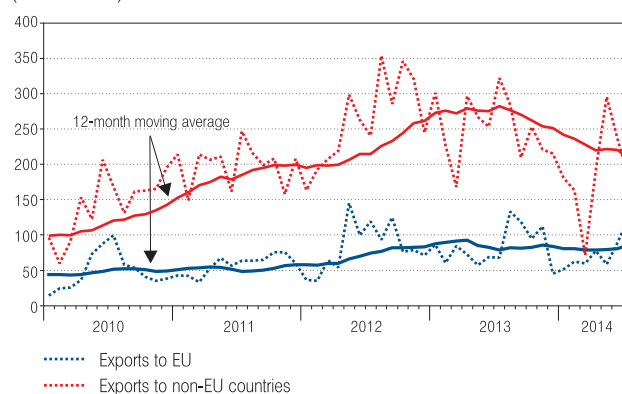
\* Change on corresponding period of previous year, million EUR.

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

Source: BNB.

## Exports of Mineral Products and Fuels

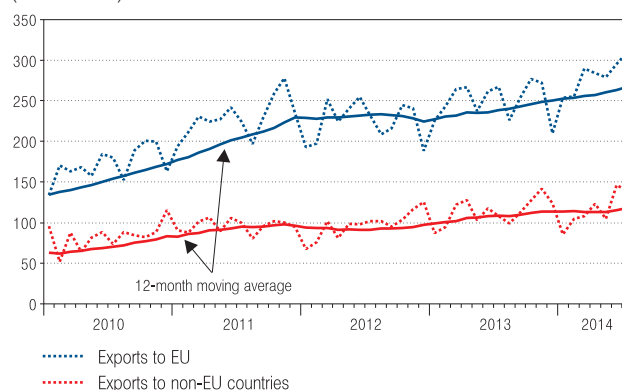
(million EUR)



Source: BNB.

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

(million EUR)



Source: BNB.

2015. Declines in oil prices (on an annual basis) are expected to limit nominal growth of exports in the group over the reviewed forecast period.

Exports of machines continued to grow steadily at high annual rates between January and July 2014, contributing most strongly to total export growth. Growth reflected mostly the larger exported volumes,<sup>62</sup> while export prices posted a slight fall. Over the projection horizon the dynamics of exports of machines is expected to be stable amid slowly growing external demand.

Between January and July 2014 exports of the base metals group fell on an annual basis, reflecting to a large degree lower nominal exports of copper. The major factor behind the decline in nominal exports of the group was the drop in international metal prices, while the exported volumes contributed to a lesser extent to the decline.<sup>63</sup> Rates of decline in international metal prices (in euro) are expected to slow down in the fourth quarter of 2014 and to stabilise in the first quarter of 2015, which will have a dampening effect on nominal exports in this group.

Exports of animal and plant products, foods, drinks, tobacco exhibited an annual decline in the January–July 2014 period which was almost entirely attributable to the cereals and oil seeds and fruit. The major factor behind the decline in nominal exports of the group in the first quarter was lower export prices, while in the second quarter exported volumes went down, due probably to unfavourable weather conditions in the season, resulting in poorer harvest.<sup>64</sup> Our expectations for the fourth quarter of 2014 and the first quarter of 2015 point to a rise in international food prices (in euro), which will boost nominal exports in the group.

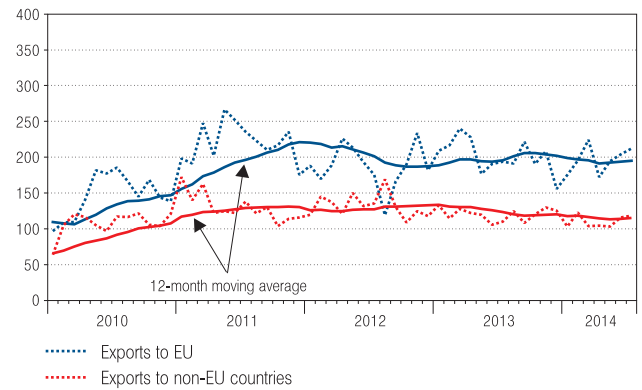
<sup>62</sup> The quarterly export deflators for the machines, equipment and vehicles group under SITC were used to estimate the price effect in the first and second quarters of 2014.

<sup>63</sup> According to the Balance of Payments, October 2014, p. 40, for the non-ferrous metals sub-group using the quarterly export deflators for the cast iron and steel group under SITC for the first and second quarters of 2014.

<sup>64</sup> To estimate the price effect, see the respective quarterly export deflators for the listed divisions in the first and second quarters of 2014 under SITC: for cereals – the deflator of cereals and mill products; for oil seeds and fruit – the deflator of oil seeds and fruit; for tobacco and manufactured tobacco substitutes – the deflator of tobacco and manufactured tobacco substitutes.

## Exports of Base Metals and Related Products

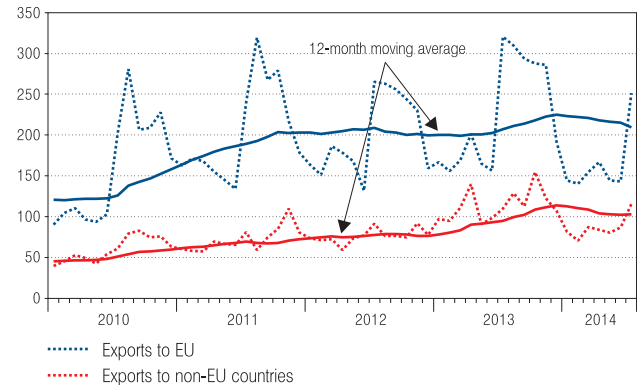
(million EUR)



Source: BNB.

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

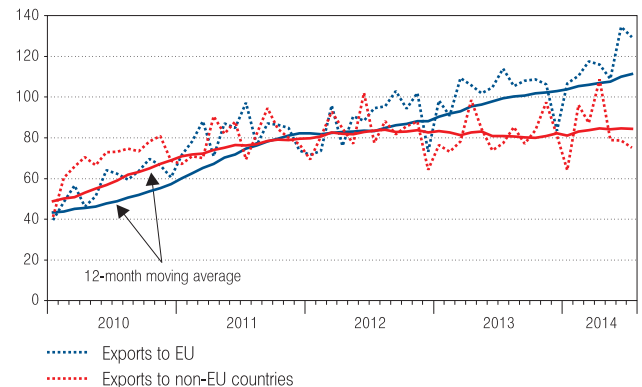
(million EUR)



Source: BNB.

## Exports of Chemical Products, Plastics and Rubber

(million EUR)



Source: BNB.



Exports of chemicals<sup>65</sup> went up between the January–July 2014 with pharmaceuticals contributing most significantly by sub-component. This growth was mainly due to price rises, while physical volumes remained almost unchanged compared to the corresponding period of 2013,<sup>66</sup> with exports to EU countries increasing more steadily. Over the projection horizon exports in the group are expected to continue growing at rates close to the current ones given the forecast for a fall in the respective international prices in the fourth quarter of 2014 and their stabilisation in the first quarter of 2015.

Imports (CIF) went down in nominal terms in the January–July 2014. Based on the System of National Accounts data for the first and the second quarters of 2014 it may be concluded that the decrease was attributable to lower prices while imported volumes posted an increase. Petroleum products and imports of ores, to a lesser extent contributed to the nominal decline in imports by use.

Between January and July 2014 imports from EU Member States increased by 2.4 per cent and that from non-EU countries fell by 4.7 per cent. The decline in imports from non-EU countries was largely due to Russia, the main exporter of petroleum products to Bulgaria, where they are processed and subsequently exported.<sup>67</sup>

Imports in the group of energy resources fell between January and July 2014 due mainly to lower imported physical volumes and to a lesser extent to falling international prices.<sup>68</sup> The major reason behind the decline in imported physical volumes was the lower output in the oil refining sector, as a result of the renovation and building of new oil production capacities. Imports in the group are anticipated to recover in early 2015. The expected decline in international prices of energy products by the end of 2014 and early 2015 will have a dampening effect on nominal imports.

<sup>65</sup> The chemical products, plastics and rubber under the Combined Nomenclature.

<sup>66</sup> The quarterly export deflators for the chemicals and chemical products group under SITC were used to estimate the price effect in the first and second quarters of 2014.

<sup>67</sup> See footnote 47.

<sup>68</sup> According to the Balance of Payments, October 2014, p. 40, and using the quarterly import deflators of the mineral fuels, oils and related products group under SITC for the first and second quarters of 2014.

## Imports of Commodity Groups By Use, January–July 2014

	million EUR	Change*	Growth** per cent	Contribution**, percentage points
Consumer goods	2 874.0	202.3	7.6	1.4
Raw materials	5 299.9	-59.4	-1.1	-0.4
Investment goods	3 439.7	227.4	7.1	1.5
Energy resources	2 969.5	-557.3	-15.8	-3.8
<b>Imports, total (cif)</b>	<b>14 654.5</b>	<b>-179.3</b>	<b>-1.2</b>	

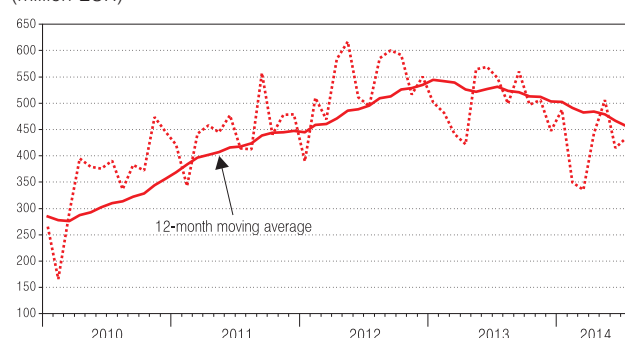
\* Change on corresponding period of previous year, million EUR.

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

Source: BNB.

## Imports of Energy Resources

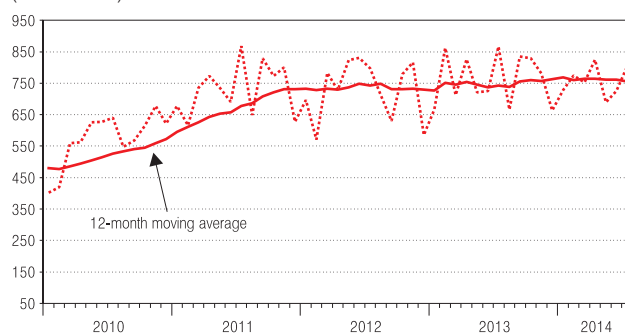
(million EUR)



Source: BNB.

## Imports of Raw Materials

(million EUR)



Source: BNB.



