Economic Review

4/2014





Economic Review

4/2014



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

The *Economic Review, issue 4/2014* was presented to the BNB Governing Council at its 6 Februar 2015 meeting. It employs statistical data published up to 2 Februar 2015.

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.

The Economic Review is available at the BNB website, Research and Publications menu, periodical Publications sub-menu. Please address notes, comments and suggestions to the BNB Economic Research and Projections Directorate at 1000 Sofia, 1, Knyaz Alexander I Square.

© Bulgarian National Bank, 2015

This issue includes materials and data received up to 20 February 2015.

The contents of the BNB Economic Review may be quoted or reproduced without further permission. Due acknowledgment is requested.

Published by the Bulgarian National Bank.

For questions and comments, please contact the BNB Economic Research and Projections Directorate of the Issue Department. Editing, typesetting and printing: BNB Publications Division of the Administrative Directorate.

1, Knyaz Alexander I Square 1000 Sofia, Bulgaria

Tel.: (+359 2) 9145 1351, 9145 1209, 9145 1231

Website: www.bnb.bg

ISSN 1312 - 420X (print) ISSN 2367 - 4962 (online)

Contents

External Environment	
urrent Business Situation	
ternational Commodity Prices	
Tinancial Flows, Money and Cr	edit
Monetary and Credit Aggregates	
nterest Rates	
inancial Flows between the General G	overnment and the Other Sectors of the Economy
conomic Activity	
,	S
xports and Imports of Goods	······································
· · · · · · · · · · · · · · · · · · ·	
	 Highlights New Decisions of ECB Governing Council on Monetary Policy of 22 January 2015 Basic Parameters of the 2015 Law on the State Budget of the Republic of Bulgaria and the Updated Medium-term
	Highlights New Decisions of ECB Governing Council on Monetary Policy of 22 January 2015 Basic Parameters of the 2015 Law on the State Budget
· · · · · · · · · · · · · · · · · · ·	 Highlights New Decisions of ECB Governing Council on Monetary Policy of 22 January 2015 Basic Parameters of the 2015 Law on the State Budget of the Republic of Bulgaria and the Updated Medium-term
· · · · · · · · · · · · · · · · · · ·	Highlights New Decisions of ECB Governing Council on Monetary Policy of 22 January 2015 Basic Parameters of the 2015 Law on the State Budget of the Republic of Bulgaria and the Updated Medium-term Budget Forecast for the Period 2015-2017

Charts

Global PMI	9
World Trade	9
Inflation Measured through CPI	10
Contribution to Real GDP Growth in the Euro Area by Component (Quarterly)	10
Euro Area Consumer Confidence Indices	10
Manufacturing and Services PMIs	11
Euro Area Inflation Rate	11
Euro Area Unemployment Rate and Employment Growth	12
ECB Programmes for Purchasing Covered Bonds in Euro	12
ECB Interest Rates and EONIA	
EONIA and Liquidity Surplus	13
EURIBOR Dynamics	13
Expected Reference Interest Rate in the Euro Area Based on EURIBOR Futures	14
Contribution to US GDP Growth by Component (Quarterly)	
US Consumer Confidence Indices	15
US Manufacturing and Services ISM-PMIs and GDP Growth (Quarterly)	16
US Inflation Rate (on an Annual Basis)	16
US Unemployment Rate and Number of New Employees in the USA	17
China's GDP Growth on an Annual and Quarterly Basis	17
Total Investment in Fixed Capital and in Selected Sectors in China	17
Growth Rate of Industrial Output and Electricity, Cement and Steel Production in China	18
Manufacturing PMIs, Output and New Orders in China	18
Exports Change in China and Contribution of Major Partners	18
Inflation Indices in China	19
House Price Indices in China	19
Bank Lending and Money Supply in China	19
Non-performing Loans in Chinese Banks	20
Bank Market Interest Rates and Minimum Required Reserve Rates	20
Yuan/US Dollar Exchange Rate and Trading Band Set by the People's Bank of China	20
Crude Oil Prices	21
World Crude Oil Supply and Demand (Quarterly)	21
Brent Crude Oil Futures Prices	21
Price Indices of Major Raw Material and Commodity Groups	22
Foreign Currency Purchases and Sales between the BNB and Banks (on a Monthly Basis)	24
Current and Capital Account Dynamics and Contribution by Component (on an Annual Basis)	25
Financial Account Dynamics and Contribution by Component (on an Annual Basis)	
FDI in Bulgaria by Type of Investment (on an Annual Basis)	
Bank Deposits with the BNB	
Reserve Money	

Currency in Circulation	28
M3 and Contribution of Individual Components	28
The Amount of Main M3 Components	28
Deposits of the Non-government Sector and Contributions of Individual Sectors	29
Deposits of Non-financial Corporations and Households	29
Household Deposits and Contribution of Individual Types of Deposits	29
Amount of Household Deposits	30
Changes in Bank Balance Sheet Items (on an Annual Basis)	30
Claims on the Non-government Sector and Contributions of Individual Sectors	30
Claims on Non-financial Corporations and Households	31
New Loans to Non-financial Corporations (Monthly Volumes)	31
Annual Growth of Loans to Households and Contribution by Type of Loans	31
New Loans to Households (Monthly Volumes)	32
Domestic Credit	32
Changes in Credit Standards	33
Interbank Money Market Interest Rates	34
Interbank Money Market Yield Curve	34
Interest Rates on New Time Deposits	35
Distribution of Interest Rates on New Household Time Lev Deposits	35
Interest Rates on New Loans to Non-financial Corporations by Currency	36
Interest Rates and Annual Percentage Rate of Charges on New Household Loans	36
Distribution of Interest Rates on New Housing Loans in Euro	37
Interest Rates on Ten-Year-and-Six-Month Government Bonds on the Primary and Secondary Markets	37
Consolidated Budget Effect on Other Sectors' Liquidity (Quarterly)	39
Contribution to GDP Growth by Final Use Component	41
Business Climate and Consumer Confidence	42
Fan Chart of the Expected Annual Rate of Change of GDP	43
Employment and Nominal Wage Bill	44
Economic Activity and Share of Discouraged Persons	45
Unemployment Level	45
Private Consumption and Consumer Confidence	46
Unemployment Expectations in the Following 12 Months	46
Expectations about the Financial Position and Economic Situation in the Following 12 Months	46
Household Propensity to Save	47
Contribution of Major Groups of Revenue to Growth in Total Revenue and Grants (on an Annual Basis)	48
Contribution of Major Tax Groups to Tax Revenue Growth (on an Annual Basis)	48
Contribution of Major Groups of Expenditure to Total Expenditure Growth (on an Annual Basis)	49
Contribution of Government Consumption to Real GDP Growth	
Value Added Growth and Contribution by Sector	EΩ

ndustrial Output Index and Production Capacity Utilisation In Industry
Value Added Growth in Services and Contribution by Sub-sector 53 Expectations about Future Economic Activity 53 Contribution to the Quarterly Rate of Change in Expenditure on Acquiring Fixed Assets by Industry 54 Gross Operating Surplus at Current Prices 54 Bank Loans to Non-financial Corporations 54 Financing Sources 55 Contribution to Changes in the Number of Employed on Economic Sector 55 Labour Productivity Developments (Value Added per Employee) 55 Nominal Unit Labour Costs 56 Real Unit Labour Costs 56 Contribution of Changes in Production Factors to GDP Growth 56 Export and Import Dynamics 58 Dynamics of Exports to EU and non-EU Countries 58 Geographical Distribution of Exports 58 Exports of Mineral Products and Fuels 59 Exports of Machines, Vehicles, Appliances, Instruments and Weapons 59 Exports of Animal and Plant Products, Food, Drinks and Tobacco 60 Exports of Chemical Products, Plastics and Rubber 60 Exports of Raw Materials 61 Imports of Energy Resources 61 Imports of Raw Materials 61 Imports of Investment Goods 62 Annual Inflation and Contribution of Major Commodity and Services Groups to It 63 Cantribution Index of Major Goods and Services Groups 64 Annual Rate of Change in Producer Prices on the Domestic Warket by Major Industrial Groupings 65 Annual Growth Rate of Nominal Retail Trade Excluding Automobile Fuels and Lubricants
Expectations about Future Economic Activity
Contribution to the Quarterly Rate of Change in Expenditure on Acquiring Fixed Assets by Industry
on Acquiring Fixed Assets by Industry
Bank Loans to Non-financial Corporations
Einancing Sources
Contribution to Changes in the Number of Employed by Economic Sector
by Economic Sector
Nominal Unit Labour Costs
Real Unit Labour Costs
Contribution of Changes in Production Factors to GDP Growth56 Export and Import Dynamics
Export and Import Dynamics
Dynamics of Exports to EU and non-EU Countries
Geographical Distribution of Exports
Exports of Mineral Products and Fuels
Exports of Machines, Vehicles, Appliances, Instruments and Weapons
Exports of Base Metals and Related Products
Exports of Animal and Plant Products, Food, Drinks and Tobacco60 Exports of Chemical Products, Plastics and Rubber
Exports of Chemical Products, Plastics and Rubber
mports of Energy Resources
mports of Raw Materials
mports of Raw Materials
Annual Inflation and Contribution of Major Commodity and Services Groups to It
Annual Inflation and Contribution of Major Commodity and Services Groups to It
and Services Groups to It
Diffusion Index of Major Goods and Services Groups
Rate of Change in Manufacturing CPI and HICP
Annual Rate of Change in Producer Prices on the Domestic Market by Major Industrial Groupings
Annual Growth Rate of Nominal Retail Trade Excluding Automobile Fuels and Lubricants65
Share of Firms Pointing to Insufficient Demand as a Factor
_imiting Their Activity65
Core inflation66
Contribution of Inflation in Non-food Goods (excluding energy products) and Major Sub-groups of Goods to Overall Inflation66
Contribution of Inflation in Services and Major Sub-groups of Services to Overall Inflation
Monthly Rate of Change in the Prices of Brent Crude Oil and A95 Petrol67
Contribution of Major Sub-groups of Administratively Controlled Prices to Overall Inflation
Rate of Change of Food Price Index67
Contribution of the Major Sub-groups of Unprocessed Food to Overall Inflation

Contribution of Major Sub-groups of Processed Food to Overall inflation	.68
Selling Prices Expectations in Industry in the Following Three Months	.68
Selling Prices Expectations in Services in the Following Three Months	.69
Selling Prices Expectations in Retail Trade in the Following Three Months	
Fan Chart of the Expected Annual Inflation Rate	
Unemployment in Bulgaria and EU-28	.71
Contribution to the Unemployment Change	
Cumulative Change of Employment and Real Gross Value Added	
Contribution to the Employment Change by Sector	
Cumulative Change of Real Gross Value Added and Employment	.73
Share of Employed in the Sector and Cumulative Employment Change	.73
Sector's Share in Employment in Bulgaria vis-à-vis EU	.74
Sector's Share in Gross Value Added in Bulgaria vis-à-vis EU	.74
Number of Economic Activities by A10 Breakdown in Some Countries <i>vis-à-vis</i> EU-28	.76
Contribution to the Growth of Real Gross Value Added by Sector in Bulgaria	.76
Contribution to the Growth of Employment by Sector in Bulgaria	.76
Brent Crude Oil Prices	.78
Gross Inland Energy Consumption and Oil Product Consumption Compared to Real GDP	.80
Net Imports of Petroleum Products in Selected EU Countries and EU-28	.80
Annual Rate of Change in International Oil Prices (in Euro) and Bulgaria's Energy Product Prices	.81
Economic Sectors Occupying the Largest Share of Coke and Refined Petroleum Products in Intermediate Consumption (2010)	.83
Tables	
Euro Area GDP Forecasts	11
Euro Area HICP Forecasts	
External Cash Flows in Foreign Currency	
Flows on Balance of Payments Accounts	
Banks' Flows on Balance of Payments Financial Account	
Gross External Debt in November 2014	
Real GDP Growth by Component of Final Use	
Employment and Income Dynamics	
Retail Trade Turnover	
Revenue, Expenditure and Budget Balance on Consolidated Fiscal Programme for 2013–2014	.50
Gross Value Added Growth	
Net Exports of Commodity Groups By Use, January–October 2014	
Exports by Commodity Group, January–October 2014	
Imports of Commodity Groups By Use, January–October 2014	
Growth Rates of Major Goods and Services Groups Prices and Their Contribution to Accumulated Inflation	70

Abbreviations

APRC Annual percentage rate of charge

BIR Base interest rate
BOP balance of payments

BTC Bulgarian Telecommunications Company

b.p. basis points

CEECs Central and East European countries
CEFTA Central European Free Trade Association
CFP Consolidated Fiscal Programme

CIF Cost, insurance, freight

CIS Commonwealth of Independent States

CNY Chinese Yuan

DXY an index measuring the exchange rate of the US dollar against the

basket of six major currencies

EA Employment Agency
EC European Commission
ECB European Central Bank
EIB European Investment Bank
EMBI Emerging Markets Bond Index
EONIA Euro OverNight Index Average

EU European Union

EURIBOR Euro Interbank Offered Rate FDI foreign direct investment

FOB Free on board

FRS Federal Reserve System
GDP Gross Domestic Product
GFMS Gold Fields Mineral Services

HICP Harmonized Index of Consumer Prices

HRW hard red wheat HUF Hungarian forint

IEA International Energy Agency
IMF International Monetary Fund
ISM Institute for Supply Management
LEONIA LEV OverNight Index Average
LIBOR London Interbank Offered Rate

M1 narrow money
M2 M1 and quasi-money
M3 broad money
MF Ministry of Finance

MFIs Monetary Financial Institutions

mt metric tons

NPISHs Non-profit institutions serving households

NSI National Statistical Institute

OECD Organization for Economic Cooperation and Development

OPEC Organization of Petroleum Exporting Countries

PBoC People's Bank of China
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

EU Member States

Austria Belgium BE ВG Bulgaria CY Cyprus CZ Czech Republic DE Germany DK Denmark ΕE Estonia EL Greece ES Spain FΙ Finland FR France HR Croatia HU Hungary ΙE Ireland ΙT Italy LT Lithuania LU Luxembourg

ΜT Malta the Netherlands NL PL Poland PT Portugal RO Romania SE Sweden SI Slovenia SK Slovakia UK United Kingdom

Latvia

LV

Summary

In the fourth quarter of 2014 the global economic indicator retained its moderate downward trend of the second quarter. That signalled positive, but moderating economic activity in global inflation. Economic indicators showed divergent dynamics across regions as the economic activity expectations in the USA remained better than those in the euro area, Japan and China. Based on the leading economic indicators and global trends in trade, a gradual rise in the global economic activity and downward price dynamics might be expected. The forecasts from major international institutions for the first half of 2015 are for lower growth in the euro area combined with inflation decline. USA economic activity is expected to accelerate in 2015. The drop in oil prices and the weak economic activity in the euro area and Japan contributed most to the continuing subdued global inflationary trends in the fourth quarter of 2014

In January – November 2014 the decline in international commodity prices dampened the changes in nominal exports and imports, with nominal exports decreasing on the corresponding period of 2013 and nominal imports remaining unchanged. This led to a trade deficit rise and combined with the drop in the government's net current transfers surplus contributed to the decrease of the overall current and capital account surplus. In the first half of 2015 improvement of terms of trade for the Bulgarian economy and deceleration in the growth of domestic demand are expected. As a result, on an annual basis the nominal growth of exports of goods is expected to outpace that of imports. These developments will cause a decline in the trade balance deficit and an increase in the surplus of the overall current and capital account balance.

