

# Economic Review

2/2013



BULGARIAN  
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BANK





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Bulgarian monetary policy regime seeks national currency stability with a view to price stability. 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. External environment is also analyzed since the Bulgarian economy is influenced by international economic fluctuations. This publication contains quantitative assessments of the development in major macroeconomic indicators in the short run: inflation, economic growth, monetary and credit aggregate dynamics and interest rates.

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The estimates and projections published in this issue should not be regarded as advice or recommendation. Exclusively the information user is liable for any consequences thereof.

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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
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
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 first half of 2013 the global composite PMI indicator tended to stabilise. Conjunctural indicator dynamics differed across regions. Over the first quarter of 2013 euro area recession continued, with some macroeconomic indicators starting to improve in April and May. Economic growth in China slowed down, while that in the USA accelerated. The expectations for economic activity, new orders, employment and production remained at high levels in the second quarter. Global economic activity is expected to increase in the second half of 2013, while the euro area is anticipated to overcome the recession and to start recovering gradually.

In the second quarter of 2013 international euro prices of most commodity groups fell, particularly oil, metal, wheat and cereals prices. Inflationary pressures subsided significantly in advanced economies and to a lesser extent in developing countries. The downward trend in international commodity prices is expected to be sustained, with food and oil prices stabilising at the end of the year.

As a result of the interaction between external and domestic economic factors and the resulting financial flows, Bulgaria's international foreign exchange reserves continued to increase on an annual basis over the first half of 2013. In the beginning of the year an upward trend was observed in the surplus of the overall current and capital account balance on an annual basis. The improvement of the current account balance continued to be driven by the subdued domestic demand resulting in a relatively high savings rate in the economy against the background of weak investment activity. The balance of payments financial account dynamics reflected mainly financial operations of banks and the repayment of Bulgarian government's global bonds maturing in January. The overall balance on the current and capital account is expected to remain positive on an annual basis in the second half of 2013.

The banking system liquidity remained ample due to the growing households' deposits and relatively weak lending activity. Banks maintained a large part of their liquidity as excess reserves on their accounts with the BNB and as funds on their accounts in the national system component of the Trans-European Automated Real-time Gross settlement Express Transfer system for the euro (TARGET2-BNB). In the second quarter of 2013 a downward trend in these liquid funds was observed compared to the first quarter. Banks continued to increase the share of government securities, primarily of the Bulgarian government, in their investment portfolios. Concurrently, they used a significant part of their available resources to manage net external assets.

The trend towards a slowdown in non-government sector credit growth observed since the second half of 2012 was retained between January and May 2013. It was driven mainly by the dynamics of claims on non-financial corporations, while bank claims on households recorded a slight decline. Households' deposits are expected to grow further and banks are expected to preserve their high liquidity. The monetary aggregate M3 will continue to rise at relatively high rates and the current tendency of a gradual deceleration is anticipated to be sustained. Credit activity is expected to remain low. Primarily non-financial corporations will report credit growth, while household credit activity is expected to continue to fall, with a gradual slowdown in the annual rate of decline.

The impact of euro area recession on Bulgarian economic activity was limited in the first quarter of 2013 due to the increase in exports and improved expectations of economic agents. Despite relatively modest improvements in the international economic environment, goods and services exports picked up significantly, with Bulgarian firms exporting to both non-EU and EU countries and increasing their

market share in the total EU imports. Households sustained their high propensity to save and continued to limit consumption, while firms' investment activity posted a slight increase.

Following a protracted period of decline, total employment rose in the first quarter of 2013 (based on preliminary data) showing divergent dynamics across sectors. The quarter-on-quarter growth of employed was observed particularly in services sub-sectors, unlike industry where it continued to decline. Labour income measured by the average wage *per* employee increased at comparatively high rates in both real and nominal terms over the first quarter of 2013.

Based on current information, domestic demand is expected to rise in the second quarter of 2013 and to grow further in the third and fourth quarters. Over the second quarter private consumption is likely to increase at a moderate rate, reflecting the slight improvements in labour market conditions, and to accelerate its growth rate in the third and fourth quarters. Bulgarian investment activity will increase at moderate rates in the following quarters, government capital expenditure contributing to this growth. Exports are anticipated to continue growing, but at a slower rate, given the uncertainty about economic recovery of Bulgaria's major trading partners. Imports are projected to follow domestic demand dynamics. Generally, the contribution of net exports to growth is likely to be slightly negative. The simultaneous improvement of domestic and external demand is anticipated to accelerate real GDP growth in the third and fourth quarters of 2013. Risks to this outlook are balanced. Euro area recovery could be faster than expected which may result in higher exports and GDP growth. On the other hand, private consumption recovery is likely to be slower because of still high unemployment rates which will hold up the recovery of consumer demand in the third and fourth quarters of 2013.

Between January and May 2013 consumer price inflation continued to slow down, a trend since late 2012. The annual inflation rate was 1 per cent in May 2013. The decrease in transport fuel prices on an annual basis, prompted by the significant drop in oil prices between March and May, together with the decrease in the administered price of electricity for households since March pushed inflation downwards. The fall in prices of telecommunication services and industrial goods observed in recent years continued between January and May 2013.

In the third quarter of 2013 annual inflation is expected to retain its downward trend, mainly due to deflation of goods and services with administratively controlled prices and retained low fuel prices. In the fourth quarter a slight rise in inflation may occur, assuming that international food prices will stop falling and the crude oil price will continue decreasing on an annual basis, but at a lower rate compared with the third quarter.



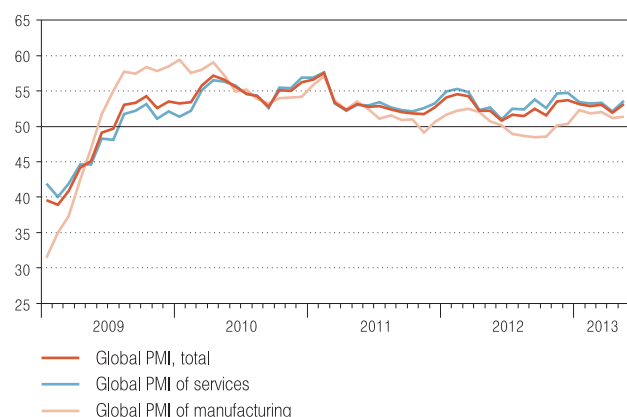
# 1. External Environment

The recession in the euro area continued over the first quarter of 2013, while US economic growth accelerated. Economic growth in China also slowed down which had a negative effect on global economic growth. By region, inflationary pressures subsided significantly in advanced economies and to a lesser extent in developing countries. Euro area economic activity is expected to stabilise in the second half of 2013, with economic growth starting to recover in the fourth quarter, though at a slow pace.

## Current Business Situation

In the first half of 2013 the global composite PMI indicator tended to stabilise. The levels of leading economic indicators were divergent by sector, with more pessimistic expectations about the development of manufacturing, unlike the services sector where confidence increased. Global leading indicators stood well above the threshold of 50, indicating a positive economic growth rate on a monthly basis, including broken down by sector.

### Global PMI



Source: JP Morgan.

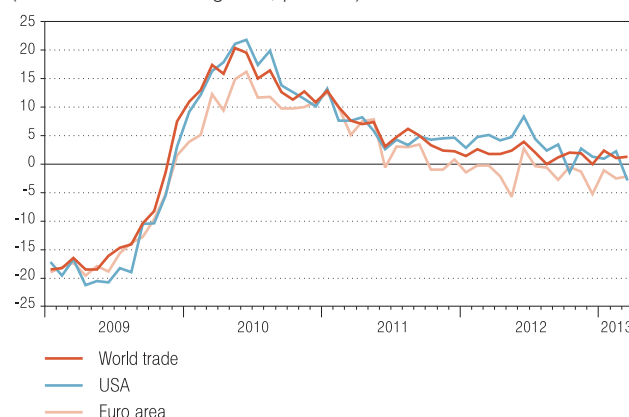
By region, diverse changes were observed, as confirmed by the leading indicators throughout the first half of 2013. PMI indicators for the euro area began to improve in April and May, though remaining below the level of 50. Expectations of economic activity, new orders, employment and manufacturing remained high in the USA. Signals of an improvement in the business environment were also reported in emerging economies.

The world trade volume rose in the first quarter of the year, with emerging economies contributing most positively to the growth. Over the same

period the US foreign trade recorded a slight growth rate following the declines in March. The euro area foreign trade turnover continued to contract at a slowing rate.

### World Trade

(annual rate of volume growth, per cent)

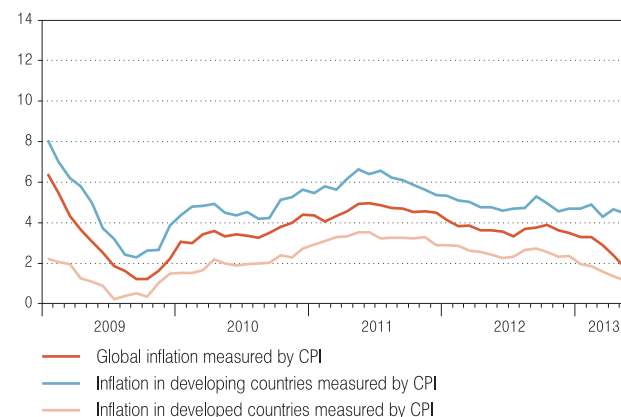


Source: CPB Netherlands Bureau for Economic Policy Analysis.

Global economic activity is expected to increase in the second half of 2013, while the euro area is anticipated to overcome the recession and to start recovering gradually.

### Inflation Measured by CPI

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



Source: World Bank.

In the April to May 2013 period global inflation continued to slow down on an annual basis, reflecting mainly the weak dynamics of commodity prices in international markets. By region, inflationary pressures subsided significantly in advanced economies and to a lesser extent in developing countries.

## Euro area

Recession in the euro area continued in the first quarter of 2013, with Eurostat data showing a 1.1 per cent decline in real GDP on an annual basis compared to a 1 per cent fall in the previous period.

On a quarterly basis, the real GDP decline was 0.2 per cent (-0.6 per cent in the previous quarter). Looking at the GDP components, investments had a negative contribution to the growth (-0.3 percentage points), while net exports had a positive contribution (0.1 percentage points). Inventories and household and government consumption remained growth neutral with a zero contribution. High unemployment, continued uncertainty in financial markets and fiscal consolidation were the factors adversely affecting domestic demand.

GDP data for the first quarter of 2013 suggest divergent rates of changes in euro area countries. Almost all euro area countries reported declines, most pronounced in periphery countries. On an annual basis, real GDP decreased by 0.3 per cent in Germany (against growth of 0.3 per cent in the previous quarter) and by 0.4 per cent in France (against a fall of 0.3 per cent in the previous quarter). The year-on-year decline was 2 per cent in Spain (-1.9 per cent in the previous quarter) and -2.4 per cent in Italy (-2.8 per cent in the previous quarter). The largest GDP fall was reported in Greece<sup>1</sup> (-5.3 per cent), Cyprus (-4.3 per cent) and Portugal (-4 per cent).

In the first quarter of 2013 real GDP data show a recession<sup>2</sup> in Spain (-0.5 per cent), France (-0.2 per cent), Italy (-0.6 per cent), Cyprus (-1.4 per cent), the Netherlands (-0.4 per cent), Portugal (-0.4 per cent), Finland (-0.1 per cent), and Slovenia (-0.7 per cent)<sup>3</sup>. Real GDP in

<sup>1</sup> Not seasonally adjusted data.

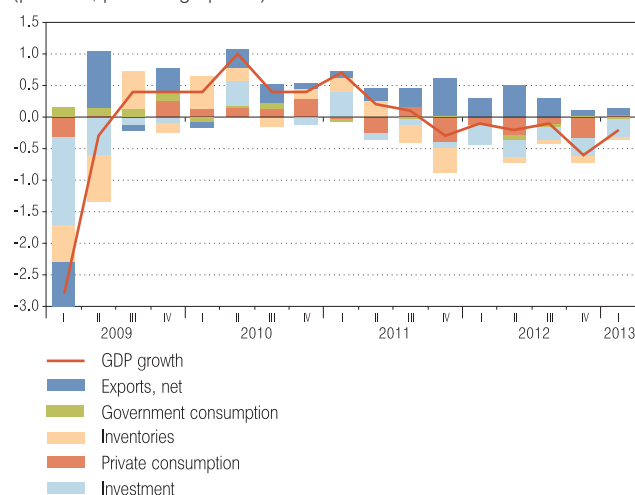
<sup>2</sup> Quarter-on-quarter declines in real GDP during at least two consecutive quarters.

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

Germany increased by 0.1 per cent compared with a quarter earlier, after falling by 0.7 per cent in the fourth quarter of 2012.

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

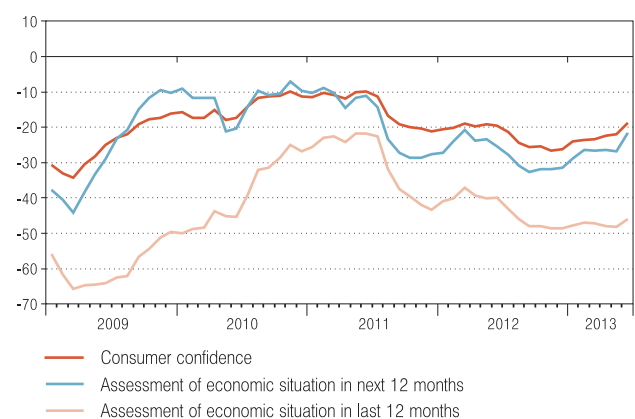
(per cent; percentage points)



Source: Eurostat.

The leading indicators recorded slight increases, with the EC economic sentiment index for the euro area rising to 91.3 in June 2013, from 89.5 in May, and the business climate indicator to -0.68, from -0.75 in May. The EC consumer confidence index in the euro area increased to -18.8 in June, from -21.9 in May. PMIs for the euro area increased, while remaining below the neutral level of 50 in the second quarter, which signals a contraction of economic activity. In June the composite PMI was 48.7 (47.7 in May) and manufacturing and service PMIs reached 48.8 and 48.3 respectively (48.3 and 47.2 in May).

## Euro Area Consumer Confidence Indices



Source: European Commission.

## Manufacturing and Service PMIs



Euro area economic activity is expected to stabilise in the second half of 2013 according to developments in leading indicators, with economic growth likely to start recovering in the fourth quarter, though at a slow pace.

According to the latest ECB forecasts of June 2013, the GDP change will range between -1 and -0.2 per cent in 2013 (previous forecast: -0.9 – -0.1 per cent) and between 0 and 2.2 per cent in 2014 (previous forecast: 0 – 2 per cent). In May 2013 EC forecasts pointed to a decline in euro area GDP by 0.4 per cent in 2013 and growth by 1.2 per cent in 2014 (previous estimates: -0.3 and 1.4 per cent respectively).

In May inflation in the euro area was 1.4 per cent against 1.2 per cent in April and 1.7 per cent in March. On a monthly basis, HICP rose by 0.1 per cent in May *vis-à-vis* a 0.1 per cent decline in April. The slowing decline in energy prices and the increased services prices, which dropped due to seasonal factors in the previous month, were the major reasons behind higher inflation.

In May energy prices fell by 0.2 per cent on an annual basis (a 0.4 per cent drop in April). Food and services prices rose by 3.2 and 1.5 per cent respectively (2.9 and 1.1 per cent growth in April). Euro area core inflation amounted to 1.2 per cent on an annual basis compared to 1 per cent in April and 1.5 per cent in March.

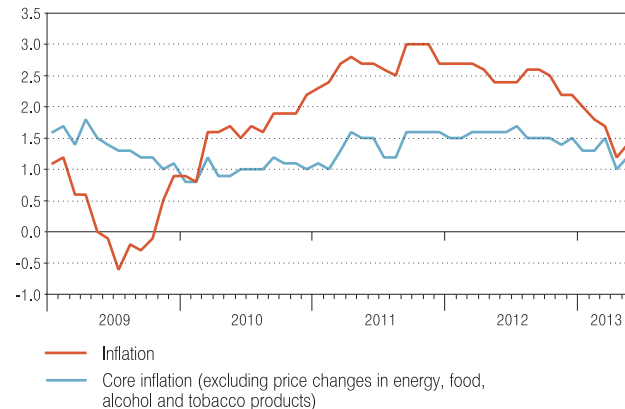
By country, the lowest annual inflation in May 2013 was reported in Greece (-0.3 per cent), Cyprus (0.2 per cent) and Ireland (0.5 per cent). Estonia and the Netherlands recorded the highest values of this indicator: 3.6 and 3.1 per cent respectively. The annual rate of change in HICP inflation accelerated in Germany to 1.6 per

cent (1.1 per cent in April) and to 0.9 per cent in France (0.8 per cent in April). Year-on-year inflation acceleration was also reported in Spain (1.8 per cent compared to 1.5 per cent in April), while Italy registered the same value as in the previous month (1.3 per cent).

Preliminary data for June show that HICP inflation in the euro area rose to 1.6 per cent and core inflation remained unchanged at 1.2 per cent.

## Euro Area Inflation Rate

(percentage change on same period of previous year)



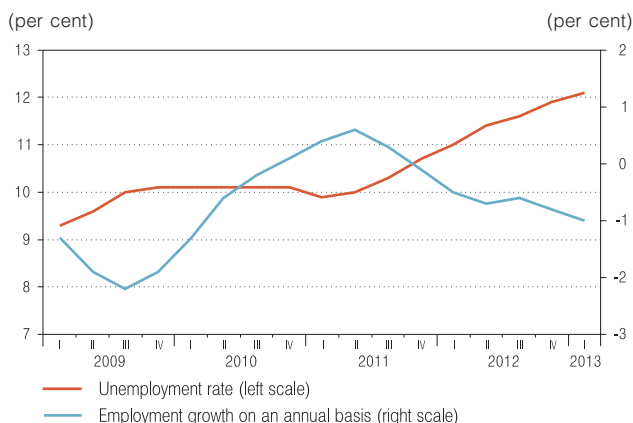
According to ECB forecasts of June 2013 euro area inflation will range between 1.3 and 1.5 per cent (previous forecast: 1.2 – 2 per cent) in 2013 and between 0.7 and 1.9 per cent (previous forecast: 0.6 – 2 per cent) in 2014.

The contraction of economic activity in the euro area continued to negatively affect labour market conditions. First quarter's data show a decline in employment by 1 per cent on an annual basis (compared to 0.8 per cent in the fourth quarter of 2012). In May 2013 unemployment in the euro area reached 12.2 per cent, from 12.1 per cent in the previous three months. This high value continued to follow its upward trend in Greece<sup>4</sup> (26.8 per cent), Spain (26.9 per cent) and Portugal (17.6 per cent). The lowest unemployment was reported by Austria (4.7 per cent) and Germany (5.3 per cent) where even a decline of 0.1 percentage points was reported in May.

Based on business confidence survey data, firms' employment expectations improved in June, with the exception of retail trade and services sectors where the expectations point to a slight decline. For the fourth consecutive month households improved their unemployment expectations for the next 12 months.

<sup>4</sup> The latest data available are for March 2013.

## Unemployment Rate and Employment Growth in the Euro Area



Source: Eurostat.

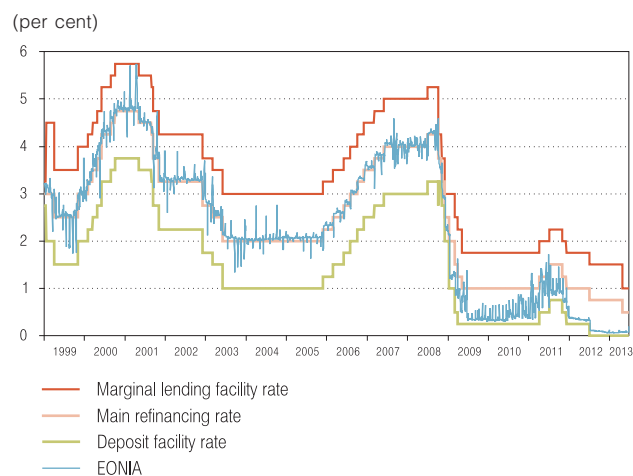
In May 2013 the ECB decided to cut the main refinancing operations rate by 25 basis points to 0.50 per cent and the marginal lending facility rate by 50 basis points to 1 per cent, effective from 8 May. The deposit facility rate was left unchanged at 0 per cent. The ECB also decided to continue its policy of unlimited liquidity allotment on main, short-term and long-term refinancing operations at least until the end of the sixth maintenance period of 2014, ending on 8 July 2014. The interest rate on main and one-month refinancing operations was kept fixed and that on three-month refinancing operations which will be conducted on a monthly basis until mid-2014 will be the average interest rate on main refinancing operations for the period.

At the ECB monetary policy meeting of 6 June, no changes in interest rate policy were adopted. The ECB again confirmed the intention to maintain its current monetary policy stance for as long as needed, while closely analysing the incoming macroeconomic information, including data on monetary and credit aggregate dynamics, with a view to take immediate measures, where appropriate.

At the 4 July monetary policy meeting, the ECB left unchanged reference interest rates, though surprising market participants by its intention to keep interest rates at their present or lower levels for an extended period of time. The decision to give for the first time forward guidance of the future monetary policy was adopted unanimously. The term of such monetary policy depends on the developments of inflation expectations, real economy, monetary aggregates and credit flows in the medium term. At the press conference after the meeting, the ECB Council

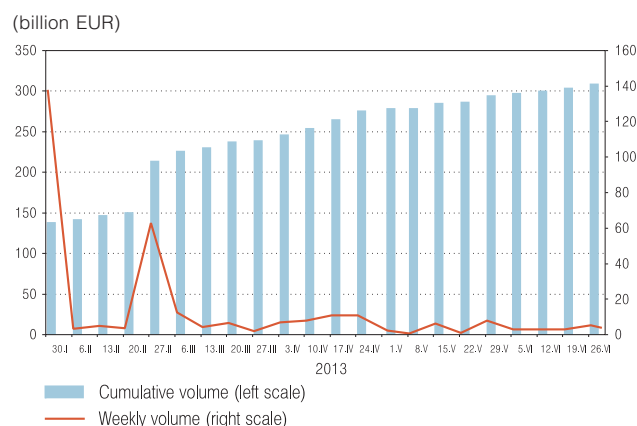
states that the present level of the main refinancing rate (0.50 per cent) is not the lowest possible level and the Bank is ready to cut the deposit facility rate (0 per cent) to negative values.

## ECB Interest Rates



Source: ECB.

## Repayments on Three-year Refinancing Operations of the ECB



Source: ECB.

As of 26 June 2013 repayments on the December 2011 three-year issue accounted for EUR 205.7 billion with a residual refinancing value of EUR 283.4 billion. In addition, EUR 101.7 billion was repaid in the February 2012 three-year issue with a residual value of EUR 427.8 billion. In net terms, 62 per cent of the funds allotted through the two long-term operations was refunded. Moreover, national central banks' data suggest that between January and May 2013 the amount of long-term refinancing provided by the ECB decreased most dramatically at Spanish,<sup>5</sup> French and German banks: by

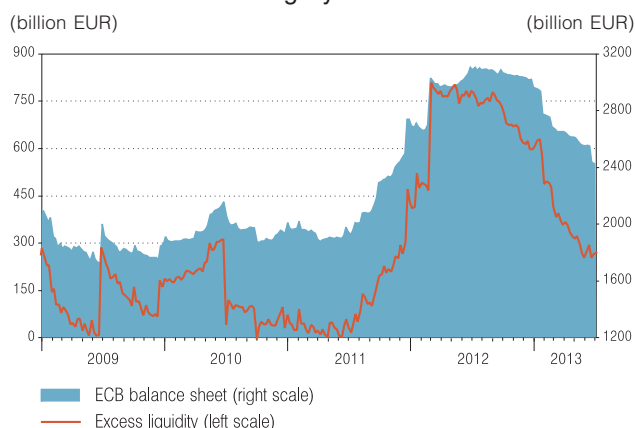
<sup>5</sup> Data on Spain are based on the average value for the reporting period, whereas data on France, Germany and Italy represent end-of-period values. Source: central banks of relevant countries.



EUR 82.5 billion, EUR 79.0 billion and EUR 57.6 billion. Refunded long-term refinancing by Italian banks was EUR 13.8 billion.

Excess liquidity in the euro area banking system continued to decline as a result of the early repayment of liquidity on ECB long-term operations. On 28 June 2013 the excess liquidity fell to EUR 263 billion (from EUR 359 billion at the end of March 2013). The ECB balance sheet posted a decline by 8.2 per cent compared with end-March 2013 and reached EUR 2.430 trillion on 28 June 2013. On the asset side, refinancing operations dropped to EUR 822.7 billion (from EUR 902.1 billion by end-March 2013) and deposit facility funds in the balance sheet liabilities fell to EUR 92.2 billion (from EUR 144.6 billion by end-March 2013).

### ECB Balance Sheet and Excess Liquidity in the Euro Area Banking System



Source: ECB.

On 28 June the cumulative value of Securities Markets Programme was EUR 195 billion (EUR 205.5 billion by end-March 2013). This change reflects government bond maturities over the review period.

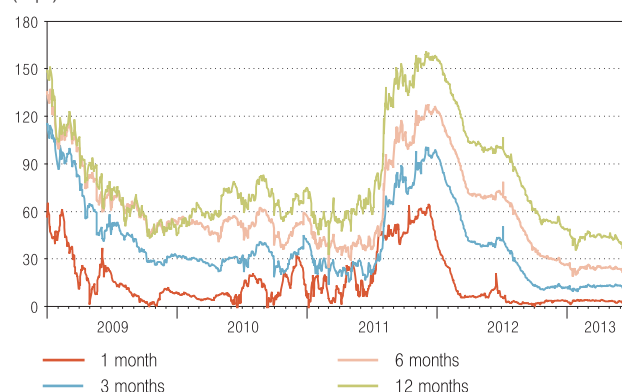
In the second quarter of 2013 euro area market interest rates experienced a slight change. The EONIA reference overnight interest moved within the interval of 0.06 and 0.21 per cent, with the average value accounting for 0.08 per cent (compared to 0.07 per cent in the first quarter of 2013). The expanded interval was due to the one-off EONIA increase to 0.21 per cent in the last day of the quarter, reflecting seasonal factors.

EURIBOR interest rates on interbank market deposits exhibited divergent dynamics. On 28 June 2013 one-month interest rates came to 0.12

per cent (up 1 basis point on end-March 2013), and those with maturities of six and 12 months reached 0.34 per cent (unchanged on end-March) and 0.53 per cent (down 2 basis points on end-March). Credit and liquidity risk premia measured by the spread between EURIBOR and OIS recorded declines. Risk premia in the three- and six-month segments ended the period at a level of 11 basis points (down 2 basis points on end-March 2013) and 21 basis points (down 4 basis points on end-March).

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

(b.p.)

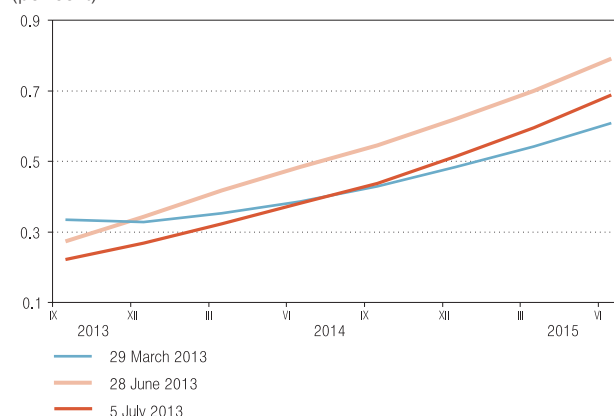


Source: European Banking Federation.

As of 28 June 2013 market expectations derived from the prices of three-month EURIBOR futures contracts pointed a retention of the reference interest rate at 0.5 per cent until the end of 2013 and a possible increase in the second half of 2014. After the 4 July ECB meeting, forward interest rates contained expectations of a decrease in repo interest rates by 25 basis points in the second half of 2013.

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

(per cent)



Source: European Banking Federation.

## The Balkan Region

In the first quarter of 2013 the economic growth in the Balkan countries tended to accelerate despite different dynamics in individual countries. Greece continued to report a strong economic slowdown on an annual basis, while Turkey and Macedonia recorded high growth rates.

In the first quarter of 2013 downward trends in industrial production of **Bosnia and Herzegovina** were reversed, its rate increasing by 9.6 per cent on an annual basis. Manufacturing and energy registered growth of 9.9 and 23.9 per cent respectively, while value added in mining decreased by 7.1 per cent. The number of registered unemployed rose by 2.15 per cent on an annual basis. The average annual inflation for the review period was 1.0 per cent. Raised alcohol and tobacco excise duties and the increased food prices were the major factors behind the higher price level. The downward trend in clothing and health services prices was sustained.

Gross domestic product of **Macedonia** increased at accelerated rates in the first quarter of 2013. Net exports had the major contribution to the growth, while private and government consumption declined on an annual basis. All economic sectors recorded growth, most pronounced in construction and telecommunications. In the first quarter unemployment fell by 0.7 percentage points on an annual basis, reaching 29.9 per cent. Inflation in Macedonia also slowed down compared with the second half of 2012 and reached 3.5 per cent on an annual basis. Taking into account the weakening inflationary pressure and low lending growth, in January Macedonia's central bank cut the base interest rate by 25 basis points to 3.5 per cent.

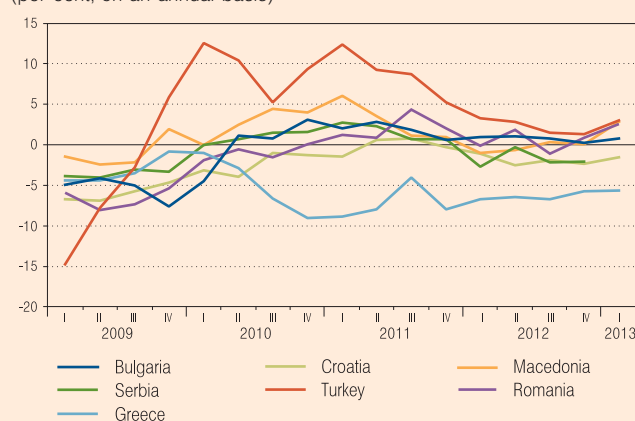
In the first quarter the trend toward a contraction in the **Greek** economy continued, though at a slowing rate. Private consumption and investment remained the largest contributors to lower economic growth, while net exports contributed positively to it. Employment continued to fall on a quarterly basis and unemployment to rise at fast rates, affecting negatively households' net disposable income and domestic demand. As a result, imports declined further and net exports contributed positively to the growth. On an annual basis, value added in financial intermediation, information and communication services and trade declined dramatically, while industrial production and real estate operations continued to increase. In the first quarter of 2013 HICP remained unchanged from the same period of the previous year, with average annual inflation slowing down. The price level is expected to decrease further, which is likely to support real disposable income of households.

Real GDP in **Romania** increased at an accelerating rate in early 2013. Net exports had the strongest contribution to the growth, while private consumption and investment contributed negatively. All economic sectors, excluding agriculture, posted growth over the first quarter. The highest increase in value added was reported by information and telecommunication services, professional services and research, administrative and ancillary activities. Romania's unemployment slightly rose in early 2013, though still remaining the region's lowest level. Over the same period average annual inflation in Romania accelerated due to higher food and energy product prices, while services had the lowest contribution to inflation. In May the central bank of Romania reduced the differential between interest rates on credit and deposit facility to 3 percentage points of the key policy rate. Thus, the credit facility rate declined to 8.25 per cent, while that on deposit facility rose to 2.25 per cent. No changes were recorded in the key policy interest rate (5.25 per cent).

Based on estimations of the central bank of **Serbia**, real GDP reversed its downward trend in the first quarter of 2013 and rose by 1.9 per cent. Net exports were the main driving factor, supported by rising exports of automotive products. Nevertheless, private sector employment declined in the first quarter of 2013. Inflation slightly fell to reach 12.2 per cent. At the end of 2012 and first half of 2013 the central bank of Serbia changed its policy rate in several steps, raising it in the beginning (to 11.75 per cent in February) and then cutting it to 11 per cent in June.

### Real GDP Growth Rate

(per cent; on an annual basis)



Sources: Eurostat, statistical institutes of relevant countries, BNB calculations.