Imports of the raw materials group experienced a decrease on an annual basis between January and July 2014, with the decline being mainly ascribable to lower imports of ores. The assessment of the price change effects in this group<sup>69</sup> suggests that the decline reflects both the lower physical volumes and lower import prices. The slowdown in domestic demand by the end of 2014 and early 2015 and the falling international prices, are expected to limit nominal growth of exports in the group.

Imports of consumer goods rose in the January–July 2014 period on an annual basis in line with higher domestic demand. Medicines and cosmetics and clothing and footwear had the largest contribution to growth. In the fourth quarter of 2014 and in the first quarter of 2015 growth in imports of consumer goods is expected to be limited due to slower real growth of consumption in the fourth quarter of 2014 and the retention of its level in the first quarter of 2015.

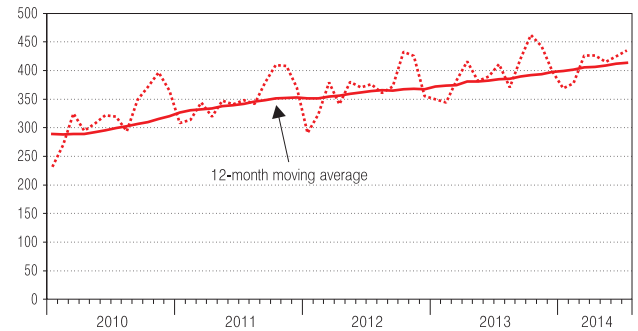
Between January and July 2014 imports of investment goods reported growth on an annual basis and had the strongest contribution to total import growth reflecting largely higher imported physical volumes.<sup>70</sup> Machines, vehicles and appliances, and spare parts and equipment contributed most to it. In case no essential changes in the international prices of investment goods occur, in the fourth quarter of 2014 and in the first quarter of 2015 imports of investment goods will remain at rates close to the current ones, reflecting the slowdown of investment activity in Bulgaria.

<sup>69</sup> According to the Balance of Payments of Bulgaria, October 2014, p. 40, and the respective 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 SITC for the first and second quarters of 2014.

<sup>70</sup> The quarterly import deflators for the machines, equipment and vehicles group under SITC were used to estimate the price effect in the first and second quarters of 2014.

### Imports of Consumer Goods

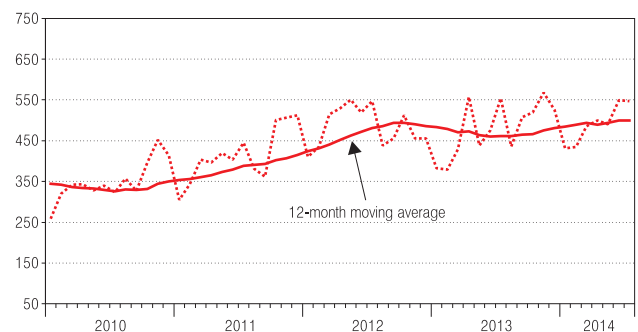
(million EUR)



Source: BNB.

### Imports of Investment Goods

(million EUR)



Source: BNB.

## 4. Inflation

Between January and October 2014 HICP continued to decline, its annual rate of change reaching -1.5 per cent in October (-0.9 per cent at the end of 2013). Deflation in 2014 was largely driven by the continued transport fuel price declines reflecting world oil prices, as well as decreases in prices of telecommunications services, air transport, dental services and durable goods under the influence of domestic factors. A slight trend toward shrinking deflation was formed at the end of the review period, reflecting price rises in electricity for households by 1.7 and 10.1 per cent in July and October and in unprocessed food prices over the third quarter.

In the fourth quarter and early 2015 inflation is expected to remain negative at moderating decline rates. This will mainly reflect the October increase in regulated prices of electricity for households and, to a lesser extent, lower deflation in energy products and core inflation.

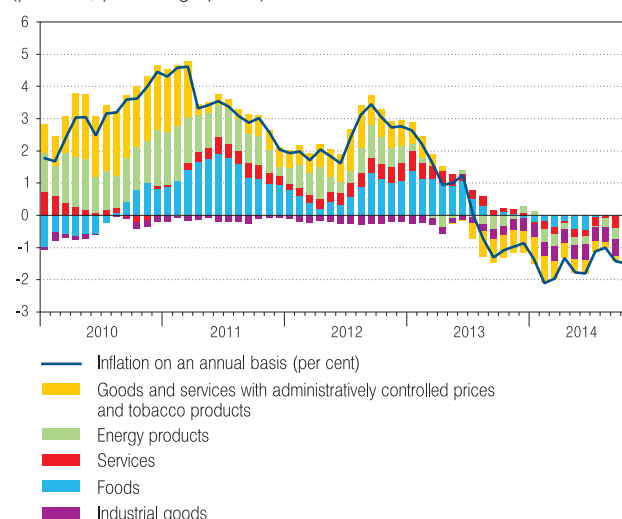
The downward year-on-year trend in consumer prices continued in the January to October period.<sup>71</sup> In October inflation was -1.5 per cent (-0.9 per cent in December 2013).<sup>72</sup>

Inflation developments reflected the effect of both external and internal factors with an increasing importance of the latter at the end of the period. The fall in international food, fuel and major commodity prices affected directly part of final consumer prices and indirectly through reduction of production costs. According to national account data, the import deflator of goods posted a -3.9 per cent decline in the second quarter of 2014 (-4.5 per cent in 2013). Internal factors related to methodological and statutory changes put further downward pressure on prices of certain services groups (transport, telecommunications and dental services) and durable goods (motor vehicles), contributing to the strengthening of the negative contribution of core inflation in 2014. At the same time, the reversal of the deflation trend in unprocessed food prices over the third quarter and the positive contribution of administratively controlled prices in October pushed down the overall deflation. The reduced negative contribution of controlled prices in the third quarter and their positive contribution in October were due

<sup>71</sup> The analysis in this chapter is based on NSI data on HICP.

<sup>72</sup> More detailed analysis of the factors for deflation in Bulgaria and the degree of their effect as compared with other EU Member States is provided in the box entitled *Inflation Dynamics in Bulgaria and EU Member States between August 2013 and September 2014*.

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



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

Sources: NSI, BNB calculations.

to the increased prices of electricity for households by 1.7 per cent from July and 10.1 per cent from August and the base effect of the 11.1 per cent cuts in March and August 2013.

In the first quarter of 2014 deflation continued to spread across a broad range of goods and services included in the consumer basket – a trend observed since the second half of 2013. In the following two quarters, however, this trend was reversed due mainly to the reduced number of sub-groups with decreased prices of goods and services with administratively controlled prices, food and non-food (excluding fuels). In October the diffusion index, calculated as a share of declining HICP sub-indices on an annual basis, decreased to 41.9 per cent from its March peak (49.5 per cent), though remaining above the level of end-2013 (37.6 per cent).<sup>73</sup> Deflation which was sustained in the second and third quarters, despite the diffusion index fall, reflects the slight price rises in the sub-groups with positive inflation. They occupy relatively small weights in the consumer basket (45.1 per cent in October) and failed to offset the negative contribution of goods and services with falling prices.

The effect of international prices on domestic inflation may be seen through import price developments and their spillover along the supply chain on producer prices. In the second quarter of 2014 deflators of most imported goods for selected sections of the Standard International Trade Classification (SITC) declined on an annual basis. Negative deflators were registered in imports of food, fuels and other raw materials, as well as of finished industrial goods.

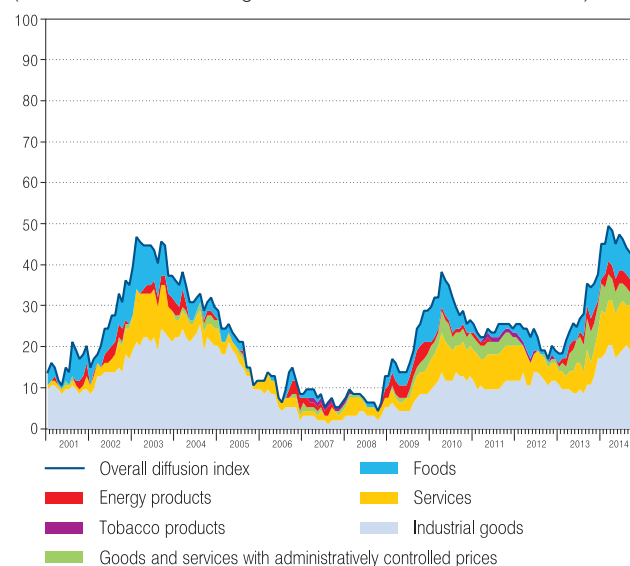
In 2014 domestic producer prices affecting end-use consumer prices continued to decline on an annual basis, though at slower rates compared to the end of 2013. All major industrial sectors contributed to this dynamics. Moderation in the decline rate of PPI to -0.6 per cent in September (-2.8 per cent at end-2013) reflected mostly the fall in the negative contribution of electricity production.<sup>74</sup> In September producer prices in manufacturing remained at

<sup>73</sup> Based on the four-digit COICOP index (classification of individual consumption by purpose).

<sup>74</sup> Production and distribution of electricity, heating and gas.

## Diffusion Index of Major Goods and Services Groups

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

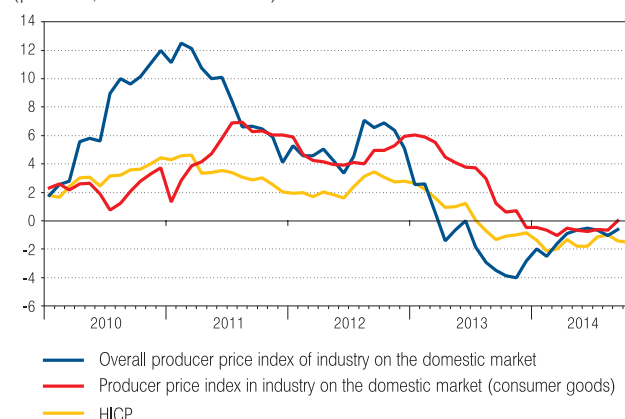


Note: The difference between the calculated diffusion index and 100 per cent represents the share of HICP sub-indices, which increase or remain unchanged on an annual basis.

Sources: NSI, BNB calculations.

## Rate of Change in Manufacturing CPI and HICP

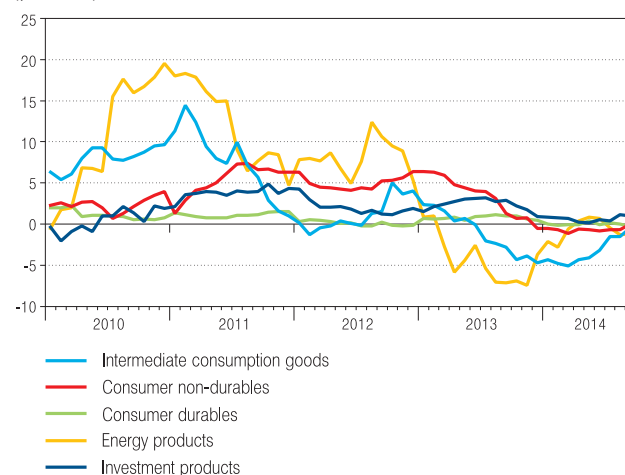
(per cent, on an annual basis)



Source: NSI.