The banking license of Corporate Commercial Bank (KTB) was revoked on 6 November 2014 and payments on depositors' guaranteed amounts began on 4 December 2014. On 12 December 2014 CB Victoria EAD reopened and continued to conduct its operations as a credit institution. By the end of the third quarter the level of household deposits exceeded that by end-May 2014, which is an indication of restored confidence in the banking system. Another indicator for the restored confidence was the fact that guaranteed deposits at KTB paid by the Bank Deposit Insurance Fund (BDIF) in December 2014 remained in the banking system, with only about 2 per cent withdrawn in cash. Due to the revocation of the banking license of Corporate Commercial Bank (KTB) and in accordance with the ECB requirements in the statistics area, the bank has been excluded as a reporting unit from Other monetary financial institutions sector (S.122 according to ESA'95) and reclassified into Other financial intermediaries, except insurance corporations and pension funds institutional sector (S.123 according to ESA'95) since November 2014. This led to changes in statistical data on credit institutions. As a result, in November 2014 the main monetary, deposit and credit indicators decreased. In December 2014 monetary and deposit indicators reported an increase to levels close to those before November, mainly due to payments on guaranteed deposits at KTB that started in the beginning of December. On a year-on-year basis, the credit indicators fell significantly in November 2014. Growth in broad money and in claims from the non-government sector is expected to be positive on a quarterly basis in the first half of 2015.

Over the second half of 2014 the downward dynamics in Bulgarian interest rates intensified. These dynamics were driven by the high liquidity of the banking system, the relatively low demand for bank loans and the ECB monetary policy. In the first half of 2015 these factors are expected to continue to be influential and the interest rates on term deposits to keep their downward trend and hence lending interest rates to continue slightly declining.

Summary

In the third quarter of 2014 quarterly growth of real GDP reached 0.4 per cent against 0.3 per cent in the previous quarter as a result of growth in domestic demand. Despite the worsening of expectations and sentiments of the economic agents in the third quarter of 2014, the private consumption and investment in fixed assets grew quarterly and contributed most significantly to GDP growth. The build-up of inventories in the economy also had a positive contribution to growth, while net exports and to a lesser extent government consumption contributed negatively. Although the production and household consumption increased, they remained relatively low, the recovery of employment was limited, and savings in the economy retained their high level.

Based on the empirical trend analysis in the third quarter of 2014 it could be concluded that the decline in the business indicators in the third and fourth quarter of 2014 would probably have a limited effect on the economic activity in the first half of 2015. In the first and second quarters of 2015 the private consumption rise is expected to sustain on level close to the observed one in the third quarter of 2014, with a slight deceleration in the growth of fixed capital formation. Domestic demand is expected to be limited by lower government consumption in the first quarter of 2015 and due to quarterly increase of the government expenditures to note some recovery in the second quarter. These developments are expected to keep real GDP level in the first quarter of 2015 close to that in the third quarter of 2014, after which the real growth is expected to accelerate slightly in the second quarter of 2015.

In 2014 the deflationary trend that started in mid-2013 was sustained. In December 2014 the inflation was -2.0 per cent (against -0.9 per cent in end-2013). This was as a result of the increase in the negative contribution of core inflation due to cheaper telecommunication services, dental services and durable goods, and the decrease of transport fuel prices under the influence of falling international oil prices in the second half of 2014. Over the year the year-on-year decline in the administrative prices that had started in mid-2013 was reversed. In the fourth quarter this group had a positive contribution to the overall inflation mostly due to the increase in prices of electricity for households by 1.7 per cent in July and 10.1 per cent in October 2014.

In the first half of 2015 inflation is expected to remain negative, but with a slightly decelerating pace of decline that will be driven mainly by a decrease in prices of energy products and retrenchment of the negative rate in core inflation as a result of the exhausted effect of one-off price declines in some services sub-groups in 2014.

1. External Environment

In the fourth quarter of 2014 the global economic indicator retained its moderate downward trend of the second quarter. That signalled positive, but moderating economic activity in global inflation. Economic indicators showed divergent dynamics across regions as the economic activity expectations in the USA remained better than those in the euro area, Japan and China. Based on the leading economic indicators and global trends in trade, a gradual rise in the global economic activity and downward price dynamics might be expected. The forecasts from major international institutions for the first half of 2015 are for lower growth in the euro area combined with inflation decline. USA economic activity is expected to accelerate in 2015. The drop in oil prices and the weak economic activity in the euro area and Japan contributed most to the continuing subdued global inflationary trends in the fourth quarter of 2014.

Current Business Situation

At the end of the fourth guarter of 2014 the global economic indicator (global PMI) continued to decrease, still staying at a level high above the 50 percentage points limit and showing a moderate growth rate in global economic activity. The composite index drop was mainly due to deterioration in the expectations for new transactions in services sector. In the fourth guarter of 2014 the sentiment index in the manufacturing sector slowed down, mostly due to worsened expectations for the new orders and production. The decline in international oil prices and low interest rates, which are expected to have a positive influence on the global economic growth, failed to affect the downward dynamics of the global composite PMI indicator. According to IMF the positive effect of the oil price drop is not sufficient to offset the negative effect from the weak economic growth in a number of countries and the increased uncertainty in the geopolitical conflicts. Regarding the above factors, the IMF revised downwards its projections of the global economic growth in 2015 and 2016.1

Economic indicators showed divergent dynamics across regions as the economic activity expectations in USA remained better than those in the euro area, Japan and China.

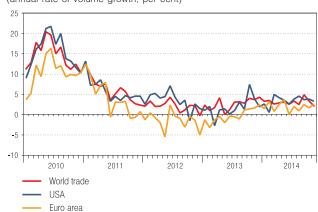
In the third quarter and in the beginning of the fourth quarter of 2014 world trade volumes continued to increase gradually, with US foreign

Global PMI



World Trade

(annual rate of volume growth, per cent)



Source: CPB Netherlands Bureau for Economic Policy Analysis.

External Environment

¹ International Monetary Fund, World Economic Outlook Update, Cross Currents. January 2015.

trade growth further outstripping that of the euro area.

Over the fourth quarter of 2014 average monthly global inflation continued to slow down on an annual basis mainly due to moderation in the inflation in the developed countries. Important factors for these dynamics were the decline in international prices of energy products and the weak economic activity in the euro area and Japan.

Based on the leading economic indicators and global trends in trade, a lower growth in the euro area and inflation decrease are expected in the first half of 2015. Globally, a gradual rise in the global economic activity and the downward price dynamics might be expected. In 2015 the economic activity among the developed countries is expected to increase most significantly in the USA.

Euro Area

Over the third quarter of 2014 euro area real GDP increased by 0.8 per cent on an annual basis² (as in the second quarter). Data for the third quarter suggest great divergences in real GDP growth rates of change across countries. Economic growth in Germany and France amounted to 1.2 per cent (from 1.4 per cent in the previous quarter) and 0.4 per cent (from 0 per cent in the previous quarter). Spain reported growth of 1.7 per cent against 1.3 per cent growth in the second quarter, and Italy's GDP declined by 0.5 per cent against 0.4 per cent drop in the previous quarter. Cyprus reported the largest GDP drop (1.8 per cent) and Malta the strongest growth (4 per cent).³

In the third quarter of 2014 the real GDP went up by 0.2 per cent on a quarterly basis (against 0.1 per cent growth in the second quarter). GDP components with a positive contribution to growth were household consumption (0.3 percentage points), and government consumption (0.1 percentage points). Net exports had negative contribution (-0.2 percentage points), while changes in inventories and gross fixed capital formation had neutral effect on the economic growth. A quarterly GDP decline was

² Eurostat data.

Inflation Measured through CPI

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

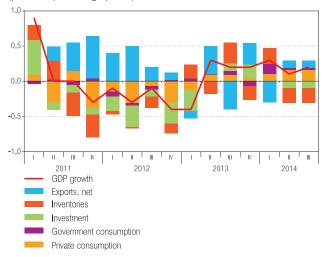


Note: The World Bank measures the change of CPI in individual groups as a weighted average of CPI changes in the countries of the group. For calculating the weights of the countries, real GDP based on purchasing power parity is used. Groups include only World Bank Member States classified by the World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

Source: World Bank.

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

(per cent; percentage points)



Source: European Commission.

Euro Area Consumer Confidence Indices



Source: European Commission.

³ No data published about Ireland.

observed in Italy (0.1 per cent), Cyprus (0.3 per cent) and Austria (0.3 per cent).⁴

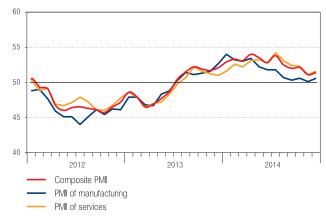
Over the fourth guarter of 2014 the average values of the leading economic indicators were lower than the averages in the third guarter. In December 2014 the European Commission (EC) economic sentiment index for the euro area came to 100.7 for a third consecutive month against an average value of 100.9 in the third quarter, while the business climate indicator went down to 0.04 (against 0.17 in November). PMIs continued to remain above the neutral level of 50, which signalled a positive economic activity pattern. In December the composite PMI was 51.4 (against 51.1 in November) and manufacturing and services PMIs were 50.6 and 51.6 respectively (against 50.1 and 51.1 in November). The EC consumer confidence index in the euro area increased to -10.9 in December, from -11.5 in November 2014. Given the economic indicator developments in the fourth quarter of 2014, it may be expected that quarterly economic growth in the euro area will be positive, but close to zero.

The latest EC forecasts for euro area real GDP growth in 2015 and 2016 were revised upwards. The revision was mainly due to the expected positive economic effects of the oil prices decline, the ECB measures, the expected normalisation in inflation rate of change, the depreciation of the euro and the EC investment plan.

In December 2014 euro area annual inflation came to -0.2 per cent compared with 0.3 per cent in November and 0.4 per cent in October. On a monthly basis, the harmonised index of consumer prices (HICP) dropped by 0.1 per cent in December *vis-à-vis* a 0.2 per cent decline in November. The major cause of the deflation in December was the significant decrease in energy and unprocessed food prices, while services prices went up. In December euro area core inflation was 0.7 per cent on an annual basis.

In December negative annual inflation was recorded in 12 euro area countries, as the major drop was in Greece (-2.5 per cent), Spain (-1.1 per cent) and Cyprus (-1.0 per cent). Austria reported the highest inflation (0.8 per

Manufacturing and Services PMIs



Source: Markit.

Euro Area GDP Forecasts

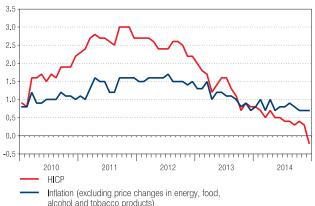
(per cent, annual change)

	Publishing	2	015	2016	
	date	last	previous	last	previous
EC	February 2015	1.3	1.1	1.9	1.7
IMF	January 2015	1.2	1.3	1.4	1.7
World Bank	January 2015	1.1	1.8	1.6	1.9
ECB	December 2014	1.0	1.6	1.5	1.9
OECD	November 2014	1.1	1.7	1.7	-

Sources: EC, MFI, World bank, ECB, OECD.

Euro Area Inflation Rate

(per cent, on an annual basis)



Source: Eurostat.

⁴ No data published about Ireland.

cent) and changes in the annual harmonised index in the rest of the countries were close to 0.0 per cent.

The latest forecasts from major international institutions for HICP change in the euro area in 2015 and 2016 were revised downwards.

In the third guarter of 2014 employment rose by 0.6 per cent year-on-year (on 0.4 per cent from April to June) and unemployment remained unchanged at 11.5 per cent. According to Eurostat data this indicator stayed unchanged in October and November. In November the highest unemployment level was recorded in Greece⁵ (25.7 per cent) and Spain (23.9 per cent), with slight downward trend. Similarly, the share of persons actively seeking a job in the rest of the euro area Member States, tended to decrease or remain unchanged. The only exceptions were Cyprus, Italy and Portugal, where in November the unemployment level rose on September to 16.8 per cent (by 0.5 percentage points), 13.4 per cent (by 0.5 percentage points) and 13.9 per cent (by 0.6 percentage points) respectively. Austria and Germany still reported the lowest values at 4.9 and 5.0 per cent respectively.