Turkey's real GDP continued to increase in the first quarter. Private consumption contributed most to this, while investment reported a decline on an annual basis. Gross value added posted the strongest increase in hotels and restaurants and financial intermediation, while mining recorded the most significant decline. The unemployment rate remained broadly unchanged in the first half of the year in sync with the ongoing economic activity growth. Over the review period inflation accelerated, pushed up by the increase in energy and food prices, while services price movements helped dampen inflationary pressure. The upward developments in the overall price level forced the central bank of Turkey to raise its reference interest rate in several steps by 2.5 percentage points to 7 per cent in May.

Economic activity in **Croatia** fell on an annual basis in the first quarter of 2013, albeit at a slowing rate. Net exports contributed positively to this, while private consumption declined most significantly. Gross value added in most sectors declined, with construction recording the most pronounced fall. Information and telecommunication services reported growth. The situation on the labour market deteriorated further. In the first quarter of 2013 employment declined and unemployment increased to reach its highest level (18.3 per cent) for the last ten years. Inflation slightly fell to 4.2 per cent, reflecting declines in clothing and rent prices, whereas food and energy products had the strongest contribution to inflation. In April the central bank of Croatia cut the overnight deposit rate to 0 per cent. This monetary policy adjustment was due to the ongoing recession and low credit activity in Croatia.

#### Industrial production in **Montenegro**

increased by 6.3 per cent on an annual basis in the first three months of 2013, gross value added rising most significantly in energy (75 per cent), unlike that in manufacturing and mining (down -32.6 and -4.2 per cent respectively). The number of tourists who visited the country went up 5.4 per cent and the duration of their stay fell by 0.4 per cent. Average annual inflation in the first three months was 3.3 per cent. Food, soft drinks and clothing contributed most to the increase in the overall price level.

#### Real GDP Growth on an Annual Basis (per cent, three-month not seasonally adjusted data)

Country	2010				2011				2012				2013
	I	II	III	IV	I	II	III	IV	I	II	III	IV	
Bulgaria	-4.5	1.2	0.8	3.1	2.1	2.9	1.9	0.6	1.0	1.1	0.8	0.3	0.8
Greece	-1.0	-2.8	-6.6	-9.0	-8.8	-7.9	-4.0	-7.9	-6.7	-6.4	-6.7	-5.7	-5.6
Croatia	-3.1	-3.9	-1.0	-1.2	-1.4	0.6	0.8	-0.3	-1.1	-2.5	-1.9	-2.3	-1.5
Romania	-1.9	-0.5	-1.5	0.1	1.3	0.9	4.4	2.1	-0.1	1.9	-1.1	0.9	2.6
Macedonia	0.0	2.5	4.5	4.0	6.1	3.6	1.2	1.0	-1.0	-0.6	0.4	0.1	2.9
Serbia	0.0	0.7	1.5	1.6	2.8	2.3	0.7	0.7	-2.7	-0.3	-2.1	-2.0	---
Turkey	12.6	10.4	5.3	9.3	12.4	9.3	8.7	5.3	3.3	2.9	1.6	1.4	3.0

#### Growth and Contribution to Real GDP Growth on an Annual Basis (per cent; percentage points)

Country	GDP growth, first quarter of 2013	Private consumption	Government consumption	Investment	Exports, net
Bulgaria	0.8	0.0	0.6	0.3	3.7
Greece	-5.6	-6.6	-1.4	-1.6	1.8
Croatia	-1.5	-1.8	0.1	-0.5	1.0
Romania	2.6	-0.2	0.0	-0.2	3.2
Macedonia	2.9	-0.1	-0.3	1.9	2.5
Turkey	3.0	2.8	0.7	0.1	-0.9

Note: Non-additive data on contributions due to chain-linked adjustment of GDP data.

#### Inflation on an Annual Basis (per cent, three-month data)

Country	2010				2011				2012				2013
	I	II	III	IV	I	II	III	IV	I	II	III	IV	
Bulgaria	1.9	2.9	3.3	4.0	4.5	3.4	3.1	2.5	1.9	1.8	3.0	2.8	2.2
Greece	3.0	5.1	5.6	5.1	4.5	3.3	2.1	2.6	1.7	1.1	0.8	0.6	0.0
Croatia	1.1	0.8	1.0	1.4	2.2	2.3	2.0	2.4	1.7	3.2	4.1	4.4	4.2
Romania	4.6	4.3	7.5	7.8	7.5	8.3	4.2	3.4	2.7	2.1	4.2	4.7	4.8
Macedonia	1.3	1.9	2.3	3	3.8	4.5	3.6	3.5	2.5	2.1	3.8	3.8	3.5
Serbia	4.5	4.0	6.5	9.6	12.6	13.6	10.7	7.9	4.7	4.1	8.1	12.3	12.2
Turkey	9.3	9.2	8.4	7.4	4.3	5.9	6.4	9.2	10.5	9.6	9.1	6.8	7.4

Note: Inflation in EU-27 countries is measured by the change in HICP. The national CPI is used for inflation in the other countries.

#### Unemployment (per cent, three-month seasonally adjusted data)

Country	2010				2011				2012				2013
	I	II	III	IV	I	II	III	IV	I	II	III	IV	
Bulgaria	9.4	10.1	10.3	11.3	11.3	11.2	11.1	11.5	12	12.3	12.4	12.5	12.4
Greece	11.2	12.1	12.8	14.1	15.3	16.7	18.3	20.6	21.9	23.9	25.4	26.1	26.6
Croatia	10.2	12.3	12.7	12.3	12.9	13.7	13.5	14	14.8	15.0	16.0	17.8	18.3
Romania	7.5	7.2	7.2	7.2	7.2	7.4	7.5	7.4	7.3	7.1	7.0	6.7	7.1
Macedonia	33.5	32.1	31.7	30.9	31.2	31.3	31.2	31.2	31.6	31.2	30.6	30.6	29.9
Turkey	11.5	10.6	10.6	9.9	9.2	9.2	8.6	8.2	8.1	7.9	8.2	8.3	---
Serbia*	April		October		April		November		April		October		---
	22.2		19.2		25.5		23.7		25.5		22.4		---

\* Labour force survey in Serbia is conducted twice a year within one calendar month.

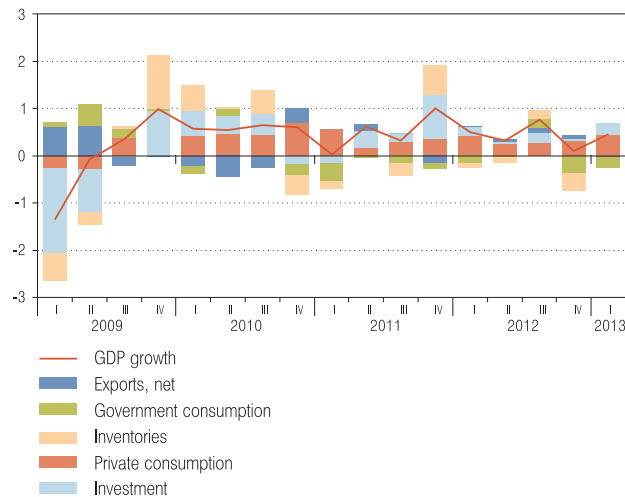
Sources: Eurostat, statistical institutes and central banks of relevant countries, BNB calculations.

## United States

Economic growth in the USA slowed down on an annual basis to 1.6 per cent in the first quarter of 2013, from 1.7 per cent in the fourth quarter and 2.6 per cent in the third quarter of 2012.

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

(per cent; percentage points)



In the first quarter of 2013 economic growth accelerated to 0.4 per cent on a quarterly basis, from 0.1 per cent in the previous quarter. Higher growth was due to the significant positive contribution of changes in inventories, the increased household consumption and slower decline in government expenditure and investment compared to the fourth quarter of 2012. The positive contribution of business investment was smaller than that in the previous quarter. On a quarterly basis, the contribution of net exports to the growth was negative due to the lower decline of imports compared to exports.

In the second quarter of 2013 the US consumer confidence and economic activity indicators retained their volatility and divergence. On the one hand, the increase in stock market and housing price indices coupled with the decrease in unemployment and the rise in employment led to increases in consumer confidence indicators to pre-crisis values. On the other hand, the reduced US government expenditure, negative euro area growth and slowdown of the Chinese economy pushed down economic activity indicators in industry. Based on the trends in leading economic and main macroeconomic indicators, a slowdown in real GDP growth may be expected

in the second quarter. Growth dampening factors involve budget expenditure contraction, imports growth amid a slower increase in exports and an exhausted effect of inventory recovery.

Consumer confidence measured by the University of Michigan consumer confidence index reached 84.5 percentage points compared to 76.4 percentage points in April. In June this indicator posted a slight fall to 84.1 percentage points. The Conference Board Consumer Confidence Index increased significantly in May and June.

### US Consumer Confidence Indices

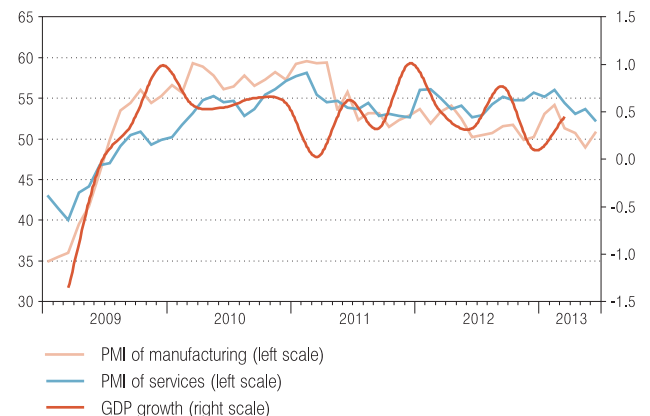
(2000 = 100)



The increase in consumer confidence indicators over the second quarter was accompanied by higher demand for goods and services. Retail sales in May picked up 0.6 per cent on a monthly basis against an increase of 0.1 per cent in the previous month, and their annual growth rate accelerated to 4.3 per cent, from 3.7 per cent in April.

### US Manufacturing and Services ISM-PMI and GDP Growth

(on a quarterly basis)



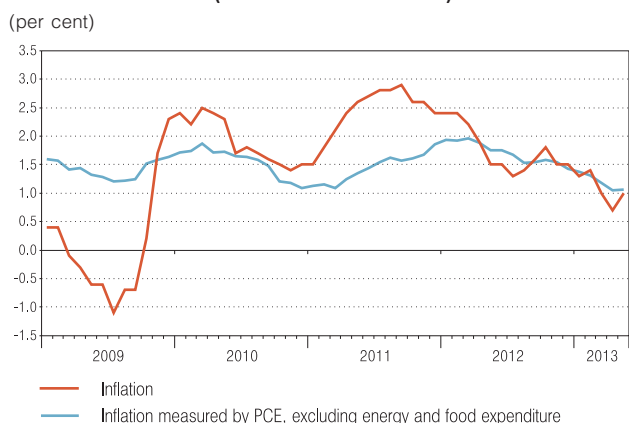


In the second quarter of 2013 manufacturing and service indicators exhibited volatile and diverse dynamics. In June ISM-PMI index of manufacturing rose to 50.9 points, from 49 points in May when it fell below the limit of 50, signalling a contraction in output. Following the May increase to 53.7 percentage points, from 53.1 in April, the ISM-PMI index of the services sector dropped to 52.2 percentage points in June, still remaining above 50, which indicates an increase of economic activity.

The housing sector recovery continued in the second quarter of 2013. In March the annual growth rate of the house price index in the 20 largest cities in the USA (S&P/CaseShiller 20) accelerated to 10.3 per cent, from 8.6 per cent in February. In the second quarter employment in construction continued to increase, albeit at more volatile rates, and the annual growth rate of new residential construction and construction permits remained high. In June the National Association of Home Builders (NAHB) index reached 52 points, exceeding for the first time since April 2006 the threshold of 50. Each value above 50 indicates that most home builders view sales conditions as good.

The annual inflation rate measured by the personal consumption expenditure deflator (PCE) increased to 1 per cent in May, from 0.7 per cent in the previous month. The annual growth rate of the core PCE price index (excluding food and fuel) remained unchanged at 1.1 per cent in April and May.

### US Inflation Rate (on an Annual Basis)



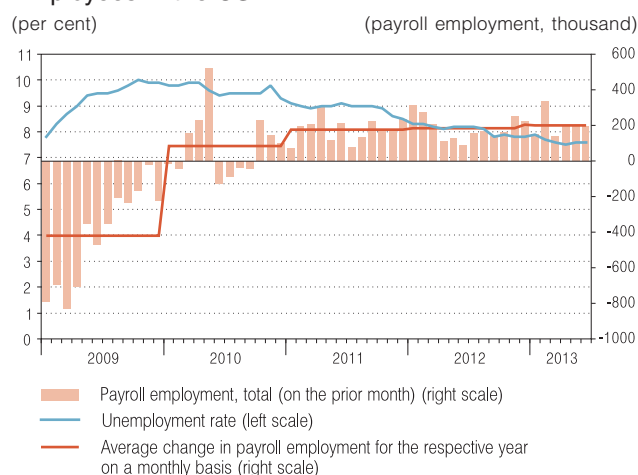
Note: Inflation is measured by the personal consumption expenditure deflator.

Source: Bureau of Labor Statistics.

The annual growth rate of the consumer price index, the other measure of the US inflation, accelerated to 1.4 per cent in May, from 1.1 per cent in April. The annual growth rate of the core CPI index remained at 1.7 per cent in May.

Consumer price inflation expectations in the period of one to five years, which is a component of the University of Michigan consumer confidence index, stood stable in June. Short-term inflationary expectations fell slightly to 3 per cent, from 3.1 per cent in May, while long-term inflationary expectations remained at a level of 2.9 per cent for the third consecutive month. In the following two quarters US inflation is expected to slightly increase but to remain below 2 per cent on an annual basis.

### US Unemployment Rate and Number of New Employees in the USA



Source: Bureau of Labor Statistics.

In the second quarter of 2013 the unemployment rate remained almost unchanged at 7.6 per cent, the lowest level since 2009. Despite the reported positive development, over the review quarter a less number of jobs were opened compared with the first quarter of 2013. Between April and June average monthly growth of employment in the non-agricultural sector rose by 196,000 persons, down 11,000 than the average number of jobs opened in the previous quarter. Despite the decreased confidence of business representatives and uncertainty around fiscal consolidation measures, in June another 195,000 new jobs were created, compared to 195,000 in May and 199,000 in April. Thanks to the housing market recovery and temporary measures to ease restrictions on the legal debt limit, risks from new unemployment growth in the USA were significantly reduced.

At its meeting held on 18 and 19 June, the US Federal Open Market Committee (FOMC) took a decision to keep the current policy of the Committee, implementing further the programmes adopted in the second half of 2012 to purchase USD 40 billion agency mortgage-backed securities *per month* and US treasury securities worth USD 45 billion *per month*.

The federal funds target rate remained at a range of zero to 0.25 per cent. FOMC representatives state that the interest rate will be maintained within the set range at least until the US unemployment rate reaches or falls below 6.5 per cent and unless the expected inflation within the one- to two-year horizon exceeds the threshold of 2.0–2.5 per cent and long-term inflation expectations remain stable. It was decided at the meeting that the revenue from maturing government securities of the US Federal Reserve balance sheet would further be invested back in US government securities. Revenue from mortgage loans of government sponsored agencies in the US Federal Reserve balance sheet will continue to be reinvested in mortgage bonds.

A key detail was the announced change in FOMC members' opinion regarding the risks for the US economy and labour market compared to the autumn of 2012. While the FOMC policy is not formulated in advance and depends on incoming macroeconomic indicators, it was stated that later this year the monthly rate of bond purchases could be decreased if the economy would grow according to Federal Reserve's expectations.

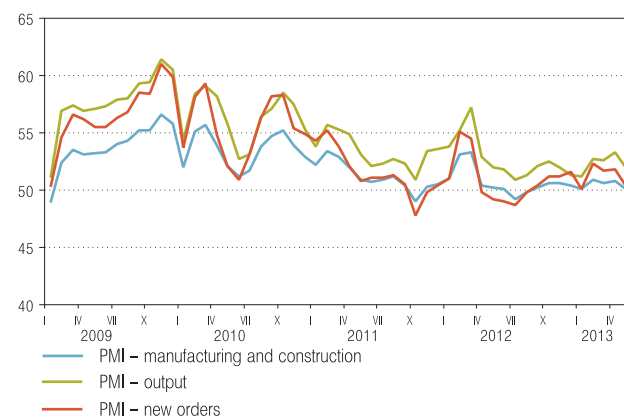
Immediately after the Committee's meeting<sup>6</sup>, the yield of two-year US bonds rose by 6 basis points (from 0.26 to 0.33 per cent), and that of ten-year bonds by 23 basis points (from 2.19 to 2.44 per cent).

## China

In the second quarter of 2013 macroeconomic data on China show economic growth slowdown, with the new leaders expressing support to a slower and more sustainable pattern of growth. In addition, new regulatory measures were undertaken in the financial sector with the intention to improve banking system efficiency. The announced measures include an increase of

credit and deposit rates to up to 1.2 times the benchmark rate and an expansion of the fluctuation corridor of the Chinese currency against the US dollar.

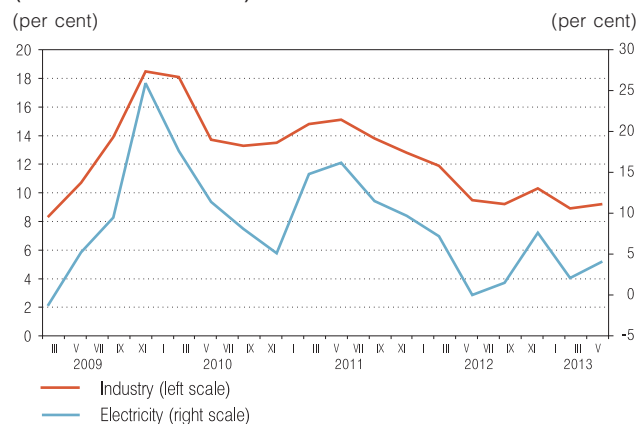
## Manufacturing PMIs, Output and New Orders



Source: China Federation of Logistics and Purchasing.

According to manufacturing PMIs, in May economic activity in this sector increased to 50.8 (previous value: 50.6). Developments in Individual components point to a retention of the upward trend. The output PMI increased to 53.3 (previous value: 52.6), new orders rose slightly to 51.8 (previous value: 51.7), and employment declined to 48.8 (previous value: 49.0). In May PMI for the services sector posted a decrease reaching 54.3 compared with 54.5 in April.

## Industrial Output and Electricity Generation Indices (on an Annual Basis)

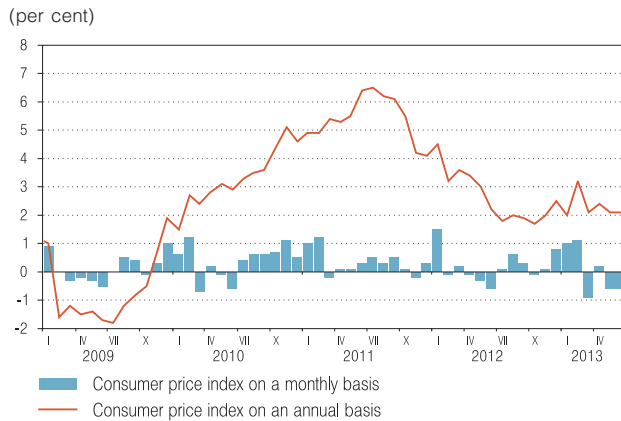


Source: National Bureau of Statistics of China.

Inflation in May slowed down to 2.1 per cent on an annual basis against 2.4 per cent in April. Food prices, decreasing their rate of growth to 3.2 per cent on an annual basis (from 4.0 per cent in April), had the major contribution to the slowdown.

<sup>6</sup> As of 20 June 2013.

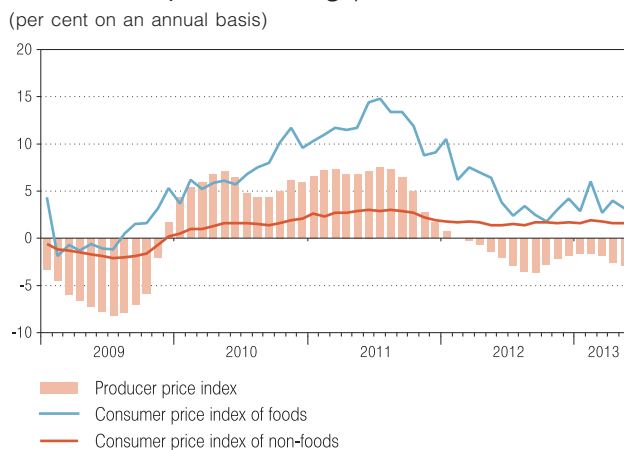
## Inflation Indices (Rate of Change)



Source: National Bureau of Statistics of China.

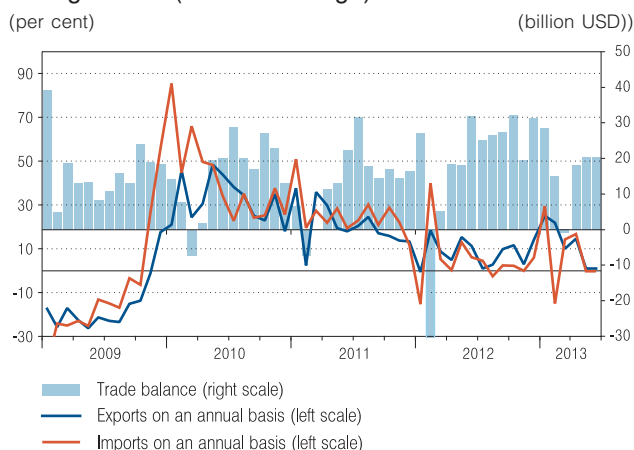
Rates of producer price declines accelerated in May, falling by 2.9 per cent year on year compared to 2.6 per cent in April.

## Price Indices (Rate of Change)



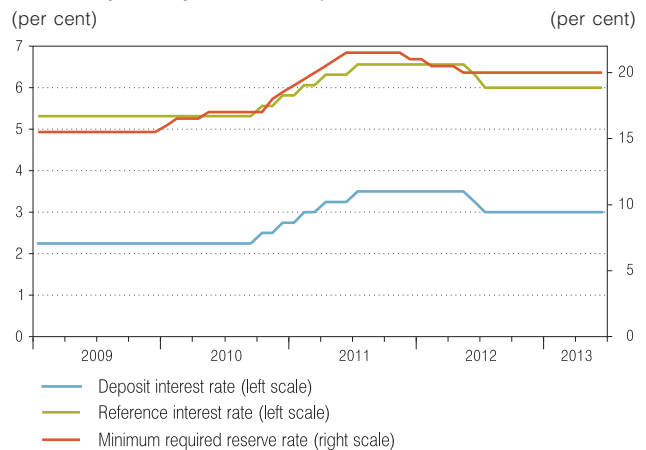
Source: National Bureau of Statistics of China.

## Foreign Trade (Rate of Change)



Source: National Bureau of Statistics of China.

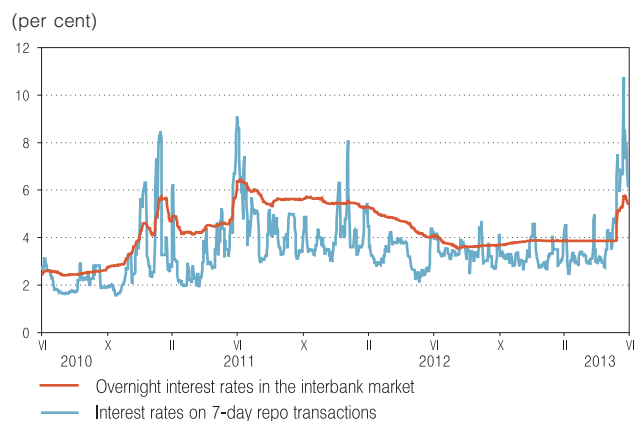
## Monetary Policy of the People's Bank of China



Source: People's Bank of China

No changes to the monetary policy implemented by the People's Bank of China occurred in the second quarter, with the reference rates on one-year deposits and loans remaining unchanged at 3 and 6 per cent respectively. The minimum required reserve rate was also retained at 20 per cent.

## Interbank Market Interest Rates

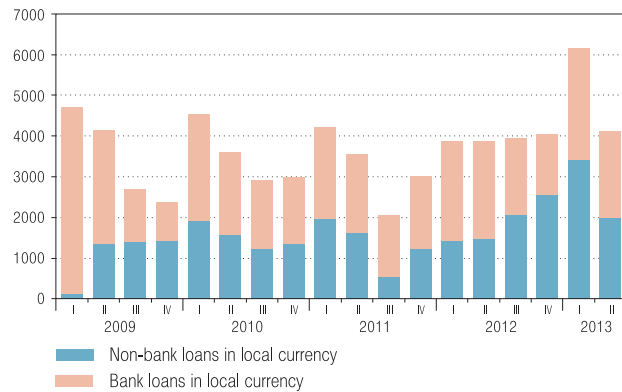


Source: People's Bank of China.

At the end of June the Chinese central bank reduced the provision of liquidity, with CNY 28 billion allotted at the last auction (previous auction: CNY 103 billion). Demand for liquidity in the last days of June had a seasonal nature due to semi-annual accounting procedures and aligning bank balance sheets with regulatory requirements.

## Bank and Non-bank Lending in Local Currency

(billion RMB)

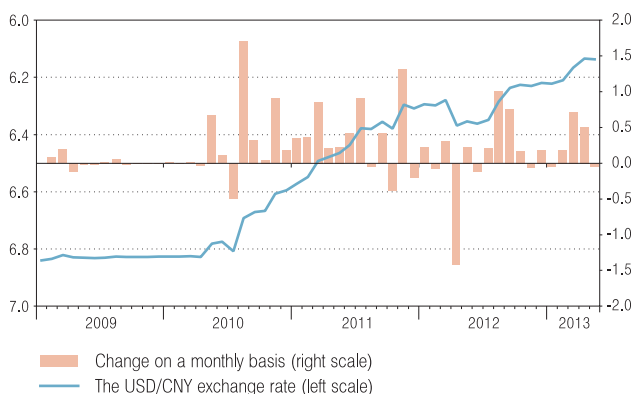


Source: People's Bank of China.

In the second quarter new bank loans in national currency decreased to CNY 2325 billion, from CNY 2755 billion in the previous quarter (-15.6 per cent on a quarterly basis). Lending data show that Chinese authorities pursued a restrictive monetary policy in April and May. Central bank's data on so-called total social financing (TSF) suggest that in the second quarter total financing to the economy (bank and non-bank) in national currency amounted to CNY 4127 billion, posting a decrease of 33 per cent on a quarterly basis and an increase of 6.2 per cent on an annual basis.

## RMB/USD Exchange Rate

(RMB per USD 1)



Note: The chart scale is inverted, the upward movement shows an appreciation.

Source: Bloomberg.

In the second quarter of the year the Chinese currency appreciated by 0.8 per cent against the US dollar, with the rate of growth following a sustainable trend. In April and May the Chinese currency appreciated by 0.7 and 0.5 per cent respectively, while in June it depreciated by 0.8 per cent on a monthly basis.

## International Commodity Prices and the USD/EUR Exchange Rate

### Crude Oil

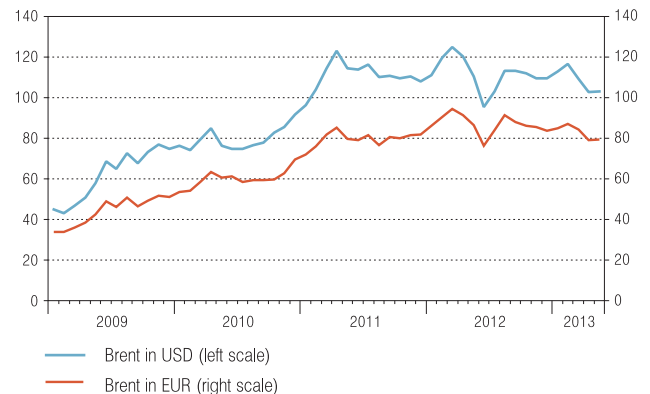
Brent crude oil prices decreased in the second quarter of 2013 after its divergent dynamics observed in January to March. Between April and May Brent crude oil was traded at USD 103.0 *per barrel* (EUR 79.2) on average, down 10.9 per cent on an annual basis. In the second half of May and the beginning of June oil prices stabilised at a level of USD 103 *per barrel*.

Oil price decreases in the March to May period result from the decrease in demand, reflecting the slowing economic growth in China, still weak economic activity in the euro area and seasonal factors.

### Crude Oil Prices

(USD *per barrel*)

(EUR *per barrel*)

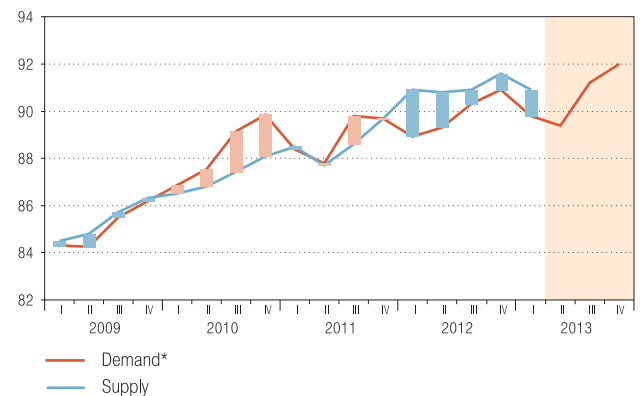


Source: World Bank.

According to the latest International Energy Agency (IEA) estimates, the world oil supply will further exceed global demand. The IAE forecast on demand and supply developments suggests retention of this trend in the second half of 2013.

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

(million barrels *per day*)



\* Including the May 2013 IAE forecast about crude oil demand until end-2013.

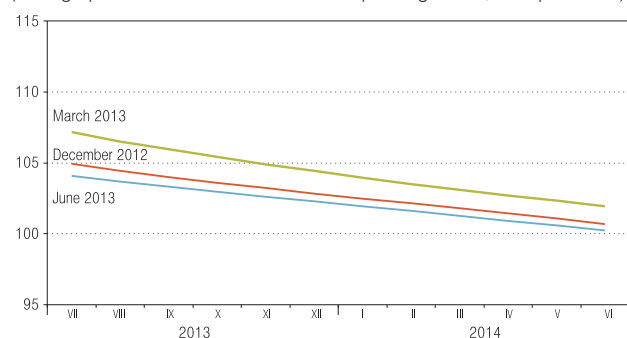
Source: IEA.



According to the market sentiment measured by the futures prices, Brent crude oil will be traded in the USD 100 – 105 range *per barrel* in the following twelve months. This marks a decrease in the expected price as compared with December. On the other hand, expectations of weak demand and increased oil production in North America may result in lower than projected oil prices.

### Brent Crude Oil Futures Prices

(average price of the contract in the corresponding month, USD *per barrel*)



Source: JP Morgan.

### Major Raw Material and Commodity Prices

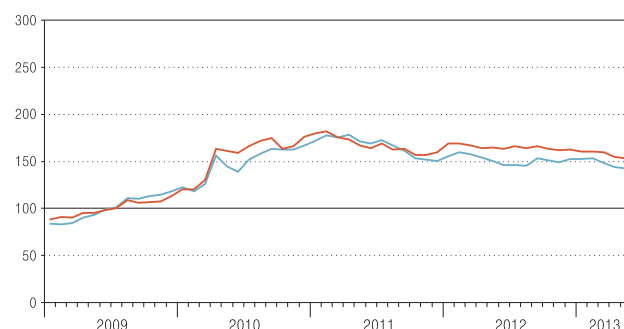
Between April and May 2013 international euro prices declined in most commodity groups. The metals price index published by the ECB continued to decrease (by 4.0 per cent) compared to the first quarter of 2013. Copper prices also declined further (by 7.3 per cent). Prices of other non-ferrous metals decreased, and the non-ferrous metals index went down 7.8 per cent on a quarterly basis. Depreciation was also reported on an annual basis: metals by 6.2 per cent, copper by 10.8 per cent and the non-ferrous metal index by 9.4 per cent. The downward trend in metal prices, which started in mid-2012, is expected to be sustained in the second half of 2013.