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

(per cent)



Source: NSI.

the level of the corresponding month of previous year, with food production prices decreasing their negative rate of change.<sup>75</sup> This helped the annual PPI rate of decline in consumer non-durable goods to be reversed.

In the context of decreasing import commodity prices, between January and September a comparatively high annual rate of decline was registered in producer prices of intermediate consumption goods.<sup>76</sup> This contributed to reducing industrial production costs, proving to be a factor for lower end-use consumer prices. Firms' expenditure policy, another factor with a potential impact on these prices, remained cautious since early 2014, focusing on reducing labour costs. The growth rate of compensation *per* employee in the economy decelerated over the first half of 2014 due mainly to the services sector. In the trade sub-sector,<sup>77</sup> compensation *per* employee dropped for a third consecutive quarter, its fall averaging 6.4 per cent for the first half year.

In 2014 household consumption recovered slightly following the downward tendency of the previous year. National account data show that final consumption expenditure of households in the first and second quarters increased on an annual basis by 3.8 and 0.3 per cent in real terms. Retail trade volumes, another consumer demand indicator, also signal continuing, albeit slow and unevenly distributed, recovery of household consumption since early 2014.<sup>78</sup> Compared with the end of 2013, between January and September 2014 food<sup>79</sup> turnover reported comparatively high annual growth rates at constant prices, with price falls discontinued at the end of the period. Real turnover growth of computer and communication equipment<sup>80</sup> slowed down in the context of falling end-use consumer prices.

<sup>75</sup> Production of food, drinks and tobacco products.

<sup>76</sup> The Main Industrial Groupings classification was used to cover the following sectors: manufacture of intermediate consumption goods, energy products and water related activities, production of investment products and consumer goods.

<sup>77</sup> Trade, repair of motor vehicles and motorcycles, transport, storage and mail services, hotels and restaurants.

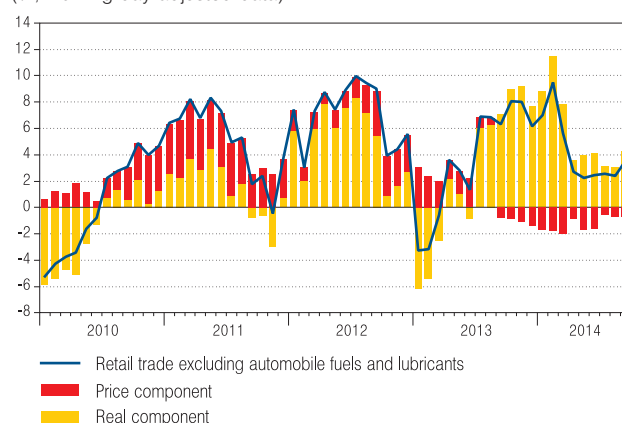
<sup>78</sup> For further details see Household Behaviour in the Economic Activity section in Chapter Three.

<sup>79</sup> Food products, drinks and tobacco products.

<sup>80</sup> Computer and communication equipment and other consumer goods.

### Annual Growth Rate of Nominal Retail Trade Excluding Automobile Fuels and Lubricants

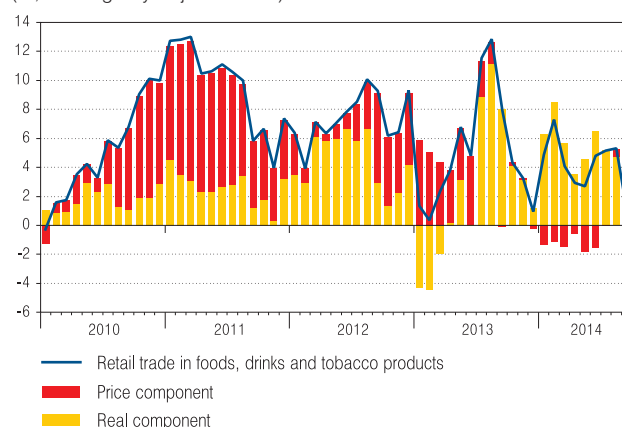
(%, working-day adjusted data)



Sources: NSI, BNB calculations.

### Annual Growth Rate of Nominal Retail Trade in Food, Drinks and Tobacco Products

(%, working-day adjusted data)



Sources: NSI, BNB calculations.

### Annual Growth Rate of Nominal Retail Trade in Computer and Communication Equipment and Other Consumer Goods

(per cent, percentage points, working-day adjusted data)



Sources: NSI, BNB calculations.

In most other groups of goods,<sup>81</sup> real retail trade rates moderated, with prices remaining broadly unchanged or decreasing slightly. This is likely to reflect worsening of household assessments<sup>82</sup> about their future financial position, current and future economic situation in Bulgaria and receding perceptions about the purchase of durable goods<sup>83</sup> compared with the beginning of 2014.

Differences in the extent to which consumer demand has recovered across goods and services groups, as well as asymmetric effects of decreasing international prices on production costs and selling prices were preconditions for firms in individual sectors to respond in a different manner to economic environment changes and to apply different pricing and expenditure policy. The reasons may be analysed on the basis of decomposition into the contributions of unit labour costs, unit profits and net taxes *per* unit to gross value added deflator dynamics.

In the second quarter gross value added deflator for the total economy declined by 0.6 per cent on an annual basis, reflecting the contraction in profits in the context of a retained low positive contribution of unit labour costs. Broken down by sector, positive deflator values were recorded in industry due to rising unit profits consistent with falling commodity prices and increasing volumes of industrial enterprises on external and internal markets in both nominal and real terms.<sup>84</sup> Value added deflator for trade<sup>85</sup> posted a decline on an annual basis, with decelerating compensation *per* employee since end-2013 contributing to this effect. Developments in the latter are likely to reflect lower remuneration of new employees, appearing to be a prerequisite for retained or lower deflation in this services sub-sector over the following quarters since labour costs are the major pricing factor in trade.<sup>86</sup>

<sup>81</sup> These are: household appliances, furniture and other household goods, pharmaceuticals and medical goods, cosmetics and toiletries, textile, clothing, footwear and leather.

<sup>82</sup> Seasonally adjusted monthly data from the European Commission consumer survey are used.

<sup>83</sup> Such as purchase of furniture, electrical/electronic devices, *etc.*

<sup>84</sup> For further details, see Behaviour of Firms and Competitiveness in the Economic Activity Chapter.

<sup>85</sup> Trade, repair of motor vehicles and motorcycles, transport, storage and mail services, hotels and restaurants.

<sup>86</sup> For further details, see Household Behaviour in the Economic Activity chapter.

### Annual Rate of Change in Value Added Deflator in Total Economy and Contribution by Component

(per cent, percentage points)



Note: The contribution of each component to value added deflator is calculated by multiplying the percentage change in the component and its share in total unit price (representing its share in gross value added). Unit labour costs also include the approximation of labour costs for the self-employed persons. The approximation is based on the assumption that the compensation per self-employed is equal to the average compensation per employee.

Sources: NSI, BNB calculations.

### Annual Rate of Change in Value Added Deflator in Industry and Contribution by Component

(per cent, percentage points)



Sources: NSI, BNB calculations.

### Annual Rate of Change in Value Added Deflator in Trade, Cars and Motorcycles Repair; Transport, Storage and Mail Services; Hotels and Restaurants and Contribution by Component

(per cent, percentage points)



Sources: NSI, BNB calculations.



Between January and October 2014 external and internal factors contributed to inflation dynamics by commodity group and services, with the increasing pressure of internal factors by the end of the period.

In October core inflation was -2.7 per cent (-0.7 per cent in December 2013), recording the largest negative contribution to HICP changes (-1.19 percentage points). Reflecting primarily domestic factors, downward developments in this group were mainly driven by accelerated rates of decline in services prices and, to a lesser extent, in non-food (excluding energy products).

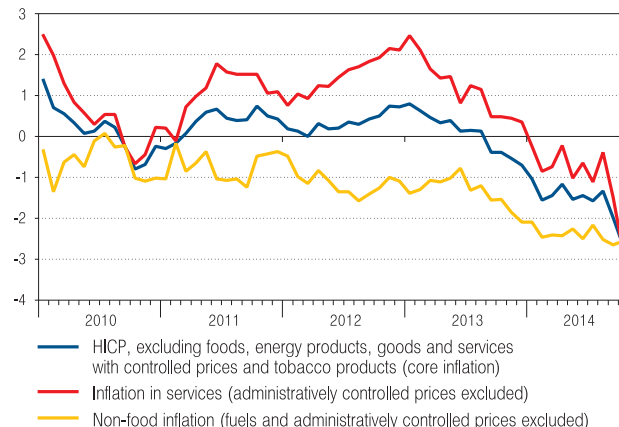
In October non-food inflation was negative at -2.6 per cent (-2.1 per cent by end-2013) and reflected mainly prices of durable goods. From the beginning of the year a comparatively stronger increase in the negative contribution was observed in motor vehicles, due largely to the second-hand vehicles, and to a lesser extent to television equipment, furniture and furnishing. The long-term tendency toward car price declines stems probably from the strong fall in trade volumes at constant prices in early 2009 and the continued stabilisation of sales at comparatively low levels (-31.5 per cent in the third quarter of 2014 compared to the peak in the same period of 2008).<sup>87</sup> In September non-durable prices went down slightly from the corresponding period of the previous year.

From the beginning of 2014 inflation in services (excluding administratively controlled prices) was negative and followed a downward trend (-2.8 per cent in October against 0.4 per cent by end-2013). This reflected mostly specific factors in individual services sub-groups, as telecommunications, air transport and dental services, and, to a lesser extent, moderated catering inflation impacted indirectly by domestic food prices. The European Commission cut the price caps for roaming tariffs from July which contributed to the October decline in prices of telecommunication services by 7.4 per cent on an annual basis. Lower fees for visits to dentists who have concluded contracts with the National Health Insurance Fund (by 28.6 per cent) from January and methodological changes in reporting air transport prices were among

<sup>87</sup> Data on the turnover index of the trade, repair of motor vehicles and motorcycles division are used.