The indicator of the expected unemployment over the next twelve months included in the EC consumer confidence index showed worsening consumer expectations concerning labour market developments. Its average value increased to 23.7 from 21.5 in the third quarter.

On 20 October 2014 the ECB began the implementation of the third programme of purchasing euro-denominated covered bonds (CBPP3). By 9 January 2015 purchases cumulative amount came to EUR 31.3 billion, while EUR 3.3 billion of bonds purchased under the CBPP1 and CBPP2 matured over the same period. The implementation of the ECB asset-backed securities purchase programme (ABSPP) began in the second half of November 2014. The purchases volumes were relatively small as their cumulative amount reached EUR 1.8 billion by 9 January 2015.

On 11 December 2014 the ECB conducted its second targeted longer-term refinancing operation (TLTRO) and allotted EUR 129.8 billion (prior operation: EUR 82.6 billion) between 306 banks

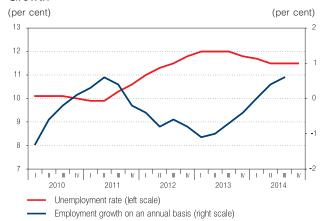
Euro Area HICP Forecasts

(per cent, average annual change)

Institution	Publishing	2015		2016	
	date	last	previous	last	previous
EC	February 2015	-0.1	0.8	1.3	1.5
IMF	October 2015	0.9	1.2	1.2	-
ECB	December 2014	0.7	1.1	1.3	1.4
OECD	November 2014	0.6	1.1	1.0	-

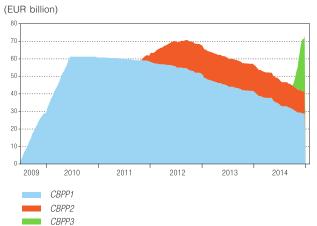
Sources: EC, MFI, World bank, ECB, OECD.

Euro Area Unemployment Rate and Employment Growth



Source: Eurostat.

ECB Programmes for Purchasing Covered Bonds in Euro



Source: ECB.

⁵ Latest available data refer to September 2014.

Economic Review • 4/2014

(prior operation: 255 banks). Gross refinancing with both targeted operations accounted for EUR 212.4 billion which was more than a half from the maximum volume announced by the ECB (EUR 400 billion). In net terms, the second targeted operation provided refinancing of some EUR 84 billion compared to EUR 47 billion in the previous targeted operation.

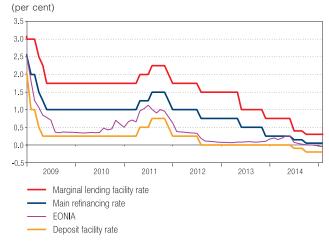
In the last guarter of 2014 the ECB kept the interest rates on the main refinancing operations at 0.05 per cent, and interest rates on marginal lending facility and on deposit facility at 0.30 and -0.20 per cent respectively. On the latest ECB meeting on monetary policy for the year, held on 4 December 2014, it was pointed out that in early 2015 ECB will carry out assessment on: (i) the effect from the already provided monetary incentives; (ii) the change of the bank's balance sheet; (iii) the impact of the changes in oil prices on the medium-term inflation expectations. As regards the commitment to take additional non-standard measures it was intended that, if necessary, in the beginning of 2015 changes will be made in the size, speed and structure of the monetary policy measures.

In the view of the continuing downward oil price dynamics, the decrease in inflation expectations and the still low economic growth in the euro area, market expectations that ECB could undertake quantitative easing (including purchases of government securities) in the first quarter of 2015 materialised. After the ECB meeting on monetary policy of 22 January 2015 new monetary policy measures were announced, which are presented in the box on the following page.

By 31 December 2014, excess liquidity in the euro area banking system was EUR 235 billion (against EUR 159.1 billion by the end of the third quarter). During the review quarter liquidity surplus hovered within the range of EUR 70.9 billion to EUR 235 billion. By the end-2014 ECB balance sheet reached EUR 2.150 trillion, an increase of 5.5 per cent on the third quarter and a decline of 5.9 per cent compared with end-2013.

In the fourth quarter of 2014 the EONIA overnight interest rate moved within the interval of -0.09 per cent and 0.14 per cent, with a negative average value for the period accounting for -0.02 per cent (against 0.02 per cent for the

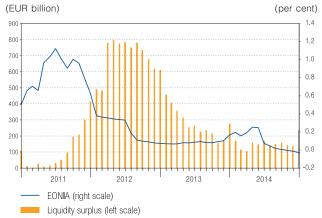
ECB Interest Rates and EONIA



Note: EONIA data are average for the month.

Source: ECB.

EONIA and Liquidity Surplus

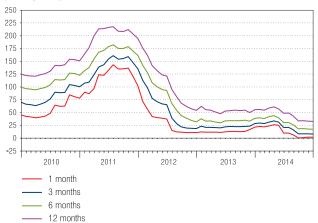


Note: Liquidity surplus is calculated as a difference between the funds on the deposit facility and receivables on the marginal lending facility plus current account funds exceeding the amount of required reserves.

Source: ECB.

EURIBOR Dynamics

(basis points)



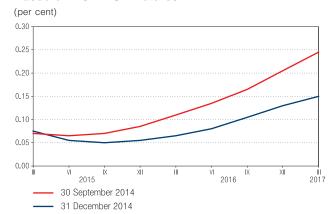
Source: ECB.

third quarter of 2014). The volume of overnight deposits in euro area's interbank market trade decreased as their daily average value was EUR 25.4 billion (against EUR 29.1 billion in the third quarter).

EURIBOR interest rates on interbank market deposits reported slight changes in the fourth quarter of 2014. By end-December 2014 onemonth interest rates reached 0.02 per cent (+1 basis points on end-September 2014), and those with maturities of six and 12 months came to 0.17 per cent (-1 basis points on end-September) and 0.33 per cent (-1 basis points on end-September), respectively.

By end-December 2014 market expectations derived from the prices of three-month EURIBOR futures contracts showed no change of euro area reference interest rate at 0.05 per cent at least until end-2016.

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



Note: Increase/decrease of the curve's slope reflects the expectations formation of interest rates increase/decrease. It is assumed that difference in interest rates at the end of the period and their initial level, which is less than 0.25 per cent rather implies expectations for keeping the current reference rate.

Sources: Intercontinental Exchange, BNB calculations.

New Decisions of ECB Governing Council on Monetary Policy of 22 January 2015

Interest Rates

ECB decided that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 0.05 per cent, 0.30 per cent and -0.20 per cent respectively.

Extended Asset Purchase Programme

ECB announced an extended asset purchase programme, which includes bonds issued by euro area central governments, agencies and European institutions.

Grounds for Announcing the Programme

ECB decision to announce the programme was justified by the unfavourable developments in euro area inflation as well as the indications that already provided monetary incentives were insufficient to counteract risks of inflation remaining low for a longer period of time.

Volume and Structure of the Programme

From March 2015 until at least end-September 2016 ECB will purchase public and private assets with a total value of EUR 60 billion *per* month (EUR 1.1 trillion total for the whole period). The program will include:

- purchases on the already implemented programmes for purchasing covered bonds in euro (CBPP3) and asset-backed securities (ABSPP);
- additional purchases in the secondary market of EUR-denominated bonds with investment-grade level issued by euro area central governments, agencies and European institutions.

Volume Purchases of bonds issued by euro area governments and agencies will be proportionally carried out to the share of the national central banks in the ECB capital. Regarding the

countries, which are subject to the EU/IMF Economic Adjustment Programme, additional eli-

gibility criteria will be applied.

Restrictions ECB will purchase up to 33 per cent of outstanding securities of each issuer and up to 25

per cent of each individual issue.

Maturity of issues ECB will purchase securities with residual maturity of two and up to 30 years.

Types Nominal bonds with fixed or floating coupon interest rates and inflation-linked securities.

Price There are no restrictions in ECB purchasing securities traded at negative yields in the sec-

ondary market.

Requirements Additional purchases should fulfil the ECB requirements for eligible collateral.

Length of the Programme

ECB purchases are intended to be carried out at least until end-September 2016. In all cases, purchases will be conducted until achieving sustained adjustment in the path of inflation, which is consistent with the ECB aim to maintain inflation rates of below but close to 2.0 per cent in the medium term.

Risk Sharing

20 per cent of the additional asset purchases will be subject to a regime of risk sharing. This includes purchases of bonds issued by the European institutions (12% of the additional asset purchases, made by NCBs) and 8 per cent of the additional asset purchases hold by the ECB. The NCBs will assume the risk of their own purchases (80 per cent). ECB will not have preferred creditor status in asset purchases.

Programme Implementation Method

Regarding the additional asset purchases, the ECB Governing Council continues to control all programme parameters, while the ECB will coordinate purchases, thereby keeping the Eurosystem single monetary policy. The Eurosystem will use a decentralised approach to mobilise its resources.

Reporting under the Programme

On a weekly basis, ECB will publish information about the amount of purchases made by type of assets. Information for the average-weighted maturity of purchased securities and purchases geographical allocation will be published on a monthly basis.

Modification to the Interest Rate Applicable to Future Targeted Longer-Term Refinancing Operations

The Governing Council of the ECB decided that the interest rate for the remaining six targeted longer-term refinancing operations (TLTROs) would be equal to the rate on the Eurosystem's main refinancing operations (MROs) prevailing at the time when each TLTRO is conducted. This means there will be no difference of 10 basis points compared to the rate on main refinancing operations.

The United States

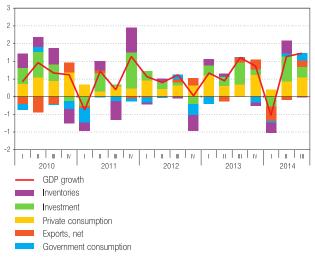
In the third quarter of 2014 US economic growth was 2.7 per cent on an annual basis against 2.6 per cent in the second quarter and 1.9 per cent in the first quarter. In the third quarter the GDP growth was 1.2 per cent on a chain basis, the highest value of the indicator for the last 11 years. Accelerated growth in the third quarter was due to net exports increase, higher expenditures in the public sector and households consumption rise.

In the fourth quarter of 2014 there were fluctuating changes in US leading economic activity indicators as a slight downward trend was observed in some of them. The indicators remained on levels equivalent to relatively high economic activity. These indicated a relatively high economic growth in the fourth quarter of 2014 and early 2015.

In December 2014 consumer confidence measured by the University of Michigan grew by 93.6 percentage points from 88.8 percentage points in November and 86.9 percentage points in October. Leading Conference Board⁶

Contribution to US GDP Growth by Component (Quarterly)

(per cent; percentage points)



Source: Bureau of Economic Analysis.

US Consumer Confidence Indices



Source: The Conference Board.

External Environment

⁶ The Conference Board is non-profit business membership and research group organisation. It counts approximately 1200 public and private corporations and other organisations as members, encompassing 60 countries. It publishes several widely tracked economic indicators. The organisation was founded in 1916 as the US National Industrial Conference Board. Over time it experienced a number of reorganisations. The current name was adopted in 1970 when it became an international organisation.

Consumer Confidence Index reported volatile changes in the fourth guarter of 2014.

In the third quarter of 2014 industry and service indicators (ISM-PMI) changed mostly downward but stayed significantly above the 50 percentage point limit, signalling an economic activity growth.

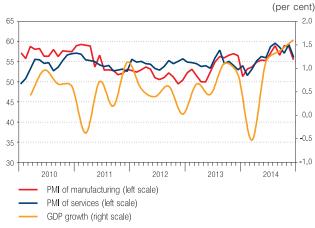
During the fourth quarter economic activity in the housing sector was lower than the other sectors in the American economy. The S&P/Case-Shiller 20-City Composite House Price Index slightly slowed down to 4.5 per cent in October from 4.8 per cent in September and 5.6 per cent in August. In November the new residential construction monthly growth rate and building permits were negative (-1.6 per cent and -3.7 per cent respectively). In the fourth quarter of 2014 the employment in construction sector continued to increase by 48,000 persons in December against 20,000 persons in November and 16,000 persons in October. The National Association of Home Builders (NAHB) index remained above the 50 percentage point limit, though its change in the fourth quarter of 2014 was volatile. In December the index reported a decline of 57 percentage points from 58 percentage points in November.

The annual inflation rate measured by the personal consumption expenditure deflator (PCE) slowed down to 1.2 per cent in November from 1.4 per cent in the previous two months. The annual growth rate of the core inflation (excluding food and fuels) was 1.4 per cent in November against 1.5 per cent in the previous six months.

The annual growth rate of consumer price index (CPI), the other measure of the US inflation, posted an increase by 1.3 per cent on an annual basis in November against 1.7 per cent in the previous three months. Core CPI annual growth rate moderated to 1.7 per cent in November against 1.8 per cent in October.

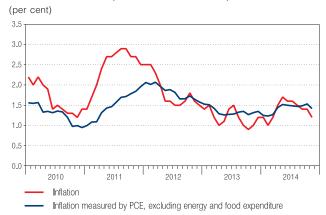
In the fourth quarter of 2014 the expectations of consumer price inflation in the period of one to five years, a component of the University of Michigan consumer confidence index, remained relatively unchanged. In December 2014 short-term inflation expectations stayed at 2.8 per cent for a second consecutive month, and longer-term inflation expectations went up to 2.8 per cent on

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



Source: Institute for Supply Management.