Wheat and cereal prices continued to fall in the world markets, following the dynamics since September 2012. Cereals depreciated by 3.6 per cent between April and May 2013 compared to the January to March period, with the maize price decreasing most significantly (-5.8 per cent). Over the same period the food price index also retained its downward trend posting a decline of 0.7 per cent. On an annual basis, food prices fell by 3.2 per cent. The International Grains Council's forecast of May points to high growth of cereal yields over 2013 and 2014. Correspondingly, it will result in an annual

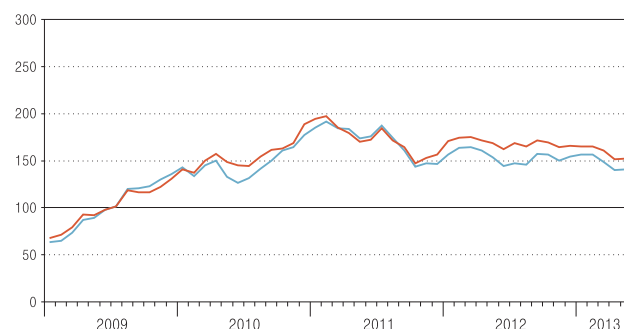
### Price Indices of Major Raw Material and Commodity Groups

(2009 = 100)

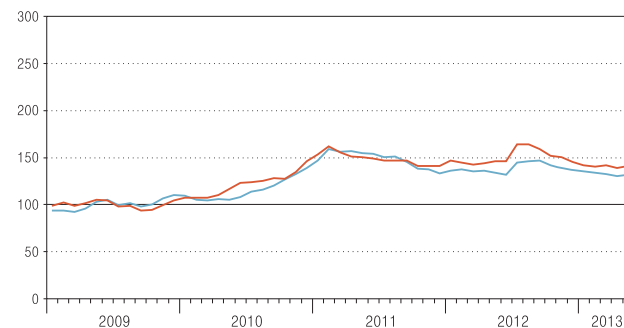
#### Metals



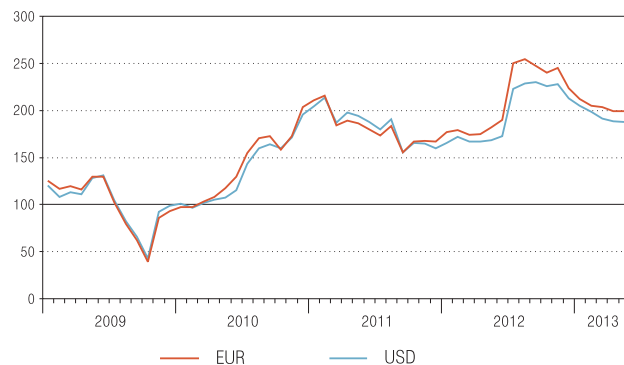
#### Copper



#### Food



#### Wheat



Sources: ECB and BNB calculations.

decrease of food prices over the third quarter and a stabilisation over the fourth quarter of 2013.

International market commodity price dynamics is expected to ease the inflation pressure in Bulgaria and help improving the terms of trade for the Bulgarian economy in the forecast horizon. This will have a favourable effect on Bulgaria's nominal export growth.

## Gold

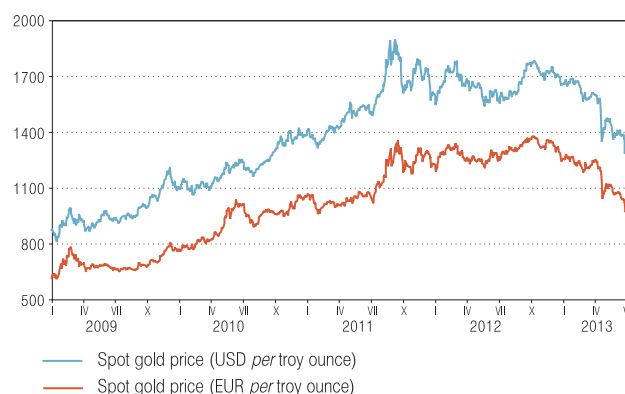
Over the second quarter of 2013 the average spot price of gold fell by 22.8 per cent on a quarterly basis to USD 1234.6 *per* troy ounce. The euro gold price declined by 24.3 per cent to EUR 940.9 *per* troy ounce.

In the beginning of the second quarter the gold price fell dramatically, with a 13.7 per cent decline reported only in two days of mid-April. The depreciation was driven by the closure of positions of exchange-traded funds (ETF) due to investor shifts to riskier assets. In the second quarter total assets of exchange-traded funds collateralised by gold decreased by 369 tonnes to 1864 tonnes of gold (-16.5 per cent on a quarterly basis). The decline in assets of the SPDR Gold Trust, the world's biggest gold exchange-traded fund, was even stronger: by 20.6 per cent on a quarterly basis to reach the lowest value since early 2009. At the end of the review quarter lower gold demand for inflation protection reflecting expectations of reduced asset purchases by the Federal Reserve System also exerted pressure on gold prices.

The considerable gold price decrease resulted in an increase of its physical demand, especially in India, China and the USA, which, however, was not enough to compensate the closure of positions in exchange-traded funds.

The increased gold imports in India reflecting gold price declines led to a new rise in import duty from 6 to 8 per cent of the imported gold value. This is the second rise since the year start after the January increase in duty from 4 to 6 per cent. This measure aims to restrain the current account deficit in the balance of payments. India is the world's biggest gold importer, and the raised duty will limit the physical demand for gold.

## Spot Gold Price



Source: London Bullion Market Association.

## The USD/EUR Exchange Rate

In the second quarter of 2013 the US dollar depreciated against the euro by 1.5 per cent. Over the review period the US currency was traded within a range of 1.28–1.34 *per* euro. Foreign exchange market volatility increased further, driven mainly by the uncertainty around the future monetary policy of the Federal Reserve System and the ECB.

### The USD/EUR Exchange Rate

(USD *per* EUR 1)



Source: ECB.

The effects of public disclosure of central banks' future policy stance, mainly by the Federal Reserve System, the ECB and the central bank of Japan, increased over the review period, thereby impacting government bond yield curves in the relevant countries and hence exchange rates of the most actively traded currencies.

In April and early May the euro stayed above the level of USD 1.30, with the exchange rate moving within a relatively narrow band. The USD/EUR exchange rate exhibited high fluctuations in June, following the intentions expressed by the Chairman of Federal Reserve System's Board of Governors to gradually reduce the volume of purchased assets.

## 2. Financial Flows, Money and Credit

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In early 2013 an upward trend in the surplus of the overall current and capital account balance was observed on an annual basis. The improvement of the current account balance continued to be driven by the subdued domestic demand resulting in a relatively high savings rate in the economy against the background of weak investment activity. The balance of payments financial account dynamics reflected mainly financial operations of banks and the repayment of Bulgarian government's global bonds maturing in January. As a result of the interaction between external and domestic economic factors and of the resulting financial flows, Bulgaria's international foreign exchange reserves continued to increase on an annual basis. Bank deposits grew at a relatively high rate tending to gradually slow down, while credit activity remained low due to weak demand. The banking system liquidity was ample and given the sustained high capital adequacy ratio, banks continued to increase their foreign assets and to decrease external indebtedness by increasing investment in government securities, mostly of the Bulgarian government.

The overall balance on the current and capital account is expected to remain positive on an annual basis in the second half of 2013. High banking system liquidity will continue to support the trend in banks' behaviour to invest part of their liquid resources in foreign assets and to decrease their external obligations. This will allow banks to increase lending in case domestic demand for loans rises.

In early 2013 the uncertainty surrounding external environment developments continued to have a negative effect on the economic activity in Bulgaria. Despite the trend to a recovery, firms' investment activity still remained low. Households curbed consumption and boosted savings. Subdued domestic demand was the main driver behind the continuous improvement in the current account balance. In April the current account recorded a surplus on an annual basis. The balance of payments financial account dynamics between January and April 2013 was largely driven by the financial flows of banks, which manage their net external assets by increasing foreign assets and, to a lesser extent, reducing foreign liabilities. The repayment of Bulgarian government's global bonds maturing in January also affected financial account flows at the beginning of 2013.

The banking system liquidity remained ample due to the growing households' deposits and relatively low credit demand. Banks continued to maintain a large part of their liquidity in the form of excess reserves with the BNB and funds on their accounts in TARGET2-BNB<sup>7</sup>. The second

quarter of 2013 saw a downward trend in these liquid funds compared to the first quarter. Banks continued to increase the share of government securities, primarily of the Bulgarian government, in their investment portfolios. Concurrently, they used another part of available resources to manage their net external assets.

The trend towards a slowdown in non-government sector credit growth observed since the second half of 2012 was retained between January and May 2013. Lending to non-financial corporations rose at relatively low rates, while bank claims on households followed a gradual downward trend.

As a result of the interaction between external and domestic economic factors and of the resulting financial flows, Bulgaria's international foreign exchange reserves continued to increase on an annual basis. The market value of international reserves<sup>8</sup> (an asset in the Issue Department balance sheet) came to BGN 28.5 billion (EUR 14.6 billion) at the end of June 2013, up EUR 725 million on an annual basis. A similar trend was observed in the balance of payments, with international

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<sup>7</sup> The national system component of the Trans-European Automated Real-time Gross settlement Express Transfer system for the euro (TARGET2).

<sup>8</sup> The market value of international foreign reserves includes changes stemming from transactions, valuation adjustments and price revaluation.

reserves increasing by EUR 1639.6 million in April (excluding valuation adjustments and price revaluation).

Banks' deposits with the BNB had the major contribution to the annual increase of the Issue Department balance sheet figure in June 2013. Their dynamics reflected mainly banks' policy related to maintaining excess reserves and managing funds available on their accounts in the TARGET2-BNB system. Another factor contributing to the increase in the Issue Department balance sheet figure was the growth in government and budget organizations' deposits. This was partly due to the fiscal consolidation process in the second half of 2012<sup>9</sup> and the positive net government bond issue sold on the domestic market (some BGN 1.4 billion) and external market (EUR 132 million)<sup>10</sup>. In the second quarter the Issue Department balance sheet was also affected by the fluctuations in gold prices.

Foreign currency flows related to the change in international reserves according to the currency board principles reflected economic agent needs for cash in foreign currency or levs. In the first half of 2013 banks realised net purchases of currency from the BNB. The recent years' trend of increasing net purchases was sustained due to the ongoing bank policy aimed at reducing external indebtedness.

The international reserves coverage of the average nominal imports of goods and non-factor services over the last 12 months came to 6.4 months in April.

<sup>9</sup> As a result of the fiscal consolidation in 2012, the deficit on the consolidated fiscal programme was 0.5 per cent, *i.e.* lower than the projected target of 1.3 per cent.

<sup>10</sup> Net external issue of government securities worth EUR 132 million represents the difference between the five-year government securities issue on international capital markets in July 2012 with a nominal value of EUR 950 million (intended to provide funding for global bonds maturing in January 2013) and repayments on global bonds of EUR 818.5 million.

## External Cash Flows in Foreign Currency

(million EUR)

External flows	2012	January – June	
		2012	2013*
<b>Total for the period</b>	<b>1 527</b>	<b>302</b>	<b>-640</b>
<b>Purchases and sales of euro</b>	<b>-317</b>	<b>-500</b>	<b>-833</b>
at tills	-10	-5	-13
banks, incl.	-307	-494	-820
banks' purchases	46 550	22 114	16 721
banks' sales	-46 856	-22 609	-17 541
<b>Flows on accounts of banks, the MF, etc.</b>	<b>1 844</b>	<b>802</b>	<b>192</b>
Minimum required reserves	40	349	-11
Government and other depositors	1 804	453	203

\* Preliminary data.

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

Source: BNB.

The overall balance on the current and capital account is expected to remain positive on an annual basis in the second half of 2013. Households will retain their high propensity to save, while banking system liquidity will remain ample. Monetary aggregate M3 will continue to rise at relatively high rates and the current tendency of gradual deceleration is anticipated to be sustained. Credit activity will remain low. Non-financial corporations will primarily report credit growth, while household credit activity will continue to follow their downward trend, with a gradual slowdown in the annual rate of decline.

## External Financial Flows

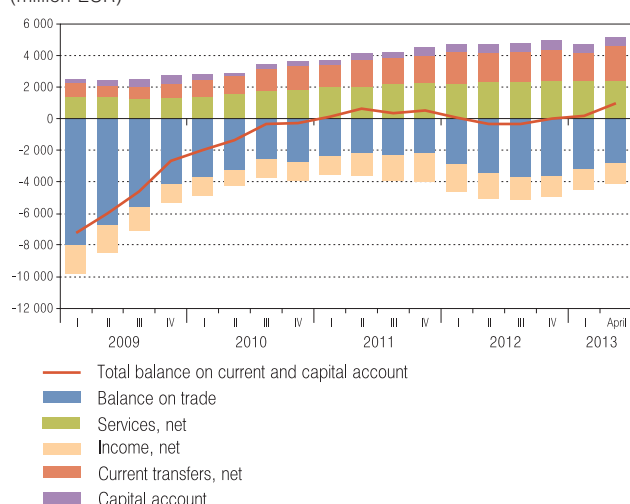
Between January and April 2013 the overall current and capital account balance<sup>11</sup> reported a surplus, with the main contribution of the current account, while the balance of the capital account reported a minimal deficit. In the first four months of 2013 all current account balances improved compared with the corresponding period of 2012. As a result of the high export growth rate, the trade balance deficit decreased substantially. Net current transfers also contributed to the positive current account balance.

<sup>11</sup> Data in this section are obtained from the balance of payments statistics. They are preliminary and subject to revision.



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

(million EUR)



Source: BNB.

Narrowing trade deficit reflected both the accelerated growth of exports to EU countries and the increase in exports to third countries enjoying more favourable trading conditions over the recent months.<sup>12</sup> Over the first four months of 2013 nominal goods exports grew by 15.2 per cent on an annual basis, and imports by 2.3 per cent.

Services balance rose slightly between January and April 2013 as the growth in services exports was faster than that in imports. The increase in tourist and other business services contributed most to the higher exports of services, while exports of communication services declined strongly. The higher imports of services reflected the increase in transport and tourist services, while imports in construction services posted a decline. Maintaining a positive rate of growth of tourist services, which play a dominant role for the services dynamics by mid-year, gives enough grounds to expect a slight improvement of services balance on an annual basis in the third and fourth quarters.

<sup>12</sup> For a more detailed analysis of exports and imports of goods, see Section 3.

## Flows on Balance of Payments Main Accounts

(million EUR; cumulative as of early 2013)

	as of 30 April 2012	as of 30 April 2013
<b>Current account</b>	<b>-875.8</b>	<b>162.0</b>
Trade balance	-1 421.1	-649.9
Services balance	125.2	138.1
Income account	-355.8	-321.3
Current transfers, net	775.9	995.1
<b>Capital account</b>	<b>13.0</b>	<b>-58.8</b>
<b>Financial account</b>	<b>415.2</b>	<b>-858.7</b>
FDI in Bulgaria	1 069.0	408.5
<b>Changes in reserves*</b>	<b>6.8</b>	<b>-514.5</b>

\* A positive sign indicates an increase in international reserves.

Source: BNB.

The downward trend in the Income Account deficit observed throughout 2012 continued in the first months of 2013. The Income Account outflows decreased, while inflows increased. Lower outward flows were reported in the income from other capital (interest) and from other investment (income from loans in particular), while inflows posted the most substantial growth in compensations to employees and income from portfolio investments.

Net current transfers between January and April 2013 also improved on the corresponding period of 2012 mainly due to increased EU receipts.

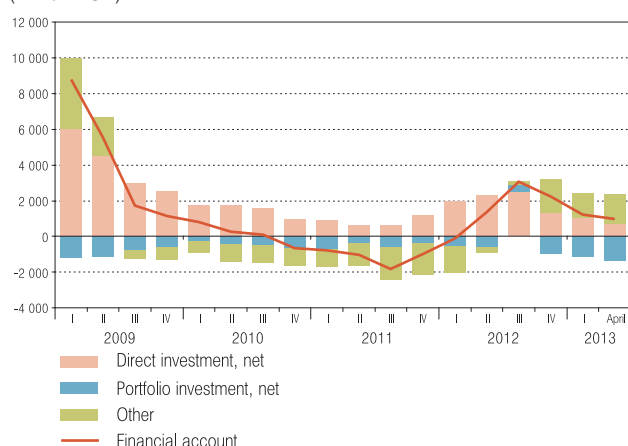
Given the trends observed in the current account dynamics and in case our assumptions for euro area economic recovery materialise, the overall current and capital account balance is expected to remain positive on an annual basis in the second half of 2013. Factors that would contribute to lower values of this balance are the lower-than-expected absorption rate of the EU funds and the possible acceleration of imports growth as a result of international price dynamics or enhanced domestic demand.

In the first four months of 2013 the balance of payments financial account dynamics reflected mainly financial operations of banks and external debt repayments by the Bulgarian government in January<sup>13</sup>.

<sup>13</sup> For more details of the payments on government global bonds maturing in January and their effects on balance of payments financial account and external debt, see Economic Review, 1/2013, p. 29.

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

(million EUR)



Source: BNB.

Between January and April 2013 banks continued to increase their foreign assets and to reduce their foreign liabilities against the background of ample liquidity and limited demand for loans in the national economy. These trends are expected to be sustained in the second half of 2013.

## Banks' Flows on Balance of Payments Financial Account

(million EUR; cumulative as of early 2013)

	as of 30 April 2012	as of 30 April 2013
<b>Net direct investment</b>	<b>55.4</b>	<b>64.8</b>
abroad	-0.1	-0.2
in Bulgaria	55.5	65.0
<b>Net portfolio investment</b>	<b>-199.1</b>	<b>-161.5</b>
assets	-196.5	-203.5
liabilities	-2.6	42.0
<b>Other investment</b>	<b>-453.6</b>	<b>-622.8</b>
assets	-499.0	-236.6
liabilities	45.4	-386.2
<i>Portfolio and other investment</i>	<i>-652.8</i>	<i>-784.3</i>
<b>Total</b>	<b>-597.4</b>	<b>-719.5</b>

Source: BNB.

In the first four quarters of 2013 foreign direct investment (FDI) inflow in Bulgaria totalled EUR 408.5 million, down EUR 660.5 million on the respective period of the prior year.<sup>14</sup> Given the significant fluctuations in FDI monthly data and revisions to them, it is difficult to assess the inflow in the second half of 2013; however, a slight increase may be expected.

<sup>14</sup> Preliminary data subject to revision. Given the volatility in monthly data on FDI and data revisions, FDI between January and April 2013 should be compared to the original release of the data for the same period of 2012, which point to an inflow of EUR 407.2 million (i.e. in early 2013 no changes in FDI occurred).

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

(million EUR)

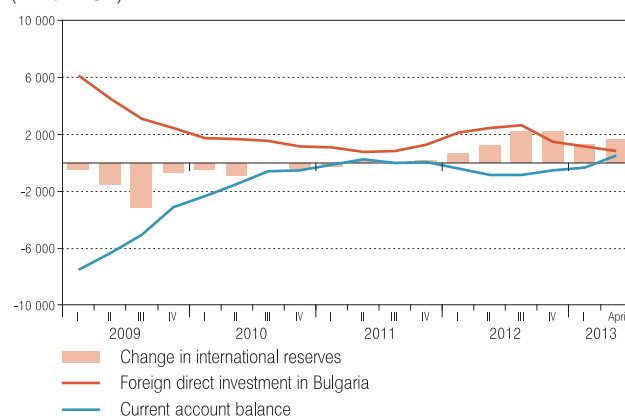


Source: BNB.

As a result of balance of payments net flows and repayment of Bulgarian government's global bonds maturing in January, BNB international reserves decreased between January and April 2013 (valuation adjustments and price revaluations excluded). By April they reported an increase of EUR 1639.6 million on an annual basis.

## Dynamics of International Reserves, Foreign Direct Investment in Bulgaria and Balance of Payments Current Account (on an Annual Basis)

(million EUR)

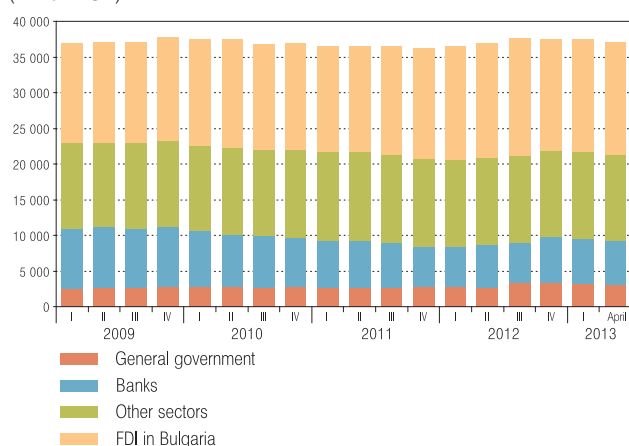


Source: BNB.

The balance of payments financial account dynamics in early 2013 was reflected in the gross external debt change. In the first four months of 2013 gross external debt declined on end-2012 largely due to the reduced bank and government debt. Long-term external debt decreased by 0.2 per cent. Short-term external debt contracted by 3.8 per cent, its share in total external debt falling to 27.0 per cent.

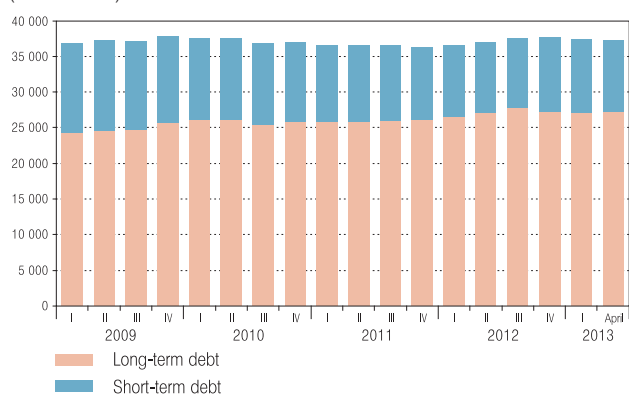
### Gross External Debt by Institutional Sector (at the End of the Review Period)

(million EUR)



### Long- and Short-term Gross External Debt Dynamics (at the End of the Review Period)

(million EUR)



### Gross External Debt as of April 2013

(million EUR)

	Amount	Change	
		January – April 2013	Last 12 months
General government	3 155.4	-218.9	425.4
Central bank	0.0	0.0	0.0
Banks	6 103.4	-351.3	466.4
Other sectors	12 132.6	-7.2	-39.1
FDI: Intercompany loans	15 768.3	145.1	-354.3
<b>Total</b>	<b>37 159.8</b>	<b>-432.3</b>	<b>498.4</b>

Source: BNB.

Payments on external debt servicing in the January–April 2013 period totalled EUR 1962.5 million (of which EUR 693.1 million paid by banks and EUR 488.5 million by general government) compared to EUR 1787.6 million in the same period of 2012.

### Gross External Debt Service by Institutional Sector

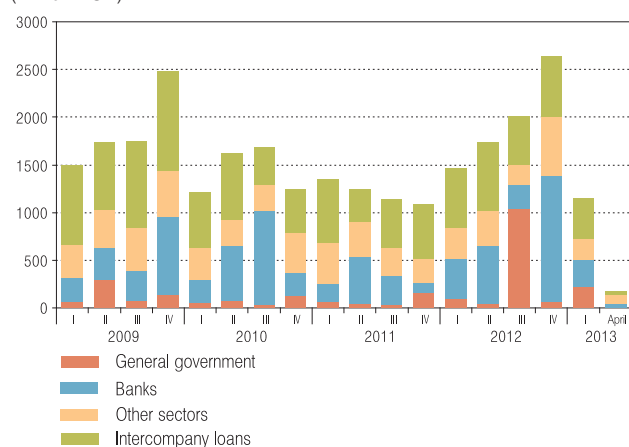
(million EUR)



Loans and deposits disbursed between January and April 2013 amounted to EUR 1317.5 million compared to EUR 1858.9 million in the corresponding period of the previous year. Approximately 35 per cent of them were inter-company loans.

### Loans and Deposits Received by Institutional Sector

(million EUR)



According to the data on new loans declared during the first four months, the share of long-term loans is some 50 per cent of the new loans. The average weighted maturity of new loans contracted on the corresponding period of 2012 reaching four years and three months.

The relative share of loans in euro in the total amount of declared loans remained high for the January to April 2013 period (89.7 per cent).

The downward trend in interest rates on declared new loans continued. Between January and April 2013 the average weighted interest rate on loans in euro was 3.3 per cent (down 0.9 percentage points on the previous year). The

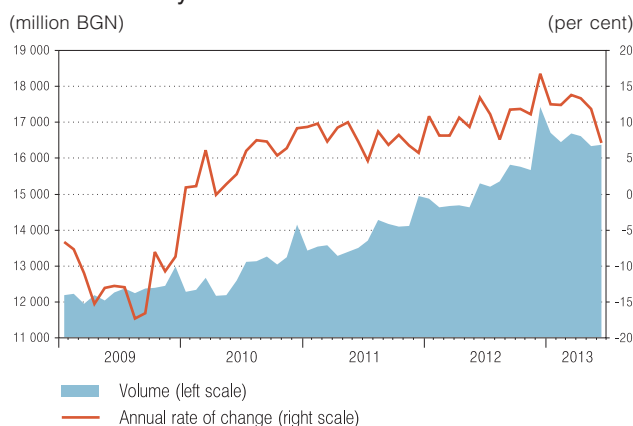
average weighted interest rate on loans in USD rose by 3.5 percentage points to 5.4 per cent. Since new loans in US dollars still occupied a small share, they had no effect on the total average weighted interest rate.

Against the backdrop of the stable external position of Bulgaria and the lack of shocks in the external environment, a further drop in the cost of external financial resources over the second half of 2013 may be expected. The onset of a new interest rate cycle in the form of increases in global money and capital market rates would entail a risk of discontinuation of this trend.

## Monetary Aggregates

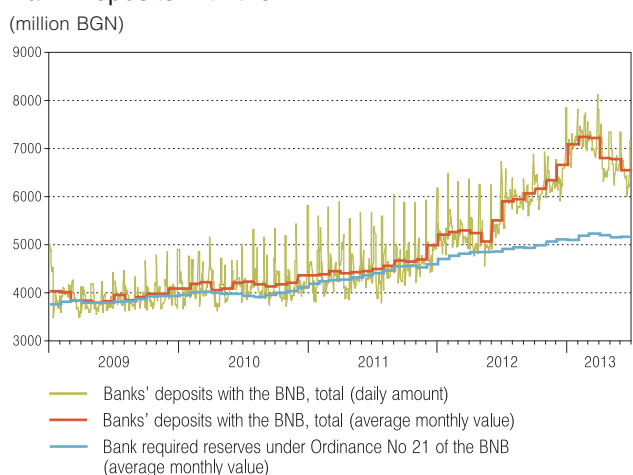
Over the first half of 2013 reserve money dynamics was mainly driven by the volatility in banks' deposits with the BNB.

### Reserve Money



Source: BNB.

### Bank Deposits with the BNB



Source: BNB.

Banks' funds on minimum reserve requirements increased in line with the rise in deposit base. The dynamics of banks' deposits with the BNB

reflected mainly the relatively large excess reserves and funds available on their accounts in the TARGET2-BNB system. In the second quarter banks decreased excess reserves and balances maintained in the TARGET2-BNB compared with the first quarter of 2013, which contributed to the significant decline in the annual growth of reserve money.

In the second quarter of 2013 the upward trend in the average daily volume of funds attracted from residents<sup>15</sup> moderated, their growth coming to BGN 38 million compared to March. Over the same period the average daily volume of funds attracted from non-residents contracted by BGN 532 million, funds from non-resident banks going down BGN 416 million and from non-residents (banks excluded) BGN 116 million. Reflecting the developments and structure of attracted funds, the effective implicit rate of minimum required reserves was 8.85 per cent<sup>16</sup> in May, with banks' reserves with the BNB forming 7.72 percentage points, and the remaining 1.12 percentage points formed by cash and funds on banks' settlement accounts in the TARGET2-BNB system<sup>17</sup>. The excess of banks' funds on minimum reserve requirement accounts with the BNB under Ordinance No 21 decreased to an average daily volume of 6.0 per cent in the second quarter of 2013 (8.7 per cent in the previous quarter).

In the second half of 2013 deposits in the banking system are expected to increase at a slower pace compared to the first quarter. This will lower their contribution to the dynamics of the reserve level maintained by banks with the BNB. Banks' policy related to maintaining excess reserves and funds available on their accounts in the TARGET2-BNB system is expected to remain the main factor behind the fluctuations in the total amount of banks' deposits with the BNB.

After moderating in the first quarter of 2013, the growth of currency in circulation accelerated to

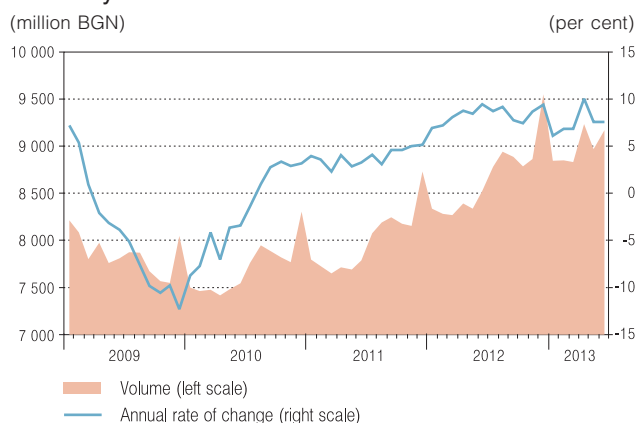
<sup>15</sup> The definition of residents other than state and local government budgets under BNB Ordinance No 21 on the Minimum Required Reserves Maintained by Banks at the BNB is used in the analysis.

<sup>16</sup> According to Article 3, paragraph 1 of BNB Ordinance No 21, the rate of minimum required reserves of 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>17</sup> See Article 4 of Ordinance No 21 of the BNB.

10 per cent on an annual basis in April, while in the May – June period it slowed down to 7.6 per cent. The rise in pensions in force as of April together with growing wage and remuneration expenses in part of the public sector contributed to the growth of currency in circulation. The acceleration in April is likely to be related to the higher retail trade turnover in the review month, an indirect indicator of household consumption growth, and to the prolonged period of public holidays at the end of April and the beginning of May. In the second half of 2013 the dynamics of currency in circulation is expected to slightly moderate as a result of a lower inflation.

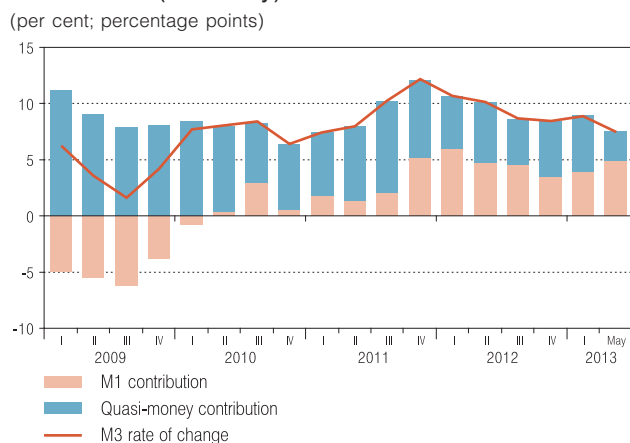
### Currency in Circulation



Source: BNB.

The downward trend in *broad money* aggregate continued, its growth amounting to 7.5 per cent in May. This dynamics was mainly driven by the subdued quasi-money growth. The growth rate of household deposits slowed down on 2012, but they retained their major contribution to the rise in deposits in the banking system compared to firms' deposits.

### Annual M3 Growth Rate and M1 and Quasi-money Contribution (Quarterly)

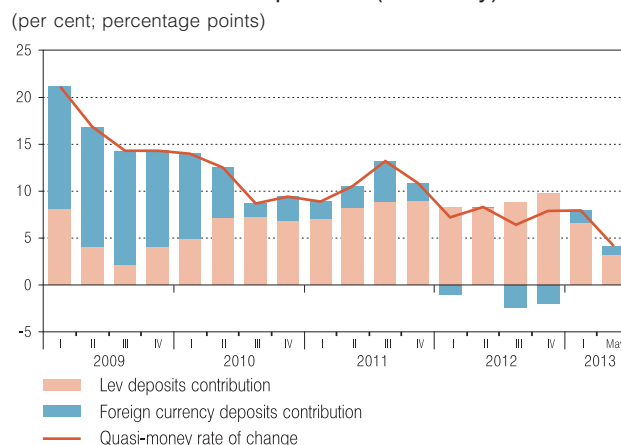


Source: BNB.