## Core inflation

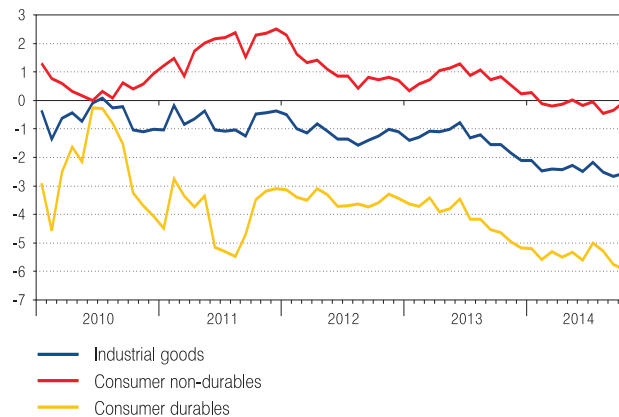
(per cent, on an annual basis)



Sources: NSI, BNB calculations.

## Rate of Change of Industrial Goods Price Index, Excluding Energy Products and Goods with Administratively Controlled Prices

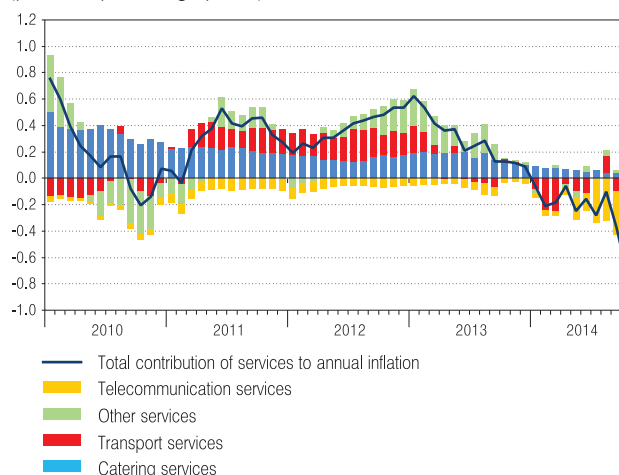
(per cent, on an annual basis)



Sources: NSI, BNB calculations.

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

(per cent, percentage points)



Sources: NSI, BNB calculations.



more important factors driving the downward tendency in services inflation throughout 2014.

In October energy product inflation was -5.2 per cent, with the negative contribution of the group to overall price level changes (0.46 percentage points) ranking second after that of core inflation. Transport fuel price declines in 2014 were driven by the continued annual fall of oil prices in euro.<sup>88</sup>

Over the first nine months administratively controlled prices continued to fall on an annual basis (-1.2 per cent in September against -3.9 per cent in December 2013), their negative contribution to overall inflation tending to decrease. In October a 1.1 per cent rise was reported. This was attributable to the increased electricity price for households (1.7 and 10.1 per cent in July and October 2014) and base effects of its decrease in March and August 2013. Decreased fees (by 28.6 per cent) paid to general practitioners and specialists having concluded contracts with the National Health Insurance Fund and cuts in regulated prices of electricity for households (by 2.7 per cent) from January 2014 contributed to the lower overall inflation in 2014.

Unfavourable weather conditions in Bulgaria over the third quarter helped the downward trend of end-2013 in unprocessed food prices to be reversed. In addition to this, weak deflation in processed food prices, reflecting cuts in agricultural production costs from mid-2013 and continued declines in international prices led to a low negative rate in food inflation in October 2014 (-0.3 per cent in December 2013).

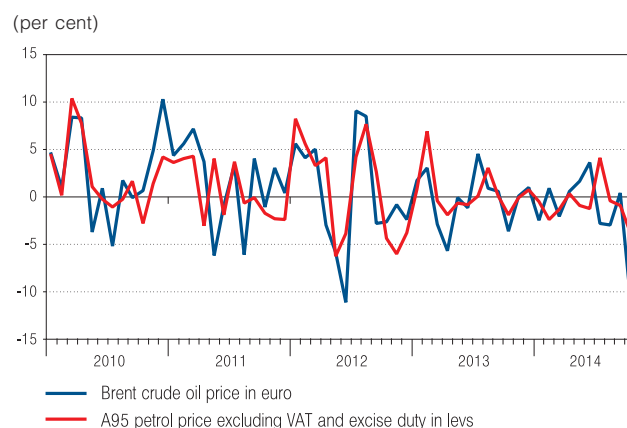
In the group of processed foods, sugar and sugar confectionery,<sup>89</sup> animal and vegetable fats and oils and bread and cereals had negative contributions to the overall inflation. From the beginning of 2014 the three goods sub-groups reported declines in import prices,<sup>90</sup> which were

<sup>88</sup> In the group of energy products (excluding the administratively controlled prices of energy, heating and central gas supply) transport fuels occupy the largest relative share; hence, their price developments determine the price dynamics of energy products in general.

<sup>89</sup> Sugar, jams, honey, chocolate and confectionery.

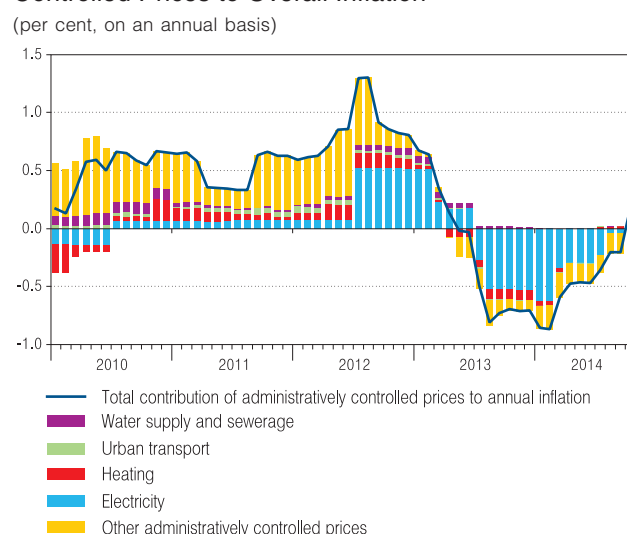
<sup>90</sup> According to the Standard International Trade Classification data on the import deflators of the following sub-groups: sugar and sugar confectionery, animal or vegetable oils, fats and waxes, cereals and mill products.

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



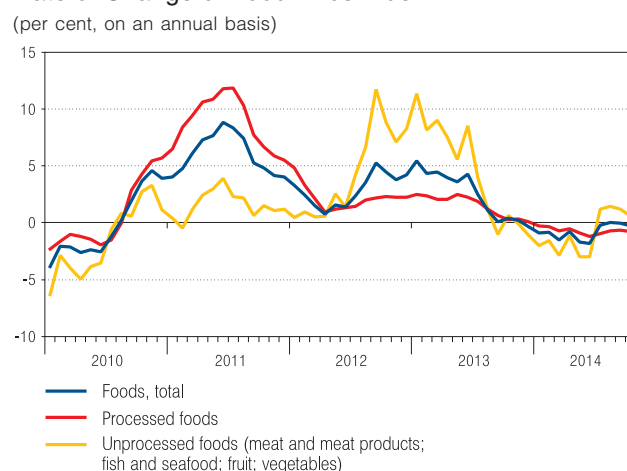
Sources: ECB, NSI, BNB calculations.

## Contribution of Major Sub-groups of Administratively Controlled Prices to Overall Inflation



Sources: NSI, BNB calculations.

## Rate of Change of Food Price Index



Sources: NSI, BNB calculations.

rapidly transmitted through the supply chain on producer prices and end-user consumer prices.

In the July to October 2014 period the annual growth rate of unprocessed food prices was driven by higher fruit and vegetable prices. Prices in these sub-groups moved in line with the increase in wholesale prices<sup>91</sup> of domestic and imported products on commodity markets in Bulgaria.

The mild winter and declining import prices since end-2013 were the factors behind the slight deflation of fruit and vegetable prices on the domestic market in the first half of 2014, while the unfavourable weather conditions in Bulgaria in the third quarter prompted price rises.

According to the NSI business situation survey, conducted in October 2014 the balance of opinions as to the selling prices in industry suggests an increase in the following three months. In the services and retail trade sectors, expectations are for retaining selling prices unchanged, reflecting possibly the lower assessments of demand in these sectors in 2014 compared with the previous year. Entrepreneurs' sentiment gives no ground of expecting an upward pressure on selling prices in the following months.

Inflation expectations until the end of 2014 and in early 2015 and related uncertainty thereto are presented in the fan chart on the annual rate of change in the HICP.<sup>92</sup> In the fourth quarter of 2014 inflation is projected to range between -1.2 per cent and -0.4 per cent and in the first quarter of 2015 between -0.8 per cent and 0.4 per cent.<sup>93</sup> The slower annual rate of decline in consumer price index in the following two quarters will mainly reflect the October increase in prices of electricity for households by 10.1 per cent and, to a lesser extent, lower deflation in energy products and core inflation.

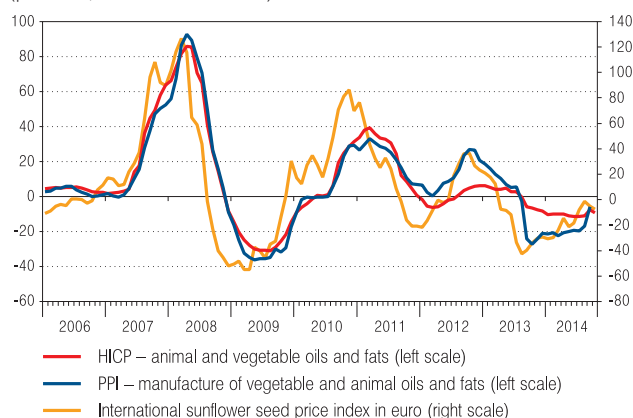
<sup>91</sup> State Commission on Commodity Exchanges and Market-places.

<sup>92</sup> For further details, see the Measurement and Presentation of Uncertainty in Forecasting Economic Indicators box, Economic Review, 1/2012.

<sup>93</sup> Thus presented ranges of the expected annual rate of inflation correspond to 40 per cent probability distribution according to our expert forecast of the probability distribution for the relevant quarter.

#### Rate of Change of Vegetable and Animal Oils and Fats Prices on the Domestic Market and of Sunflower Seed Price on International Markets

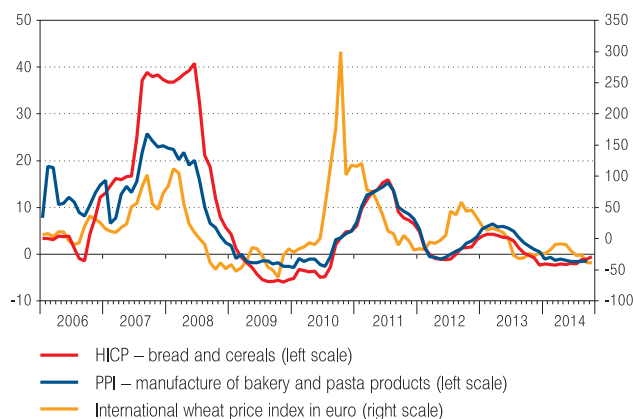
(per cent, on an annual basis)



Sources: NSI, BNB calculations.