US Inflation Rate (on an Annual Basis)



Note: Inflation is measured by the personal consumption expenditure

Source: Bureau of Labor Statistics.

2.6 per cent in November. In the first quarter of 2015 inflation in the USA is expected to remain below 2 per cent on an annual basis.

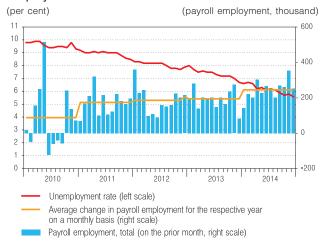
The positive labour market dynamics in the USA was sustained in the fourth quarter of the year. In December unemployment rate dropped to 5.6 per cent, down by 1 percentage point on early 2014. In December 2014 the number of employed in the US non-agricultural sector rose by 252,000 persons compared to the increase of 353,000 in November and 255,000 in October. Between October and December the average monthly number of employed in the non-agricultural sector rose by 289,000 against 239,000 in the previous quarter, or by 50,000 persons *per* month.

At its meeting on 16 and 17 December, the US Federal Open Market Committee (FOMC) decided to change the communication aimed at updating the interest rate forward guidances in light of the conclusion of the asset purchase programmes, known as Third Round of Quantative Easing (QE3). The policy of reinvesting the receipts of maturing US government securities from the US Federal Reserve balance sheet into new US government securities, and the receipts from government-sponsored agencies' unsecured and mortgage bonds available in the US Federal Reserve balance sheet into new mortgage bonds remained unchanged. The target for the federal funds rate was also kept unchanged at 0 - 0.25 per cent. In the meeting statement the current interest rate forward guidance was changed from the probable preservation of federal funds rate in its current interval for 'an extended period of time after the conclusion of the asset purchase programmes' to more neutral formulation reflecting the possibility for the Federal Reserve to be 'patient' in the beginning to normalise the US monetary policy. It was indicated that the change in communication did not represent a substantial change in FOMC opinion.

China

In the fourth quarter GDP growth in China remained at 7.3 per cent on an annual basis. Quarter-on-quarter growth slowed down to 1.5 per cent against 1.9 per cent in the third quarter of the year. In 2014 China's economy posted a growth of 7.4 per cent (against target growth of 7.5 per cent).

US Unemployment Rate and Number of New Employees in the USA



Source: Bureau of Labor Statistics.

China's GDP Growth on an Annual and Quarterly Basis



Source: National Bureau of Statistics of China.

Total Investment in Fixed Capital and in Selected Sectors in China

(per cent, on an annual basis)



Source: National Bureau of Statistics of China.

In the fourth quarter growth rates of industrial production and electricity production further slowed down signalling a continues contraction of unutilised production capacities. Over the same period manufacturing PMIs, output and new orders also slowed down, with the PMI index in industry slowing down to 50.1 points in December. The trend of PMIs in services was different, with all components of the main index signalling an increasing activity in the sector.

Overall, in 2014 the increase in services contributed stronger to economic growth as compared with the industrial sector. In 2014 retail sales rose by 11.9 per cent and investment in property and infrastructure went up by 15.7 per cent. According to the latest IMF projections China's real GDP growth is expected to slow down to 6.8 per cent in 2015 and 6.3 per cent in 2016.

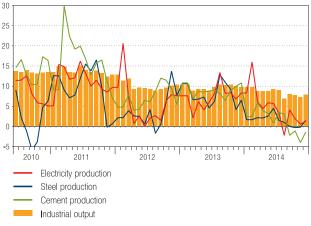
In the last quarter of 2014 China's trade surplus increased substantially. Over the review period imports and exports displayed divergent dynamics reflecting the opposite developments of global recovery and China's domestic demand. In December exports reported a 9.7 per cent increase on an annual basis following a slowdown to 4.7 per cent in November. Imports went down substantially in November (6.7 per cent on an annual basis) and December (2.3 per cent on an annual basis), with major reasons behind this decline reflecting weaker China's domestic demand and lower imports of raw materials as a result of slowdown in investment and housing market activity.

Over the review period the rate of inflation decline observed since mid-year moderated. The decrease in inflation in the second half of 2014 was mainly due to the falls in non-food prices, reflecting to a certain degree the decline in petroleum prices. The annual deflation of producer prices accelerated to reach -3.3 per cent in December on an annual basis against -2.7 per cent in November and -2.3 per cent in October.

In the last quarter of 2014 house prices in China stabilised after the strong decreases in mid-2014. In December monthly house prices remained unchanged against a decline of 0.1 per cent and 0.4 per cent in November and October respectively. Stabilisation of prices reflected the slowdown in economic activity

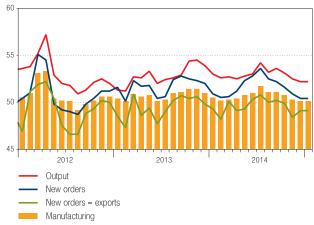
Growth Rate of Industrial Output and Electricity, Cement and Steel Production in China

(per cent, on an annual basis)



Source: National Bureau of Statistics of China.

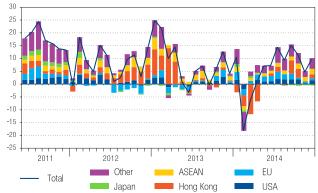
Manufacturing PMIs, Output and New Orders in China



Source: China Federation of Logistics and Purchasing.

Exports Change in China and Contribution of Major Partners

(per cent, percentage points)



Source: National Bureau of Statistics of China.

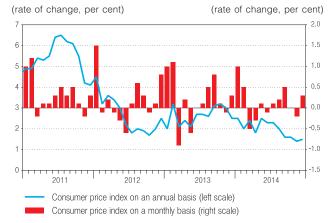
in China and the policy of selective easing of restrictions on extending mortgage loans for a second and third dwelling initiated in the middle of the year.

In the last three months of 2014 the annual growth rate of monetary aggregate M2 in China slowed down significantly. Over the same period lending data indicated a slight increase in new loans which rose by 13.6 per cent on an annual basis. Between July and September the amount of non-performing loans increased by CNY 72.5 billion to CNY 767 billion, with the ratio of non-performing loans to total bank loans growing to 1.16 per cent compared with 1.08 per cent in the second quarter of the year. Concurrently, loans past due but not yet classified as non-performing loans increased by 12 per cent total-ling CNY 1.8 trillion.

On 21 November the People's Bank of China unexpectedly cut one-year benchmark lending rates by 40 basis points (to 5.6 per cent) and one-year benchmark deposit rates by 25 basis points. However, the benchmark deposit rate was not actually cut since the haircut corridor was widened from 1.1 to 1.2. Thus the maximum rate of the benchmark deposit rate prior and after the cut remained at 3.3 per cent. This was one of the reasons for the People's Bank of China to state that 'this cut of interest rates does not represent a change in the direction of monetary policy.' In addition to the relevant date for the fourth quarter, the future monetary policy actions will also depend both on the US monetary policy, where the monetary stimuli are expected to be contracted, and the Japan's monetary policy where the monetary stimuli are expected to be extended.

Over the review period the People's Bank of China intervened selectively in the interbank market after the 7-day repo rate increased to over 3 per cent. In December the main interbank rate (7-day repo rate) rose dramatically due to an unexpected regulatory change. *China Bond Clearing House* announced that corporate bonds with a credit rating lower than AAA or issuer's credit rating AA may not be any longer used as collateral in repo agreements. Local government financing vehicles (LGFVs) are the main issuer

Inflation Indices in China



Source: National Bureau of Statistics of China.

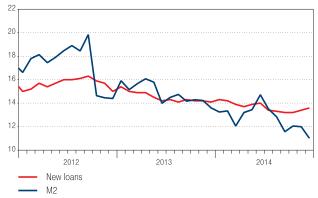
House Price Indices in China



Source: National Bureau of Statistics of China.

Bank Lending and Money Supply in China

(annual change, per cent)



Source: People's Bank of China.

⁷ Prior to the measures initiated by the People's Bank of China: 3.0%*1.1=3.3%, after the measures initiated by the People's Bank of China: 2.75%*1.2=-3.3%

of such corporate bonds. The effect of this regulatory change was offset by the liquidity, worth CNY 400 billion, injected in the banking system by the China Development Bank (approximately USD 65 billion) in the form of short-term loans extended to other banks on the domestic interbank market.

In the fourth quarter the People's Bank of China renewed the measures stimulating the appreciation of the national currency against the US dollar but over-the-counter market quotations did not approach the central bank exchange rate.

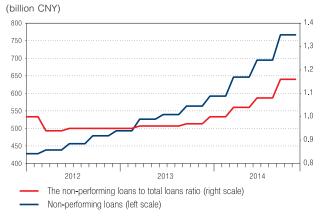
International Commodity Prices

Crude Oil

The Brent crude oil price continued its downward trend of July 2014, decreasing strongly on an annual basis. In the fourth guarter of 2014 the Brent price in US dollars fell by 30.5 per cent to USD 76.0 (EUR 60.8) per barrel. In January 2015 it continued to decline, reaching USD 46.6 per barrel in the middle of the month. This decline reflected the increased production, including by OPEC member states, and the weak demand for petroleum products worldwide. The major factor behind higher global supply was the increased oil shale extraction in the USA resulting in an accumulation of crude oil inventories in this region. At the same time, OPEC countries decided at their November meeting not to support cuts in oil production thereby maintaining the existing market shares which further pushed down oil prices. In the fourth quarter the 8.2 per cent year-on-year depreciation of the euro against the US dollar helped to limit the fall in euro oil prices.

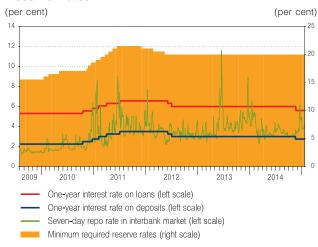
In January 2015 the International Energy Agency (IEA) revised downwards its projection for crude oil supply by non-OPEC countries with a view of low oil prices, which would have long-term effects on its supply due to postponed development projects for new fields. Global crude oil demand is expected to rise slightly from the level of 2014 under the influence of low prices, though remaining limited by the weaker than expected economic activity. Reduced supply in combination with increased demand is likely to push up oil prices from the current levels but they are unlikely to reach the level of 2014.

Non-performing Loans in Chinese Banks



Source: People's Bank of China.

Bank Market Interest Rates and Minimum Required Reserve Rates



Source: People's Bank of China.

Yuan/US Dollar Exchange Rate and Trading Band Set by the People's Bank of China

(CNY/USD)

5.90

6.00

6.05

6.10

6.25

6.30

6.35

6.40

PBoC floor

OTC spot

PBoC fixing

PBoC ceiling

Source: People's Bank of China.

After the dramatic fall in the second half of 2014, expectations of crude oil futures prices in December tended to move upward. Major concerns stem from the low price making crude oil production unprofitable, thereby pushing down extraction of petroleum. Given the pending OPEC meeting at the end of June 2015, oil price forecasts feature great uncertainty, with market expectations varying within the interval of USD 65 to 70 per barrel.

Major Raw Material and Food Prices

In the fourth quarter of 2014 international prices in US dollars of major commodity groups continued to decrease on an annual basis. Concurrently, the 8.2 per cent year-on-year depreciation of the euro against the US dollar in the fourth quarter led to mismatch in the price indexes dynamics in euro and US dollars of certain services groups.

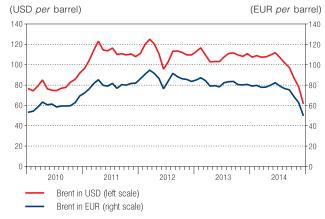
The metals price index in EUR published by the ECB decreased by 8.6 per cent on an annual basis (against a decrease of 16.1 per cent in USD) in the fourth quarter of 2014. The prices of iron ore declined most significantly due to commissioning of new production capacities in Australia and Brazil. Over the same period the copper price (in euro) increased by 0.9 per cent on an annual basis mostly due to depreciation of the euro against the US dollar. Over the same period the copper price (in US dollars) decreased by 7.4 per cent on an annual basis, with lower demand by China consuming about half of the world metal production.

Market expectations for metal prices (in euro) pointed to a moderating decline (on an annual basis) in the first half of 2015, because of the weaker Chinese demand, where in 2014 the lowest growth was recorded for the last 24 years. In case of higher depreciation of the euro against the US dollar the annual price in euro may increase significantly year-on-year.

In the fourth quarter of 2014 the food price index in US dollars decreased by 2.5 per cent against the same period of 2013, while the euro price posted an increase of 6.2 per cent. The price dynamics among groups was divergent. Meat prices reported the strongest increase,

⁸ IMF, Commodity Market Monthly, January 2015.

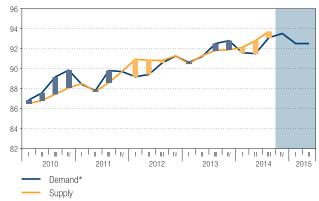
Crude Oil Prices



Source: World Bank.

World Crude Oil Supply and Demand (Quarterly)

(million barrels per day)

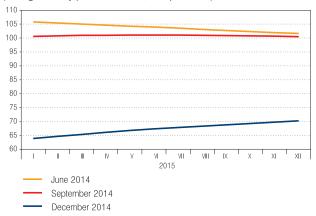


* Including the December 2014 IAE latest available data about crude oil demand in the last quarter of 2014 and the first two quarters of 2015.

Source: IEA.

Brent Crude Oil Futures Prices

(average monthly price of contract, USD per barrel)



Source: JP Morgan.

⁹ World Bank, Commodity Markets Outlook, October 2014.