Broad money growth is expected to continue gradually moderating in the second half of 2013.

In the first half of 2013 foreign currency deposits of firms and households<sup>18</sup>, included in the *quasi-money* aggregate, reported an increase following the decline recorded in 2012. Growth of lev-denominated deposits moderated. As a result, their share in quasi-money reached 51.8 per cent by end-May compared with 53.5 per cent at the end of 2012.

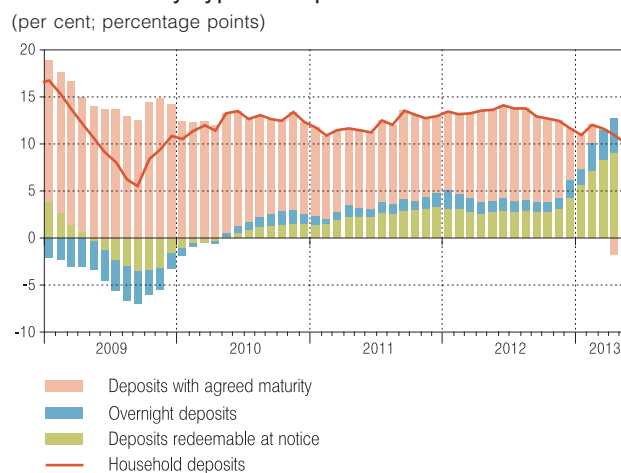
### Annual Quasi-money Growth Rate and Contribution of its Components (Quarterly)



Source: BNB.

The changes in the structure of household deposits by type of deposit which started in the fourth quarter of 2012 continued over the first half of 2013.

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



Source: BNB.

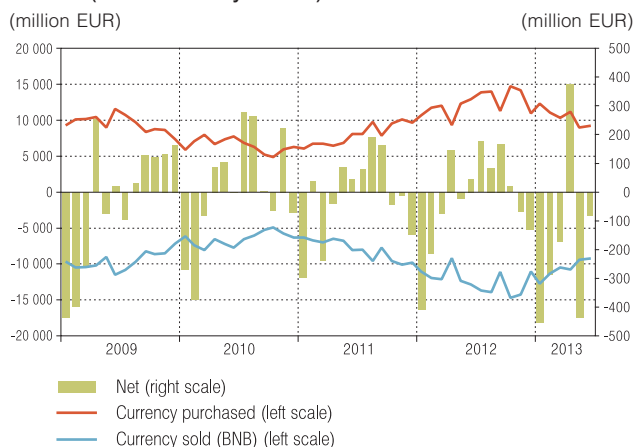
<sup>18</sup> Thus indicated data on deposits and loans of households include also deposits and loans of NPISHs in line with the classification used in monetary and interest rate statistics.



Deposits redeemable at notice and overnight deposits continued to make the more sizeable contribution to the total annual growth of household deposits, while deposits with agreed maturity had a weaker contribution turning negative in May. These structural changes are probably a result of the change in the preferences of households following the introduction of personal tax on interest income from time deposits with banks in early 2013. Banks' policy of raising interest rates on deposits that are not subject to income taxation also contributed to the preferences of households. Thus, interest rates on households' overnight deposit balances grew by 45 basis points between November 2012 and May 2013, and those on deposits redeemable at notice by 22 basis points. The changes in the structure of household deposits are expected to be sustained until the end of 2013.

Transactions in reserve currency (euro) with the BNB are the major tool used by banks to manage their lev liquidity. Thus, the main function of the Currency Board is performed: buying and selling on demand national currency against euro.

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



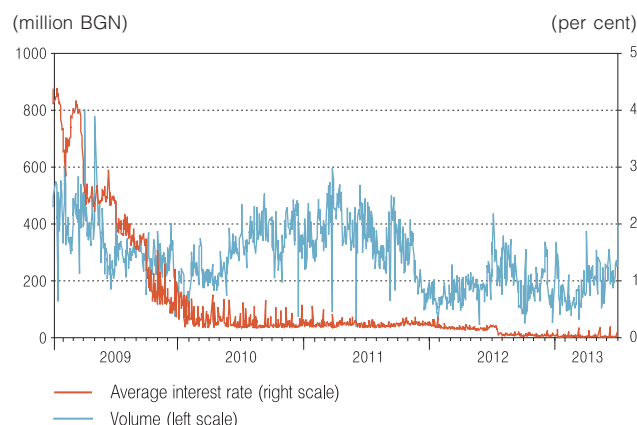
Note: Net means currency purchased minus currency sold by the BNB. Data refer to all bank transactions in foreign currency including liquidity management operations related to the transfer of own funds from lev accounts with the BNB to own accounts with the BNB in euro and vice versa.

Source: BNB.

In the second quarter 2013 banks realised net purchases of currency from the BNB. On the one hand, this trend was related to seasonal factors, and on the other hand, to the sustained bank policy aimed at reducing external indebtedness.

Interest rate levels on the interbank money market in Bulgaria remained low in the second quarter of 2013. Over the review period the average interest rate on transactions concluded on the interbank money market remained at a historical low level of 0.03 per cent. At the same time, the average daily volumes traded in the interbank money market in the second quarter of 2013 increased, but still remained at a relatively low levels.

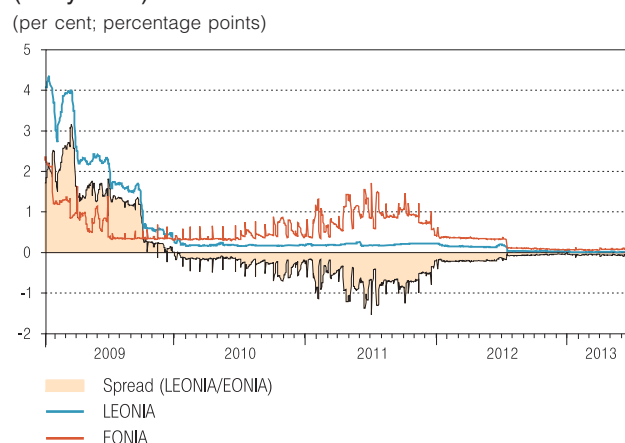
#### Trade Volumes and Interbank Money Market Interest Rates



Source: BNB.

LEONIA increased by 1 basis point in the second quarter of 2013 reaching 0.02 per cent. The average value of the negative spread between LEONIA and EONIA continued to fluctuate within a narrow range of around 6 basis points over the same period.

#### LEONIA and EONIA, and Spread between Them (Daily Data)



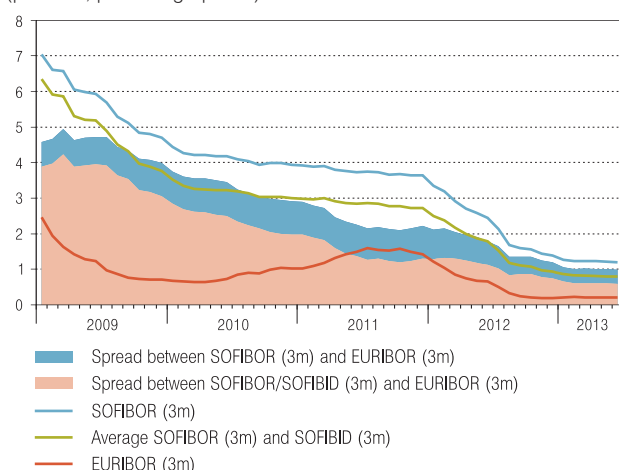
Source: BNB.

The downward trend in SOFIBOR reference rate (3m) used as an indicator for short-term interest rates moderated to 1.20 per cent in June.

The spread between the three-month SOFIBOR and EURIBOR narrowed only slightly to 99 basis points in June. The average three-month SOFIBOR/SOFIBID reference rate<sup>19</sup> declined to 0.80 in June and its spread came to 59 basis points.

#### SOFIBOR, EURIBOR and Average SOFIBOR/SOFIBID Index (Three-month Horizon)

(per cent; percentage points)

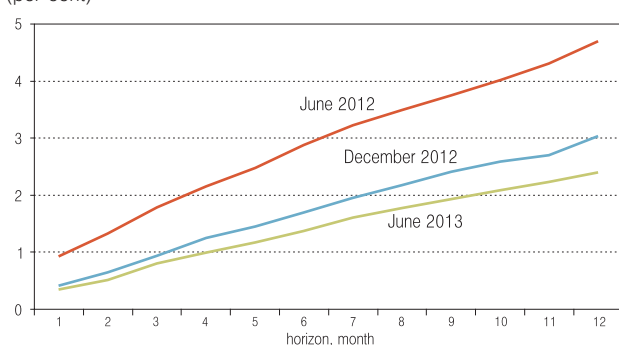


Source: BNB.

The downward trend in quotations and in long-term maturity sectors of the interbank money market yield curve observed since the second half of 2010 continued in the second quarter of 2013. In June a year-on-year fall of 151 basis points was reported in the six-month horizon, while in the 12-month horizon, it was 230 basis points.

#### Interbank Money Market Yield Curve (Based on Average SOFIBOR/SOFIBID Quotations)

(per cent)



Source: BNB.

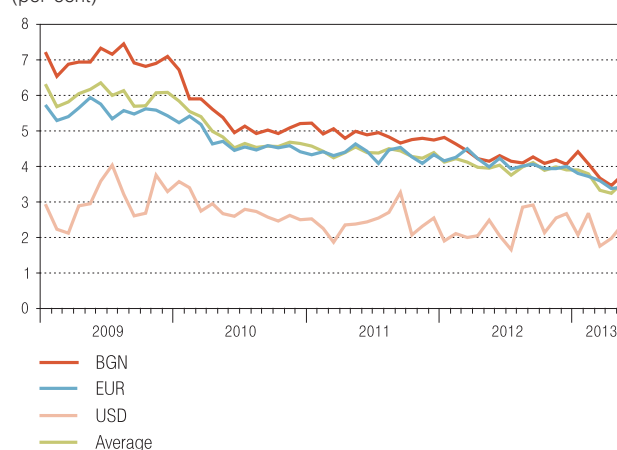
<sup>19</sup> The average SOFIBOR/SOFIBID index gives a better picture of the interest rates in Bulgaria. Correspondingly, it is more correctly to compare this value with EURIBOR as the closest rate to the actual price at which transactions are concluded. For further methodological notes, see the box *Differences between the Methodology for Calculating Money Market Indices in the Euro Area and in the New EU Member States*, Economic Review, 2/2010, p. 27.

The main factors behind money market dynamics in Bulgaria were still related to the high liquidity of the Bulgarian banking system and ECB policy for maintaining low interest rates and providing unlimited liquidity to euro area banks.

Over the first five months of 2013 the downward trend in interest on new<sup>20</sup> time deposits of firms and households was sustained, their rates falling markedly between March and April. The sustained sizeable growth of attracted funds from residents and relatively low demand for bank loans had a crucial role for this dynamics. The average weighted interest rate came to 3.5 per cent as of May, the interest on euro and lev denominated deposits posting a more sizeable decline than that on USD denominated deposits.

#### Interest Rates on New Time Deposits in Relevant Currencies

(per cent)

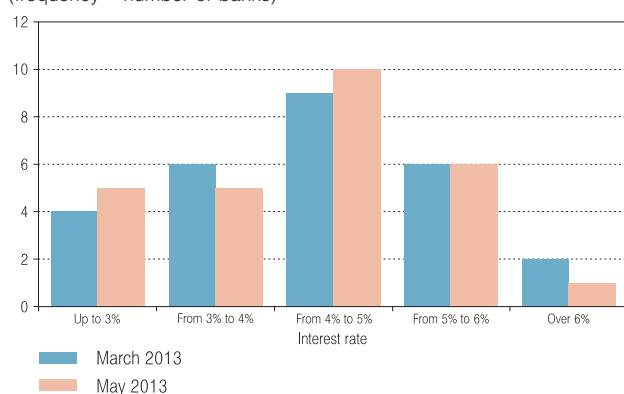


Note: The average interest rate is calculated for all sectors, maturities and currencies weighted by their respective volumes of new deposits.  
Source: BNB.

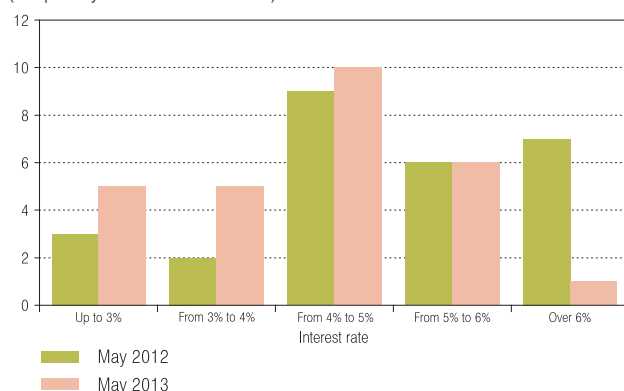
<sup>20</sup> The terms *new*, *new contracted* and *new disbursed loans and deposits* refer to the new business statistical category.

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

(frequency – number of banks)



(frequency – number of banks)



Source: BNB.

A comparison between the March and May 2013 breakdown of interest rates on household time lev deposits showed that the number of banks offering rates in the up to three per cent, and from four to five per cent bands increased and those offering rates within the three to four per cent and over six per cent bands decreased. The average interest rate level on time lev deposits dropped by 26 basis points to 4.14 per cent and the dispersion coefficient rose by 6 basis points to 1.50 percentage points.

The downward trend in the average cost of financing in the banking system<sup>21</sup> was sustained (from 3.13 per cent in late 2012 to 3.00 per cent by end-May 2013). The lower interest rate levels on the interbank market in Bulgaria and the euro area, as well as the gradual fall in interest rates on attracted deposits contributed the most to this trend.

<sup>21</sup> The indicator is calculated *ex post* using data of the BNB Bank Supervision Department as the ratio between interest payments on attracted funds over the last 12 month and the average volume of attracted funds over the same period.

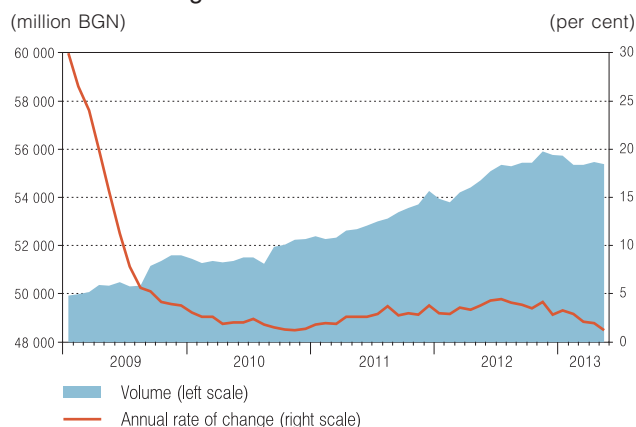
The gradual reduction in interest rates on time deposits is expected to continue in the second half of 2013. The factors behind this dynamics are likely to be related to the limited investment alternatives, the high propensity to save in the economy and the weak credit growth. The ECB's non-standard monetary policy measures for providing unlimited liquidity to euro area banks and maintaining low reference interest rates will continue to put a downward pressure on interest rates.

A risk of discontinuation of the downward trend in deposit interest rates might occur, if leading central banks enter a new interest rate cycle which may lead to an increase in the cost of Bulgarian banks' liabilities.

## Credit Aggregates

The moderation in the annual growth rate of claims on the non-government sector observed since August 2012 continued in the first five months of 2013. By end-May 2013 claims on the non-government sector decreased by BGN 405 million from December 2012, their growth moderating in May to 1.2 per cent on an annual basis (from 2.8 per cent by end-2012). In early 2013 the dynamics in the claims on the non-government sector was driven by the contractions in loans to non-financial corporations and decreases in bank claims on households. The moderate annual growth of lending was reflected in the claims on the non-government sector to GDP ratio which reached 70.6 per cent in March 2013.

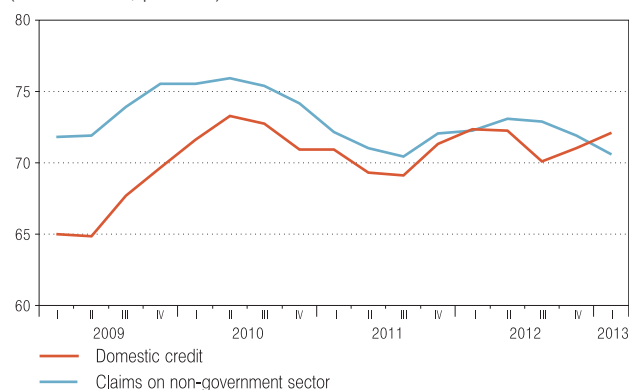
### Claims on Non-government Sector



Source: BNB (monetary statistics: monetary survey).

## Domestic Credit

(share of GDP, per cent)



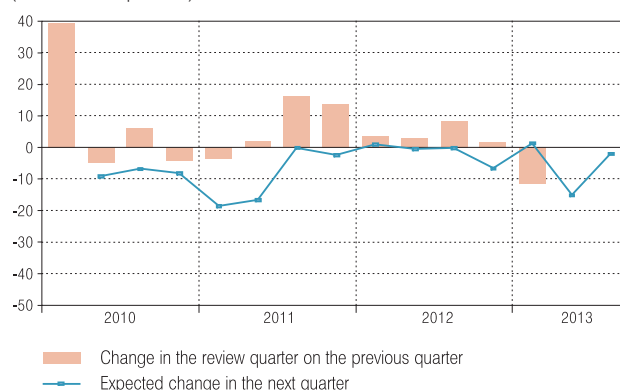
Source: BNB.

According to the preliminary results of the BNB quarterly lending survey, banks reported a decrease in demand for loans by corporations and an increase in demand by households in the April–June 2013 period compared to the previous quarter. Weaker investment activity and credit demand to cover working capital needs contributed most to lower demand by corporations. Concurrently, banks reported more opportunities for non-bank financing of corporations and intercompany sources of funding over the period under review. Corporations' demand for short-term loans contracted, while demand for long-term loans rose, though more moderately than in the previous quarter. Loans to households reported demand rises, with a stable upward trend in consumer credit compared to loans for house purchase. Banks have more optimistic expectations regarding the demand for loans in the third quarter of 2013 mainly by households and, to a lesser extent, by corporations.

In the second quarter of 2013 banks reported a considerable easing of credit standards on loans to households and unchanged credit standards on loans to enterprises. Competition from other banks, the amount of attracted resources and their lower prices, as well as the decline in alternative investment yield were the factors behind the easing of the lending policy. The credit risk, collateral risk, macroeconomic environment, business climate in the sectors occupying large shares in banks' credit portfolios were the factors contributing to a tighter bank lending policy. In the third quarter of 2013 banks expect relatively unchanged credit standards on loans both to enterprises and to households.

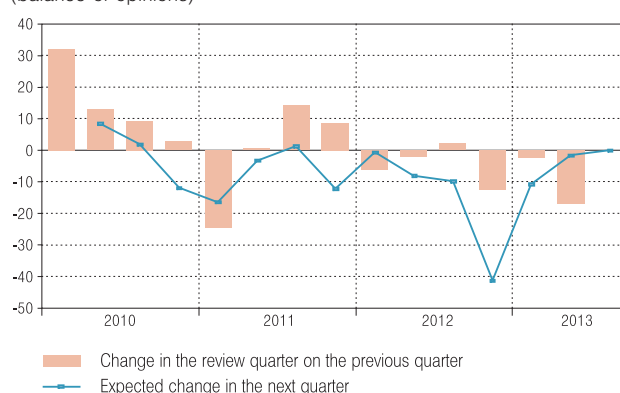
## Changes in Credit Standards Applied to Loans to Enterprises

(balance of opinions)



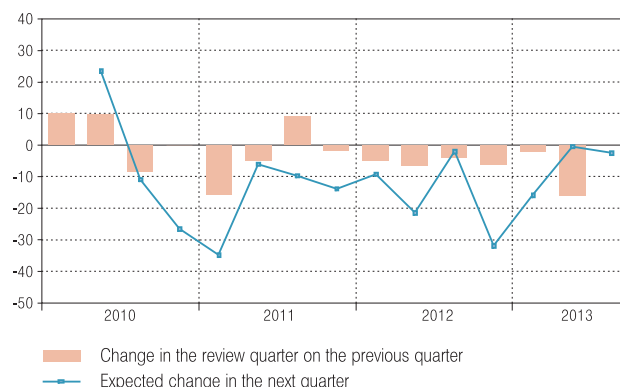
## Changes in Credit Standards Applied to Consumer Loans

(balance of opinions)



## Changes in Credit Standards Applied to Loans to Households for House Purchase

(balance of opinions)



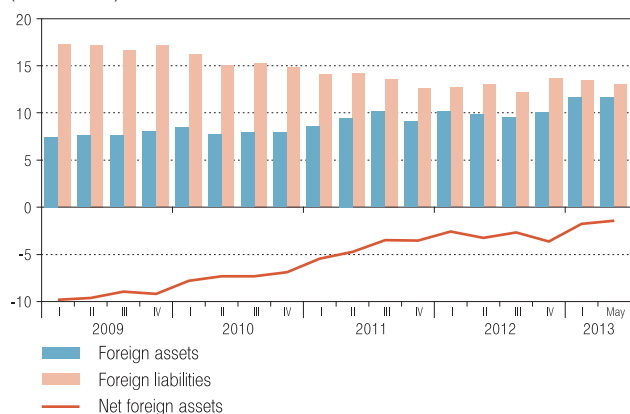
Note: The charts present banks' balance of opinions defined as the difference in percentage points between the percentage of banks responding 'tightened considerably' and 'tightened somewhat' and the percentage of banks responding 'eased considerably' and 'eased somewhat'. All responses are weighted 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.

The continuous growth in attracted funds in the first five months of 2013 allows banks to continue increasing their foreign assets and repaying foreign liabilities. This trend is likely to continue in the second half of 2013 taking into account the assessment for relatively high growth in attracted funds and weak credit growth.

### Foreign Assets and Liabilities of Banks

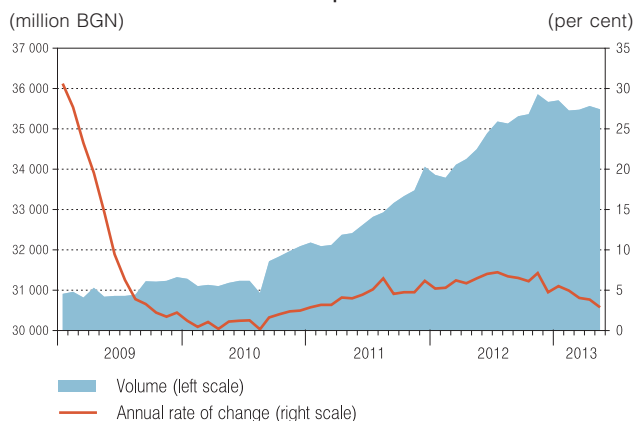
(billion BGN)



Source: BNB.

### Claims on Non-financial Corporations

(million BGN)



Source: BNB.

Claims on non-financial corporations had a moderate annual growth and by end-May increased by 2.9 per cent compared to 4.7 per cent at the end of the prior year. The downward trend in credit growth reflected the reduced demand for loans amid current weak economic activity and worsened estimate of the business climate in Bulgaria according to survey observations. By March the construction sector followed by telecommunications<sup>22</sup> and hotels and restaurants had a negative contribution to the growth in loans to NFCs on an annual basis. Compared to the corresponding period of 2012, the posi-

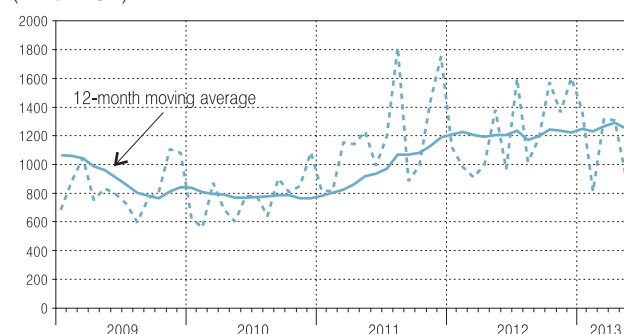
<sup>22</sup> Creation and dissemination of information and author products; telecommunications.

itive contribution to growth of loans to energy<sup>23</sup> and trade<sup>24</sup> enterprises contracted, which was partly offset by the increased lending to enterprises in some services sectors<sup>25</sup>. Firms' possibility to obtain funding through the gross operating surplus and external sources, including foreign direct investment, continued to weight on the weaker demand for borrowed funds by the Bulgarian banking sector.<sup>26</sup>

Over the first five months of 2013 the volume of new loans to NFCs remained high, with a trend towards a stabilisation on an annual basis observed by end-May.

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

(million BGN)



Source: BNB.

BNB quarterly lending activity survey and new loans statistics show a rise in households' demand for consumer loans, though from a low base. Against the background of continuous uncertainty related to economic environment developments and unfavourable labour market trends, this demand is insufficient to increase the volume of borrowings in this sector due to the higher amount of repaid maturing non-renewable loans. As a result, the downward trend in the amount of loans to households observed since the fourth quarter of 2010 remained unchanged in the first five months of 2013.

<sup>23</sup> Production and distribution of electricity, heating and gaseous fuels.

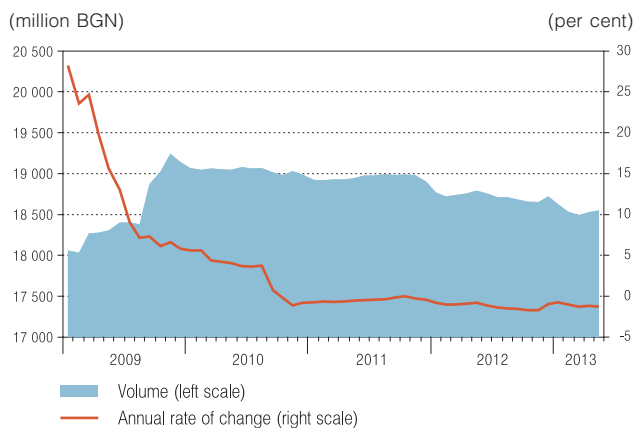
<sup>24</sup> Trade, cars and motorcycles repair.

<sup>25</sup> Professional activities and scientific research and culture, sport and entertainment.

<sup>26</sup> For more information, see *Behaviour of Firms and Competitiveness* section in Chapter 3.

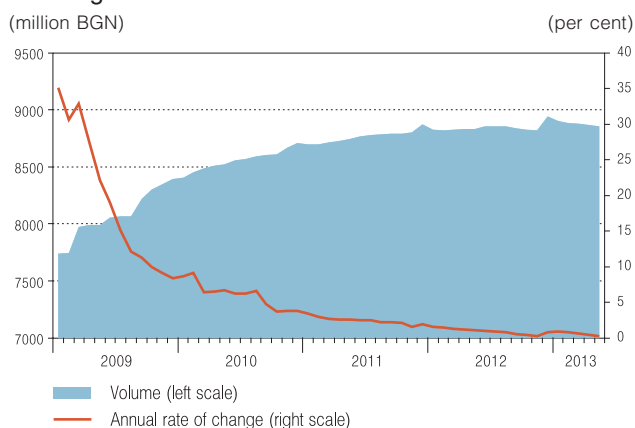


## Claims on Households



Source: BNB.

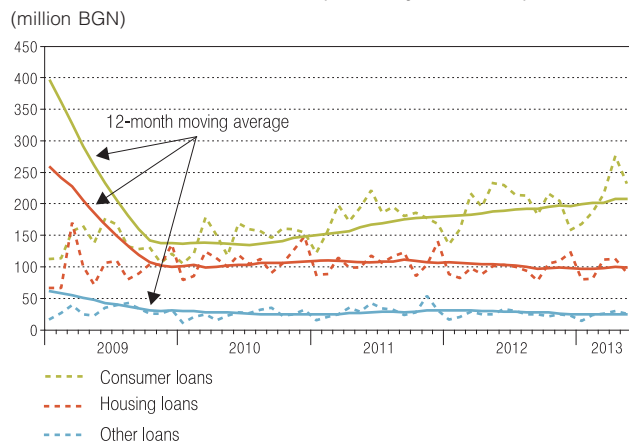
## Housing Loans



Source: BNB.

At the end of May the total amount of banks' claims on households fell by 1.3 per cent on an annual basis (1 per cent on an annual basis by end-2012). Housing loans retained a positive growth rate of 0.3 per cent on an annual basis. Since December 2012 the decline rate in consumer credit has stabilised at some 2 per cent on an annual basis. By May the drop in overdraft slowed down to 3.1 per cent on an annual basis, while other loans reported a more sizeable decline on December 2012. By the end of May 2013 the amounts of new consumer loans showed a clearly pronounced upward trend for the last 12 months, while the levels of new housing loans and other loans remained stable.

## New Loans to Households (Monthly Volumes)

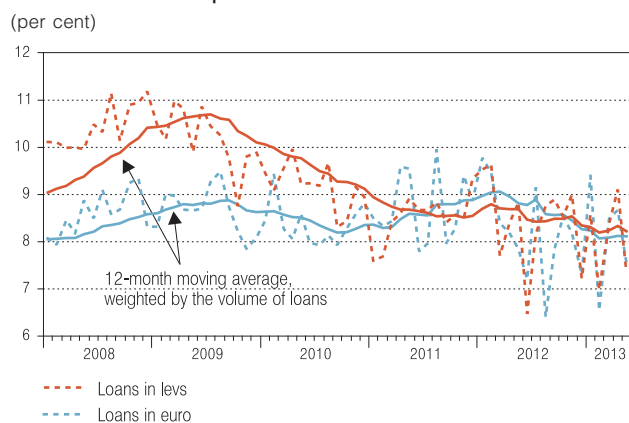


Source: BNB.

In the second half of 2013 the growth rate of loans to enterprises is expected to retain its current level due to the base effect, which was raised as a result of the increased lending to energy in the first half of 2012. Except for the base effect, the expectations for a gradual recovery of the domestic economic activity are the factors that will contribute to credit growth. Our projections for the dynamics of households' borrowing show a gradual contraction in the current decline rate, reflecting the slow recovery of consumer demand.

Lending interest rates continued slightly declining in the first five months of 2013. Interest rates on new loans to non-financial corporations denominated in levs and euro came to around 8.2 per cent and 8.1 per cent by May.<sup>27</sup>

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



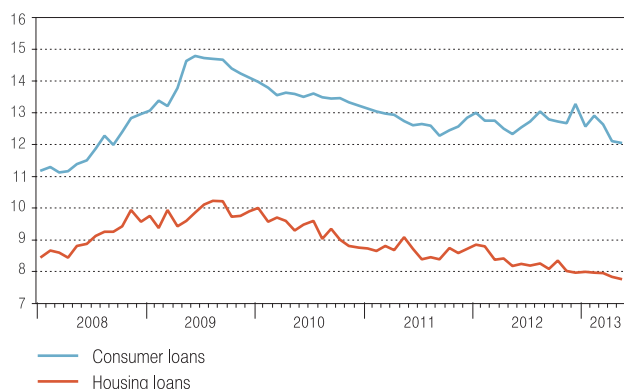
Source: BNB.

<sup>27</sup> These figures are the weighted average of the interest rates on loans to non-financial corporations on a 12-month basis.

The annual percentage rate of charge (APRC) on new loans for home purchase retained its late 2009 downward trend, reaching 7.8 per cent by May. Consumer loans posted a decline in APRC to 12.1 per cent on the end of the previous year. The ample liquidity in the banking system and the reduction of financing costs played a crucial role for the interest rate dynamics.

#### Annual Percentage Rates of Charges on New Household Loans

(per cent)



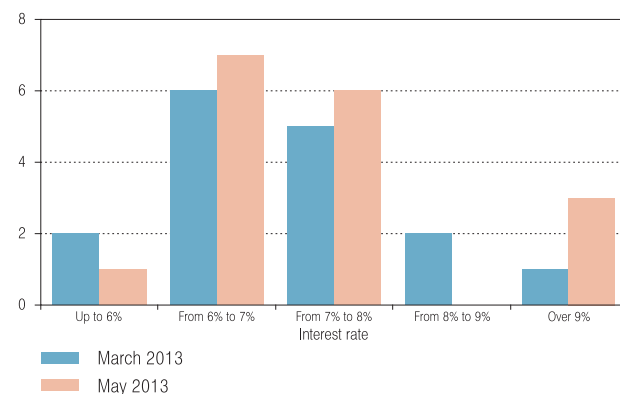
Note: Interest rates in all maturities and currencies are weighted by the relevant volumes of new deposits over the review period.