#### Rate of Change of Bread and Cereals Prices on the Domestic Market and of Wheat Price on International Markets

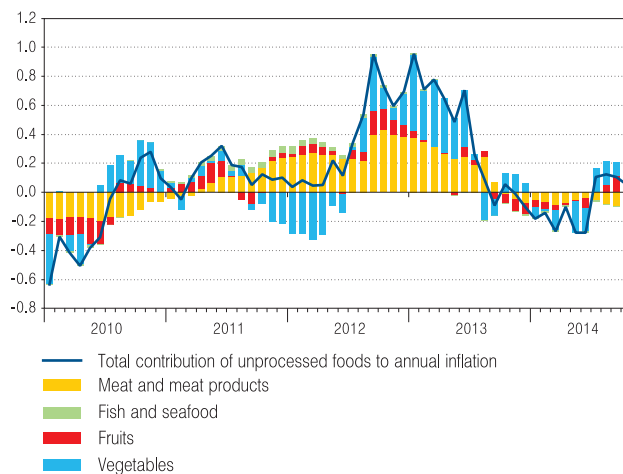
(per cent, on an annual basis)



Sources: NSI, BNB calculations.

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

(per cent, on an annual basis)



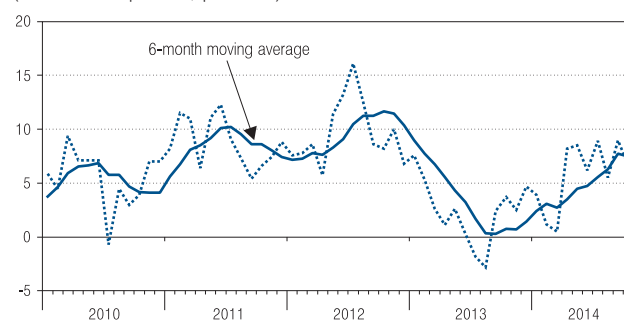
Sources: NSI, BNB calculations.

The projection is based on an assumption for an increase in international food prices on an annual basis in the fourth quarter of 2014 and a slight decline in the first quarter of 2015. The assumptions for oil prices in euro suggest a decrease (on an annual basis) in the fourth quarter of 2014 and stabilisation in early 2015. The sustained core inflation in October 2014 and revised projections of international food and oil prices downwards give grounds to slightly decrease the inflation estimates towards the end of the year compared with the previous projection.

Major risks to the outlook for inflation in the following two quarters relate to a possible further decrease in oil prices on an annual basis and, to a lesser extent, to the harvest in Bulgaria and in the region. Additional risks are associated with worsening of consumer confidence amid economic uncertainty and the related possible negative consequences for the recovery of household consumption. Other risks to the outlook stem from potential adjustments in administratively controlled prices. In general the risk to the projection is assessed as downside due to a faster than expected decrease in domestic prices of fuels in October, consistent with the sustained downward dynamics of international prices.

### Selling Prices Expectations in Industry in the Following Three Months

(balance of opinions, per cent)



Source: NSI.

### Selling Prices Expectations in Services in the Following Three Months

(balance of opinions, per cent)



Source: NSI.

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

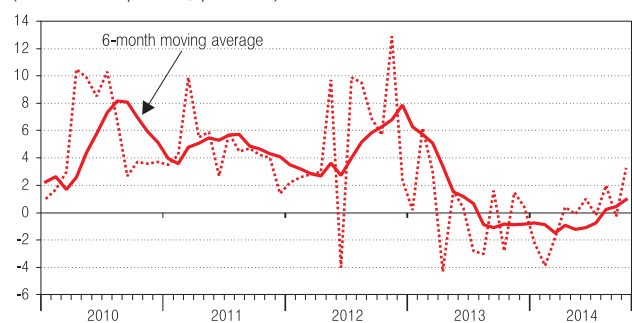
	Inflation accumulated as of October 2013 (December 2012 = 100)		Inflation accumulated as of October 2014 (December 2013 = 100)		Annual inflation rate as of October 2014 (December 2013 = 100)	
<b>Inflation (per cent)</b>	<b>-1.2</b>		<b>-1.8</b>		<b>-1.5</b>	
	Inflation rate by group, per cent	Contribution, per- centage points	Inflation rate by group, per cent	Contribution, per- centage points	Inflation rate by group, per cent	Contribution, per- centage points
<b>Foods</b>	<b>-0.1</b>	<b>-0.02</b>	<b>0.0</b>	<b>-0.01</b>	<b>-0.3</b>	<b>-0.08</b>
Processed foods	-0.3	-0.04	-1.1	-0.19	-0.8	-0.13
Unprocessed foods	0.2	0.02	2.0	0.18	0.6	0.06
<b>Services</b>	<b>-0.9</b>	<b>-0.22</b>	<b>-4.0</b>	<b>-1.00</b>	<b>-2.8</b>	<b>-0.69</b>
Catering services	1.6	0.08	0.7	0.04	1.0	0.05
Transport services	-1.2	-0.04	-10.9	-0.39	-9.6	-0.34
Telecommunication services	-0.4	-0.02	-7.2	-0.35	-7.4	-0.36
Other services	-2.2	-0.24	-2.8	-0.31	-0.5	-0.05
<b>Energy products</b>	<b>0.7</b>	<b>0.07</b>	<b>-6.5</b>	<b>-0.60</b>	<b>-5.2</b>	<b>-0.46</b>
Transport fuels	1.2	0.10	-6.9	-0.60	-5.5	-0.46
<b>Industrial goods</b>	<b>-1.6</b>	<b>-0.29</b>	<b>-2.0</b>	<b>-0.40</b>	<b>-2.6</b>	<b>-0.50</b>
<b>Goods and services with administratively controlled prices*</b>	<b>-3.9</b>	<b>-0.70</b>	<b>1.1</b>	<b>0.18</b>	<b>1.1</b>	<b>0.18</b>
<b>Tobacco products</b>	<b>0.3</b>	<b>0.01</b>	<b>0.8</b>	<b>0.03</b>	<b>1.4</b>	<b>0.05</b>

\* The index of Goods and Services with Administratively Controlled Prices is calculated through weighting the relevant elementary aggregates in the consumer basket.

Sources: NSI, BNB calculations.

## Selling Prices Expectations in Retail Trade in the Following Three Months

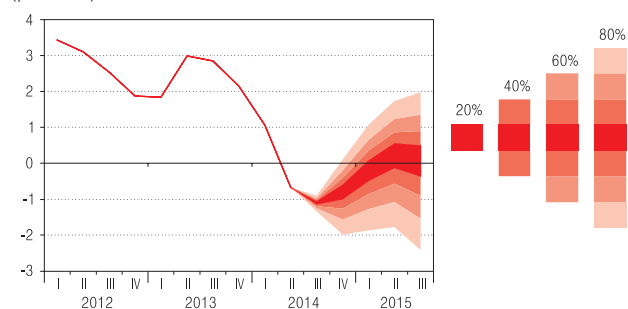
(balance of opinions, per cent)



Source: NSI.

## Fan Chart of the Expected Annual Inflation Rate

(per cent)



Note: The fan chart shows the expert views of the forecasters on the uncertainty around the projected value based on probability distribution. The middle band of the chart, depicted in the darkest colour, includes the central projection. If neighbouring bands (in the same brighter colour) are added to the middle band, there would be 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.

## Inflation Dynamics in Bulgaria and EU Member States between August 2013 and September 2014

The August 2013–September 2014 period saw a negative inflation rate in Bulgaria following a downward trend. Over this period inflation in the EU Member States also exhibited a downward dynamics but it remained positive in most of the states. Concurrently, since early 2013 the diffusion index, calculated as a share of HICP sub-indices declining on an annual basis, increased slightly in both Bulgaria and the EU but in Bulgaria (until March 2014) it grew at faster rates and covered all major groups of goods and services. The analysis presents the factors underlying the stronger downward price movements in Bulgaria as compared with the remaining EU Member States.

According to a survey on trade firms' pricing carried out in 2009<sup>1</sup>, the factors contributing most strongly to price falls are associated with lower prices in purchased goods and materials<sup>2</sup>, lower competitor prices and weaker domestic demand. Since early 2013 all these factors had a downward effect on prices, though at a different degree. The strong inflation decline in Bulgaria as compared with other EU Member States reflects mainly the effect of the continuous fall in import prices. The second most important factor involves the decrease in some administratively controlled prices and methodological and statutory changes prompting a decline in particular price groups. Both factors contributed directly to the inflation slowdown and indirectly by cutting firms' cost of production. The contraction of household consumption in 2013 at a rate higher than the EU average is the third factor weakening the demand-side inflationary pressure. However, the effect of this factor is assessed as weak.

### The Effect of International Commodity, Fuel and Food Prices on Inflation in Bulgaria and the EU

The high degree of openness of Bulgaria's economy and the importance of imported commodities and fuels for its development suggest a strong influence of import prices on the domestic inflation dynamics. Bulgaria is the third EU Member State, following Malta and Slovakia, with the largest share of imported inputs in production of final goods and services (consumer and investment).

On the other hand, the effect of international food and oil prices on the dynamics of final consumer prices reflects also the relatively high weight of foods and transport fuels in consumer basket and the high energy intensity of the domestic economy.<sup>3</sup>

The overall effect of international prices on Bulgaria's economy may be seen through the deflator of imported goods and services in the System of National Accounts. As from the first quarter of 2013 Bulgaria was among the countries exhibiting the strongest decreases in the import deflator of goods and services attributable to lower international prices

#### HICP Weightings of Major Goods and Services Groups

(per cent)

	Bulgaria		EU*	
	2013	2014	2013	2014
Foods (incl. alcohol and tobacco)	29	30	20	20
Services	32	32	41	42
Energy products	15	14	11	11
Industrial goods	23	24	28	27

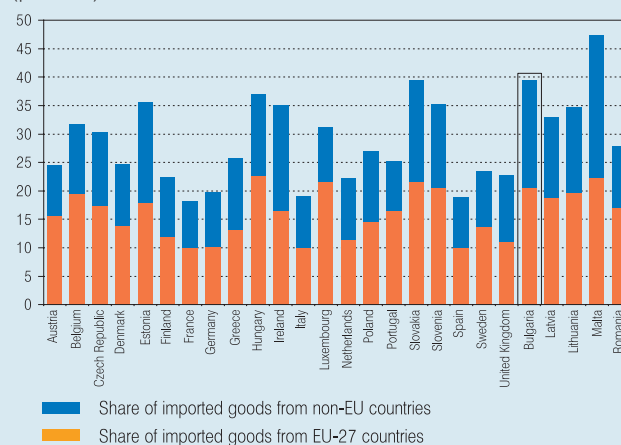
Note: Including administratively controlled prices.