External Environment

as in mid-2014 there were concerns about the supply related to contagious pig disease in the USA. ¹⁰ In the fourth quarter of 2014 cereals and wheat prices went down significantly year-on-year (by 14.6 per cent and 19.8 per cent respectively), with the decline reflecting mainly the abundant harvest in 2014. In November 2014 wheat price increased significantly which was due to Russia's intents to apply tax on wheat exports from February 2015. Because of the good harvest the reduced export from Russia is expected to be offset by other major exporters ¹¹, which will prevent significant increases in wheat price.

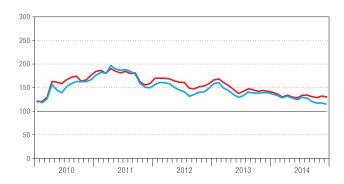
In the first half of 2015 the growth of food price index might slow down on an annual basis and will stabilise by the middle of the year. Price increase will be mainly driven by the euro depreciation, while food prices indexes in US dollars are expected to decline year-on-year.

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

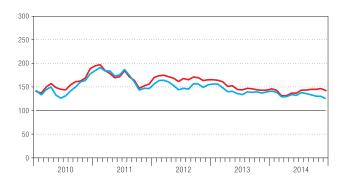
Price Indices of Major Raw Material and Commodity Groups

(2009 = 100)

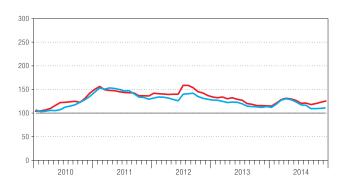
Metals



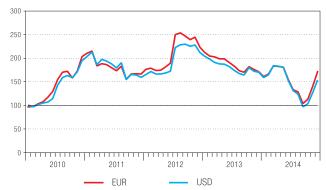
Copper



Food



Wheat



Sources: ECB and BNB calculations.

¹⁰ For more details, see Chapter 1, Economic Review, 2/2014.

¹¹ USDA, Wheat Outlook, January 2015.

2. Financial Flows, Money and Credit

In January - November 2014 the decline in international commodity prices dampened the changes in nominal exports and imports, with nominal exports decreasing on the corresponding period of 2013 and nominal imports remaining unchanged. This led to a trade deficit rise and its combination with the drop in the government's net current transfers surplus contributed to the decrease of the overall current and capital account surplus. In the first half of 2015 improvement of terms of trade for the Bulgarian economy and deceleration in the growth of domestic demand are expected. As a result, on an annual basis the nominal growth of exports of goods is expected to outpace that of imports. These developments will cause a decline in the trade balance deficit and an increase in the surplus of the overall current and capital account balance. The banking license of Corporate Commercial Bank (KTB) was revoked on 6 November 2014 and payments on depositors' guaranteed amounts began on 4 December 2014. On 12 December 2014 CB Victoria EAD reopened and continued to conduct its operations as a credit institution. Confidence in the banking system was restored by the and of the year, while the inflow of deposits to the sector resumed in July. By the end of the third quarter the level of household deposits exceeded that by end-May 2014. Another indicator for the restored confidence was the fact that guaranteed deposits at KTB paid by the Bank Deposit Insurance Fund (BDIF) in December 2014 remained in the banking system, with only about 2 per cent withdrawn in cash. Due to the revocation of the banking license of Corporate Commercial Bank (KTB) and in accordance with the ECB requirements in the statistics area, the bank has been excluded as a reporting unit from Other monetary financial institutions sector (S.122 according to ESA'95) and reclassified into Other financial intermediaries, except insurance corporations and pension funds institutional sector (S.123 according to ESA'95) since November 2014. This led to changes in statistical data on credit institutions. As a result, in November 2014 the main monetary, deposit and credit indicators decreased. In December 2014 monetary and deposit indicators reported an increase to levels close to those before November, mainly due to payments on guaranteed deposits at KTB that started in the beginning of December. On a year-on-year basis, the credit indicators fell significantly in November 2014. Growth in broad money and in claims from the non-government sector is expected to be positive on a quarterly basis in the first half of 2015.

Over the second half of 2014 the downward dynamics in Bulgarian interest rates intensified. These dynamics were driven by the high liquidity of the banking system, the relatively low demand for bank loans and the ECB monetary policy. In the first half of 2015 these factors are expected to continue to be influential and the interest rates on term deposits to keep their downward trend and hence lending interest rates to continue slightly declining.

Reflecting financial flows generated through interactions between external and internal economic factors, Bulgaria's international foreign exchange reserves (excluding valuation adjustments and price revaluation) posted a year-on-year increase of EUR 1694.2 million in November 2014 (based on BOP data).

The market value of international reserves (assets on the Issue Department balance sheet) which reflect changes stemming from transactions, valuation adjustments and price revaluation increased by EUR 2108.3 million on an annual basis to BGN 32.3 billion at the end of December 2014 (EUR 16.5 billion.) Year-on-year changes in the Issue Department balance sheet

value reflect mainly changes in the liabilities side (BNB monetary obligations)¹² resulting from increased liabilities *vis-à-vis* government and budget organisations, banknotes and coins in circulation, and liabilities to banks. BDIF deposit with the BNB, a component under the item of liabilities to other depositors, declined in December with the payout of guaranteed deposits at KTB.

Cash flows involving foreign currency sales and purchases by the BNB (external foreign currency flows) reflect economic agents' demand for cash in levs and foreign currency which have a direct effect on international reserves in line with the currency board principles. In 2014 currency trade between banks and the BNB retained its 2013 trend of BNB sales exceeding purchases of foreign currency. Net foreign currency sales in December rose significantly, part of them resulting from high lev liquidity of banks and reallocations of funds towards purchases of foreign assets and repayments of foreign liabilities and another part likely to reflect KTB euro deposits repaid in levs, which were again converted into euro.

In November international reserve coverage of the average nominal imports of goods and non-factor services over the last 12 months increased to 6.7 months against 6.1 months in December 2013.

Our expectations for the first half of 2015 point to a further year-on-year increase in international reserves due to the changes in components of the Issue Department liabilities side. Banks deposits in the BNB will reflect their policy in managing bank reserves and the inflow of deposits into the banking system. In the context of negative short-term interest rates on the money market and negative euro area government bond yields, banks will probably continue to maintain large volumes of excess reserves on their accounts with the BNB. The government deposit value will depend

External Cash Flows in Foreign Currency

(EUR million)

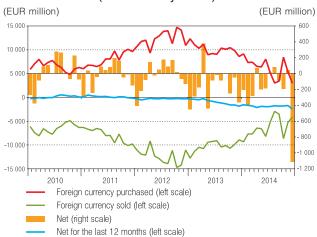
External flows	2013	2014*
Total for the period	-429	3 221
Purchases and sales of euro	-1 429	-2 970
at tills	-21	-44
banks, incl.	-1 408	-2 926
purchases from banks	35 169	38 337
sales to banks	-36 577	-41 263
Flows on accounts of banks, the MF, etc.	1 000	6 191
Minimum required reserves	-92	-101
Government and other depositors	1 091	6 292

^{*} Preliminary data.

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

Source: BNB.

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



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

Source: BNB.

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

on budget performance and funding policies. Currency in circulation will further contribute positively to the increase of liabilities, with their annual growth moderating gradually.

External Financial Flows

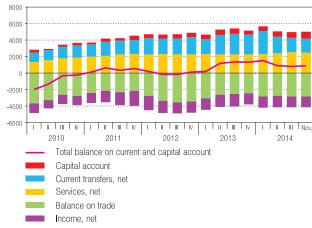
Between January and November 2014 the positive current and capital account surplus contracted as a result primarily of the decreased surplus in government's net current transfers and increased trade deficit. Declines in international commodity prices dampened the change in nominal goods exports and imports, with nominal exports falling between January and November and nominal imports remaining broadly unchanged on the same period of 2013, which added to the worsening of trade deficit. Another factor behind export declines was the reduced volume of exported animal and vegetable products, and base metals.¹³

Between January and November 2014 services trade balance improved from the corresponding period of 2013. Services exports grew mainly on the account of transport and other services, while the contribution of exported tourist services was insignificant. Data on foreigners visiting Bulgaria for vacation and trips show that a year-on-year decline was observed between July and November which is likely to reflect unfavourable weather conditions during the tourist season. Services imports grew on an annual basis due primarily to imported other services (excluding transport and tourist).

Income account deficit shrank from the same period of 2013, with decreased outflows on the investment income item contributing mostly to this, while inflows on the credit side of this item posted an increase. The fall in investment income repayments was primarily due to the lower outflows on dividends and distributed profit of the direct investment subitem. Such dynamics could be explained through the lower gross operating surplus in 2013 *vis-à-vis* 2012 and lower dividends,

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





Source: BNB

Flows on Balance of Payments Accounts

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

	January – November 2013	January – November 2014
Current account	1 197.9	371.1
Trade balance	-2 071.8	-2 492.3
Services balance	2 231.5	2 457.5
Income account	-1 218.2	-1 127.9
Current transfers, net	2 256.4	1 533.9
Capital account	445.0	820.8
Financial account	-1 961.5	1 359.7
FDI in Bulgaria	1 545.1	1 224.2
Changes in reserves	-796.3	1 497.1

Source: BNB

¹³ For a more detailed analysis of exports and imports of goods, see Chapter 3.

¹⁴ Preliminary data subject to revision.

distributed profit and interest paid to foreign investors.

The positive balance of net current transfers declined significantly from the same period of the previous year mainly due to the lower revenue from current transfers to the general government sector, other than EU grants. Other sub-items under net current transfers underwent no essential changes on the same period of 2013.

In the first half of 2015 the current and capital account surplus as a share of GDP is expected to rise on an annual basis compared to the levels of the second half of 2014. Decreasing trade balance deficit is projected to be the main driver for this dynamics. If the expectations of improvements in the terms of trade for the Bulgarian economy in the first half of 2015¹⁵ and deceleration in domestic demand growth materialise, nominal year-on-year growth of goods exports is anticipated to outpace that of imports. The external environment remained a source of uncertainty for this projection. A possible deterioration in euro area economic activity would affect negatively external demand for Bulgarian goods which in turn could boost the trade deficit. On the other hand, oil price stabilisation at the current low levels will lead to a trade deficit improvement in nominal terms on an annual basis, as Bulgaria is a net importer of petroleum products.

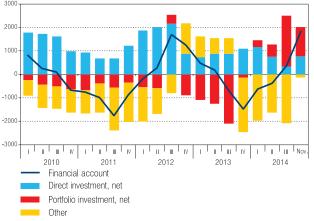
Between January and November 2014 the financial account balance changed significantly from the same period of 2013, turning to positive values. This was mainly attributable to the ten-year government bond issue sold on international capital markets and the weaker yearon-year increase in bank foreign assets.

FDI inflows went down from the corresponding period of 2013.¹⁶ This resulted from the fall in flows on the equity item in other sectors (banks excluded).

In the January to November 2014 period, transactions of banks reported in the BOP financial

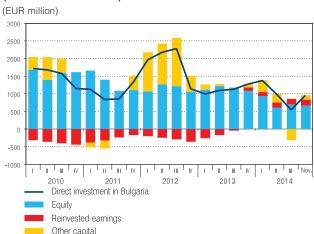
Financial Account Dynamics and Contribution by Component (on an Annual Basis)

(EUR million) 3000



Source: BNB

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



Source: BNB

Banks' Flows on Balance of Payments Financial Account (EUR million; cumulative since the beginning of the year)

	January – November 2013	January – November 2014
Net direct investment	-31.2	28.4
abroad	3.3	0.0
in Bulgaria	-34.5	28.4
Net portfolio investment	-231.8	267.8
assets	-299.6	318.6
liabilities	67.8	-50.8
Other investment	-2 665.5	-1 354.4
assets	-1 926.9	-646.8
liabilities	-738.6	-707.5
Portfolio and other investment	-2 897.3	-1 086.6
Total	-2 928.5	-1 058.2

Source: BNB.

 $^{^{15}\,\}mathrm{See}$ Chapter 1.

¹⁶ Preliminary data subject to revision.

account experienced great fluctuations in individual months, with banks reducing their foreign liabilities (on portfolio and other investment) and increasing foreign assets, though less strongly than in the same period of 2013.¹⁷

In November 2014 Bulgaria's external debt posted an increase on the end of 2013, reflecting higher obligations of the general government sector. Government debt issue boosted long-term external debt in November compared to the end of 2013. Intercompany lending also posted an increase, while debt of banks declined in November.

External debt declines were observed in financial intermediation (by EUR 179.2 million), distribution of electricity, heating, gaseous fuels and water (by EUR 150.5 million) and wholesale trade and trade intermediation, except for motor vehicles and motorcycles (by EUR 148.3 million).¹⁸

In November there were no changes in the conditions for access of residents to new external financing and external debt service by domestic economic agents. Variations in declared new loans and external debt service remained within customary limits. Hence, it suggests that favourable financing and external debt service conditions were sustained in the first eleven months of 2014.

Monetary and Credit Aggregates

In the second half of June 2014 Corporate Commercial Bank (KTB), the fourth largest bank in Bulgaria, was put under liquidity pressure which spread over its subsidiary, CB Victoria. Reflecting the significant liquidity depletion, the two banks were placed under conservatorship at the request of bank managements. By the end of June the liquidity pressure began to spread over other credit institutions. This situation was promptly resolved thanks to the strong liquidity buffers accumulated in previous periods, as required by the BNB, the BNB and government measures, and rapid European

Gross External Debt in November 2014

(EUR million)

		Change		
	Amount	Since December 2013	For the last 12 months	
General government	5 056.2	1 644.2	1 846.1	
Central bank	0.0	0.0	0.0	
Banks	5 157.0	-694.3	-672.7	
Other sectors	12 403.4	173.9	180.5	
FDI: intercompany loans	16 202.6	771.1	330.3	
Total	38 819.2	1 895.0	1 684.2	

Source: BNB.