Source: BNB.

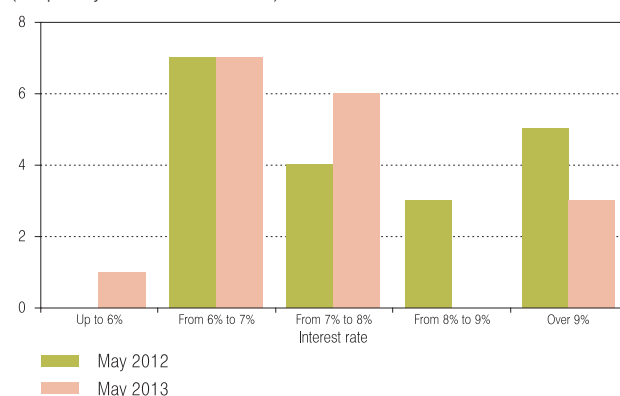
As regards the distribution of interest rates on housing loans in euro by bank, in May 2013 the number of banks offering rates from 6 per cent to 8 per cent and over 9 per cent increased compared to March. At the same time, the number of banks offering rates within the up to 6 per cent and from 8 per cent to 9 per cent band decreased. Over the same period the average interest rate level fell by 11 basis points and the dispersion coefficient rose by 16 basis points to 1.13 percentage points.

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

(frequency – number of banks)



(frequency – number of banks)



Source: BNB.

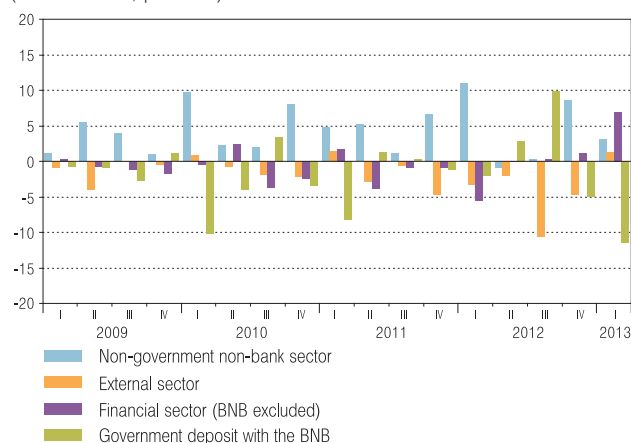
In the second half of 2013 divergent factors will affect lending interest rates. Internal factors supporting the downward trend are the relatively high growth rate of attracted funds in the banking system, weak demand and low credit growth. On the other hand, the external factor that poses a risk for an increase in Bulgarian lending rates is the possibility of increases in international interest rates reflecting the onset of a new global interest rate cycle. A possible increase in Bulgaria's risk premium may push interest rates upwards in case of fiscal policy easing in Bulgaria.

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

Government fiscal policy affects the allocation of liquidity between economic sectors.<sup>28</sup> In the first quarter of 2013 the government allocated a significant amount of liquid funds from the government deposit with the BNB to the other economic sectors.

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

(share of GDP, per cent)



Sources: MF, BNB calculations.

Over the review period the allotment of net liquidity to the financial sector was 7.0 per cent of GDP for the quarter. Major sources of liquidity for the financial sector were the principal payments on global bonds maturing in January 2013 (over 73 per cent of which were held by residents as of December 2012), advance payments from the national budget of agricultural subsidies redirected from the government deposit with the BNB to the beneficiary's bank accounts, government debt instrument interest payments to residents, as well as payments on government and municipal securities issued on the domestic market.

Funds provided to the financial sector significantly exceeded the budget corporate tax rev-

enue from financial institutions and gross government bond issue by which the budget withdraws liquidity from the financial sector.

Net payments made by the government to the external sector accounted for 1.3 per cent of GDP in the quarter under review, after principal and interest payments on Bulgarian government debt instruments held by non-residents together with Bulgaria's contribution to EU common budget exceeded the grant receipts, new external loans and EU reimbursements.

As a result of government financial and non-financial transactions in the first three months of 2013, the government deposit with the BNB was a net source of liquidity for the other economic sectors amounting to 11.4 per cent of GDP over the review quarter.

The information available by end-June shows that the external and financial sectors will be sources of liquidity for the government in the second quarter of 2013. The net inflow from the external sector to the government will be driven by the farmer subsidies refunded by the EC in April and the accelerating growth rate of revenue from current and capital EU funding grants. The liquidity withdrawn from the financial sector is expected to stand close to the value of the positive net government securities issue of BGN 220 million. As a result of these transactions and the expected budget surplus between April and June, the government deposit with the BNB is likely to increase by some 8.5 per cent of GDP over the review quarter.

<sup>28</sup> For more details of the 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.

# 3. Economic Activity

The impact of continued euro area recession on Bulgarian economic activity was limited in the first quarter of 2013 due to the increase in exports and improved expectations of economic agents. Despite the improvement in consumer confidence, in April households limited consumption and retained a high propensity to save. Firms started to boost their investment activity giving early signs of employment and remuneration increases in some sectors. Economic growth is expected to accelerate somewhat in the third and fourth quarters as a result of the simultaneous improvement in domestic and external demand.

In the first quarter of 2013 real GDP increased by 0.1 per cent on a quarterly basis.<sup>29</sup> This was due to the improvement of both domestic and external demand. Domestic demand increased reflecting the high real growth rates in investment in fixed assets and government consumption, while household consumption contracted. Despite relatively modest improvements in the international economic environment, goods and services exports picked up significantly, Bulgarian companies exporting both to non-EU and EU countries and increasing their market share in the total EU imports. The recovery in domestic demand was accompanied by a more pronounced increase in imports of goods and services in real terms outstripping the growth of exports. As a result, net exports contributed negatively to economic growth in the first quarter of 2013. The change in inventories also had a negative contribution as with the increase in orders from abroad, firms reduced inventories.

In the first quarter the continuous downward trend in employment was discontinued probably as a result of one-off factors. Preliminary data for the quarter point to an increase in employment on the last quarter of 2012 and a further increase in the compensation *per* employee.<sup>30</sup>

<sup>29</sup> The quarter-on-quarter analysis in this section employs seasonally adjusted data, unless otherwise indicated. For indicators on which the NSI or Eurostat do not officially publish seasonally adjusted data, adjustment was made via the TRAMO SEATS or OxMetrics programme by using automated set up for diagnostics and optimisation of adjustment parameters.

<sup>30</sup> NSI data from the National Accounts on Employment and Wages and Salaries are subject to revisions.

## Contribution to GDP Growth by Component of Final Use

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

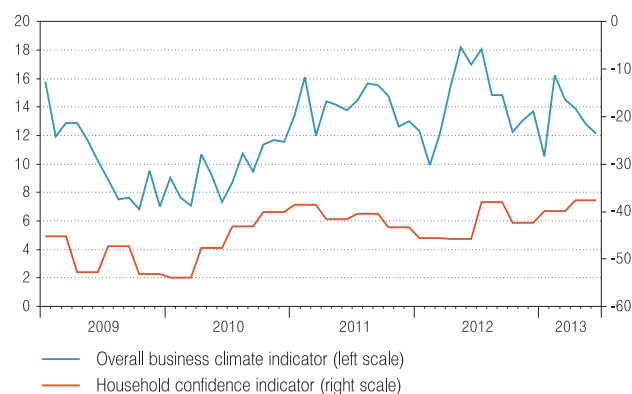


Note: Non-additive data due to direct chain-linked and seasonal adjustment of GDP and its components; the contribution of the change in inventories has not been included.

Sources: NSI, BNB calculations.

Leading indicators such as trade turnover and consumer confidence indicator point to somewhat improved household sentiment in April. The overall business situation indicator tracking business sentiment started to decline following the temporary improvement in the first months of the year largely due to the unfavourable firms' assessments of the current business situation. The downward trend in business assessments of the future production activity in manufacturing and services from May onwards explains the deterioration in firms' expectations in these sectors regarding future employment. Retail trade was the only sector reporting improved firms' employment expectations.

## Business Climate and Household Confidence Indicator



Sources: NSI, BNB calculations.

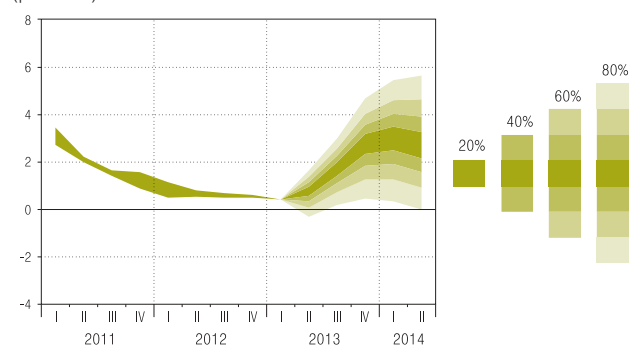
Based on data available at the time indicated and taking into account the diverse development dynamics in the different sectors of the economy we expect a moderate increase in domestic demand in the second quarter which is likely to continue in the third and fourth quarters of the year. Over the second quarter of 2013 private consumption is likely to increase at a moderate rate, reflecting the slight improvements in labour market conditions, and to accelerate its growth rate further in the third and fourth quarters. Firms' unchanged expectations of the future economic activity will probably have a positive effect on the investment activity in Bulgaria which is likely to increase at moderate rate in the following quarters due to available spare production capacities. The planned increase of government's capital expenditure in 2013 will boost growth further. Exports are anticipated to continue growing, albeit at a slower rate compared with the first quarter, given the uncertainty about economic recovery of Bulgaria's major trading partners. Imports are projected to follow

domestic demand dynamics. Generally, the contribution of net exports to the growth is likely to be slightly negative.

The simultaneous improvement of domestic and external demand is anticipated to accelerate real GDP growth in the third and fourth quarters of 2013.

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

(per cent)



Note: The fan chart shows the expert views 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.

Risks to this outlook are broadly balanced. Euro area recovery could be faster than expected which may result in higher exports and GDP growth. On the other hand, household consumption expenditure is likely to increase moderately due to the still high unemployment rates which will hold up the recovery of consumer demand in the third and fourth quarters of 2013.

## GDP Growth by Component of Final Use

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

	2010				2011				2012				2013
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Consumption incl.	0.1	1.2	-0.6	1.1	0.1	0.2	0.9	0.8	0.6	0.3	0.0	-0.5	-0.3
Household consumption	-0.2	1.0	-0.5	0.7	0.2	0.2	1.2	1.0	1.0	0.4	-0.1	-0.6	-0.7
Final government consumption expenditure	0.0	2.8	1.8	0.8	0.0	2.7	-2.2	0.7	-2.2	1.1	-0.3	-2.7	4.7
Collective consumption	13.2	-1.7	0.7	-3.1	3.0	-1.1	-1.1	1.1	-1.8	1.3	0.3	0.5	1.0
Gross fixed capital formation	-3.0	-5.3	-4.3	3.7	-4.8	0.5	1.8	-2.7	0.6	1.1	0.3	1.0	2.5
Exports of goods and non-factor services	-0.5	7.1	13.2	-5.8	5.5	1.6	3.5	0.3	-8.4	8.5	-0.3	-0.7	3.1
Imports of goods and non-factor services	-1.6	3.7	1.3	5.0	1.9	-0.8	3.9	1.3	-1.7	6.0	-2.8	-1.6	4.1
<b>Real GDP growth</b>	<b>0.6</b>	<b>1.4</b>	<b>0.8</b>	<b>0.6</b>	<b>0.3</b>	<b>0.5</b>	<b>0.2</b>	<b>0.1</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>

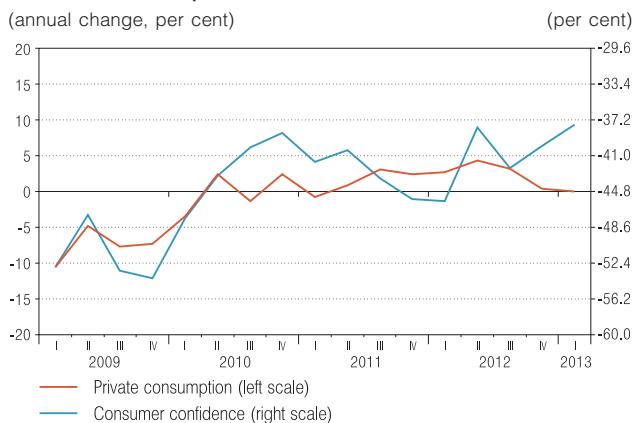
Source: NSI.



## Household Behaviour

The uncertain economic environment, the relatively high rate of unemployment and the uneven recovery in employment and wages by sector continued to impact household behaviour in terms of consumption, savings rate and labour supply. Nevertheless, the favourable labour market dynamics in some sectors observed in the first quarter contributed to the improved confidence indicator reported by the NSI in the consumer survey<sup>31</sup> and is expected to create preconditions for the gradual recovery in consumption.

### Private Consumption and Consumer Confidence



Sources: NSI Consumer Survey and BNB calculations.

According to seasonally adjusted national accounts data, in the first quarter of 2013 household consumption decreased in real terms by 0.7 per cent on a quarterly basis (down 0.6 per cent in the fourth quarter of 2012). While in the second half of 2012 consumer expenditure in catering and food contracted, in the first quarter of 2013 the group of purchased non-production services<sup>32</sup> contributed most significantly to consumption. Retail trade turnover also reported a slight decrease in the first two months of the year, but in March the indicator started to increase signalling higher consumption. April saw increases in all retail trade turnover subgroups.

<sup>31</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).

<sup>32</sup> Purchased non-production services include services other than catering services, water supply, heat energy and electricity, transport and communications.

Total employment dynamics is also expected to have a favourable effect on household consumption. After a period of a continuous decline observed since the second quarter of 2009, the trend was discontinued in the first quarter of 2013 probably due to one-off factors. According to national accounts data<sup>33</sup> for the quarter (according to seasonally adjusted data<sup>34</sup>) total employment increased 0.9 per cent on a quarter-on-quarter basis, with uneven recovery reported across sectors. The quarter-on-quarter growth of employed was observed particularly in services sub-sectors, unlike industry where it continued to decline. The labour force survey data show that in the first quarter of 2013 employment also increased by 0.2 per cent on a quarterly basis. At the same time, corporations showed divergent signs of labour demand. On the one hand, their sentiment concerning personnel employment by June 2013 improved somewhat across sectors compared with 2012. On the other hand, the business climate reflected in employment worsened largely due to the negative current and in some sectors future business situation and economic activity assessments. These factors together with the uneven recovery of economic activity are expected to keep overall employment close to its current level in the third and fourth quarters of 2013.

According to preliminary national accounts data in the first quarter of 2013 labour income measured by the average wage *per* employee increased both in real and nominal terms by 3.6 and 2.4 per cent respectively on a quarter-on-quarter basis. The process, however, was uneven across sectors. The real estate operations sector reported a more pronounced increase in wages in nominal terms, while in the construction sector wages declined both in nominal and real terms. In the professional activity services subsector, the nominal wage *per* employee fell marginally, while the real one remained relatively unchanged. In line with employment and wage dynamics by sector, in the first quarter of 2013 the wage bill reported a less pronounced increase in industry (1.7 per cent) and a stronger one in services (8.5 per cent), with a total nominal increase for the economy of 8 per cent on a quarter-on-quarter basis.

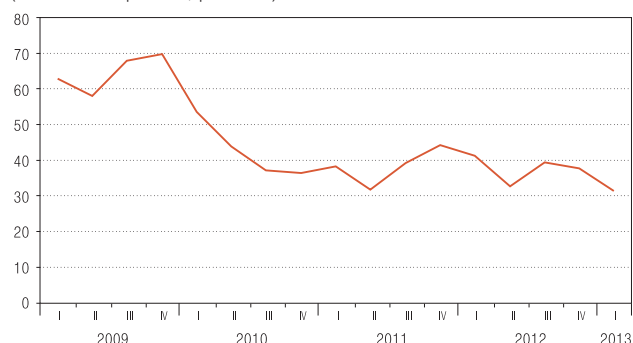
<sup>33</sup> Preliminary data subject to revision.

<sup>34</sup> The seasonal adjustment was made via the TRAMO SEATS programme by using automated set up for diagnostics and optimisation of adjustment parameters.

The increase in income from remuneration, albeit uneven, is likely to create conditions for the moderate recovery in consumption in the second half of 2013. The recovery in employment and wages in some sectors also contributed to the slight increase in the consumer confidence indicator observed over the first quarter of 2013 regarding households' expectations of both their financial situation and the economic situation and the rate of unemployment.

### Unemployment Expectations in the Following Twelve Months

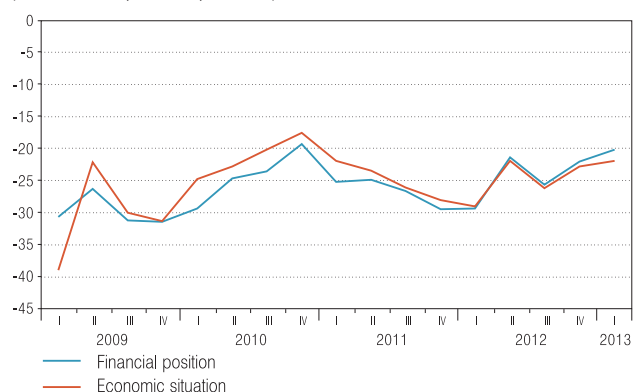
(balance of opinions; per cent)



Source: NSI Consumer Survey.

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

(balance of opinions; per cent)



Source: NSI Consumer Survey.

Regardless of the positive trends in the development of some sectors, the uneven and volatile recovery of employment and economic activity, the relatively low level of total employment and the continuing uncertainty in the economic outlook contribute to the still high share of savings in household disposable income<sup>35</sup> and the increase in their net assets measured by households' net position (seasonally adjusted data) in the banking system according to the

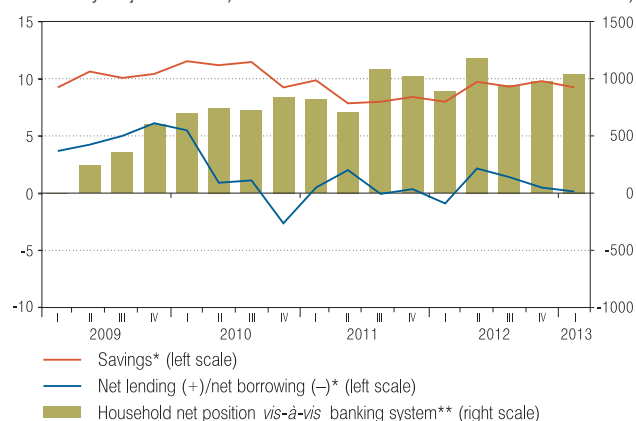
<sup>35</sup> Disposable income (based on the household budget survey) is obtained by subtracting tax expenditure, social contributions and transfers from the total income.

BNB monetary statistics by the first quarter of 2013. Households' intention to increase savings in the following 12 months (Consumer Survey data for the first quarter of 2013) signal retention of higher rates of savings over 2013 and a moderate recovery of consumption in the third and fourth quarters of the year.

### Household Propensity to Save

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

(quarterly change, seasonally adjusted data, million BGN)



\* NSI data.

\*\* According to BNB data.

Sources: NSI Household Budget Survey, BNB.

According to the Labour Force Survey conducted by the NSI, an increase in labour force on an annual basis was observed since the second half of 2012. The change in status from non-active to active job seekers and, hence, the inclusion thereof in the labour force (mainly as unemployed) continued to be reported in the first quarter of 2013. As a result of the higher labour force, the economic activity rate increased, as well as the rate of unemployment (reflecting the rising number of unemployed). These developments point to higher labour supply from households.

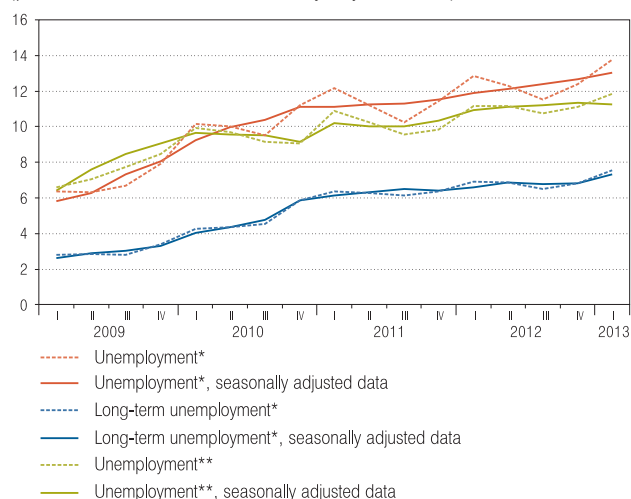
According to the NSI Labour Force Survey in the first quarter of 2013, the seasonally adjusted unemployment rate increased to 13.0 per cent. The seasonally adjusted data of the Employment Agency by the first quarter of 2013 (11.2 per cent), that do not reflect the shift of inactive people towards the labour force, reported a slight decrease in the number of registered unemployed.<sup>36</sup> According to the Employment Agency as of May 2013, the unemployment rate showed some signs of a continued slight decline

<sup>36</sup> The Employment Agency uses a constant rate of labour force.

in the seasonally adjusted rate of unemployment (11.1 per cent) in the second quarter of the year. The Labour Force Survey data point to a continued slight rise in the number of long-term unemployed (for more than a year) in the first quarter of 2013.

### Unemployment

(per cent of labour force; seasonally adjusted data)



\* NSI data.

\*\* Employment Agency data.

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

Since mid-2011 the economic activity ratio went up, with the small number of working-age persons contributing most to this over the same year. In 2012 and in the first quarter of 2013 another factor contributing to this growth was the higher labour force. After declining in the third quarter of 2012, the share of discouraged persons in total working-age population remained comparatively constant over the first quarter of 2013.

### Economic Activity and Share of Discouraged Persons

(per cent)

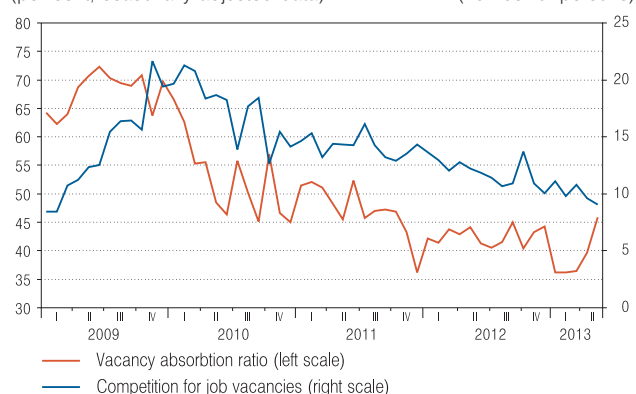


Sources: NSI Labour Force Survey, BNB calculations.

### Competition and Job Vacancy Absorption Rate

(per cent, seasonally adjusted data)

(number of persons)



Sources: Employment Agency, BNB calculations.

According to the Employment Agency, vacancy absorption<sup>37</sup> remained relatively low in the first quarter and in the beginning of the second quarter of 2013 mainly due to the lower absorption rate of vacancies under employment programmes due to the significant number of job vacancies not occupied in previous months. The absorption of job vacancies outside employment programmes thus remains relatively high. The overall increase in job vacancies determines the downward trend in competition for occupying a vacancy in 2012 and in early 2013.

These signals, as well as the labour demand by firms<sup>38</sup> are expected to be reflected in stabilisation of total employment close to current levels in the third and fourth quarters of 2013. Household labour supply is also expected to increase slightly. The rise in wages will probably remain uneven across sectors and in real terms it is expected to continue to be driven by the labour productivity.

If the rate of employment growth remains relatively low and the economic environment continues to be uncertain with relatively weak consumer confidence and a high household saving rate, the recovery of consumption in the third and fourth quarters of 2013 will probably have a favourable effect on the increase of employment and the wage bill in some sectors. Risks to

<sup>37</sup> The vacancy absorption rate is the percentage ratio between the number of newly occupied vacancies in a given month and the sum of vacancies in the reference month (unoccupied posts in the previous month and posts offered in the current one).

<sup>38</sup> In the Household Behaviour section, labour market situation is analysed in the context of labour supply by households. Labour demand by firms is discussed in greater detail in the Behaviour of Firms and Competitiveness section.

## Employment and Income Dynamics

	2010				2011				2012				2013
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
<b>Seasonally adjusted data (per cent on the previous quarter)</b>													
Employed	-1.2	-1.1	-0.5	-1.3	-0.7	-0.7	-1.2	-0.4	-2.1	-0.9	-0.3	-0.6	0.9
Nominal wage <i>per employee</i> *	14.5	-2.1	-0.2	2.6	2.8	3.1	1.2	0.5	0.3	2.2	2.2	3.0	3.6
Real** wage <i>per employee</i>	6.2	-0.5	1.5	0.9	-0.1	2.8	0.8	0.1	-0.2	1.7	1.3	2.2	2.4
Wage bill, nominal terms	13.9	-1.5	0.4	-0.6	2.7	1.7	0.6	1.5	-2.8	0.4	2.0	2.6	8.0
Wage bill, real terms*	5.5	-2.3	0.2	1.1	-1.1	1.5	-0.1	-0.2	-1.8	0.9	1.0	1.3	3.0
<b>Not seasonally adjusted data (per cent on the corresponding period of the previous year)</b>													
Employed	-5.9	-5.7	-3.4	-3.6	-3.7	-3.7	-3.5	-2.6	-3.8	-4.8	-3.9	-4.9	0.1
Nominal wage <i>per employee</i> *	19.4	13.4	9.1	12.9	3.4	9.3	10.3	8.8	3.6	4.2	5.8	6.2	13.0
Real** wage <i>per employee</i>	17.1	10.3	5.6	8.6	-1.0	5.7	6.9	6.1	1.7	2.3	2.7	3.3	10.6
Wage bill, nominal terms	11.2	5.9	4.0	8.9	-0.8	5.6	7.2	6.3	-0.6	0.3	2.0	0.0	13.0
Wage bill, real terms**	9.1	2.9	0.6	4.7	-5.0	2.1	4.0	3.6	-2.4	-1.5	-1.0	-2.8	10.7

\* Wage is calculated on the basis of NSI (SNA) data by deducting social security contributions paid by employers from compensation of employees and dividing the difference by the number of employed.

\*\* Data deflated by HICP.

Sources: NSI – SNA, NSI Labour Force Survey, BNB own calculations, Eurostat.

## Retail Trade Turnover

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

	2010				2011				2012				2013	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	April
Retail trade turnover, excluding cars and motorcycles incl.	-2.8	-1.3	-0.4	-0.9	3.7	-1.0	-1.3	-0.3	-1.8	1.2	-0.9	-1.8	-0.1	0.8
Foods, drinks and tobacco	0.2	1.0	0.5	0.7	1.0	0.1	0.5	0.6	0.3	0.0	-0.5	-0.9	-0.9	0.2
Textile, clothing, footwear and leather	11.5	-0.9	-1.1	-2.3	13.6	-4.4	-6.3	-2.0	-7.8	-2.1	0.5	-0.6	2.5	3.6
Household goods and home appliances	-13.0	-0.9	1.3	-0.8	-1.3	-2.4	-1.0	-1.7	-6.7	3.6	-4.5	-4.4	-2.5	0.8
Computers and communication equipment, etc.	-1.1	-1.4	7.7	0.4	-2.5	-0.5	-0.3	0.6	0.3	-0.5	-1.0	-3.2	-0.5	0.6
Pharmaceutical and medical goods, cosmetics and toiletries	3.1	1.3	0.9	2.8	-0.1	3.4	1.8	5.2	-0.8	0.0	0.9	-4.5	-1.3	3.6
Unspecialised shops with different kinds of goods	6.2	4.7	5.5	3.5	1.6	0.3	-2.1	-2.0	-3.5	-1.5	-0.6	-0.4	1.5	14.2
Automobile fuels and lubricants	-29.6	0.4	2.7	-1.1	-0.3	-2.1	-2.6	-0.4	-0.1	1.0	0.2	-2.3	2.2	2.5

Source: NSI Domestic Trade Survey.

the projection relate mainly to the factors which affect consumer confidence, such as employment and income developments. They largely depend on firms' propensity to hire personnel and enhance investment activity.

## Public Finance and Consumption

In the first quarter of 2013 the consolidated fiscal account ended with a deficit of BGN 799.3 million (-1.0 per cent of the annual GDP in the first quarter<sup>39</sup>): deterioration of around BGN 108 million on the budget deficit for the same period in the prior year. This result was largely due to

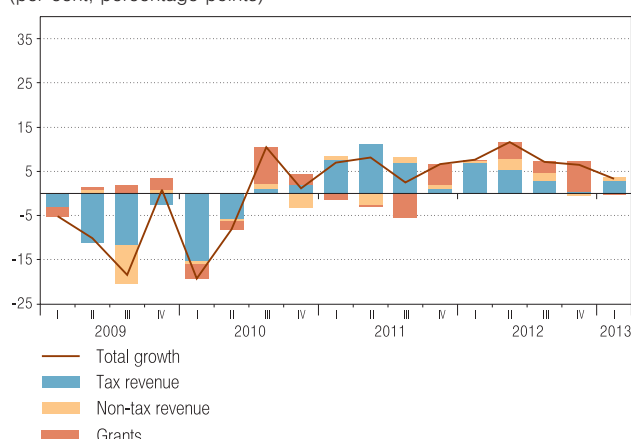
the increase in current expenditure, which, in turn, resulted in a sizeable positive real growth rate of government consumption with a contribution to real GDP growth in the first quarter of the year.

Over the January–March 2013 period total budget revenue and grants under the consolidated fiscal programme amounted to BGN 6157.7 million, reporting a 3.4 per cent increase on an annual basis. Tax receipts (2.8 percentage points) and, to a lesser extent, non-tax receipts (1.0 percentage point) contributed most to the increase in government revenue.

<sup>39</sup> Nominal GDP for the last four quarters as of the end of the first quarter of 2013.

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

(per cent, percentage points)



Sources: MF, BNB calculations.

The increase in tax revenue in the first quarter of 2013 was largely due to indirect tax receipts whose growth was determined almost entirely from the higher VAT revenue (up 16 per cent) regardless of the relatively weak nominal growth in private consumption over the period (2.2 per cent). MF monthly data show that the receipts from this tax were mainly due to higher VAT revenue from domestic and intra-Community transactions (net<sup>40</sup>) and, to a lesser extent, to VAT on imports.

In the first quarter of 2013 excise revenue reported a decline. However, the MF monthly data show that their decline rate slowed down to -5.6 per cent by end-March, from -15.4 and -7.5 per cent in January and February. The spread was determined mainly by the lower income from excise duties on fuels and may partially be explained by the fall in supplies of processed oil products in the country<sup>41</sup> and the lower inflation rate in transport fuels observed over the first quarter.

The first three months of 2013 saw a sizeable deviation in the dynamics of income from social and health insurance contributions from the change in their respective macroeconomic base: compensation *per* employee in the economy. The higher receipts under this item (2.3 per cent) for the first quarter of 2013 is due entirely to the 20 percentage point rise in the social security contributions paid by special bodies' employees to

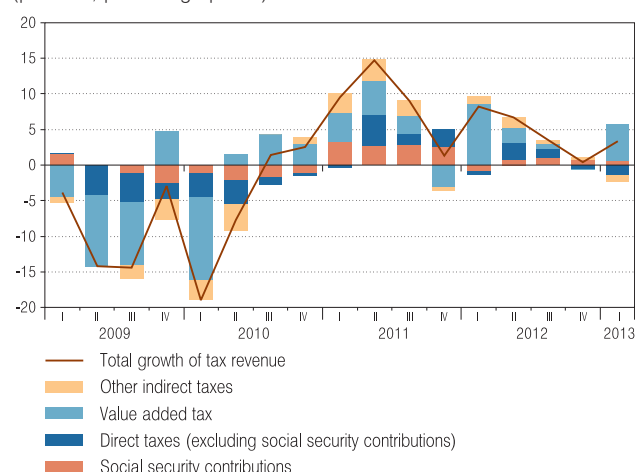
<sup>40</sup> Net revenue, less refunded VAT to exporting companies.