\* 2013 data refer to EU-27 and those for 2014 to EU-28 (Croatia included).

Source: Eurostat.

#### Foreign Value Added Embodied in Domestic Final Demand (share of GDP, 2009)

(per cent)



Note: This chart displays data on the countries having joined the EU before 2013. No relevant data on Cyprus.

Source: OECD.

<sup>1</sup> Vladova, Z., *Survey Evidence on Price-setting Behaviour of Firms in Bulgaria*, BNB Discussion Papers/89/2012.

<sup>2</sup> Trade firms in other EU Member States, where a similar survey was carried out, also point to competitor behaviour, prices of purchased goods and materials and demand as major factors responsible for price declines (Fabiani, S., M. Druant, I. Hernando, C. Kwapił, B. Landau, C. Loupias, F. Martins, T. Mathä, R. Sabbatini, H. Stahl and Ad C. J. Stokman, *The Pricing Behaviour of Firms in the Euro area: New Survey Evidence*, ECB Working Paper, No. 535/2005).

<sup>3</sup> *Energy Economic Developments in Europe*, in: *European Economy*, 2014, No. 1, European Commission.

of final goods and commodities amid the euro appreciation *vis-à-vis* the currencies of some major trading partners of Bulgaria.

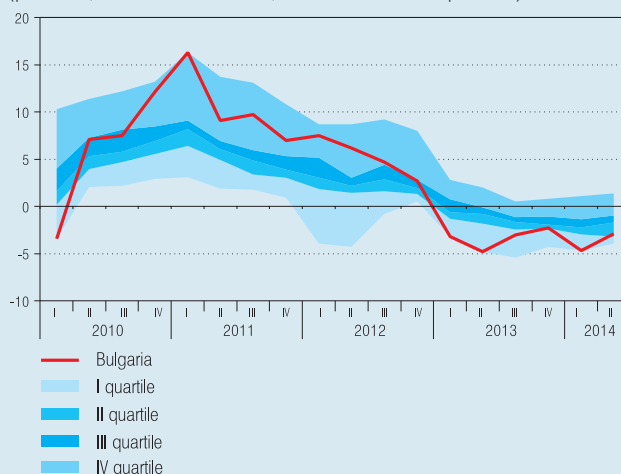
The dynamics of import prices impacted producer prices and since the second quarter of 2013 the producer price index started to decrease faster than the EU average. Mainly product prices determining firms' production costs contributed negatively to the index. As of October 2013 prices of intermediate consumption goods in Bulgaria started to decrease at the strongest rate among the EU countries. The annual growth rate of producer prices in the group of non-durable goods in the EU slowed down, while in Bulgaria these prices posted a decline on an annual basis ascribable mainly to the downward dynamics of food production and processing prices. Since early 2014 annual prices of durable goods (furniture, domestic appliances, vehicles other than cars, etc.) have remained unchanged.

Food is one of the major HICP groups showing a high degree of sensitivity to the international price dynamics. Both restructuring of agriculture by expanding arable land with extensive plants at the expense of intensive ones (fruit and vegetables), and the insufficient domestic production of some goods<sup>4</sup> contributed to this effect, which entails imports of the respective products to satisfy domestic consumption. In the context of negative import deflators of food and food products in Bulgaria, since the second half of 2013 internal prices of these goods started to decrease (on an annual basis) faster than in other EU

<sup>4</sup> For instance, according to the Ministry of Agriculture and Food assessments, pigmeat produced in Bulgaria comprised just about 40 per cent of total pigmeat consumption and the remaining part is imported (*Analysis of Red Meat in 2013 and Forecast for 2014*, Ministry of Agriculture and Food, May 2014). Concurrently, pigmeat accounted for the largest share of the sub-group of meat and meat products in the consumer basket.

## Import Deflator of Major Groups of Goods and Services in Bulgaria and EU Member States

(per cent, on an annual basis, data allocated to quartiles)



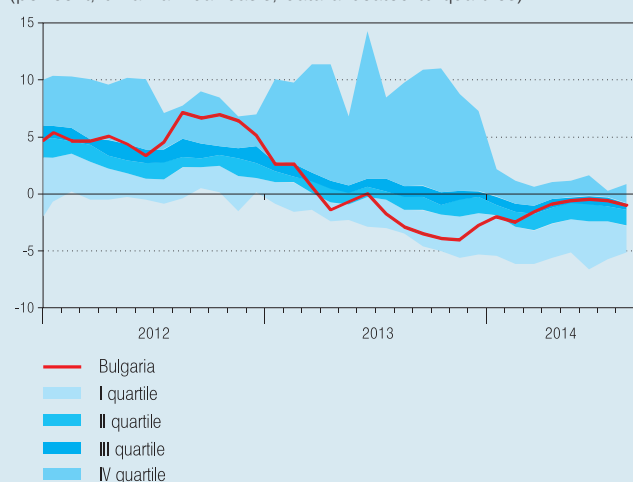
Note: The chart shows a quartile distribution of the indicator for EU Member States. Each segment contains 25 per cent of the Member States: the lowest includes the first 25 per cent with the lowest values of the indicator, next segment includes the following 25 per cent of the countries with higher values and the highest segment includes the countries with the highest values of the indicator. The values for Bulgaria are presented with a line.

Source: Eurostat, BNB calculations.

## Rate of Change of Producer Price Index in Industry on the Domestic Market and Prices of Intermediate Consumption Goods in Industry in Bulgaria and Other EU Countries\*

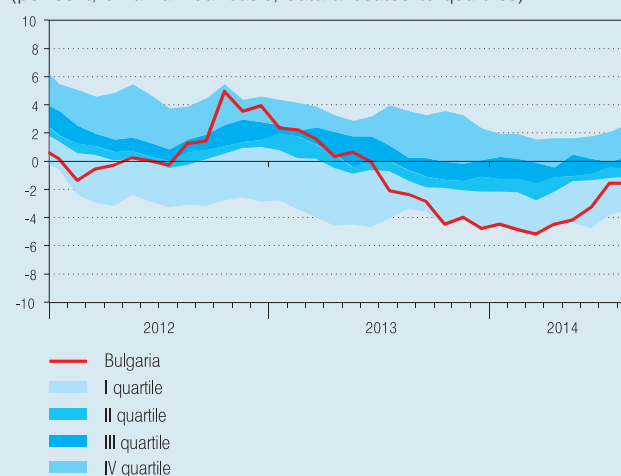
### a) Producer prices

(per cent, on an annual basis, data allocated to quartiles)



### b) Prices of intermediate consumption goods

(per cent, on an annual basis, data allocated to quartiles)



\* The Main Industrial Groupings classification was used covering the following sectors: manufacture of intermediate consumption goods, energy product production and water related activities, investment product manufacturing and consumer goods production.

Source: Eurostat, BNB calculations.



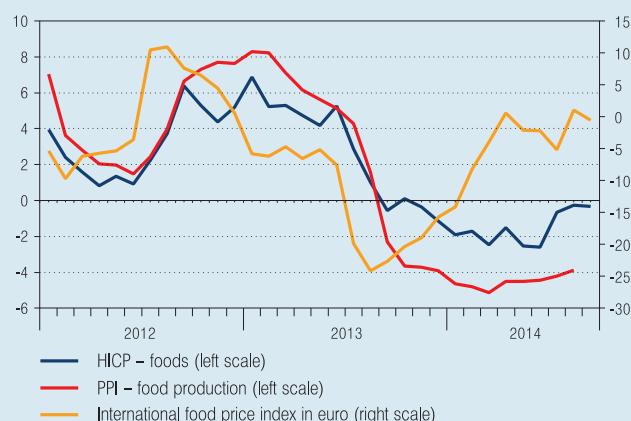
countries. The sustained domestic deflation in this group over the first half of 2014 was due to the downward dynamics of import food deflators irrespective of a discontinued fall in international food indices.

The reasons behind the continuous decline of the import deflator of food and food products reflect the fact that a portion of imports was from Hungary and Turkey where in 2013 and in the first half of 2014 the euro appreciated significantly against their national currencies which depressed import prices. Currencies of other countries with comparatively large shares of food imports experienced weaker changes. The Romanian leu depreciated slightly *vis-à-vis* the euro in 2013 which was followed by an appreciation in January–September 2014, while the exchange rate of the Polish zloty against the euro remained relatively stable since the beginning of 2013. The fact that a portion of imports was from countries as Greece and Romania, which reported the lowest (negative since the second half of 2013) inflation rates in the food group among EU countries, probably put additional pressure on import deflator predetermining the downward dynamics irrespective of the international price hike in early 2014.

## Rate of Change in Domestic and International Food Prices

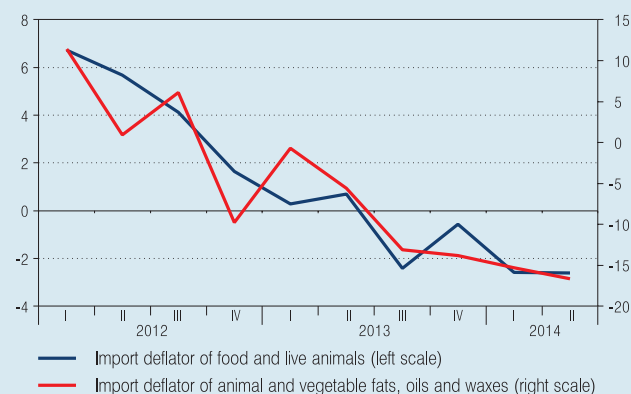
### a) International and Domestic Food Prices

(per cent, on an annual basis)



### b) Import Food Deflators in Bulgaria

(per cent, on an annual basis)

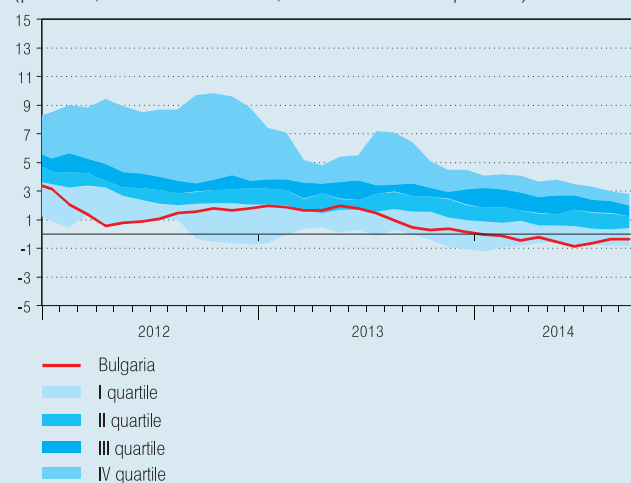


Source: Eurostat, ECB.