Bank Deposits with the BNB

(BGN million)

Since November 2014, KTB does not maintain minimum required reserves.

8 000

7 000

2010

2011

2012

2013

2014

Banks' deposits with the BNB, total (daily amount)

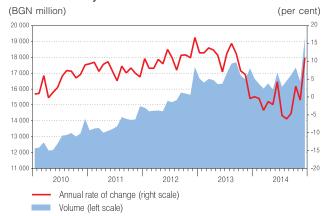
Banks' deposits with the BNB, total (average monthly value for the maintenance period)

Minimum required reserves under Ordinance No 21 of the BNB

(average monthly value for the maintenance period)

Source: BNB

Reserve Money



Source: BNB.

¹⁷ A more detailed analysis of banks' operations is presented in *Monetary and Credit Aggregates* of Chapter 2.

¹⁸ Excluding trade and bond loan liabilities from the sectoral breakdown.

Commission approval of government liquidity support scheme for Bulgarian banks. The EC allows state aid only to solvent and economically viable banks. In early July the banking system overcame this liquidity crisis and the normal functioning of the system was restored. On 6 November 2014 KTB's banking license was revoked on the basis of international auditors' assessments on the quality of assets and financial performance. Payments on guaranteed deposits began on 4 December 2014 and CB Victoria EAD reopened to continue conducting its banking operations on 12 December 2014. Confidence in the banking system has already been recovered with the restored inflow of deposits since July. By the end of the third quarter, the level of household deposits exceeded that of end-May 2014.

Another indicator of the restored confidence was the fact that guaranteed deposits paid out by the Bank Deposit Insurance Fund (BDIF) in December¹⁹ remained in the banking system, with only 2 per cent of them withdrawn in cash.

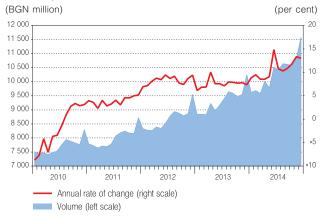
The increased deposit base of banks contributed to the maintenance of high liquidity, while the payout of guaranteed deposits since December boosted further bank liquidity. Low domestic lending demand and ECB policies of low interest rates on refinancing operations, the negative deposit facility interest rate and non-standard measures to boost liquidity had a dampening effect on investment alternatives in Bulgaria and abroad.²⁰ As a result, in December banks expanded significantly their excess reserves with

¹⁹ On 6 November 2014, the BNB Governing Council revoked the banking license of Corporate Commercial Bank AD under Article 36, paragraph 2, item 2, Article 103, paragraph 1, item 1, paragraph 2, item 25 and Article 151, paragraph 1, motion one of the Law on Credit Institutions and Article 16, item 15 of the Law on the Bulgarian National Bank. On 4 December 2014 the Bank Deposit Insurance Fund started paying out guaranteed deposits with KTB *via* the branch network of nine banks.

Reflecting the revocation of the KTB banking license and the ECB requirements in the statistics area, since November 2014 the Bank has been excluded as a reporting agent from Other monetary financial institutions sector (S.122 according to ESA'95) and reclassified into Other financial intermediaries, except insurance corporations and pension funds (S.123 according to ESA'95). This led to changes in statistical data on credit institutions.

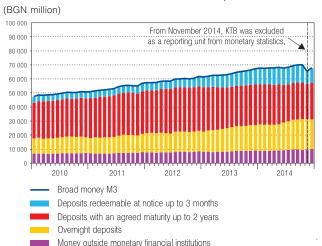
²⁰ See The Effect of 2014 ECB Monetary Policy Measures on the Euro Area Financial Market and Bulgaria's Banking System, Economic Review, 3/2014.

Currency in Circulation



Source: BNB.

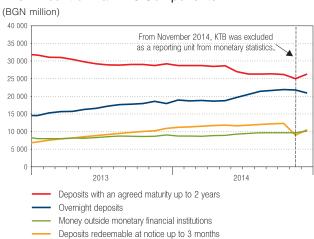
M3 and Contribution of Individual Components



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

Source: BNB.

The Amount of Main M3 Components



Source: BNB

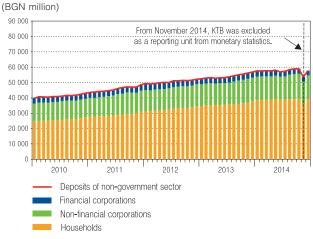
the BNB.21 In November, following the revocation of the KTB banking license and of the requirement to maintain minimum required reserves, banks' funds with the BNB recorded a strong decline, unlike December when they grew after the start of payouts of KTB guaranteed deposits, the prevailing portion of which remained in the banking system, forming a basis for minimum reserve calculation. The effective implicit rate of minimum required reserves reached 8.93 per cent in December, 22 with bank reserves with the BNB comprising 7.58 percentage points, and the remaining 1.35 percentage points being formed by cash and funds on banks' settlement accounts in the TARGET2-BNB system.²³

In the first nine months of 2014 reserve money comprising bank deposits with the BNB and currency in circulation posted a decline on an annual basis, except for June when growth was registered due to the increased currency in circulation. This trend was reversed in the last quarter and the annual growth rate of reserve money reached 11.1 per cent in December (a fall of 0.4 in December 2013). The enhanced bank deposits with the BNB following excess reserve growth had the largest contribution to the change in reserve money developments.²⁴ The last quarter saw a further rise in the positive contribution of currency in circulation, though it stayed comparatively high in the second half of the year. The annual growth rate of currency in circulation by end-2014 was 13 per cent (7.4 per cent a year earlier).

Reflecting the exclusion of KTB as a reporting agent from the other monetary financial institutions sector, major monetary, deposit and credit indica-

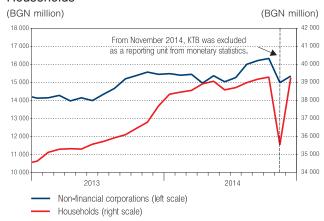
²¹ There are differences between the trends in bank excess reserves reported on an average annual basis and at the end of the month (see Economic Review, issue 3 of 2014). For the purposes of the trend analysis in the second half of 2014, average monthly data are considered as more relevant to indicate bank behaviour.

Deposits of the Non-government Sector and Contributions of Individual Sectors



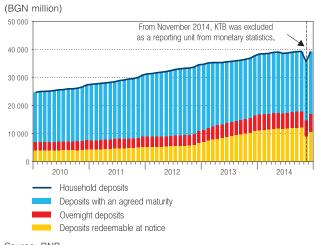
Source: BNB

Deposits of Non-financial Corporations and Households



Source: BNB

Household Deposits and Contribution of Individual Types of Deposits



Source: BNB

²² 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.

²³ See Article 4 of Ordinance No 21 of the BNB.

²⁴ Bank excess reserves measured by the excess of funds on minimum reserve accounts over the required minimum under Ordinance No 21 reached 40 per cent on an average daily basis over the fourth quarter and 56.5 per cent in December 2014 (9.1 per cent in December 2013).

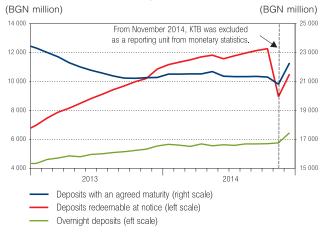
tors in the monetary statistics recorded declines since November (see footnote 19). In December major monetary and deposit indicators picked up driven by the start of paying out guaranteed deposits at KTB, most of which remained in the banking system and continued to be reported in the monetary statistics. Non-guaranteed deposits and unpaid guaranteed deposits remained outside the scope of the monetary statistics. Indicators of the claims on the non-government sector decreased from October (down BGN 5.2 billion, mainly in the non-financial corporations sector), and the effect of excluding KTB assets will further drive their developments, especially in claims on non-financial corporations, over the coming months.²⁵

KTB removal from monetary statistics reporting pushed down broad money in November (-1.2 per cent on an annual basis), whereas payouts of guaranteed deposits in December contributed to its growth acceleration (1.1 per cent on an annual basis). Broken down by component, deposits redeemable at notice of up to three months and deposits with an agreed maturity of up to two years increased in December.

The structure of non-government sector's deposits changed over the year. Households kept saving mainly in overnight deposits and deposits redeemable at notice, while reducing their time deposits, a trend driven by the different tax treatment of the two types. In December, after the start of KTB guaranteed deposits payout, all major types of deposits recorded an increase. Correspondingly, overnight deposits held by non-financial corporations retained their upward trend of the second half of 2013, unlike the fall in deposits with agreed maturities.

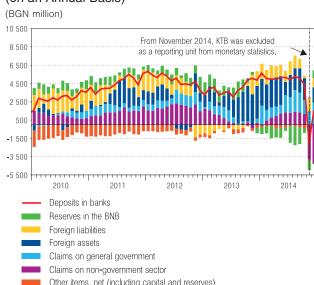
In the currency structure of non-government sector's deposits, the share of foreign currency deposits tended to increase over the second half of 2014. In December repayments of guaranteed deposits pushed down this share as deposits were paid out in Bulgarian levs.²⁶ In December the share of foreign currency depos-

Amount of Household Deposits



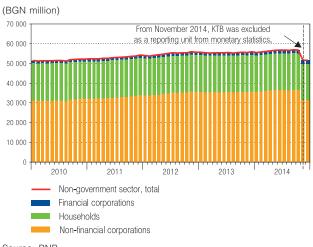
Source: BNB.

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



Note: Note: The changes shown are based on balances from the analytical reporting of other monetary financial institutions Source: BNB.

Claims on the Non-government Sector and Contributions of Individual Sectors



Source: BNB.

Economic Review • 4/2014

 $^{^{\}rm 25}\,{\rm Reflecting}$ the large exposure of Corporate Commercial Bank to the sector of non-financial corporations.

²⁶ Under the Law on Bank Deposit Guarantee.

its of the non-government sector was 42.3 per cent (42.6 per cent in December 2013).

In the second half of 2014 banks boosted their foreign assets, excess reserves with the BNB and claims on the general government sector, while reducing foreign liabilities. Net foreign assets of banks rose to BGN 4.2 billion (BGN 1.6 billion by end-2013).

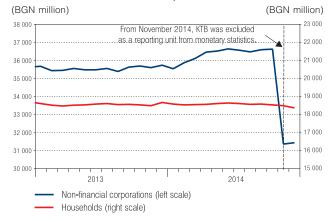
In December claims on the non-government sector remained broadly unchanged from November, with the increase of claims on corporations coupled with a decline of claims on households.

In the last three months of 2014 the average value of newly extended loans²⁷ to non-financial corporations continued to match that of early 2014. Between January and December loans of BGN 14.2 billion were extended against BGN 13.9 billion in the corresponding period of 2013. The trend was sustained for most of them to be extended with a maturity of over five years, with their average monthly volume reaching 48.4 per cent of all new loans. As regards the currency structure of new loans to non-financial corporations, in 2014 the share of lev-denominated loans grew at the expense of those in euro and US dollars. In December the share of new lev loans was 46.5 per cent of all corporate loans. New loans denominated in euro accounted for 49.9 per cent of the total amount, whereas the share of US dollar-denominated loans was just 3.5 per cent.

By end-2014 all categories of household loans posted a decline on an annual basis. The year-on-year drop was most pronounced in other loans (-8.2 per cent) followed by consumer, housing loans and overdrafts (-2.0, -0.9 and -0.1 per cent on an annual basis).

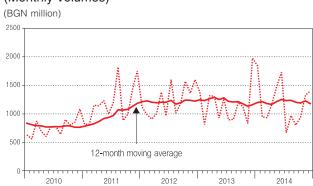
New household loans statistics shows that average annual volumes in the last quarter remained at the previous months' level. The downward trend in new consumer loans *vis-à-vis* the first quarter was sustained along

Claims on Non-financial Corporations and Households



Source: BNB.

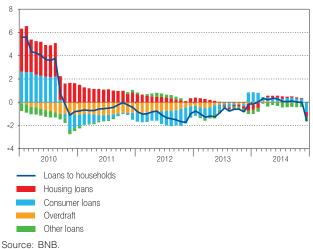
New Loans to Non-financial Corporations (Monthly Volumes)



Source: BNB.

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

(per cent; percentage points)



Financial Flows, Money and Credit

²⁷ The terms 'new' and 'newly extended' hereinafter referred to as the statistical category 'new business'.

²⁸ The statistical effect of KTB exclusion from monetary statistics had no bearing on this category of loans due to the small exposure of the Bank to the sector of households.

with the stabilisation of the volumes of other loans. New loans for house purchase experienced a slight upward trend over the second half of the year.

Over the third quarter the claims on non-government sector to GDP ratio almost matched the level of the same period of 2013 at 69.5 per cent (69.6 per cent in September 2013) as claims on the non-government sector and nominal GDP rose at approximately equal annual rates.

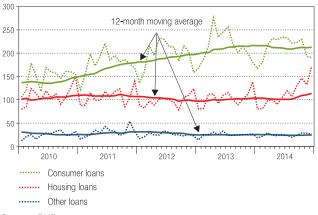
Summarised results of the BNB quarterly lending survey point to a slight increase in demand for loans by corporations over the fourth quarter of 2014. Household demand for consumer and housing loans also posted growth, with a higher increase registered by the latter, as seen in the balance of opinions. Banks expect increasingly rising demand for loans by households in the first quarter of 2015 to satisfy housing and consumer needs and a slight increase in short-term corporate lending.

In the fourth quarter of 2014 Bulgarian banks tightened their standards in the area of shortand long-term corporate lending. As regards household loans, credit policy tightening referred to consumer loans, unlike loans for house purchase which retained their credit standards. Banks report that credit, collateral risks and the macroeconomic environment contributed mainly to the credit policy tightening. At the same time, increased competition among banks, lower cost of borrowing and, to a lesser extent, the lack of high-yield alternative investment were again the drivers for easing credit standards. In the first quarter of 2015 banks expect stronger easing for loans to households and slight easing for corporate loans.