<sup>41</sup> According to NSI data, supplies of processed oil products in Bulgaria fell by 17.4 per cent in the first quarter of 2013 compared with the same period of the prior year.

the Pension Fund<sup>42</sup>. If the effect of this change is removed, revenue from social security contributions would fall by around 2 per cent, while the annual nominal growth of compensation of employees in the economy over the first quarter of the year came to 12.7 per cent.<sup>43</sup>

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

(per cent, percentage points)



Sources: MF, BNB calculations.

The contribution of direct taxes to growth in the first quarter of 2013 was negative due to the lower revenue from profit tax and income tax for individuals. The lower corporate tax revenue reflected to a large extent the changes in tax legislation introduced in early 2013.<sup>44</sup> Between January and March 2013 corporate tax revenue contracted by around 11 per cent on an annual basis as a result of the extended term for depositing monthly advance payments for the first three months of the year. This change together with the change in the basis for calculating advance payments on corporate tax causes problems for the comparability of data for the corresponding period of the prior year. The decline in revenue from income tax for individuals came to 1.3 per cent on an annual basis in the first quarter of 2013 largely due to the lower revenue from taxes on dividends and liquidation interests of resident individuals.

<sup>42</sup> This increase is also associated with the relevant growth in social security expenses of special bodies and therefore has no bearing on the overall consolidated fiscal programme balance.

<sup>43</sup> National accounts data on compensation of employees are preliminary and subject to revision.

<sup>44</sup> For further information on early 2013 changes in tax legislation and the effect thereof on the monthly profile of tax revenue, see the Major Tax Legislation Amendments Effective since 1 January 2013 box, Economic Review, 1/2013, p. 53.

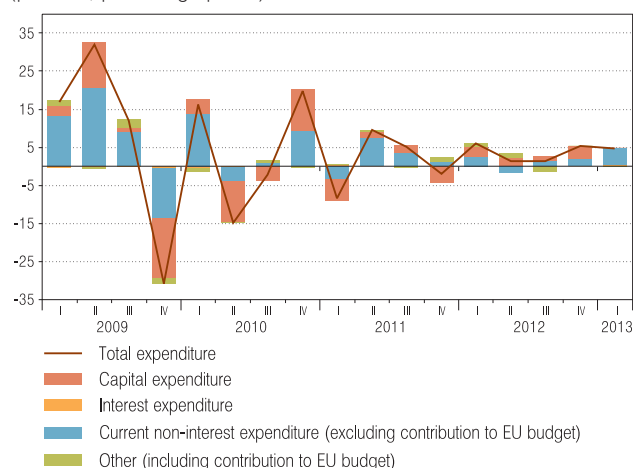


This was partially offset by receipts from the new time deposit interest tax in commercial banks which according to MF data amounted to BGN 15.5 million by March 2013. However, if the income from the new tax is deducted, budget revenue from income tax for individuals would decline by around 4.3 per cent by end-March.

Between January and March 2013 the EU funds budget was in deficit of around BGN 321 million, while revenue from grants reported a decrease on the corresponding period of the previous year and its execution by end-March was hardly 4.3 per cent of the planned execution in the medium-term budget projection for the 2014–2016 period<sup>45</sup>. Non-tax revenue posted a sizeable increase on the first quarter of 2012 and its execution by March was 25.7 per cent of the projected one in the budget.

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

(per cent, percentage points)



Sources: MF, BNB calculations.

In the first quarter of 2013 total consolidated fiscal programme expenditure<sup>46</sup> came to BGN 6955.3 million. The annual expenditure growth was 4.6 per cent, higher current expenditure contributing most to it. Lower subsidy expenditure reporting a decline for a fourth consecutive quarter helped curb the increase

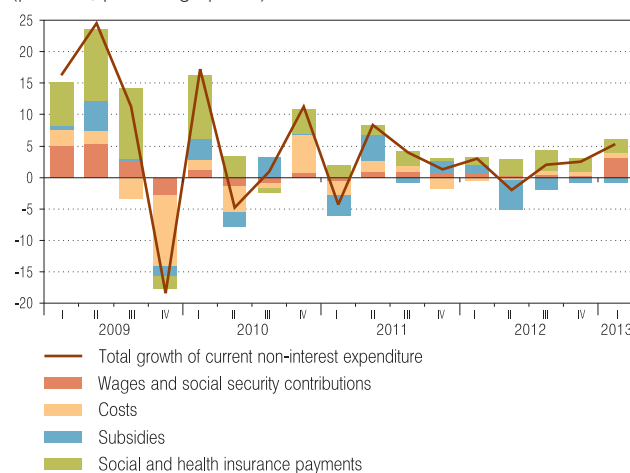
<sup>45</sup> The medium-term budget projection for the 2014–2016 period approved in April 2013 provides for some changes in projected income and expenditure for 2013 under the Law on the State Budget of the Republic of Bulgaria. Both income and expenditure were cut by BGN 400 million keeping the budget balance neutral. Income amendments affected the indirect tax group (a decrease in excise duties of BGN 150 million and a fall in VAT receipts of BGN 70 million) and grants (down BGN 180 million). On the expenditure side, investment expenditure went down by BGN 400 million.

<sup>46</sup> Including Bulgaria's contribution to the EU budget.

in general government expenditure, as well as the lower capital expenditure whose execution was just 10.6 per cent of the planned one in the medium-term budget projection for the 2014–2016 period.

#### Contribution of Major Groups of Current Non-interest Expenditure to Total Expenditure Growth (Quarterly, on an Annual Basis)

(per cent, percentage points)



Sources: MF, BNB calculations.

Expenditure on wages and social insurance contributions under the consolidated fiscal programme were the main contributor to the increase in total budget expenditure. Social security and social care expenditure also contributed, but to a lesser extent. For the first quarter, wage expenditure went up 9.5 per cent on an annual basis, while contributions increased by 30 per cent, including the effect of the increase of social security contributions of employed by special bodies. The quarterly growth of social security expenditure, assistance and social care remained broadly stable mainly due to the higher current transfers, compensations and aids for households, while over the first quarter of 2013 the growth rate of pension payments remained low<sup>47</sup>. In the first quarter of 2013 budget expenditure was, to a great extent, influenced by the higher operating expenditure whose growth rate posted a sizeable increase on the prior year.

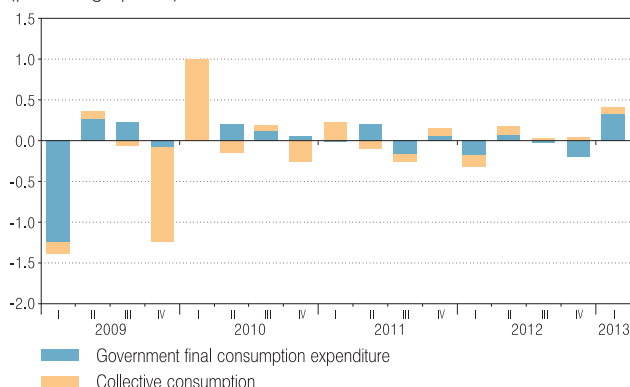
In the first quarter of 2013 government's expenditure policy played a significant role for the economic growth in this period. Reflecting mostly the dynamics of wage expenditure and social security contributions under the consolidated

<sup>47</sup> The pension indexation of 9.3 per cent on average shall enter into force as of 1 April 2013.

fiscal programme, as well as operating expenditure, the contribution of government consumption to the quarter-on-quarter growth of the seasonally adjusted GDP came to 0.4 percentage points<sup>48</sup> compared with the negative contribution in the fourth quarter of 2012 and throughout 2012. The annual growth in government consumption reached 12.1 per cent in nominal terms over the first quarter of 2013.

#### Contribution of Government Consumption to Economic Growth (Quarter-on-quarter Contribution to Seasonally Adjusted GDP Growth)

(percentage points)



Sources: NSI, BNB calculations.

Preliminary MF monthly data on the implementation of the consolidated fiscal programme for the first five months of 2013 point to a budget surplus of BGN 45.5 million generated by the national budget surplus of BGN 71.8 million and EU programme deficit of BGN 26.2 million. In April and May the balance on the consolidated fiscal programme came to BGN 509 million and BGN 332 million respectively.

Total budget revenue and grants on the consolidated fiscal programme grew 7.2 per cent on an annual basis by May largely due to tax revenue (4.4 percentage points) and revenue from grants. The contribution of the latter increased to 2.9 percentage points following the increase in receipts from grants from the EU of around BGN 710 million between April and May 2013.

The higher tax revenue for the first five months of 2013 continued to be driven mostly by VAT revenue. In contrast to the first quarter of 2013, receipts from direct tax also had a positive contribution to the increase in total budget revenue. Upon the receipt in April of monthly advance

<sup>48</sup> Operating expenditure and wages and social insurance contributions under the compensation of employees in the public sector are the two major components of government consumption.

payments for the January– April period<sup>49</sup>, corporate tax revenue went up 11.3 per cent compared to the first four months of the prior year and as of May the increase reached 2.5 per cent. Between January and May 2013 the revenue growth from personal income tax picked up to 6.2 per cent including BGN 29.1 million from the new time deposit income tax introduced in early 2013. However, if these receipts were deducted, the annual growth of the revenue from personal income tax would reach 3.1 per cent by May<sup>50</sup>. May data point to a risk of a significant underperformance of the revenue from the time deposit income tax estimated at BGN 132 million for 2013.<sup>51</sup>

The annual growth of revenue from social and health insurance went up to 4.3 per cent over the first five months (1.8 per cent in January). If the effect of increased security contributions paid by special bodies' employees is eliminated, this revenue's growth would be close to zero by end-May.

By the end of May excise revenue declined further on an annual basis, but the rate of decline gradually moderated to -2.3 per cent compared with -15.4 per cent in January. Since early 2013 the decline in this revenue group was driven mainly by the lower revenue from fuel excise duty (-4.2 per cent in May), while the other groups of excisable goods reported a less pronounced decline.

Between January and May non-tax revenue remained close to the level of the previous year. The lower revenue from dividends of state owned companies and the lower than the projected transfer of the annual excess in income over expenditure of the BNB are partly offset by the increase in state tax revenue.

According to preliminary MF data for the first five months of 2013, total budget expenditure increased by 7.4 per cent on an annual basis mainly due to social expenditure (contributing 2.9 percentage points), wage expenditure and social insurance contributions under the

<sup>49</sup> From the start of 2013 monthly corporate tax advance payments for January, February, March and April are due by the end of April and not in the month they relate to.

<sup>50</sup> According to the MF bulletin, over the review period undesignated liabilities of BGN 160.4 million were allocated into revenue from personal income tax on the basis of estimates.

<sup>51</sup> Under Bulgaria's Convergence Programme for the 2013–2016 period.

consolidated fiscal programme (contributing 2.5 percentage points<sup>52</sup>) and operating expenditure (contributing 1.1 percentage points).

Social expenditure growth reflected the pension increase of 9.3 per cent on average effective as of 1 April 2013 and, albeit to a less extent, the measures initiated by the caretaker cabinet to support the most vulnerable groups in the society and boost employment.

Between January and May 2013 two of the major components of government consumption reported accelerated growth. The early 2013 growth in wages under the consolidated fiscal programme (8.9 per cent in May) was significantly stronger than the 2 per cent growth projected by the government<sup>53</sup>. Municipalities where wage expenditure reached 9.9 per cent contributed most to this dynamics. At the same time, operating expenditure went up 7.3 per cent reflecting mostly the rise in the EU structural and cohesion fund absorption rate. If the current rate of growth in both wage and operating expenditure remains unchanged, we expect the contribution of government consumption to GDP growth to remain high over the second half of the year.

Assuming that the growth in government consumption remains strong and taking into account the pension increase of 9.3 per cent on average as of 1 April, we may expect a temporary and constrained spillover effect of higher private consumption, which, in turn, would be reflected in the receipts from indirect taxes. The impact of the government's expenditure policy on the other GDP components to a large extent would be determined by the limited household liquidity, their propensity to save additional income and consume imported goods (see the Fiscal Policy and Economic Growth box).

In April and May investment increased reaching the level of the previous year and the lowest annual growth for the January – May period (0.4 per cent ) resulted entirely from the capital expenditure under the national budget, while investment expenditure under the European funds budget were reduced by 11.5 per cent.

<sup>52</sup> If the effect of increased security contributions paid by special bodies' employees is eliminated, this contribution would be 1.7 percentage points.

<sup>53</sup> Based on data about implementation of the consolidated fiscal programme in 2012 and projected wage expenditure in the medium-term budget projection for the 2014–2016 period.

The rate of absorption of funds under EU programmes reached 39.8 per cent (up 5.7 percentage points since the start of the year). The continuous rise in the EU structural and cohesion fund absorption rate will boost growth and capital expenditure over the following quarters.

The higher than projected wage expenditure and social security contributions under the consolidated fiscal programme, together with the lower than expected execution of excise revenue, the new time deposit income tax with banks and the weak increase in the revenue from social security contributions exert pressure on the budget balance and pose a potential risk of realisation of higher than expected deficit for 2013.

Over the first five months of 2013 the budget was financed primarily through a positive net government bond issue sold in the domestic market (BGN 1256.8 million). The nominal value of the new government securities issued since early 2013 is BGN 1417.5 million<sup>54</sup>, and the repayments amount to BGN 160.7 million.<sup>55</sup> In addition, the budget was financed by BGN 255.8 million from the fiscal reserve. By the end of May the fiscal reserve was BGN 5825.2 million and the decrease since the beginning of the year was largely the result of principal payments on Eurobonds, which matured in January 2013 (BGN 1546 million). The budget surplus reported in April and May of a total of BGN 841.2 million helped reduce the amount of the funds withdrawn from the government deposit with the BNB. At the same time, BGN 245.1 million were transferred to the account of the State Fund for Guaranteeing the Stability of the State Pension System (Silver Fund), which is part of the government's deposit with the BNB. Thus, the Silver Fund reached BGN 2332 million, of which BGN 56.3 million privatisation revenue reported under the Republican Budget for 2012, BGN 186.6 million concession revenue reported under the Republican Budget for 2012 and BGN 2.2 million revenue from other sources defined in a law or in a Council of Ministers' decree.

After the increase in the yield achieved on the primary market of government securities

<sup>54</sup> Including the unscheduled issue of six-month lev treasury bills worth BGN 800 million nominally, maturing in August 2013.

<sup>55</sup> For details on individual issues of domestic government securities, see *Government Debt Management* monthly bulletin of the Ministry of Finance.

## Revenue and Expenditure on Consolidated Fiscal Programme for 2012–2013 (percentage changes and contributions to growth)

Consolidated fiscal programme	I quarter 2012		II quarter 2012		III quarter 2012		IV quarter 2012		I quarter 2013*		January – May 2013	
	Annual rate of change on the same period of the previous year (per cent) and contributions to total revenue/expenditure (percentage points)											
	per cent	percent- age points	per cent	percent- age points	per cent	percent- age points	per cent	percent- age points	per cent	percent- age points	per cent	percent- age points
Total revenue and grants	7.7		11.6		7.1		6.6		3.4		7.2	
Tax revenue	8.2	6.8	6.7	5.4	3.6	3.0	0.4	0.3	3.3	2.8	5.6	4.4
Corporate tax	-9.7	-1.0	19.5	1.1	9.2	0.4	-18.8	-0.8	-10.9	-0.9	2.5	0.2
Personal income tax	4.1	0.4	8.6	0.8	6.1	0.5	2.7	0.2	-1.3	-0.1	6.2	0.5
Value added tax	33.4	7.0	6.7	1.8	2.3	0.7	-0.5	-0.1	16.0	4.2	12.4	3.1
Excise	6.3	0.9	7.9	1.1	3.1	0.6	2.9	0.4	-5.6	-0.8	-2.3	-0.3
Customs duties	-2.4	0.0	13.7	0.1	-20.8	-0.1	-21.8	-0.1	14.3	0.1	17.4	0.1
Social and health insurance contributions	-3.2	-0.8	2.8	0.6	3.9	0.8	2.6	0.6	2.3	0.5	4.3	0.9
Other taxes	7.2	0.2	0.3	0.0	6.7	0.2	4.7	0.1	-4.0	-0.1	1.4	0.0
Non-tax revenue	4.7	0.7	15.0	2.3	13.9	1.6	-5.1	-0.6	7.0	1.0	-0.5	-0.1
Grants	9.1	0.3	104.9	3.8	49.0	2.5	64.9	6.8	-11.5	-0.3	57.5	2.9
Total expenditure (incl. the contribution to EU budget)	6.0		1.5		1.3		5.3		4.6		7.4	
Wages and social security contributions	2.0	0.4	1.1	0.2	2.1	0.4	1.7	0.3	12.7	2.3	13.3	2.5
Operating expenditure	-1.4	-0.2	-2.3	-0.4	2.8	0.4	3.1	0.6	7.2	1.1	7.3	1.1
Interest	1.8	0.1	44.1	0.3	1.4	0.0	-5.6	0.0	10.3	0.4	8.5	0.3
Social security, assistance and social care	2.7	1.2	6.0	2.6	5.9	2.6	4.8	1.8	4.2	1.9	6.4	2.9
Subsidies	24.4	1.1	-52.6	-4.2	-31.6	-1.7	-12.1	-0.7	-15.1	-0.8	6.4	0.3
Capital expenditure and state reserve growth	38.3	2.5	23.7	2.3	-3.4	-0.4	27.3	4.3	-6.3	-0.5	0.4	0.0
Contribution to EU budget	22.7	0.9	36.1	0.7	1.1	0.0	-28.1	-0.9	6.8	0.3	7.9	0.3

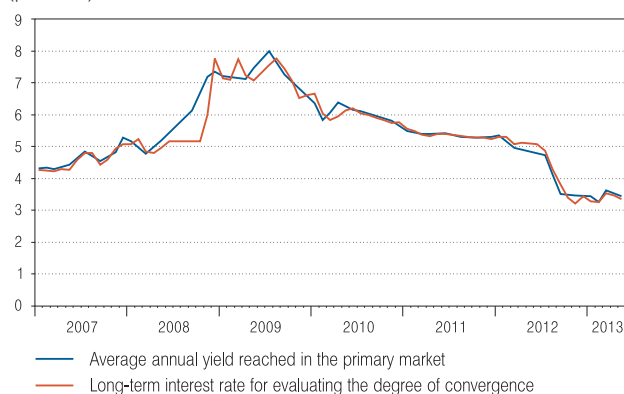
\* Based on preliminary data on CFP implementation for 2013.

Sources: MF, BNB calculations.

observed in early 2013, the prices of all lev-denominated issues went up reaching their end-2012 levels. The prices of government securities on the secondary market followed a similar pattern going up in April after the decline in the beginning of the year.

### Ten-Year-and-Six-Month Government Bond Primary and Secondary Market Dynamics

(per cent)



Source: BNB.

The long-term interest rates followed a similar dynamics of that observed in the yield on

government securities on the primary market<sup>56</sup>, going down to 3.36 per cent in May after an increase to 3.54 per cent in March. Since the year start this indicator went up 8 basis points.

By end-May 2013 nominal government debt dropped by BGN 106 million on end-2012 reaching BGN 13,570 million (16.9 per cent of GDP). The change on the end of the previous year was largely due to global bonds maturing in January 2013 and the positive net government securities issue on the domestic market, including treasury bills of BGN 800 million maturing in August.

The price of the five-year Bulgarian Eurobonds issued in 2012 on international capital markets went down to around 107 by the end of June (corresponding to an annual yield of around 2.35 per cent), as by the end of April and in the first weeks of May the bonds' price came to more than 110 (corresponding to a lower than 1.7 per cent yield).

<sup>56</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.

## Fiscal Policy and Economic Growth

The onset of the financial crisis in 2007 and the follow-up economic recession in leading world economies in 2008 and 2009 revived an old and contradictory discussion on the impact of fiscal policy on economic growth. Initially, the main issue for the economic policy was the size and appropriate combination of fiscal stimuli in order to counterbalance the effect of the crisis on the economic activity and to avoid a strong economic slowdown. However, shortly after that the problems on public debt sustainability in many of developed countries shifted the focus of the discussion on developing fiscal consolidation strategies and assessing the amount of the expected negative effect on economic growth. In both cases, the discussion focused on the size of macroeconomic effects as a result of initiated discretionary fiscal measures. Using fiscal multipliers is one of the methods to measure the effect of the fiscal policy on economic growth.

Following a brief description of major factors influencing fiscal multipliers and some conclusions from the academic literature, assessments of fiscal multipliers in Bulgaria and their role in estimating the effects of implemented fiscal policy are presented below. The cited results are based on an empirical study, which is part of BNB research work, and is to be published in the BNB Discussion Papers research series.

Formally, the fiscal multiplier is calculated as a ratio between the change in real GDP (or any other output measure) and the amount of discretionary change in real income or expenditure prompting this change in real GDP. Depending on the fiscal instrument employed, the multiplier may be income (where an increase or decrease in any group of taxes is reported) or expenditure (where growth or contraction of a particular group of budgetary expenditure is reported). The fiscal multiplier reports both direct and indirect effects of the fiscal policy. For example, one of the mechanisms leading to a multiplying effect is described as follows: a discretionary increase in particular government expenditure (e.g. an increase in wages, pensions or social transfers) results in a direct rise in income of certain population groups followed by an increase in private consumption, which is a source of income growth of producers/importers prompting an additional increase in private consumption, etc. In this case, if the expenditure fiscal multiplier is larger than one, the total growth of the national income will be larger than the initial increase in government expenditure. Where the expenditure fiscal multiplier is less than one, the final effect on the national income will be lower than the initial increase in government expenditure. The following scenario is also valid: depending on the size and the sign of the multiplier, the fiscal consolidation (an increase in taxes and/or a decrease in expenditure) may have a direct adverse effect on economic growth. Another scenario is also realistic: an increase in government expenditure has a direct positive effect on income and consumption but the indirect effect is negative if budget deficit financing requirements prompt an increase in the cost of financing resulting in higher interest rates in the economy, with the latter affecting adversely economic growth.

The discussion on the size of fiscal multipliers remains important since the economic recovery in most countries affected by the crisis is much slower than expected, with the euro area, for example, falling in a second recession in 2012 since the onset of the crisis. Some studies as the one published in 2013 by the IMF<sup>29</sup> suggest that slower than expected economic growth in the EU Member States in the period of fiscal consolidation is mainly attributable to higher than initially estimated fiscal multipliers. They share the view that currently the multipliers in some countries are so high that any fiscal consolidation efforts are ineffective, at least in the short run, due to the negative effect on GDP. Concurrently, some economists suggest that under certain circumstances, fiscal cuts may lead to an economic expansion (an expansionary fiscal consolidation hypothesis<sup>30</sup>).

Despite its crucial importance and the large number of academic articles (most of which published in recent years), the discussion on fiscal policy macroeconomic effects remains strongly contradictory. In fact, currently the economic theory provides no clear answer about the size and in some cases the sign of fiscal multipliers. Numerous relevant studies published since the onset of the global crisis provide no definite support to any of the theoretical models. As a result, estimates of the size of multipliers vary in a wide range. On the one hand, this reflects the lack of consensus on the most appropriate model for estimating multipliers. On the other hand, it is difficult to estimate and analyse the interdependence between economic growth and fiscal policy due to various second-round effects and feedbacks. Moreover, these effects and correspondingly the value of the fiscal multiplier are strongly dependant on a number of factors, some of which are variable over time and some are very specific for individual countries.

<sup>29</sup> Blanchard, O., D. Leigh (2013) 'Growth Forecast Errors and Fiscal Multipliers', IMF Working Paper, WP/2013/1.

<sup>30</sup> Giavazzi, F., M. Pagano (1990) 'Can Severe Fiscal Contractions be Expansionary: Tales of Two Small European Countries', NBER Macroeconomics Annual, pp. 75–122.



Despite the uncertainty as to the effect and measurement of fiscal multipliers, the academic literature identifies some factors influencing their size. Multipliers are considered larger where only a small portion of extra income generated as a result of a fiscal stimulus is saved by the private sector or used for imports of goods and services; under these conditions, the negative effect on GDP is limited due to lower consumption or higher imports. However, these conditions are valid where: the economy is large or relatively closed (*i.e.* the marginal propensity to import is comparatively low); the fiscal stimulus structure does not affect imports and depends primarily on government expenditure growth, rather than tax reductions; the marginal propensity to consume is high and the stimulus is directed at credit- and liquidity-constrained consumers; economic agents do not expect future compensating measures due to their short planning horizon or ill-formulated expectations about the future; automatic fiscal stabilisers are weak and public expenditure efficiency is high.

The fiscal position sustainability after introducing fiscal measures is another factor driving the size of the fiscal multiplier. For example, if fiscal measures cause problems with government debt sustainability, this may be seen as a signal for inevitable fiscal discipline tightening in the near future. Expectations for initiating consolidation measures, for instance, government expenditure cuts and tax increases, may result in a private consumption decline due to the relevant increase in the savings rate. However, in case of a well structured fiscal adjustment, the unfavourable effect on economic activity, if any, is limited and short-lived.

The estimate of fiscal multipliers becomes even more complicated in the current economic environment, given the fact that their values may be changing over time. First, multipliers depend on the economic cycle and on the nature of the fiscal measure (expansionary or restrictive). They are larger when the economy enters recession, rather than expansion. Second, structural changes in the economy, as was the case in Bulgaria after the currency board introduction and especially after the accession to the EU, are also an important factor undoubtedly affecting the time-variant size of fiscal multipliers. For example, the process of integrating Bulgaria into the single EU market increased significantly economy's openness: a factor driving a decline in the fiscal multiplier. The gradually declining share of credit- and liquidity-constrained households in the years of economic growth and tax reforms operates in the same direction, while changes in the efficiency of public expenditure may be assumed to be reflected in the increased size of fiscal multipliers. Third, small open economies like Bulgaria are characterised by limited efficiency of discretionary fiscal measures and under certain circumstances fiscal cuts may lead to economic expansion (an expansionary fiscal contraction hypothesis). Finally, in addition to the overall complexity of the fiscal multipliers' subject itself, the comparatively short time series for Bulgaria which were affected by episodes of significant structural changes could challenge the study of fiscal policy' macroeconomic effects, creating a high degree of uncertainty about the estimated transmission mechanism of fiscal policy.

The empirical research outcomes show that fiscal multipliers for Bulgaria are very low which means that in case of a large fiscal stimulus, there would be an insignificant effect on economic growth. These results correspond to the conclusions in the literature that small open economies are characterised by low fiscal multipliers with a limited time effect.<sup>31</sup>

To estimate fiscal multipliers for Bulgaria, two approaches are used: linear vector autoregression models and a vector autoregression model estimated using Bayesian methods and time-variant ratios. Linear model results show that an increase of government current expenditure to the amount of 1 per cent of real GDP results in no more than 0.4 percentage point (from 0.17 to 0.41 percentage points) growth in real GDP over the first year following the fiscal stimulus. These results are in line with the study of Muir & Weber (2013)<sup>32</sup> showing that in the first year the expenditure multiplier for Bulgaria is close to 0.3. This study also contains estimates of the income multiplier for Bulgaria. Overall, the

Cumulative fiscal multipliers: <sup>1</sup> the effect on real GDP				
Vector autoregression model with recursive identification	1 quarter	4 quarters	8 quarters	12 quarters
Expenditure multiplier <sup>2</sup>	0.03	0.17	0.48	0.7
Income multiplier <sup>3</sup>	0	0.91	1.48	1.02
Structural vector autoregression model estimated by Blanchard and Perotti	1 quarter	4 quarters	8 quarters	12 quarters
Expenditure multiplier <sup>2</sup>	0.01	0.41	0.87	0.92
Income multiplier <sup>3</sup>	-0.30*	0.19	0.43	-0.21

\* Level of statistical significance: 5 per cent.

<sup>1</sup> The cumulative multiplier is the accumulated change in real GDP for a given period (in this case, one, four, eight and twelve quarters) *vis-à-vis* the change in the relevant expenditure/income of the government in this period.

<sup>2</sup> The expenditure multiplier refers to expenses generated by compensation of employees in the public sector, operating expenditure and government capital expenditure.

<sup>3</sup> The income multiplier refers to the concept 'net taxes' which is calculated as a sum total of direct taxes, indirect taxes, social contributions and capital taxes, less social benefits and subsidies.

<sup>31</sup> Ilizetzi, E., E. G. Mendoza, C. A. Vegh (2010) 'How Big (Small?) are Fiscal Multipliers?', NBER Working Paper No. 16479.

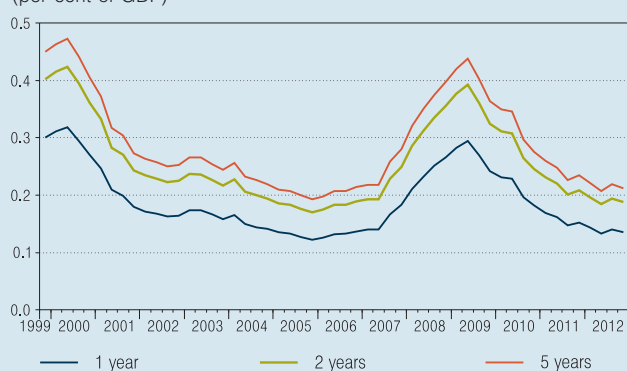
<sup>32</sup> Muir, D., A. Weber (2013) 'Fiscal Multipliers in Bulgaria: Low But Still Relevant', IMF Working Paper, WP/2013/49.

results concerning this multiplier are more contradictory, which may be broadly explained by a series of changes in the tax system in the period of the analysis (1999–2011). It may be concluded, however, that a tax increase has a broadly negative effect on economic growth.

The results of the vector autoregression model estimated using Bayesian methods and time-variant ratios are similar with those of the linear models. After the currency board introduction in Bulgaria, the cumulative multiplier of government consumption was around 0.3 in the first year, followed by a gradual decline to 0.15 in the period of economic growth acceleration. With the intensification of impacts of the global financial and economic crisis on the Bulgarian economy, in 2008 and 2009 the size of this multiplier rose to the levels of the beginning of the period under review, though remaining low at 0.3. The gradual recovery of economic activity in the following years was associated with a moderate drop in multiplier's values. In analysing cumulative results for the second and fifth years after the fiscal stimulus implementation, the effect on real GDP gradually decreased over time. In summary, the study results indicate that the expansionary fiscal policy, which is reflected in a discretionary increase of current expenditure, is not an effective instrument for stimulating real economy in Bulgaria, even in the period of economic recession, since its effect is weak and short-lived.

### Cumulative Multiplier of Real GDP

(per cent of GDP)



Source: BNB.

In addition to its short-term implications, fiscal policy also has a long-term effect on economic growth. In pursuing economic policy, these interactions should be assessed as precisely as possible. Fiscal consolidation policy has a different effect on the government debt to GDP ratio in the short and long-term horizon which depends to a great extent on the size of the fiscal multiplier. Fiscal consolidation is commonly expected to have a negative effect on economic growth in the short run, and this effect is greater in periods of recession. However, there is a broad consensus that well designed fiscal consolidation has a positive economic effect in the medium and long run. Consolidation implies a constant improvement of the structural budget balance,<sup>33</sup> while the negative effect on growth is only temporary. Assuming that the fiscal multiplier is large, fiscal consolidations may initially increase the govern-

ment debt to GDP ratio mainly as a result of the lower denominator. It will be only a temporary negative effect, while the constant structural improvement will offset the unfavourable cyclical effects. These arguments support the assumption that timely fiscal consolidation puts this ratio on a more stable path.<sup>34</sup>

Implementing fiscal consolidation within a short period of time reduces the overall efforts, implying faster stabilisation of the government debt to GDP ratio, especially in economies like Bulgaria, which are characterised by low fiscal multiplier values. Postponing the required fiscal consolidation is often motivated by expectations for lower multipliers in the future, associated with projections of economy's recovery and close to potential GDP levels. However, this strategy may pose risks since fiscal multipliers are unobservable values, and there is a significant uncertainty about their size and sign, which may increase even more when estimates are based on projections. Moreover, a policy based on such assumptions poses numerous risks. Fiscal adjustment postponement implies much higher cumulative consolidation efforts in the medium term, which in turn results in a higher level of government debt and increased interest expenses. In addition, postponement of fiscal adjustment is usually associated with a serious risk of default, as well as more serious political and economic risks related to the postponed implementation of required consolidation measures in the next election cycle.

<sup>33</sup> The structural budget balance is the overall budget balance on the consolidated government budget adjusted for its cyclical component, stemming from the dependence of tax revenue and some expenditure on the current phase of the business cycle, and for the effect of government's measures with a one-off or temporary nature.