## Rate of Change in Prices of Processed Food (Including Alcohol and Tobacco) and Unprocessed Food in Bulgaria and EU Member States

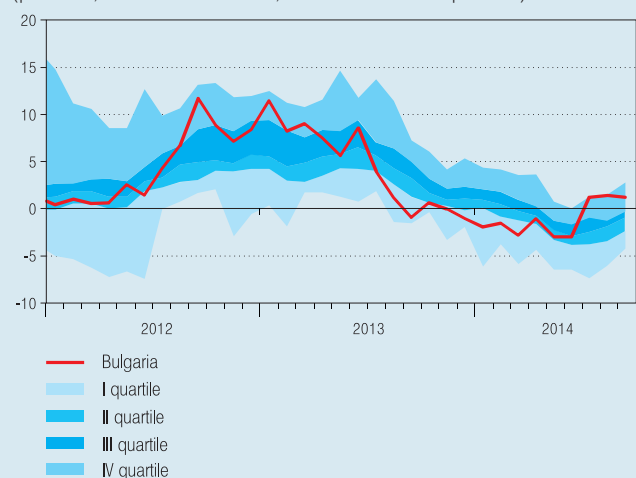
### a) Processed food

(per cent, on an annual basis, data allocated to quartiles)



### b) Unprocessed food

(per cent, on an annual basis, data allocated to quartiles)



Source: Eurostat, BNB calculations.

## Imports of Animal and Food Products, Food, Drinks and Tobacco Products by Country

(in million euro; per cent of total imports)

2010			2011			2012			2013			January – July 2014		
Country	EUR million	share of imports (per cent)	Country	EUR million	share of imports (per cent)	Country	EUR million	share of imports (per cent)	Country	EUR million	share of imports (per cent)	Country	EUR million	share of imports (per cent)
Greece	257.1	14	Romania	286.7	13	Greece	285.7	12	Greece	290.5	12	Romania	147.6	11
Romania	222.6	12	Greece	283.6	13	Romania	249.3	11	Germany	248.6	10	Greece	145.2	10
Germany	168.8	9	Germany	197.7	9	Germany	228.7	10	Romania	244.2	10	Germany	145.1	10
Netherlands	129.3	7	Poland	139.8	6	Poland	193.6	8	Poland	238.4	10	Poland	125.9	9
Poland	108.4	6	Brazil	134.7	6	France	125.7	5	France	115.0	5	France	79.6	6
Brazil	96.4	5	Netherlands	127.0	6	Netherlands	106.2	5	Netherlands	113.8	5	Netherlands	71.0	5
France	85.9	5	France	102.7	5	Hungary	105.2	4	Hungary	100.7	4	Spain	60.5	4
Turkey	82.5	4	Hungary	90.9	4	Spain	99.8	4	Spain	100.1	4	Italy	60.1	4
Hungary	78.6	4	Italy	90.2	4	Italy	96.8	4	Italy	97.2	4	Turkey	58.0	4
Italy	72.8	4	Spain	88.5	4	Turkey	74.1	3	Turkey	92.0	4	Hungary	53.4	4

Source: NSI, BNB calculations.

Additional internal factors behind the lower food inflation in Bulgaria as compared with other Member States pertain to the faster rate of decrease in production costs of agricultural output in Bulgaria than the average EU rate and a good harvest in Bulgaria and the region in 2013, which put pressure on producer prices of agricultural products. Concurrently, unfavourable weather conditions in the third quarter of 2014 in Bulgaria contributed to the highest positive inflation reported in the group of unprocessed food within the EU.

Price developments of industrial goods, mainly durables, also contributed to deflation in Bulgaria since end-2013. These prices were marked by a continuous decline in most EU countries. However, between August 2013 and September 2014 Bulgaria began to diverge from the overall trend, recording comparatively larger deflation in this group. Due to the openness of the economy, non-food goods dynamics in Bulgaria reflect international price developments of these goods and euro's exchange rate against currencies of our major trading partners.

In the first half of 2014 imports of computer<sup>5</sup> and television equipment<sup>6</sup>, motor vehicles<sup>7</sup> and other finished products<sup>8</sup> comprised 63 per cent of final consumer expenditure of households on non-food goods unlike

<sup>5</sup> Office and computer equipment.

<sup>6</sup> Radio, TV and telecommunications equipment.

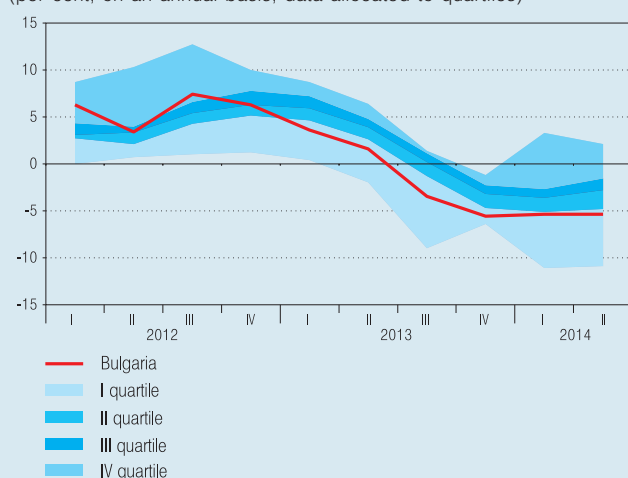
<sup>7</sup> Motor vehicles, motorcycles, bicycles, trailers and semi-trailers.

<sup>8</sup> Miscellaneous finished products, n.e.c. Including furniture, clothing, footwear, photographic and cinematographic equipment, medical appliances and other.

## Rate of Change in Prices of Input Resources\* in Agriculture and of Producer Prices of Agricultural Products

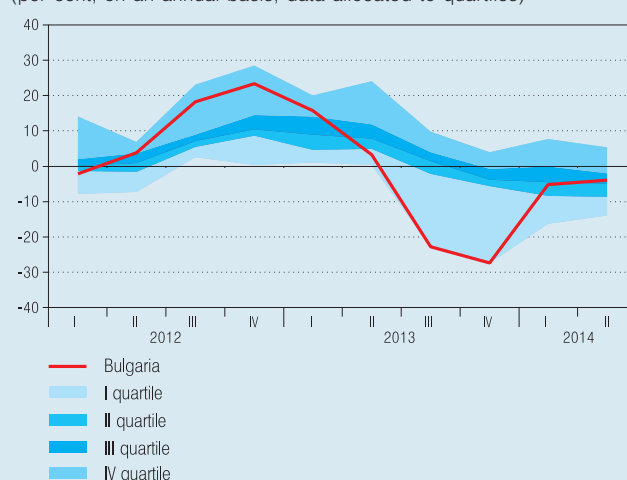
### a) Prices of input resources

(per cent, on an annual basis, data allocated to quartiles)



### b) Producer prices

(per cent, on an annual basis, data allocated to quartiles)



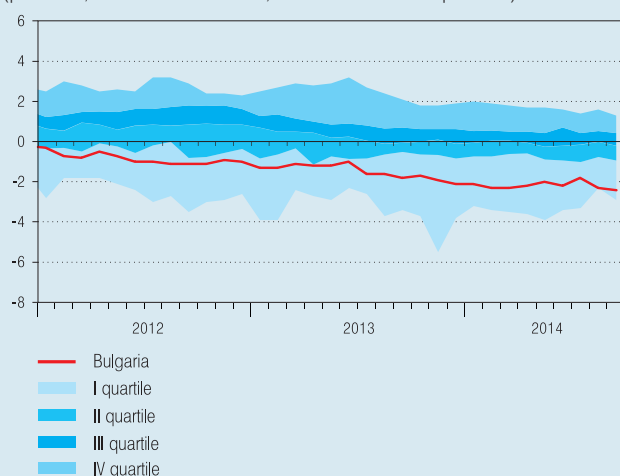
\* Price indices of goods and services currently consumed in agriculture and goods and services contributing to agricultural investment.

Source: Eurostat, BNB calculations.

## Rate of Change of Non-food and Durables Price Indices

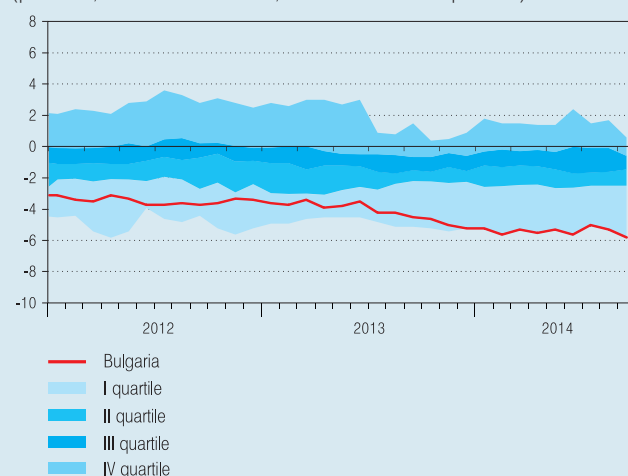
### a) Non-food price index, total

(per cent, on an annual basis, data allocated to quartiles)



### b) Durables price indices

(per cent, on an annual basis, data allocated to quartiles)



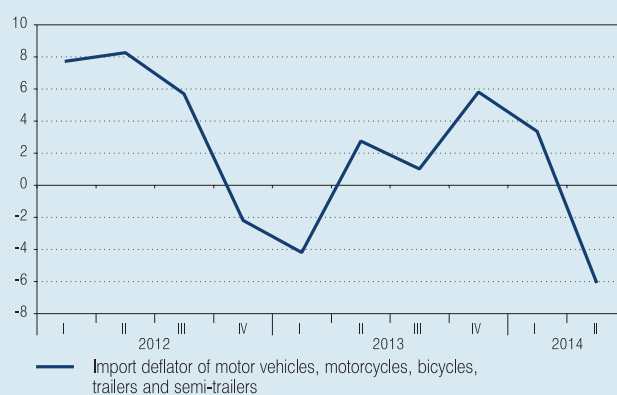
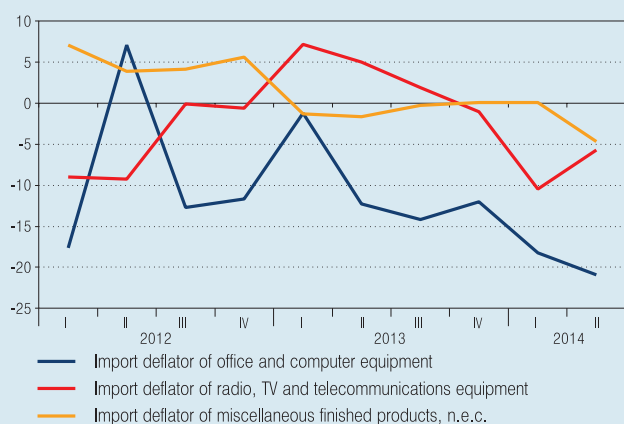
Source: Eurostat, BNB calculations.