The baseline scenario for the first half of 2015 suggests a moderate fall in the annual growth rate of currency in circulation. In line with the projection of economic growth slowdown on an annual basis amid a retained comparatively high savings rate of households, broad money expansion is expected to be positive on a quarterly basis. A factor with a potential downward effect on the growth of household deposits will be the continuous decline in deposit interest rates. Quarterly dynamics of claims on

New Loans to Households (Monthly Volumes)

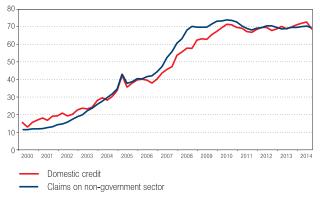
(BGN million)



Source: BNB.

Domestic Credit

(share of GDP, per cent)



Source: BNB.

the non-government sector is projected to be slightly positive, while annual developments show a further decline due to the effect of KTB exclusion from monetary statistics. The longterm trend of funds attracted from residents outstripping significantly demand for loans in the economy is likely to deepen in the first half of 2015 which may push up net foreign assets and excess reserves of banks, further boosting banking system liquidity.

Interest Rates

In 2014 two divergent trends in shorter-term deposit rates were observed in the interbank money market. Between January and May overnight and up to three weeks rates increased gradually, falling down at a moderate pace from June to the end of 2014 entirely in tandem with euro area short-term interest rate movements. Interest rates for maturities of over one month followed a downward trend throughout the whole year. Major factors driving interbank market rates in Bulgaria include the ample banking system liquidity, low ECB policy rates in the euro area and provision of liquidity via non-standard measures.²⁹

The ECB cut interest rates on its main refinancing operations twice by 10 basis points in June and September, which led to a significant decrease in euro area rates. The average monthly value of interest rates on interbank overnight deposits in the euro area hovered around zero or stayed negative in the last four months of 2014. The lower decline of LEONIA compared to EONIA caused a widening of the spread between the two indices to a level of 0.05 per cent in December vis-à-vis 0.02 per cent in August and September and to negative values in the first seven months of 2014.

Between October and December interest rates on three-month interbank deposits³⁰ retained their deceleration trend, decreasing by 11 basis points on the first nine months of 2014 to

²⁹ For a more detailed analysis, see *The Effect of 2014 ECB* Monetary Policy Measures on the Euro Area Financial Market and Bulgaria's Banking System, Economic Review, 3/2014.

Changes in Credit Standards

a) Applied to Corporate Loans

(balance of pinions)



Change in the review quarter on the previous quarter

b) Applied to Consumer Loans

(balance of opinions)



Change in the review quarter on the previous quarter

c) Applied to Housing Loans

(balance of opinions)



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

Source: BNB

³⁰ The analysis is based on the average value of the quotations of SOFIBOR unsecured deposits in levs and SOFIBID three-month deposits.

reach 0.44 per cent on average. The stronger fall in euro area three-month interest rates as compared to those in Bulgaria was the reason behind the widened spread between the average three-month SOFIBOR/SOFIBID index and EURIBOR (up 6 basis points in the fourth quarter compared with the first nine months).

The downward trend in the long-term maturity sectors of the interbank money market yield curve was retained between October and December. In December a year-on-year fall in the six-month maturity sector was 37 basis points and that in the 12-month sector came to 71 basis points.

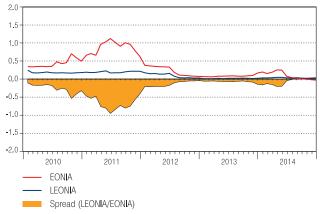
Interest rates on new time deposits of households and non-financial corporations decelerated throughout the whole 2014, this trend intensifying in the second half of the year. These developments were driven by the high liquidity of the banking system, comparatively low demand for bank loans and comparatively low, even negative in some market segments, interest rates in the euro area. In December 2014 the average weighted interest rate on new time deposits of households and non-financial corporations fell to 2.1 per cent (3.1 per cent by end-2013). The year-on-year fall in interest rates on new deposits of both non-financial corporations and households accounted for 1.2 percentage points. As regards the currency structure, interest rate declines were observed in deposits denominated in all foreign currencies, with USD deposit rates falling most significantly, followed by EUR deposit rates. In terms of maturity, since early 2014 interest rate declines were reported in deposits with a maturity of three to six months and from six to twelve months. Long-term deposits of over two years recorded the strongest fall.

In line with the downward interest rate trend, the comparison between the September and December breakdown of interest rates on household time lev deposits in individual banks shows an increase in the number of banks offering rates in the lowest band of up to 1 per cent and from 1 to 2 per cent at the expense of the decreased number of banks offering rates within the 3 to 4 per cent and over

Interbank Money Market Interest Rates

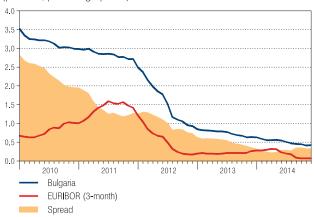
a) Overnight deposits

(per cent; percentage points)



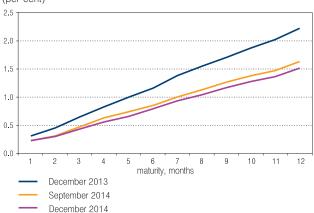
b) Deposits with a maturity of three months

(per cent; percentage points)



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

Interbank Money Market Yield Curve



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

Source: BNB.

4 per cent band. The average interest rate level dropped by 15 basis points on September to 2.65 per cent and the standard deviation rose by 15 basis points to 1.15 percentage points.

The continuous decrease in the cost of funds attracted by banks from residents contributed to the retention of the downward trend in interest rates on new lev loans extended to non-financial corporations throughout 2014. At the same time, interest rates on loans to corporations in euro fluctuated around the levels of end-2013, with a slight fall recorded in the second half of 2014. In December the average interest rate on new loans to non-financial corporations denominated in levs was 6.7 per cent and on those denominated in euro rose by 1.1 percentage point to 7.8 per cent. The interest rate on corporate loans in USD was 9 per cent in December, slightly increasing from the 2013 level. 31

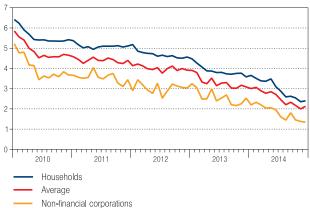
The annual percentage rate of charges (APRC) on newly extended consumer loans to households followed a trend of a slight acceleration from January to July, shifting downwards in the second half of the year. 32 A decline was observed in respect to both interest rates and fees and commissions. Amendments to the Law on Consumer Credit of 23 July removed fees and commissions accrued by banks on credit utilisation and management, pushing down the implicit rate of non-interest service charges on consumer loans since August. Between August and December non-interest expenditure posted a 19 basis point decline and the annual percentage rate of charges fell by 28 basis points to 12.4 per cent in December. In the same period, interest rates on consumer loans decreased somewhat to reach 11.3 per cent, although a slight rise was recorded from the end of 2013.

The annual percentage rate of charge on new loans for house purchase was marked by a downward trend throughout 2014, reach-

Interest Rates on New Time Deposits

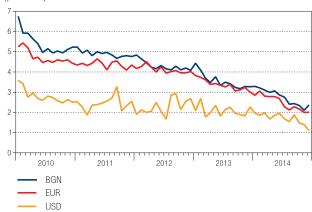
a) By sector

(per cent)



b) By currency

(per cent)

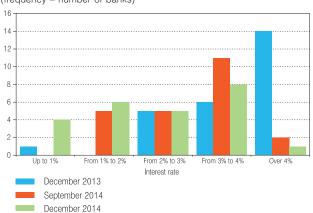


Notes: The average interest rate is calculated for all sectors, maturities and currencies weighted by the relevant volumes of new deposits. KTB was excluded as a reporting unit from interest rate statistics as of November 2014.

Source: BNB.

Distribution of Interest Rates on New Household Time Lev Deposits

(frequency - number of banks)



Note: KTB was excluded as a reporting unit from interest rate statistics as of November 2014.

Source: BNB

³¹ These values are the weighted average of the interest rates on loans to non-financial corporations on a 12-month basis.

³² The values indicating APRC and interest rates are the weighted average of the interest rates on household consumer and housing loans on a 12-month basis.

ing 7.4 per cent in December. This dynamics reflected mainly the decrease in interest rates on these loans. In the period from August to December the non-interest component in APRC also had a contribution to the decline.

As regards the breakdown of interest rates on new housing loans in euro across banks, in December compared to September, the number of banks offering rates from 6 to 7 and over 9 per cent increased at the expense of those offering rates of up to 6 and from 8 to 9 per cent. The average interest rate level dropped by 20 basis points on September to 6.69 per cent and the standard deviation fell by 2 basis points to 0.95 percentage points.

In the fourth quarter the primary government bond market was marked by a stronger volatility. After a temporary rise in long-term government bond yields (ten years and six months) in October and November, a 2.90 per cent drop in the yield and an increase in the price were registered in December. At the same time, two-year-and-six-month and seven-year bond yields posted a quarter-on-quarter increase at the auctions held in November. Five-year bond yields moved within the 2.42 to 2.63 per cent band.

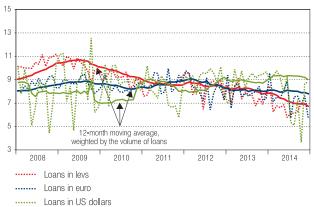
In December two short-term government securities in euro were issued to the amount of EUR 400 million, attracting high investor interest, especially by banks. The coverage ratios of the nine-month and one-year issues were 2.15 and 3.07, respectively.

In January 2015 the Ministry of Finance put in circulation a new BGN-denominated issue of ten years and six months. Government securities sold at the 12 January auction amounted to BGN 50 million with a 3.09 per cent average weighted yield, down 0.65 basis points compared to the yield attained at the January 2014 auction. Auction bids totalled BGN 181 million, which corresponds to the coverage ratio of 3.62. This reference issue is used to calculate the harmonised long-term interest rate for assessing the degree of convergence.

In the secondary market, the long-term interest rate used to assess the degree of convergence posted some increase in October and Novem-

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

(per cent)

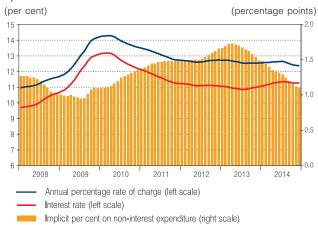


Note: KTB was excluded as a reporting unit from interest rate statistics as of November 2014.

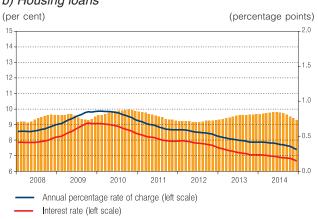
Source: BNB.

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

a) Consumer loans



b) Housing loans



Implicit per cent on non-interest expenditure (right scale)

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

KTB was excluded as a reporting unit from interest rate statistics as of November 2014.

ber, reflecting entirely internal factors (based on market participants' opinion) as: insufficient supply of new government securities by the Ministry of Finance, banks' reluctance to trade in long-term debt instruments and a seasonal decrease in the volumes traded in this market. In December the yield at which Bulgarian debt bonds were traded decreased from November to reach 2.96 per cent (3.43 per cent by end-2013).

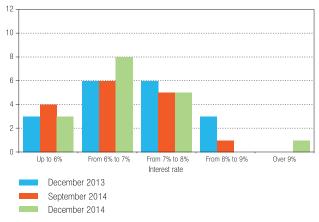
In the third and fourth quarters of 2014 secondary market prices of Bulgarian Eurobonds maturing in July 2017 were characterised by certain volatility, hovering between 107.0 and 108.4 nominal value (corresponding to 1.43–1.17 per cent yield).

In the beginning of December the price of the ten-year benchmark Eurobonds issued in June 2014 at a 3.055 per cent yield, maturing in September 2024, went up to 103.9 nominal value (2.495 per cent annual yield). This rise was followed by a short-term decline in their prices after the decision of 12 December 2014 of the Standard & Poor's agency to lower Bulgaria's long- and short-term foreign and local currency sovereign credit ratings from BBB-/A-3 to BB+/B, with a stable outlook. Markets responded positively to the successful completion of the bridge loan commitment to the amount of EUR 1.5 billion on 18 December 2014. From mid-December to end-January the price of the new ten-year benchmark Eurobonds followed an acceleration trend towards a level of 105.2 of face value (corresponding to a yield of 2.335 per cent).

Interest rates on time deposits are expected to continue declining gradually in the first half of 2015. This trend will be driven by the maintained high liquidity in the banking system, reflecting also the reallocation of KTB guaranteed deposits in other banks. Comparatively low credit demand of the private sector and the ECB policy of low euro area interest rates and provision of liquidity *via* non-standard measures will also affect interest rate levels in Bulgaria. Lending interest rates are also expected to decline in the first half of 2015 due to the sustained fall in the borrowing costs for banks and

Distribution of Interest Rates on New Housing Loans in Euro

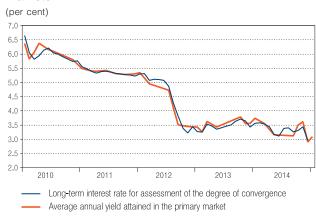
(frequency - number of banks)



Note: KTB was excluded as a reporting unit from interest rate statistics as of November 2014.

Source: BNB.

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



in their reference interest rates. Possible risks for this projection stem from the effect of the low deposit facility rate of the ECB on investment decisions of Bulgarian banks which may lead to a stronger than expected decline in both deposit and lending interest rates.