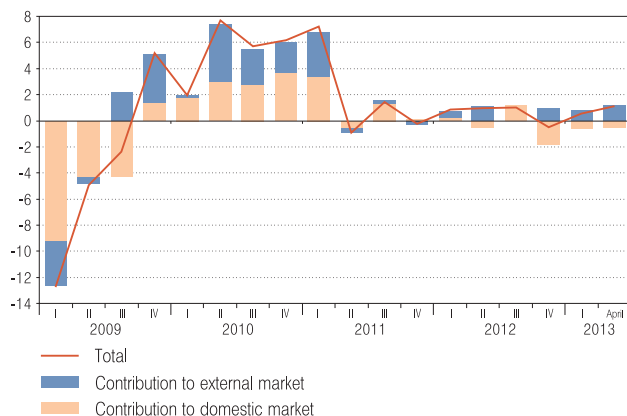
<sup>34</sup> Fiscal adjustment efficiency and its effect on economic activity depend also on some other factors, such as its size, composition, reliability, permanency, as well as if it is accompanied by structural reforms.

## Behaviour of Firms and Competitiveness

In the first quarter of 2013 the income from sales in industry went up against the background of the fall in both the industrial production index and in industrial inventories. This may be the result of one-off factors related to the execution of export orders by selling the stocks of finished goods. This explanation is supported by the comprehensive data on industrial turnover which show that the external market and, in particular, sales thereon of investment and durable consumer goods contributed most to the increase in sales revenue. Domestic market turnover continued to contribute negatively to the growth in total industrial turnover due to the limited consumption of energy products in the first quarter of 2013. April data point to an ongoing upward trend in revenue from industrial companies' sales reflecting mostly the improved external demand, while domestic market turnover continued to decline at slow rates.

### Industry Turnover Dynamics

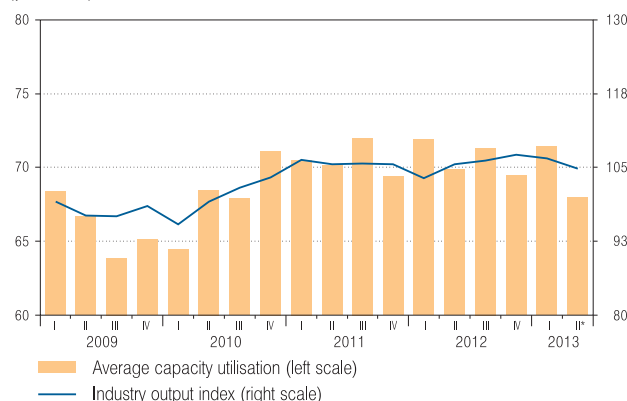
(per cent, quarter-on-quarter percentage points)



Sources: NSI, BNB calculations.

### Production Capacity Utilisation in Industry

(per cent)



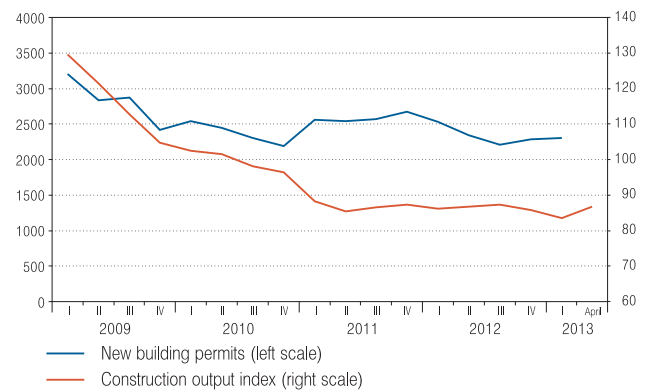
\* Industrial Production Index data for April 2013.

Source: NSI, Industry Business Survey, BNB calculations.

## Construction Output Dynamics and New Buildings Permits Issued

(number of buildings; seasonally adjusted data)

(2010 = 100)



Sources: NSI, BNB calculations.

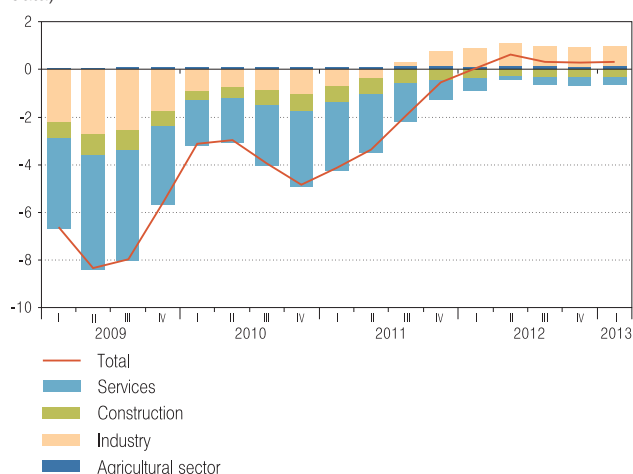
The economic activity of firms in the construction sector moderated in the first quarter of 2013 reflecting the falls in both civil engineering and building construction. Economic activity in the construction sector remains low despite the April data which point to an improvement. The fall in house prices resulting from the weak household demand continued to adversely affect the economic activity of the companies in the sector.

Retail turnover<sup>57</sup> reported a moderate quarter-on-quarter decline in the first quarter of 2013 and in March and April the downward trend was reversed. The data on the first quarter of 2013 show that households' demand has been restricted to the food, beverages and tobacco and household appliances, furniture and other household goods groups. In the sectors providing business services, demand was sustained and corporations' trade volumes continued to pick up, albeit at slowing rates.

<sup>57</sup> See the Retail Trade Turnover table in the Behaviour of Households section in Chapter 3.

### 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)



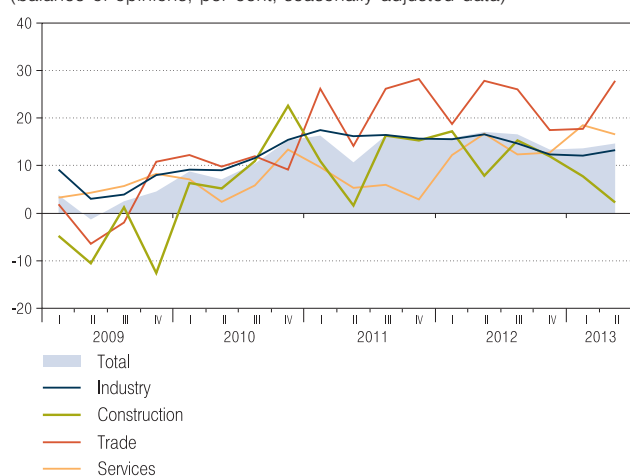
Note: Preliminary quarterly data due to the lack of final data.

Sources: NSI, BNB calculations.

Bulgarian investment activity increased in the first quarter of 2013 compared with the fourth quarter of 2012. According to national accounts data, investment in fixed capital went up by 2.5 per cent in real terms on a quarter-on-quarter basis. The seasonally adjusted data point also to an increase in expenditure on acquisition of fixed assets in nominal terms. Industry, where companies continue to use capital more efficiently, contributed most to this. Investment activity in construction moderated further due to heightened uncertainty surrounding the demand recovery outlook resulting, in turn, in subdued managers' expectations about the future economic activity. Industry and trade reported improved growth expectations which are likely to contribute to the increase in the expenditure on acquisition of fixed assets.

### Expectations about Future Economic Activity

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



Sources: NSI, BNB calculations.

Gross operating surplus growth slowed down and increased on a quarterly basis by 0.6 per cent in the first quarter of 2013. This indicator for trade and industry decreased by 0.3 per cent and 0.9 per cent respectively, while in the financial and business services sector it retained at previous quarter's level.

### Gross Operating Surplus at Current Prices

(billion BGN; seasonally adjusted data)

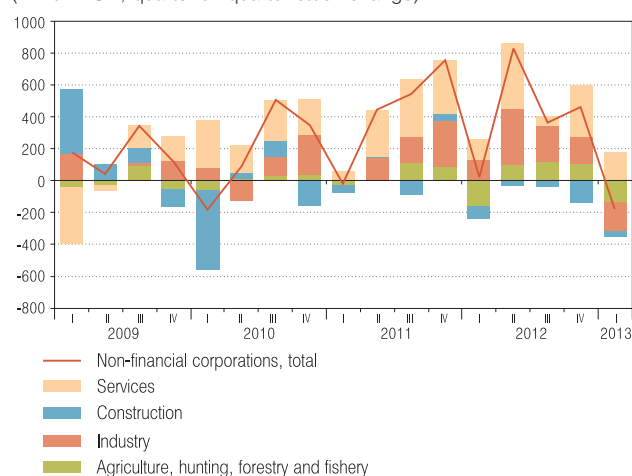


Sources: NSI, BNB calculations.

The dynamics of gross operating surplus and that of other sources of financial resources for firms suggest that financial performance of firms remained relatively stable in the first quarter of 2013. In addition to gross operating surplus, another important source of financing firms' operations over the period was the inflow of foreign direct investments. Bank lending was lower than in the fourth quarter of 2012 but this was due to traditionally lower economic activity of firms in the beginning of the year as a result of seasonal factors. Bank lending retained its positive trend on an annual basis.

### Bank Loans to Non-financial Corporations

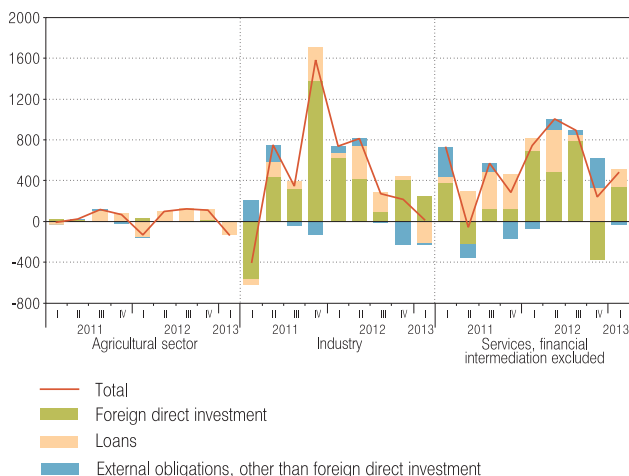
(million BGN, quarter-on-quarter stock change)



Source: BNB.

## Financing Sources\*

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



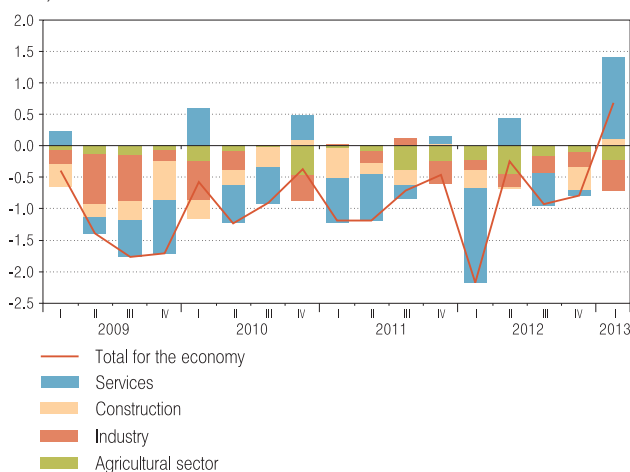
\* The chart displays financing sources other than gross operating surplus.

Source: BNB.

Funding from sources other than operating surplus went down in industry probably due to the increased uncertainty in the prospects of EU economic growth and international trade respectively. Financial flows in the services sector remained stable and reflected relatively better growth expectations in this sector as compared with other sectors.

## 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.

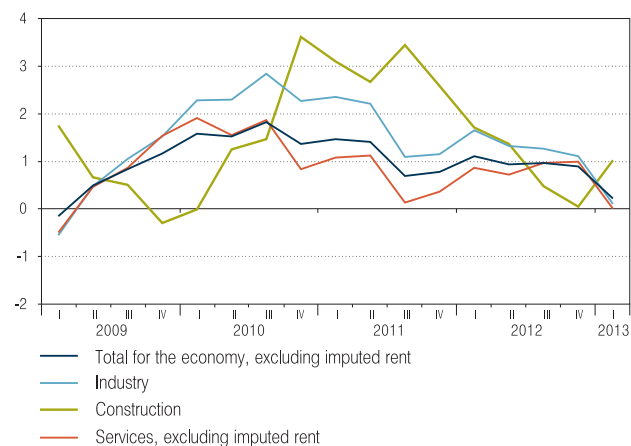
Firms continued to optimise their labour costs. Managers' divergent expectations about future economic activity by sector resulted in an increase in employment in the services sector and further employment slowdown in industry.

Preliminary data on employment growth in the first quarter led to a slower growth rate in labour productivity.

As a result of employment growth and higher compensation *per* employee in the first quarter of 2013 compared with the previous one, nominal and real unit labour costs in total economy increased. The services sector contributed most significantly to this, while unit labour costs in industry remained relatively low in both nominal and real terms.

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

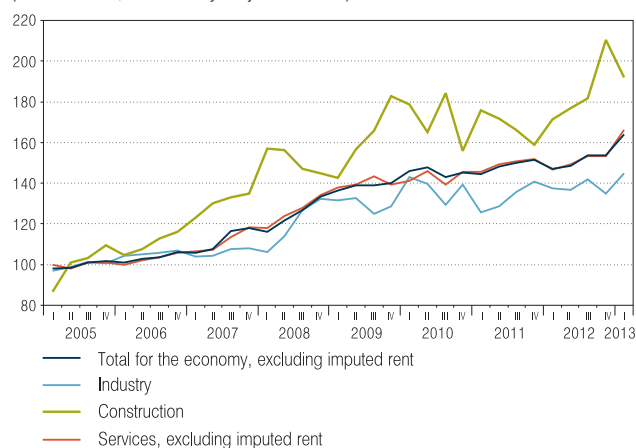
(per cent, quarter-on-quarter; seasonally adjusted data)



Sources: NSI, BNB calculations.

## Nominal Unit Labour Costs

(2005 = 100; seasonally adjusted data)

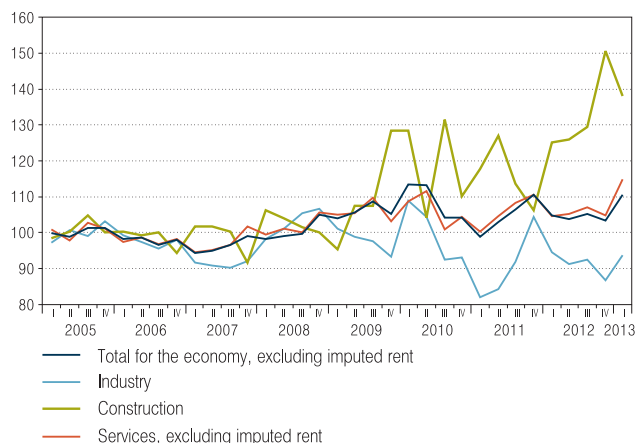


Sources: NSI, BNB calculations.



## Real Unit Labour Costs

(2005 = 100; seasonally adjusted data)



Sources: NSI, BNB calculations.

Value added in the economy remained unchanged in the first quarter of 2013 compared with the previous quarter. Agriculture had the largest positive contribution, while industry and services registered a negative contribution. Increased employment contributed to real GDP growth at the expense of the lower contribution of total factor productivity. These processes should be considered a result of one-off factors rather than a new trend in firms' policies.

## 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.

## Gross Value Added Growth

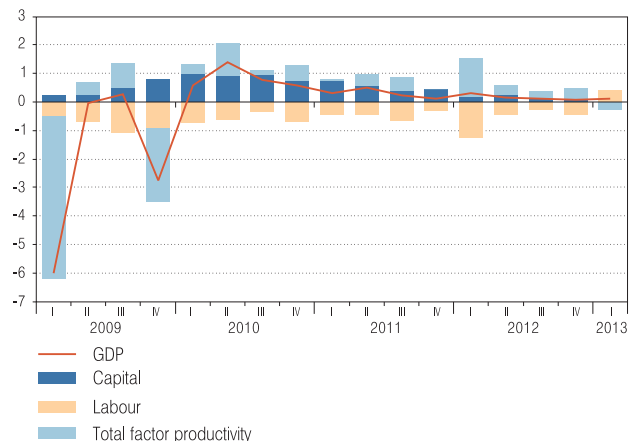
(per cent on the previous quarter; real growth, seasonally adjusted data)

	2010				2011				2012				2013
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Agriculture and forestry, hunting and fishing	-2.3	0.7	-0.5	-2.2	-0.7	1.2	2.4	1.8	2.0	-0.2	0.3	0.9	2.6
Mining and quarrying, manufacturing, production and distribution of electricity, gas and water	-0.8	1.8	1.6	1.4	3.3	1.2	-0.6	0.4	0.5	1.0	-0.6	2.1	-0.6
Construction	0.1	0.7	-1.4	0.2	-2.7	-2.9	9.1	-2.7	-1.9	-1.1	-2.5	-3.2	-1.8
Trade, cars and motorcycles repair; transport, storage and mail services; hotels and restaurants	7.8	-15.1	20.1	0.7	-2.9	-1.0	0.8	-1.8	1.1	1.3	-0.2	1.7	-1.3
Creation and dissemination of information and author products; telecommunications	0.9	1.6	-1.0	-0.2	2.6	-1.6	1.0	-0.7	-2.4	-0.6	0.9	0.5	0.5
Finance and insurance activity	-0.5	-4.0	4.0	-2.3	0.4	2.1	-0.8	2.4	-2.1	0.2	-0.4	-2.3	0.9
Real estate activities	3.3	0.0	1.0	0.3	-2.0	1.7	0.8	2.6	-1.2	0.1	-0.4	-0.8	0.2
Professional activities and scientific research; administrative and ancillary activities	-1.2	15.0	-7.4	-2.0	12.5	-13.8	6.6	13.5	-12.7	-0.5	0.4	-2.0	2.4
General government; education; healthcare and social services	-2.7	0.9	-3.3	-1.2	1.5	-1.2	1.3	-3.4	3.1	-1.0	0.0	2.3	-2.1
Culture, sport and entertainment; other activity; activities of households as employers; non-identified activities of households producing goods and services for own use; activities of extraterritorial organisations and bodies	-0.4	-0.7	-2.0	-0.8	-2.6	-3.2	-0.7	-2.9	0.3	-0.1	-0.6	0.4	-0.9
<b>Gross value added, total for the economy</b>	<b>0.1</b>	<b>0.1</b>	<b>0.8</b>	<b>1.1</b>	<b>0.4</b>	<b>0.6</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>

Source: NSI.

## Contribution of Changes in Production Factors to GDP Growth

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



Sources: NSI, BNB calculations.

The improvement in economic environment in the EU is expected to have a positive effect on the economic activity in Bulgaria in the second half of the year in terms of external demand and also by decreasing uncertainty. As a result, firms are expected to retain their positive sentiments and to continue increasing investments in fixed capital.

## Exports and Imports of Goods

In the first months of 2013 the annual growth rate of exported goods accelerated compared with the rates observed at the end of 2012. In nominal terms, exports rose by 15.2 per cent on an annual basis between January and April 2013 and in real terms by 12.2 per cent in the first quarter (not seasonally adjusted data). Factors of growth were both the continuing increase in exports to non-EU countries and export recovery to EU Member States. The improvement of competitive positions of Bulgarian goods on the European market, expressed in an increased market share in total EU imports (growth by 4.1 per cent as at March 2013 on an annual basis) against the background of the continuing decline in total Community's imports, contributed partly to this effect. The other part of the increase was probably due to factors related to the improvement of terms of trade.

Between January and April 2013 imports grew annually by 2.3 per cent in nominal terms and by 6.5 per cent in real terms in the first quarter (not seasonally adjusted data). The increase reflected the recovery of domestic demand.

As a result of divergent growth rates of nominal exports and imports, between January and April 2013 the trade balance deficit continued to improve amounting to EUR 649.9 million (an improvement by EUR 771.2 million on an annual basis). The change in the terms of trade further benefited the decrease in the trade balance deficit.

## Net Exports of Commodity Groups by Use, January–March 2013

	Balance, million EUR	Change*, million EUR	Exports growth**, per cent	Imports growth**, per cent
Consumer goods	136.0	-25.4	4.1	7.3
Raw materials	42.5	11.4	9.3	8.9
Investment goods	-254.6	314.2	19.7	-11.7
Energy resources	-654.1	140.1	33.9	4.0
<b>Total</b>	<b>-748.7</b>	<b>431.9</b>	<b>12.9</b>	<b>2.8</b>

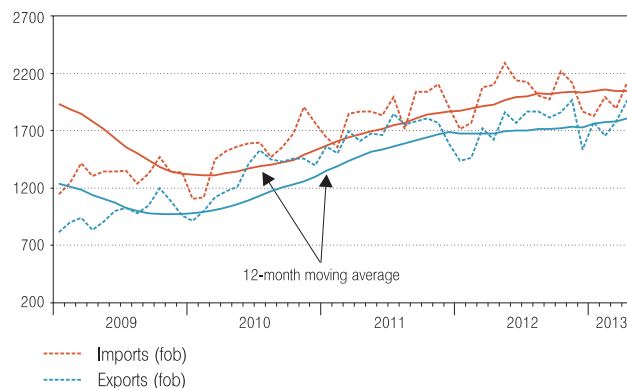
\* Balance change on same period of previous year.

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

Source: BNB.

## Exports and Imports Dynamics

(million EUR)



Source: BNB.

In the third and fourth quarters of 2013 exports and imports are expected to increase moderately in nominal terms. The increase in external demand will be the main driver behind exports dynamics in real terms, while imports dynamics will depend on the expected recovery in domestic demand. Terms of trade are expected to remain favourable as a result of the price hike in agricultural commodities<sup>58</sup> which accounted for a larger share in exports of goods. Against this background, trade deficit is likely to remain close to its current level of 7.5 to 9.0 per cent of GDP.

<sup>58</sup> Agricultural commodities include leather, cotton, wool, rubber, etc. Foods are not included.

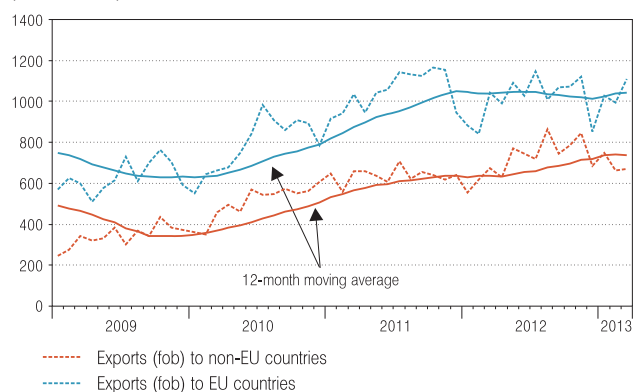
All major commodity groups will contribute to the expected moderate exports growth rate over the projected horizon. Exports of machines, vehicles, appliances, instruments and weapons are expected to grow substantially as a result of the sustained upward trend in exports of these products to non-EU countries accompanied by a recovery of exports to EU countries. The expected fall in prices of metals, petroleum products and foods will have a dampening effect on nominal exports growth of respective commodity groups.

Risks to higher than expected trade deficit relate mostly to higher than expected external demand. On the other hand, the unfavourable dynamics of international prices of commodities for Bulgaria's exports may result in a bigger trade deficit, particularly in case of a more sizeable fall in metal prices and/or weaker price declines in petroleum prices.

In the first quarter of 2013 exports to EU Member States recovered mostly as a result of recovered exports of both base metals and related products, started in the last quarter of 2012, and machines, vehicles, appliances, instruments and weapons. Concurrently, exports of machines to third countries continued to increase strongly.

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

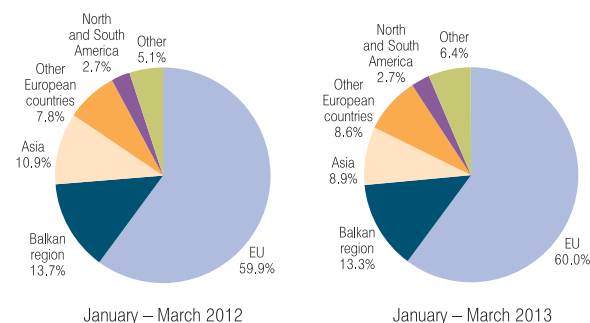
(million EUR)



Source: BNB.

Over the January to March 2013 period exports to EU Member States rose by 13.1 per cent on an annual basis, while exports to non-EU countries increased by 12.6 per cent. Only exports to Asia posted a decline on an annual basis among non-EU regions.

#### Geographical Distribution of Exports



Source: BNB.

All export groups increased on an annual basis with the exception of the textile, leather, clothing, footwear and other consumer goods group which retained its downward trend started in early 2012. Mineral products and fuels, machines, vehicles, appliances, instruments and weapons, base metals and related products and animal and vegetable products, foods, drink and tobacco contributed most to the growth.

#### Exports by Commodity Groups in the January–March 2013 Period

	million EUR	Change*	Growth**, per cent	Contribution**, percentage points
Mineral products and fuels	930.1	230.8	33.0	5.0
Machines, vehicles, appliances, instruments and weapons	1036.6	148.9	16.8	3.2
Base metals and related products	1045.1	96.4	10.2	2.1
Animal and vegetable products, foods, drinks and tobacco	788.9	70.5	9.8	1.5
Chemical products, plastics and rubber	525.1	41.2	8.5	0.9
Wood products, paper, ceramics and glass	222.5	20.5	10.2	0.4
Textiles, leather, clothing, footwear and other consumer goods	668.0	-11.8	-1.7	-0.3
<b>Total exports</b>	<b>5216.3</b>	<b>596.5</b>	<b>12.9</b>	

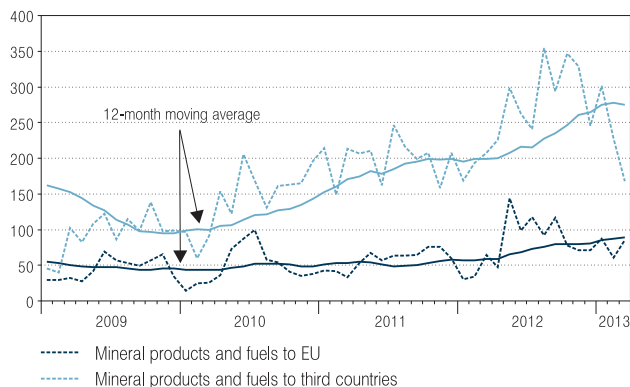
\* Change on corresponding period of previous year, million EUR.

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

Source: BNB.

## Exports of Mineral Products and Fuels

(million EUR)



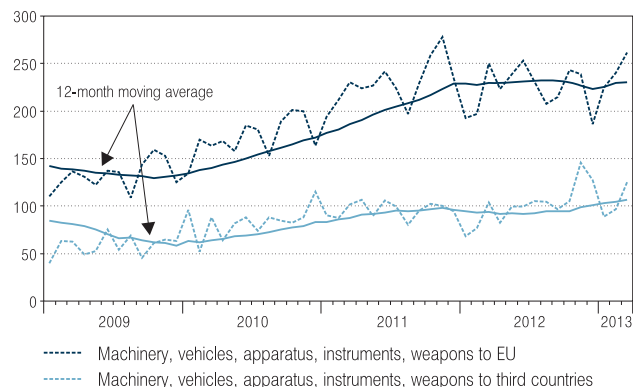
Source: BNB.

Exports of mineral products and fuels rose at a high rate in the first quarter of 2013 (33 per cent on an annual basis). Mineral fuels, mineral oils and distilled products contributed most significantly to this increase (28.4 percentage points). Monthly dynamics was divergent: in January exports of these goods posted strong growth followed by a slowdown in February and a decline in March. In parallel with the slow-down in exports of these products, the rate of their imports also moderated reflecting mostly the dynamics of exported volumes. Prices had a negative effect on nominal export growth of these products over the review period<sup>59</sup>. In the third and fourth quarters of 2013 exports of mineral products and fuels are expected to continue rising, consistent with the accelerating growth in non-EU countries, the major trade partner in these products, and correspondingly with the growing demand for this group's products. On the other hand, the expected fall in international fuel prices on an annual basis will curb nominal export growth of these products.

<sup>59</sup> According to the Balance of Payments of Bulgaria, January–April 2013, p. 42.

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

(million EUR)

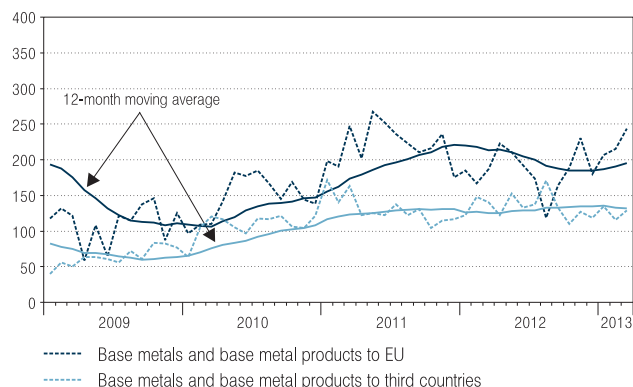


Source: BNB.

Exports of machines, vehicles, appliances, instruments and weapons started to recover at the end of the prior year, rising nominally by 16.8 per cent in the first quarter of 2013. Electrical machines and appliances had the largest contribution: 12.6 percentage points. Since early 2013 exports of these goods to EU Member States recovered, mostly to the euro area to which they are traditionally directed. Concurrently, the growth rate of exported machines to third countries remained strong. The nominal increase reflected both the price effect and the rise in the exported quantities of these products<sup>60</sup>. In the third and fourth quarters of 2013 exports in the group continued to increase at a moderate rate underpinned by the expected recovery in the euro area economic activity by the end of 2013.

## Exports of Base Metals and Related Products

(million EUR)



Source: BNB.

<sup>60</sup> The import deflator for the machines, equipment and vehicles group under SITC was used to estimate the price effect in the first quarter of 2013.

In the first quarter of 2013 exports of base metals and related products continued to increase. The copper and copper products item (8.2 percentage points) had the major contribution to the 10.2 per cent growth reported between January and March 2013. Exports of these products to EU Member States continued their recovery started in the last months of the prior year, while exports to non-EU countries recorded a decline on an annual basis. In the first quarter of 2013 the fall in international copper prices on an annual basis contributed to lower nominal growth of exports to EU Member States and a larger nominal decline to non-EU countries.<sup>61</sup> In the second and third quarters of 2013 exports in the group are expected to increase further due to gradually accelerating external demand. On the other hand, a possible fall in international metal prices on an annual basis will limit growth.

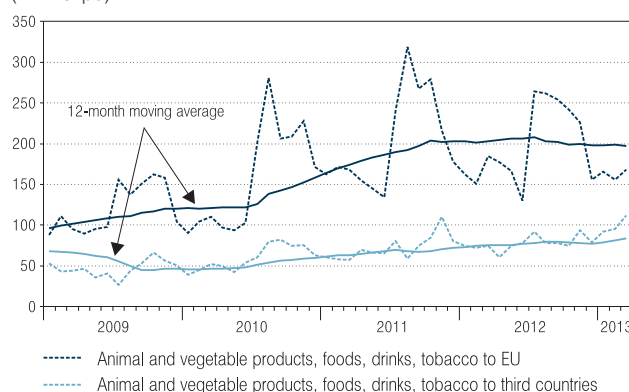
In the first quarter of 2013 exports of animal and vegetable products, foods, drink and tobacco rose by 9.8 per cent. Growth reflected mostly the increased exports of cereals (contribution of 4.5 percentage points), tobacco and manufactured tobacco substitutes (contribution by 3.3 percentage points) and oil seeds and fruit, different types of seeds (contribution by 3.1 percentage points). Larger exports of these products were attributable to the increased exports to non-EU countries. On an annual basis, exported volumes showed growth, though slower than the nominal one<sup>62</sup>. In the second and the third quarters of 2013 exports in the group are expected to increase further due to gradually accelerating external demand. On the other hand, the expected fall in international food prices on an annual basis will limit growth.

<sup>61</sup> According to the Balance of Payments of Bulgaria, January–April 2013, p. 42.

<sup>62</sup> To estimate the price effect, see the respective export deflators for the listed divisions in the first quarter of 2013 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 Animal and Vegetable Products, Foods, Drinks and Tobacco

(млн. евро)



Source: BNB.