2010–2013 when this share was 47 per cent<sup>9</sup>. From the beginning of 2013 stronger downward dynamics was observed in import deflators of computer and television equipment, unlike other finished products whose annual rate of change in import prices was slightly negative with a deepening decline rate over the second quarter of 2014. Despite the continuous year-on-year downward trend in final consumer prices of motor vehicles since early 2009, the import deflator for the motor vehicles, motorcycles, bicycles, trailers and semi-trailers group displayed no such dynamics. Stronger negative deflators of imports in this group were registered in the first quarter of 2013 and second quarter of 2014. These divergent developments may reflect both differences in the scope of goods groups under HICP and the Standard International Trade Classification (SITC) which makes it impossible to directly compare rates of price changes between the two groups and decreased profit margins of trade in motor vehicles in the context of their subdued demand.

<sup>9</sup> The Standard International Trade Classification (SITC) has been used. As part of above mentioned imported goods are probably consumed by other economic sectors, calculations of their shares in household consumer expenditure may be overestimated. If the import classification by use is employed, the share of imported consumer goods (at current prices) in household final consumer expenditure on non-food goods will be 61 and 41 per cent for 2014 and 2010–2013, respectively.

## Rate of Change in Import Deflators of Certain Types of Non-food Goods in Bulgaria

(per cent, on an annual basis)



Source: Eurostat, BNB calculations.

Almost one-fourth of above goods groups' imports in 2013 and the first half of 2014 came from Germany and Italy, with the annual rate of change in durable non-foodstuffs prices in Germany following a slight downward trend unlike Italy where they remained stable. Approximately 40 per cent of imports came from China, Hungary, Turkey, Netherlands, Greece, Slovakia, Austria and the Czech Republic, with currencies of all non-euro area countries depreciating against the euro since early 2013 which is likely to exert pressure on the prices of these products in Bulgaria. In some of these countries, durable non-foodstuffs price inflation declined faster than the average EU value which could partly explain the stronger downward price dynamics of these goods in Bulgaria.

### Effects of Changes in Administratively Controlled Prices and of Methodological and Statutory Changes

Overall inflation reflected also changes in regulated electricity prices for households between January 2013 and September 2014. This affected directly final consumer prices (electricity for households) and indirectly firms by cutting their cost of production. In Bulgaria, energy products have a comparatively high weight in CPI, contributing to its stronger decrease than the EU average in the second half of 2013.<sup>10</sup> Price developments in this group were driven by both lower prices of processed oil products and of electricity and gas production.<sup>11</sup> The latter corresponds to the lower prices of natural gas and electricity for industrial producers in 2013, irrespective of their size, which additionally subdued production costs of corporations.

In addition, there is another internal factor impacting CPI deflation through enhanced services deflation in 2014: methodological and statutory changes affecting prices of passenger air transport, dental services, medical and out-patient services, and telecommunications services. Decreased prices in these sub-groups are due to the changed methodology of air tickets reporting applied since early 2014; lower fees since January 2014 for visits to medical specialists (doctors and dentists) who have concluded contracts with the National Health Insurance Fund and decreased prices of telecommunications services following the European Commission announcement of major cuts in mobile data roaming prices.

If the influence of administratively controlled prices and methodological changes are excluded from inflation calculations for Bulgaria and EU Member States, the annual rate of change of domestic prices would approach the EU average value.

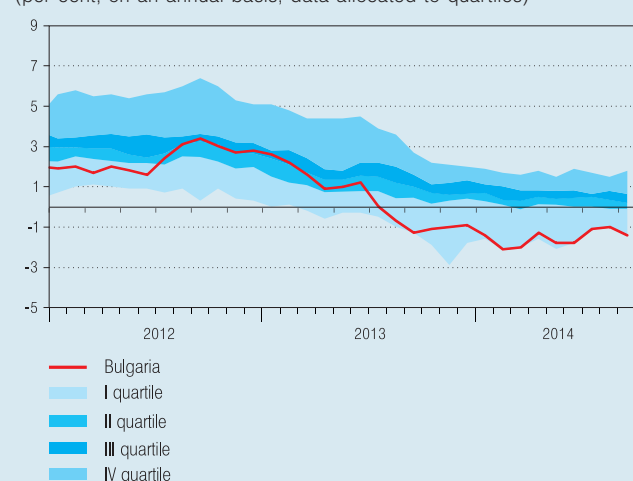
<sup>10</sup> Bulgaria's energy products occupied 46 per cent of CPI calculation in the domestic market, while their weights (OECD data) in Estonia and the Netherlands were 20 and 27.1 per cent, with Estonia being the EU country with the highest volatility of energy product prices (30.81 per cent in March 2013 and -19 per cent in June 2014 on an annual basis) and the Netherlands reporting a comparatively high and continuous rate of decline in energy product prices from January 2013 to August 2014.

<sup>11</sup> Production and distribution of electricity, heating and gas.

### Annual Rate of HICP Inflation and Adjusted Annual Rate of HICP Inflation in Bulgaria and EU Countries

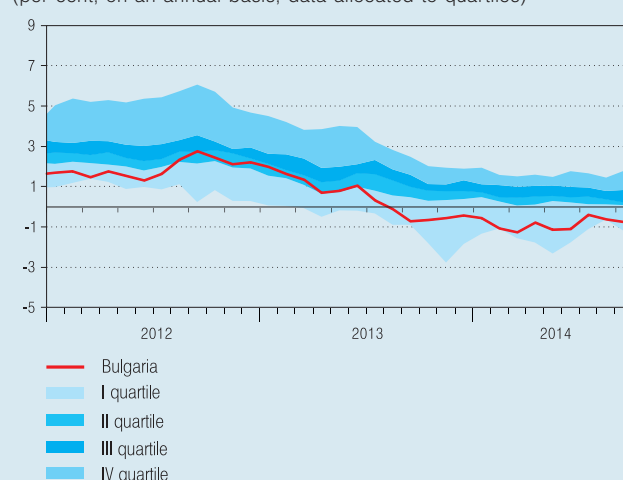
#### a) HICP inflation

(per cent, on an annual basis, data allocated to quartiles)



#### b) HICP inflation adjusted for internal factors

(per cent, on an annual basis, data allocated to quartiles)



Note: HICP inflation adjustment for internal factors is made by extracting the contributions of electricity, medical and out-patient services, dental services, passenger air transport, telephone and telefax services subgroups from the overall rate of change of prices in Bulgaria and all other EU Member States.

Source: Eurostat, BNB calculations.

## Effect of Domestic Consumer Demand on Prices

The output gap indicates the importance of domestic demand for price developments. BNB and EC estimates show that real GDP in 2013 and the first half of 2014 was below the potential level of output, with an increasing output gap, which suggests a decreased impact of domestic demand on prices, irrespective of the enhanced real household consumption in early 2014.

Calculations of non-food goods and services inflation sensitivity suggest that an increase of the output gap by 1 percentage point results in a decline of inflation in these groups by 0.2 and 0.7 percentage points.

Retail trade volumes at comparable prices are another indicator of consumer demand. Since the third quarter of 2013 they have picked up at rates higher than the EU average in both food and non-food goods trading. The NSI survey of business developments in trade shows some gains of competitiveness as a factor limiting corporations' activities, signalling its enhanced role in the context of low demand. The increased competitiveness as a result of the shopping centre expansion<sup>12</sup> corresponds to the prevailing expectations of retail trade managers about stabilisation in prices. Since early 2014 trade volumes in most services sub-sectors also have risen on an annual basis in the context of deflation in this group, which is inconsistent with the expectations that enhanced demand for these services will cause inflation.

## Conclusion

Stronger inflation declines in Bulgaria in 2013 and 2014 compared to the EU average reflected the simultaneous downward pressure of group of factors on final consumer prices. Bulgaria reported one of the largest import deflator decreases within the EU which subdued final prices of some food and non-food goods, impacting indirectly the rest groups of goods and services through cutting production costs. Similarly, the decreased price of electricity for households and industrial consumers had a direct and indirect effect on end-use prices and stronger downward inflation dynamics in Bulgaria compared with the EU. Some internal factors related to methodological and statutory changes put further downward pressure on domestic prices of certain services groups. The decrease in household consumption over 2013 was another factor behind the fall in inflation, though its effect on faster price declines in Bulgaria compared to the EU average is not completely straightforward due to the comparatively low output gap against the other Member States.

## Output Gap

(per cent)

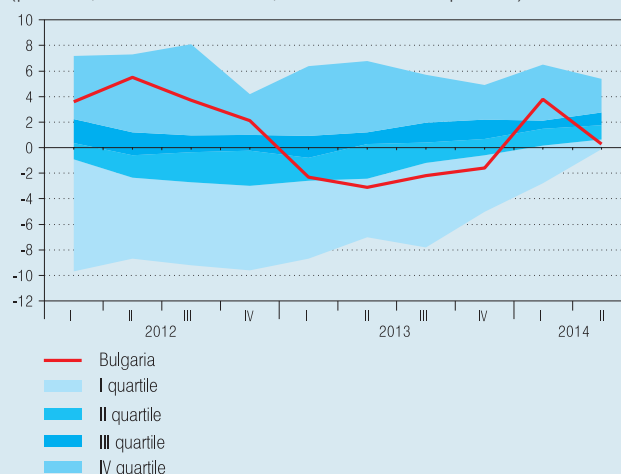
	2010	2011	2012	2013
BNB estimate	-2.7	-0.8	-0.7	-1.0
EC estimate*	-2.2	-0.7	-0.6	-1.2

\* EC's spring forecast of 5 May 2014.

Source: Eurostat, BNB calculations.

## Final Consumption Expenditure of Households in Bulgaria and EU Member States

(per cent, on an annual basis, data allocated to quartiles)



Source: Eurostat, BNB calculations.

<sup>12</sup> Over the recent years a trend toward transformation and modernisation of retail trade was observed in the Central and Eastern Europe, reflecting entry of foreign companies and increased competitiveness in this sector. An ECB study of 2011 shows that local supply facilities dominated retail trade in Bulgaria, unlike the other countries of this region where modern shopping centres occupied a considerably higher share. As a result, a further retail trade transformation may be expected in Bulgaria. (*Structural Features of Distributive Trades and Their Impact on Prices in the Euro Area*, ECB, Occasional paper No. 128, 2011).