## Imports of Commodity Groups by Use, January–March 2013

	million EUR	Change*	Growth** per cent	Contribution**, percentage points
Consumer goods	1064.0	72.4	7.3	1.2
Raw materials	2251.6	184.3	8.9	3.2
Investment goods	1200.9	-158.7	-11.7	-2.7
Energy resources	1425.1	55.2	4.0	1.0
<b>Imports, total (cif)</b>	<b>5965.1</b>	<b>164.7</b>	<b>2.8</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.

In the first quarter of 2013 imports (CIF) grew annually by 2.8 per cent in nominal terms. By use, raw materials, consumer goods and energy resources contributed to this growth. Investment goods posted a decline.

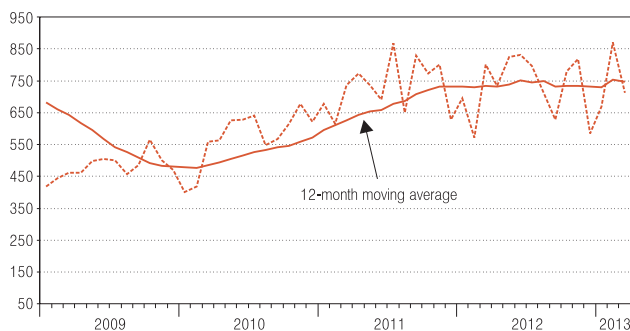
Between January and March 2013 imports of raw materials grew annually by 8.9 per cent in nominal terms. The increase was a result of the strong growth in the ores item reported in February (a contribution of 4.2 percentage points for the January–March 2013 period), with the nominal increase being mostly a result of higher imported volumes of these products<sup>63</sup>. Imports of most of other group items also posted growth. The major factor behind the increased imports was probably export growth of these products. In the second quarter of 2013 imports of this group are expected to continue growing due to improving domestic demand, with annual falls in international metal prices limiting nominal growth.

<sup>63</sup> According to the Balance of Payments of Bulgaria, January–April 2013, p. 42.



### Imports of Raw Materials

(million EUR)

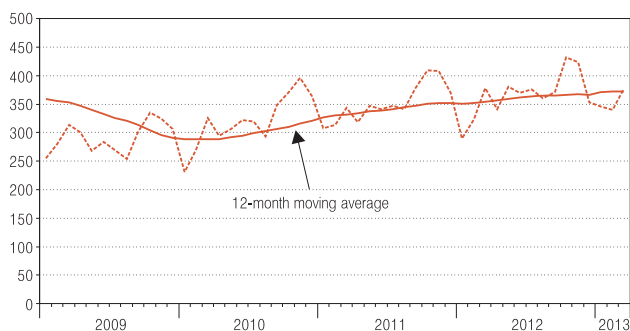


Source: BNB.

In the first quarter of 2013 imports of consumer goods accelerated compared with growth rates of the prior year and reported 7.3 per cent nominal growth on an annual basis. The group items contributing mostly to growth were medicines and cosmetics (2.6 percentage points), furniture and home equipment (1.8 percentage points) and foods, drinks and tobacco (1.1 percentage points). In the second half of the year imports of consumer goods are expected to increase at similar rates due to the slow improvement in domestic demand.

### Imports of Consumer Goods

(million EUR)



Source: BNB.

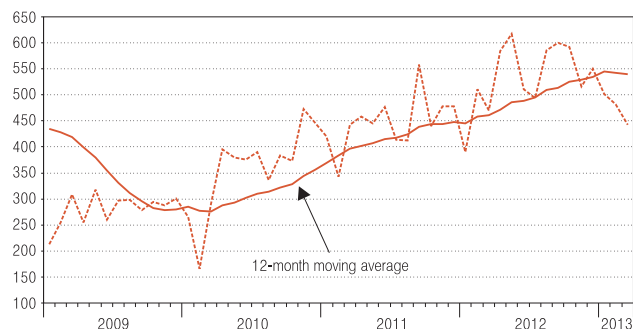
Imports of the energy resources group reported 4 per cent growth in the first quarter of 2013 following a strong increase in January and a decline in the following two months. Crude oil and natural gas had a major contribution (1.1 percentage points) to growth. The increase in imports of these products was connected with the increase in imported volumes, while the price had a strongly negative effect<sup>64</sup>. In the third and fourth quarters the nominal growth rate of this group's imports is expected to moderate

<sup>64</sup> According to the Balance of Payments of Bulgaria, January–April 2013, p. 42.

due to the gradual recovery in domestic demand and fuel price falls on an annual basis.

### Imports of Energy Resources

(million EUR)

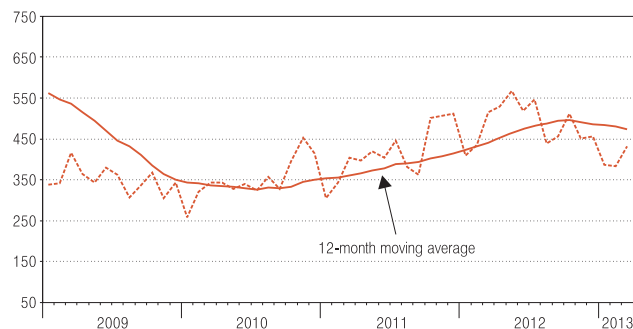


Source: BNB.

Imports of investment goods continued to decrease in the first quarter of 2013 reporting a nominal decline by 11.7 per cent. Spare parts and equipment had the major contribution: 18.1 percentage points. This dynamics was observed irrespective of the improvement in investment activity in Bulgaria. It was due mostly to the base effect as imports of these goods rose substantially between January and March 2012. In the second half of the year imports of investment goods are expected to gradually increase as a result of the improving investment activity.

### Imports of Investment Goods

(million EUR)



Source: BNB.

In the first quarter of 2013 imports from EU Member States increased by 5 per cent and that from non-EU countries by 1 per cent.

# 4. Inflation

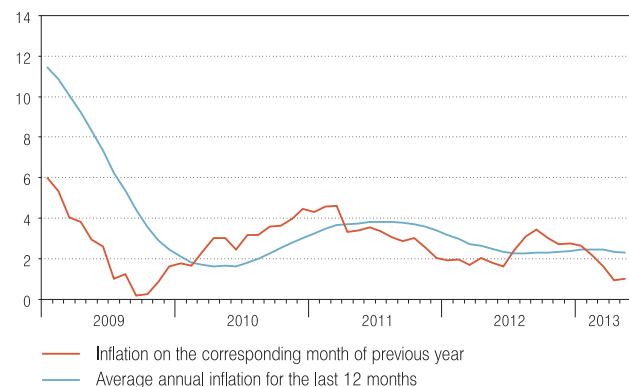
During the first five months of 2013 the annual consumer price inflation continued to slow down: by May it was 1.0 per cent. It reflected mainly the lower prices of transport fuels and the decrease in the controlled price of electricity for households since early March 2013.

In the third quarter of 2013 the annual inflation is expected to retain its downward trend, as a result of the deflation of administratively controlled prices and the sustained low fuel prices. In the fourth quarter a slight rise in inflation may occur, assuming that international food prices will stop falling and the crude oil price will continue decreasing on an annual basis, but at a lower rate compared with the third quarter.

Between January and May 2013 the downward trend in inflation started in the last months of 2012 continued.<sup>65</sup> By May the annual inflation rate was 1 per cent and average annual inflation over the last 12 months was 2.3 per cent. Factors behind the continued downward trend in total consumer price inflation were both external (mostly the fall in international oil prices) and internal.

## Inflation

(per cent)



Source: NSI.

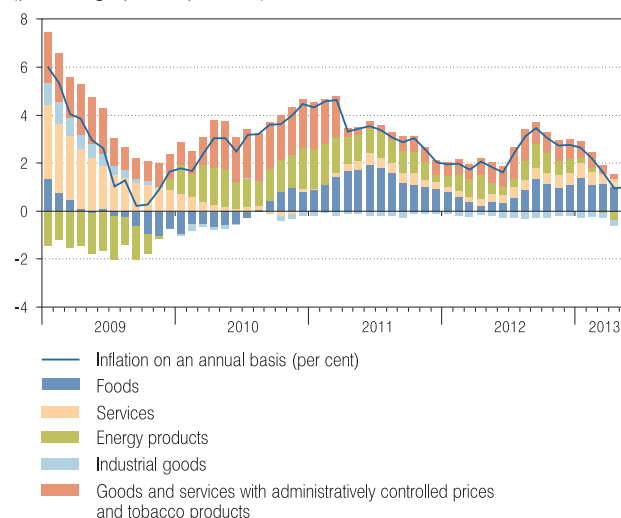
Dramatically decreased international crude oil prices between March and May 2013 contributed to lower prices of energy products (excluding administratively controlled prices) in March by 1 per cent on annual basis and in the April–May period by 2.4 per cent (against an increase of 6.3 per cent by December 2012). The current situation on the international markets suggests that consumer price inflation in Bulgaria will remain low until the end of the second quarter of 2013.

<sup>65</sup> The analysis in this Section is based on NSI data on HICP.

Among internal factors impacting inflation, the March decrease in the controlled price of electricity for households had the largest contribution to the inflation decline. In recent years the prices of industrial goods and telecommunication services contributed negatively to inflation, a trend which was sustained in the first five months of 2013.

## Inflation Rate on Corresponding Month of Previous Year and Contribution of Major Goods and Services Groups to It

(percentage points, per cent)

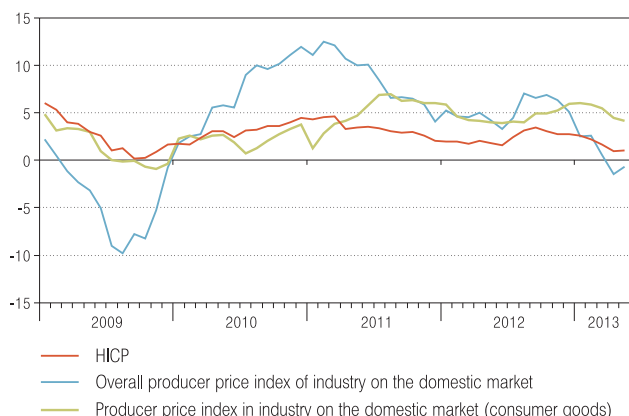


Notes: The used structure corresponds to the Eurostat classification; tobacco products and goods and services with administratively controlled prices are presented separately. Administratively controlled price index is calculated through the elementary aggregates level in the consumer basket.

Sources: NSI, BNB calculations.

## Rate of Change in HICP and Industrial PPI

(per cent on corresponding month of previous year)



Source: NSI.

Firms' behaviour in pricing of final products was another factor influencing the rate of consumer price inflation. In the first quarter of 2013 a significant increase in unit labour costs<sup>66</sup> and firms' total labour costs for the economy as a whole was observed, while firms' annual profits measured through the gross operating surplus posted a slight increase.<sup>67</sup> In industry, compensation *per* employee increased at moderate rates and the operating surplus rose by 10 per cent on an annual basis. Concurrently, producer prices on the domestic market posted a decline on an annual basis in April and May. Irrespective of the fact that the negative contribution of prices in energy products output was the major factor behind the fall in producer prices,<sup>68</sup> the decline in international prices of other commodities as foods and metals due to oil price dynamics also contributed to the reduction in industrial firms' expenditure. This allows the industrial firms to increase the compensation *per* employee and the operating surplus, avoiding pro-inflationary pressure on consumer prices. According to survey observations conducted by the NSI, in June managers' expectations in the industrial sector points to retention of prices at their current levels in the following three months.

<sup>66</sup> Data are subject to revision.

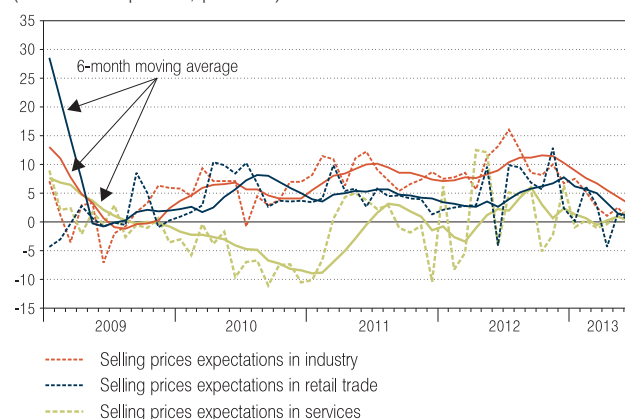
<sup>67</sup> For the dynamics of indicators on a quarterly basis, see Behaviour of Firms and Competitiveness section in Chapter 3.

<sup>68</sup> The Major Industrial Groupings classification was used covering the following sectors: intermediate consumption goods, energy product production and water related activities, investment product manufacturing and consumer goods production. The group of energy products is calculated without the following sectors: production and distribution of electricity, heating and gas, and water supply, sewerage, waste management (energy products, excluding sectors E and F).

In the first quarter of 2013 the services sector posted an increase in unit labour costs on an annual basis which was partly offset by a decrease in operating surplus.<sup>69</sup> According to the results of survey observations, prices in the services sector are expected to slightly increase in the following three months. The retail sector also posted a significant annual increase in compensation of employees with productivity being sustained at the 2012 fourth quarter's level. As a result, unit labour costs rose significantly and the operating surplus in the sector worsened dramatically. According to survey observations for the trade sector, by June expectations point to retention of selling prices at the current level in the following three months.

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

(balance of opinions, per cent)



Source: NSI.

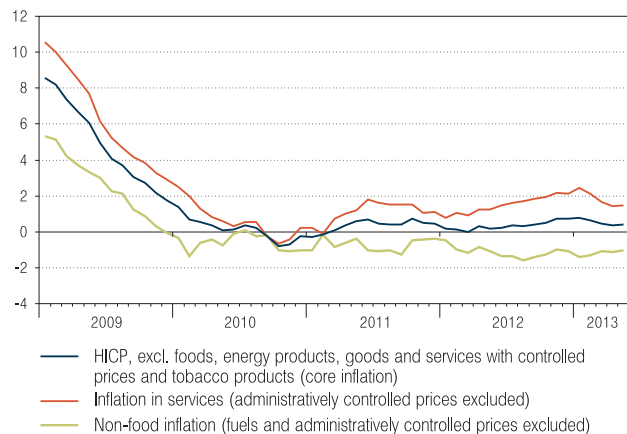
On the demand side, the first quarter of 2013 saw a slight decline in consumption on a quarterly basis mostly due to the negative contribution of food products component and the lower contribution of the catering component. The expectations are for household consumption to start gradually recovering since the second quarter of the year which may push services prices up.

The lack of internal pro-inflationary factors and the decrease in international fuel prices resulted in a relatively low core inflation (including services prices and non-food prices, excluding fuels). By May the annual rate of change of core inflation accounted for 0.4 per cent (0.7 per cent in December 2012).

<sup>69</sup> For the dynamics of the operating surplus on a quarterly basis, see Behaviour of Firms and Competitiveness section in Chapter 3.

## Core Inflation

(per cent on corresponding month of previous year)



Sources: NSI, BNB calculations.

Our inflation expectations for the third and fourth quarters and the associated uncertainty are presented in the fan chart on the annual inflation rate.<sup>70</sup> In the third quarter inflation is projected to post a further decline to levels ranging from -0.5 per cent to 0.6 per cent.<sup>71</sup> Deflation of administratively controlled prices will play a key role in the described dynamics of overall inflation. The decrease in transport fuels is likely to continue and inflation of foods to moderate.

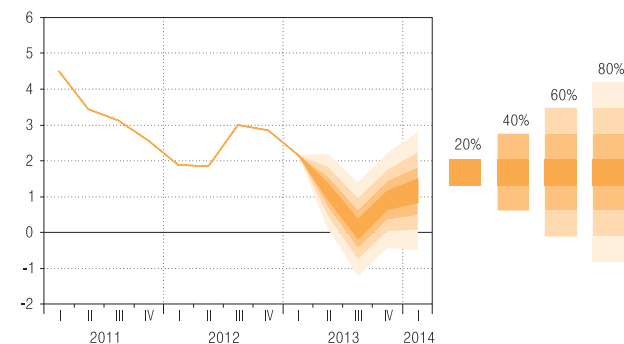
In the fourth quarter the annual inflation is expected to vary from 0.3 to 1.4 per cent as it is assumed that the decline in international food prices will stop and the annual oil price fall will be lower than in the third quarter. This dynamics will probably add to some acceleration of the annual inflation rate of food products by the close of the year and to lower positive inflation in fuels.

<sup>70</sup> For further details, see the box entitled Measurement and Presentation of Uncertainty in Forecasting Economic Indicators, Economic Review, 1/2012.

<sup>71</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.

## Fan Chart of the Expected Annual Inflation Rate

(per cent)



Note: The fan chart shows the expert views on the uncertainty around the projected value based on probability distribution. The middle band of the chart, depicted in the darkest colour, includes the central projection and the probability distribution shows 20 per cent probability for the actual value to fall in this band in each of the quarters. If neighbouring bands (in the same brighter colour) are added to the middle band, there would be 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.

Major risks to the projection relate to international commodity market prices, with the balance of risks showing a probability of higher total inflation. On the other hand, in case the currently discussed reduction of household electricity price materialises (by about 5 per cent), an inflation rate close to the lower bound of the projected interval for the period may be expected in the third quarter.

## Food Prices

In the first five months of 2013 a significant downward trend of food inflation was observed. By May the inflation in this group accounted for 3.6 per cent compared with 4.2 per cent in December 2012. This dynamics to a large extent complies with the decline in overall international food price index and slower growth rates in producer prices of foods on the domestic market by May.<sup>72</sup> Internal factors exerting upward pressure on prices were modernisation and restructuring in agriculture and the ensuing reduction of domestic output of some types of agricultural products (e.g. vegetables).

Unprocessed food inflation (meat and meat products, fruit, vegetables and fish) decreased to 5.5 per cent in May (against 8.3 per cent by

<sup>72</sup> Food price indices denominated in euro are used for international market food prices (source ECB).

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

	Inflation accumulated as of May 2012 (December 2011 = 100)		Inflation accumulated as of May 2013 (December 2012 = 100)		Annual inflation rate as of May 2013 (May 2012 = 100)	
Inflation (per cent)	1.2		-0.5		1.0	
	Inflation rate by group, per cent	Contribution, percentage points	Inflation rate by group, per cent	Contribution, percentage points	Inflation rate by group, per cent	Contribution, percentage points
<b>Foods</b>	1.9	0.49	1.3	0.33	3.6	0.91
Processed foods	-0.1	-0.02	0.1	0.02	2.5	0.42
Unprocessed foods	6.0	0.51	3.4	0.30	5.5	0.49
<b>Services</b>	-0.2	-0.06	-0.9	-0.21	1.5	0.37
Catering services	0.7	0.03	1.1	0.05	3.9	0.19
Transport services	2.8	0.12	0.2	0.01	1.2	0.05
Telecommunication services	-0.4	-0.02	-0.1	0.00	-0.7	-0.04
Other services	-1.8	-0.19	-2.4	-0.27	1.6	0.16
<b>Energy products</b>	7.0	0.60	-0.2	-0.01	-0.8	-0.07
Transport fuels	7.1	0.58	0.0	0.00	-1.0	-0.09
<b>Industrial goods</b>	-0.9	-0.18	-0.8	-0.16	-1.0	-0.19
<b>Goods and services with administratively controlled prices*</b>	2.2	0.35	-2.6	-0.47	0.1	-0.02
<b>Tobacco products</b>	0.0	0.00	0.2	0.01	0.3	0.01

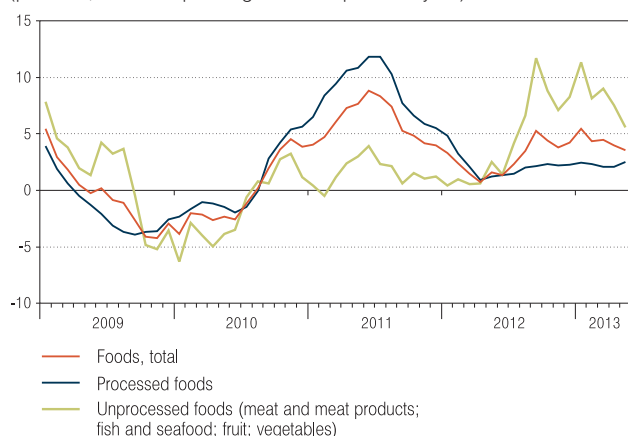
\* Administratively controlled prices are calculated at an elementary aggregates level in the consumer basket.

Sources: NSI, BNB.

December 2012) and played a key role in the downward dynamics of total food price inflation. By May the vegetables and meat and meat products contributed most substantially to total inflation, while the fruit group reported a minimum price fall.

### Rate of Change of Food Price Index

(per cent, on corresponding month of previous year)



Sources: NSI, BNB calculations.

In the first quarter of 2013 expenses on intermediate consumption in agriculture continued to increase at a moderate rate on an annual basis<sup>73</sup>. At the same time, the increase in producer prices in agriculture remained relatively

<sup>73</sup> Price indices of goods and services for current consumption in agriculture (NSI) are used.

high which is indicative of other pro-inflationary factors from the supply side.

In recent years the inflation dynamics in the vegetables group showed an increasing dependence on international market trends due to growing imports. This reflected the reduced vegetable production in Bulgaria due to a shortage of financial resources for the enlargement and modernisation of output and the reluctance of producers to associate in producer organisations which hampered the sale of output. These and other problems were the reasons behind imbalances in the crop sub-sector resulting in an increase of cereals and technical crops production at the expense of reduced production of vegetables and fruit.<sup>74</sup>

Higher fodder prices and sector's restructuring and modernisation in line with the new farming requirements introduced on 1 January 2013 contributed to the annual inflation in the group of meat and meat products.<sup>75</sup> On the other hand, the high level of domestic demand for meat and meat products cannot be satisfied only by Bulgarian output, with pork and chicken dominant-

<sup>74</sup> Annual Report on the Situation and Development of Agriculture (Agrarian Report 2012), Ministry of Agriculture and Food, adopted by the Council of Ministers in December 2012.

<sup>75</sup> Red Meat: a Situation and Outlook Analysis in 2011 and 2012, Ministry of Agriculture and Food, February 2013.



ing the imported agricultural products.<sup>76</sup> Since early year international meat prices posted a decline resulting in a lower annual inflation rate of meat products.

The annual inflation rate of processed foods matched its 2013 first quarter's level, reaching 2.5 per cent in May. Bakery products and corn food, with their dynamics being sustained stable irrespective of lower wheat price index in international markets, continued to contribute most substantially to the annual inflation in this group. The price rise in the remaining major commodity groups had a weaker positive contribution.

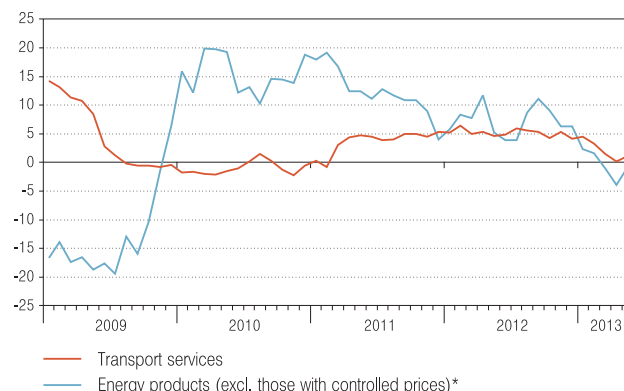
The expectations of a decrease in international food prices on an annual basis in the third quarter and a discontinuation of the price fall in the fourth quarter would additionally push down the food inflation rate in Bulgaria in the beginning of the second half of the year tending to possibly increase by the end of 2013.

### Energy Product Prices

The downward trend in the annual inflation rate in energy products (excluding those with controlled prices) started from the fourth quarter of 2012 and was sustained in the first five months of 2013. As of March this group reported a deflation reflecting mostly oil price declines on international markets between March and May. By May prices of transport fuels went down by 1.0 per cent compared with the corresponding period of the previous year.<sup>77</sup>

### Rate of Change of Energy Product Price Index and Transport Services Price Index

(per cent, on corresponding month of previous year)



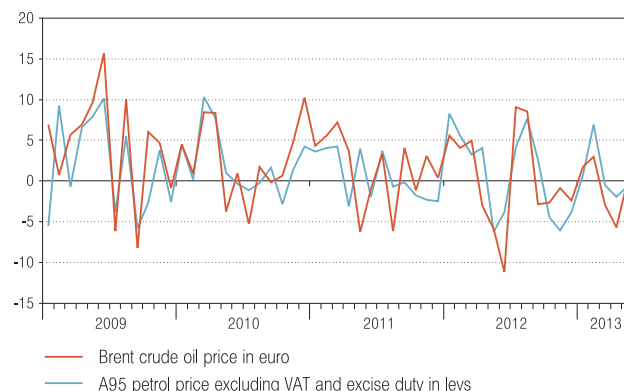
\* Energy products, excluding those with controlled prices, include fuels and lubricants for personal transportation vehicles, and solid, fluid and gaseous fuels for households.

Sources: NSI, BNB calculations.

The inflation in fuels is expected to remain negative until the end of the third quarter and to be slightly positive by the end of 2013 provided the rate of decline in international oil prices on an annual basis is sustained in the third quarter and to be slightly positive by the end of 2013. Major risks to the projection relate to the possibility of significant oil price fluctuations over the said period which could lead to analogous dynamics in the rates of change in end-use fuel prices in Bulgaria.

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

(per cent)



Sources: ECB, NSI, BNB calculations.

<sup>76</sup> Prospects for Agricultural Commodity Market Development: an Analysis of External Trade with Agrarian Goods, Ministry of Agriculture and Food, March 2013.

<sup>77</sup> In the group of energy products (excluding administratively controlled prices of energy and heating) transport fuels occupy the largest relative share; hence, their price developments determine prices of energy products in general.

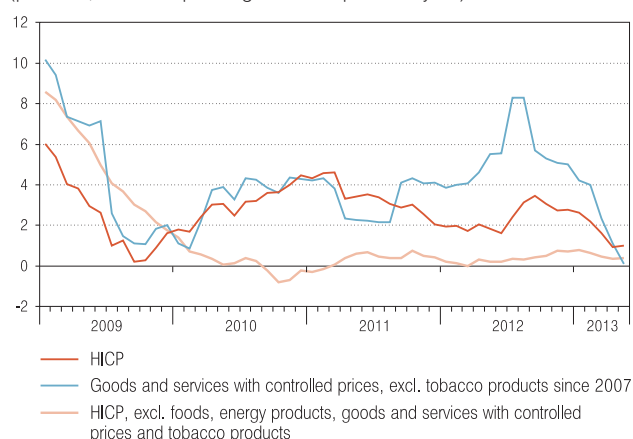
## Administratively Controlled Prices and Tobacco Product Prices

In the first two quarters of 2013 annual inflation in administratively controlled prices retained its downward trend started since mid-2012, reaching 0.1 per cent in May (5.0 per cent by December 2012). The downward inflation dynamics in this group reflects primarily the 6.1 per cent decline in the end-use price of electricity for households since early March and the base effect as a result of higher prices of health care services in the second quarter of 2012 as these prices remained unchanged in 2013. The decrease in heating and natural gas prices in two steps, as of early January and April, due to lower wholesale prices of natural gas had a weaker effect on the inflation slowdown of controlled prices. By May 2013 prices of drugs and pharmaceuticals also went down by 3.4 per cent on an annual basis.

Administratively controlled prices are expected to contribute negatively to total inflation in the second half of the year as a result of the March 2013 decrease in the electricity price and the base effect associated with the price rise in July 2012. Eventual adjustments in other administratively controlled prices are not included into the outlook since there is currently no information about concrete changes.

### Rate of Change in the Overall CPI, Administratively Controlled Price Index and Core Inflation

(per cent, on corresponding month of previous year)



Notes: Given the relation between tobacco product prices and administratively controlled excise rates, tobacco products are discussed separately from the group of goods and services with non-controlled prices, regardless of the early 2007 market liberalisation of tobacco products. Administratively controlled prices are calculated at an elementary aggregates level in the consumer basket.

Sources: NSI, BNB calculations.

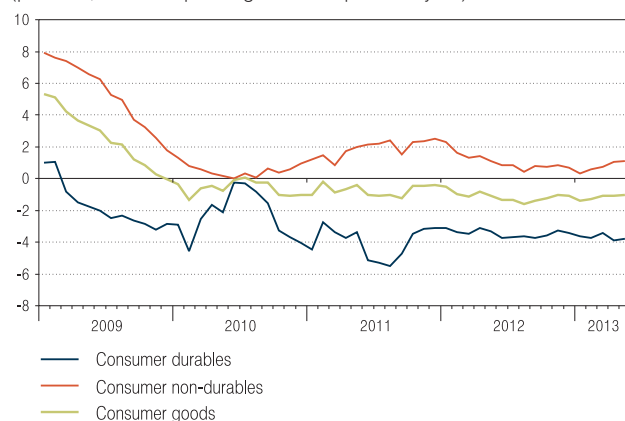
## Industrial Goods Prices

Between January and May 2013 the price index of industrial goods retained a negative year-on-year rate of change (-1 per cent as of May, contributing -0.2 percentage points to overall inflation). Lower prices of industrial goods continued to be mainly driven by the fall in prices of automobiles and other durables such as audio equipment, computers and televisions, furniture and furniture items. The overall price index of non-durable goods was characterised by low positive inflation with a slight upward trend since early 2013.

Possible reasons behind the price fall of durables were the increase in market shares of trade chains and the global downward trend in computer and television equipment prices. Between January and May the downward trend in demand for cars and commercial vehicles both in the EU and in Bulgaria was sustained in the automobile market.<sup>78</sup> For Bulgaria, in particular, data suggest that the number of new passenger car registrations declined by 8.0 per cent in the review period (against a fall of 6.8 per cent on average in the EU). In 2012 a slight increase (1.6 per cent) in new passenger cars was reported in Bulgaria against a decline by 8.2 per cent in the European Union.

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

(per cent, on corresponding month of previous year)



Sources: NSI, BNB calculations.

<sup>78</sup> Based on data published in the European Automobile Manufacturers' Association press releases on the registrations of passenger cars in May 2013 and commercial vehicles in April 2013.

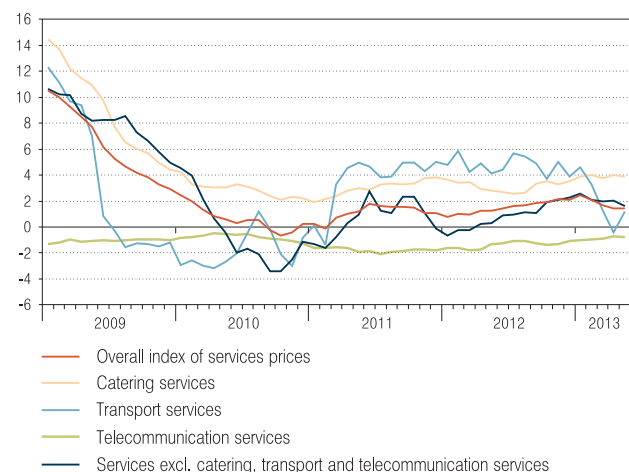
## Services Prices

Since early 2013 the annual inflation in services (excluding administratively controlled prices) followed a trend toward a gradual decrease reaching 1.5 per cent in May, from 2.1 per cent in December.

The lower services inflation was mainly due to the dynamics in transport services prices (automobile and air services), where there is an indirect effect through fuel prices resulting from the decline of oil prices in international markets. Inflation in catering remained relatively higher than that in the remaining services groups. The progressive price increase of foods, which are part of intermediate consumption expenses, contributed to this effect. Concurrently, in the first quarter of 2013 the decrease in the growth rate of household catering expenditure started in 2012 continued, yet remaining relatively high.

### Rates of Change of Services Price Index Excluding Those with Controlled Prices

(per cent, on corresponding month of previous year)



Sources: NSI, BNB calculations.

Telecommunication services prices (telephone services, apparatus, internet services) following a downward trend over the recent years reported a decline of 0.7 per cent by May 2013. The annual inflation of services prices, excluding catering, transport and telecommunication services remained slightly positive and came to 1.6 per cent in May (2.3 per cent in December 2012). The lower price rise in this services group was due to a reported minimum decrease in prices of package holidays and to a lower extent to the fall in prices of cultural recreation services.

If assumed that household consumption will gradually recover in the second half of 2013, services inflation is expected to start gradually increasing.