In the first quarter of 2015 relatively strong demand may be expected in the primary and secondary government bond markets, reflecting high banking liquidity. Domestic government bond yields are likely to slightly decline, especially short- and medium-term issues, in line with the limited year-on-year supply of government securities in the domestic market according to the government issuing policy for 2015.

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

Government's revenue and expenditure policy and budget financing operations affect the allocation of liquidity among economic sectors.³³

Over the third quarter of 2014 the external sector was the main source of liquidity for the consolidated state budget, the inflow of liquid funds from this sector to the budget accounting for BGN 2920 million or 12.7 per cent of GDP for this quarter. At the same time, current and capital EU grants to the consolidated government budget came to BGN 556.2 million. The total amount of external funding was BGN 138.7 million higher than the amount of interest and principal external debt repayments and Bulgaria's contribution to the EU common budget.

External funding flows were reallocated to the government deposit with the BNB and, to a lesser extent, to the financial sector (excluding the BNB) and the non-government non-bank sector (*i.e. via* budget deficit financing of BGN 482.6 million).

Monthly data of end-January 2015 on EU funding grants and new external and internal financ-

Economic Review • 4/2014

³³ For more details on financial flows between the budget and other sectors, see *Economic Review*, May 2004, p. 28. The sign '+' of the respective financial flow indicates that as a result of its operations the budget provided net funds to the respective sector, while the sign '-' means that the budget withdrew net funds from the respective sector.

ing suggest that in the last quarter of 2014 the external sector continued to be the main source of liquidity for the consolidated budget. Inflows came primarily from the external bridge loan of BGN 2934 million disbursed in December.³⁴ In addition, consolidated government budget inflows include also significant EU cohesion and structural funding (BGN 902.1 million), including unfreezed funds under the Environment Operational Programme in November and December.

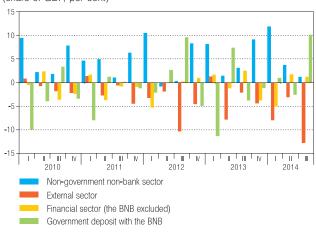
In the last quarter of 2014 consolidated budget funding transactions had also a strong effect on banking system liquidity (excluding the BNB). On the one hand, the main portion of short-term external debt receipts was used in the form of a loan to the Bank Deposit Insurance Fund. This had a positive effect on banking sector liquidity as the major part of the payments on guaranteed deposits to individuals and firms remained in the banking system.

The government issuance policy, on the other hand, led to withdrawal of liquidity in the domestic market (the BNB excluded). Thus, a positive net government bond financing of BGN 340 million was reported in the fourth quarter of 2014. Newly issued government securities accounted for BGN 1968.1 million, a significant portion of which generated from the two short-term euro-denominated issues in early December. At the same time, five-month government securities of BGN 1229 million matured in the review period. The Ministry of Finance data show that between January and December Bulgaria's CFP deficit was BGN 3048.2 million (3.7 per cent of GDP). The large deficit accumulated in the last quarter suggests an inflow of liquidity provided by the budget to the nongovernment non-bank sector.

In the first quarter of 2015 budget financing operations will continue to play an important role in the reallocation of liquidity across economic sectors. Global bonds in USD maturing on 15 January worth BGN 1879 million will positively affect the liquidity of both the

Consolidated Budget Effect on Other Sectors' Liquidity (Quarterly)

(share of GDP, per cent)



Sources: MF, BNB calculations.

³⁴ Monetary statistics data (analytical reporting of other MFIs) show that claims on the general government sector in respect of loans increased by BGN 1.0 billion on end-November, reflecting mainly the share of the bridge loan held by resident banks.

external and the financial sector (excluding the BNB). 35 According to the MF issuance calendar, between January and March 2015 government securities of BGN 800 million will be issued on the domestic market, with the positive net financing of BGN 0.5 billion resulting in absorption of liquidity from the banking sector.

In the first quarter of 2015 a significant inflow of funds from the external sector to the consolidated budget is expected as a result of reimbursed expenses under EU programmes and anticipated transfers on the EU Common Agricultural Policy.³⁶

 $^{^{\}rm 35}$ In November 2014 residents held 40 per cent of the issue.

 $^{^{\}rm 36}$ Traditionally, direct payments to farmers are made from the state budget in the beginning of the year, and reimbursements from the EU budget may be delayed by two to three months.

3. Economic Activity

In the third quarter of 2014 quarterly growth of real GDP reached 0.4 per cent against 0.3 per cent in the previous quarter as a result of growth in domestic demand. Despite the worsening of expectations and sentiments of the economic agents in the third quarter of 2014, the private consumption and investment in fixed assets grew quarterly and contributed most significantly to GDP growth. The build-up of inventories in the economy also had a positive contribution to growth, while net exports and to a lesser extent government consumption contributed negatively. Although the production and household consumption increased, they remained relatively low, the recovery of employment was limited, and savings in the economy retained their high level.

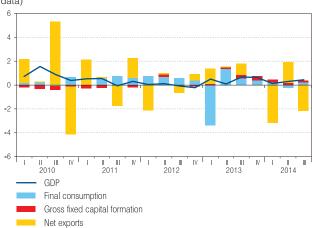
Based on the empirical trend analysis in the third quarter of 2014 it could be concluded that the decline in the business indicators in the third and fourth quarter of 2014 would probably have a limited effect on the economic activity in the first half of 2015. In the first and second quarters of 2015 the private consumption rise is expected to remain at a level close to that observed in the third quarter of 2014, with a slight deceleration in the growth of fixed capital formation. Domestic demand is expected to be limited by lower government consumption in the first quarter of 2015 and the quarterly increase of the government expenditures to lead to some recovery in the second quarter. These developments are expected to keep real GDP level in the first quarter of 2015 close to that in the third quarter of 2014, after which the real growth is expected to accelerate slightly in the second quarter of 2015.

According to seasonally adjusted NSI national accounts data,³⁷ in the third quarter of 2014 quarterly growth of real GDP³⁸ came to 0.4 per cent against 0.3 per cent in the previous quarter. Despite the worsening of expectations and sentiments of the economic agents in the third quarter of 2014, the private consumption and investment in fixed assets grew quarterly and contributed most significantly to GDP growth. The build-up of inventories in the economy observed mainly in manufacturing³⁹ and, to a lesser extent, in construction and trade⁴⁰ also contributed positively to the growth. In manufacturing, the build-up of inventories was reported for raw materials,

³⁷ The quarter-on-quarter analysis in this section employs seasonally adjusted data, unless otherwise indicated. The seasonal adjustment of indicators, on which the NSI or Eurostat do not officially publish seasonally adjusted data, was made *via* the TRAMO SEATS or OxMetrics programme by using automated set up for diagnostics and optimisation of adjustment parameters.

Contribution to GDP Growth by Final Use Component

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



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

Sources: NSI, BNB calculations.

Economic Activity

³⁶ Data in this chapter are based on the ESA 2010, unless otherwise indicated. For more information on the changes in national accounts methodology see Manual of Eurostat on the Changes between ESA 95 and ESA 2010.

³⁹ The mining and quarring, manufacturing, electricity, gas and steam, water supply, sewerage and waste management and remediation activities sub-sector by A10 breakdown of economic activities.

⁴⁰ The trade, repair of motor vehicles and motorcycles, transport, storage and mail services, hotels and restaurants sub-sector by A10 breakdown of economic activities.

as firms are likely to make use of lower international prices of major intermediate consumption goods, such as petroleum products and certain types of metals⁴¹. In construction, inventories of semi finished products were accumulated.

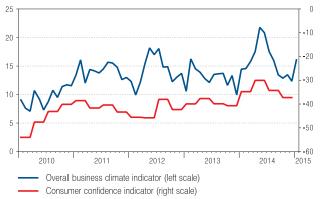
National accounts data show that exports of goods and services on a quarterly basis in real terms went down, while real imports of goods and services saw an increase. As a result, net exports had a negative contribution in real GDP growth. It should also be noted that goods' import and export deflators of national accounts in the third quarter of 2014 are highly positive, which is inconsistent with the deflationary processes in external economic environment and distinguish them significantly from external trade statistics data on the prices of exports and imports of goods, which displayed a negative dynamics. The discrepancy between the two sources leads to an uncertainty concerning real export and import dynamics.

The contraction in government consumption in the third quarter of 2014 compared to the second quarter had a low negative contribution to GDP growth as well.

While business survey and consumer survey indicators pointed to a deterioration in business expectations and sentiment of the agents, shortterm business statistics data and the Employment Agency data suggested rather positive signs for economic developments in the fourth quarter of 2014. Despite the improvement in November, the overall business climate indicator followed its downward trend observed since May 2014. In the fourth guarter worsened assessments about business situation contributed greatly to its decline, while industry and construction had the main contribution by sector. In January business climate indicator went up in all sectors except for trade. Consumer confidence indicator continued falling by October as a result of the worsened expectations about employment, economic situation and consumers' financial position.

The uncertainty, stemming from internal factors as political situation and the KTB case, is anticipated to lower its impact on economic agents' sentiment and expectations after the formation of a regular government, the revocation of the

Business Climate and Consumer Confidence



Sources: NSI, BNB calculations.

⁴¹ For more information, see the International Commodity Prices section in Chapter 1.

KTB license and payout of guaranteed deposits. As regards international developments, the effect of Ukraine and Russia crisis on conjunctural indicators is expected to be less pronounced in the first and second quarters of 2015 than in the second half of 2014. Since no contraction in private consumption and firms' investment occurred in the third quarter, as suggested by the negative trends of economic indicators, the further deterioration in business sentiment and expectations in the fourth quarter of 2014 is not expected to have a significant negative impact on economic activity in the first and second quarters of 2015.

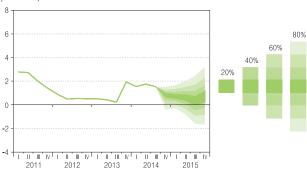
In the first and second quarter of 2015 the private consumption rise is expected to remain at a level close to that observed in the third quarter of 2014 in line with a slow recovery of labour market conditions. Gross fixed capital formation growth is projected to slightly slow down compared to its 2014 level, reflecting firms' cautious investment behaviour. Domestic demand is expected to be subdued through lower government consumption in the first quarter of 2015 and to recover slowly in the second quarter due to quarterly increase of the government expenses. The economic activity recovery in Bulgaria's major trading partners is expected to lead to moderate rates of real growth in goods and services exports. Assuming a slightly higher import growth rate than that of the exports of goods and services, net exports will have a small negative contribution to GDP growth over the first half of 2015.

In line with the above quarter-on-quarter dynamics, annual real GDP growth is projected to moderately slow down in the first and second quarters of 2015. The weaker domestic demand growth will have the main contribution to the economic activity slowdown on an annual basis.

As a whole, the internal uncertainty associated with the events of 2014 may also be a reason for consumer and business expectations of the future economic situation to remain pessimistic over a protracted period. The risk that this could materialise in a postponement of consumption and investment projects, leading to reduced domestic demand and lower GDP growth, is assessed as low. The continuation of domestic deflation processes also pose risks of limiting investment expenditure of corporations if lower

Fan Chart of the Expected Annual Rate of Change of GDP

(per cent)



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

Source: BNB

43 Economic Activity

Real GDP Growth by Component of Final Use

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

		2011				2012				2013				2014		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Consumption	0.0	0.7	0.9	0.8	1.0	0.9	0.7	0.5	-4.1	1.7	0.7	0.5	0.3	-0.3	0.3	
incl.																
Household consumption	-0.3	0.9	1.5	0.8	2.0	0.6	0.1	-0.4	-2.2	0.7	-0.3	0.4	1.3	-0.4	0.4	
Final government consumption expenditure	-3.3	6.5	-1.6	-0.7	4.7	-6.2	0.8	-0.2	-0.3	4.9	-3.4	-2.5	7.5	1.9	-2.1	
Collective consumption	1.6	-0.7	-0.7	0.5	-0.6	0.7	0.5	1.6	1.2	8.0	0.9	-0.1	0.5	0.4	0.2	
Gross fixed capital formation	-1.3	-1.0	-0.2	-1.0	0.0	1.0	-0.2	-0.4	0.5	0.7	1.4	1.6	1.1	0.9	0.7	
Exports of goods and non-factor services	7.1	-2.7	0.5	3.5	-5.9	6.6	-1.4	0.8	5.8	1.3	3.3	-0.1	-2.2	2.2	-2.6	
Imports of goods and non-factor services	3.2	-2.9	3.4	0.6	-2.3	6.1	-0.4	-0.1	3.5	1.2	1.8	-0.1	2.6	-0.5	0.7	
Real GDP growth	0.5	0.5	-0.1	0.3	0.1	0.1	-0.1	-0.2	0.5	0.1	0.7	0.6	0.1	0.3	0.4	

Source: NSI

profits are observed. Possible moderation in economic activity within the European Union is another factor that could affect adversely real growth. On the other hand, the formation of expectations for a substantial prolonged decline in international oil prices may contribute to higher than projected real growth, boosting consumption (due to the increase in real disposable income) and investment (due to the reduction in firms' production costs, particularly in more energy-intensive sectors).42

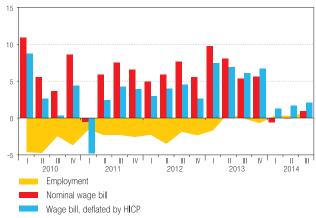
Household Behaviour

Household behaviour related to the relatively low consumption, high savings rate and weak labour supply in the first nine months of 2014 was underpinned by the uncertain economic and political environment, high unemployment rate, low rate of employment growth, and the moderation in labour income.

Employment retained its relatively low level, though slightly increasing in some sectors. Wage income growth displayed a moderating trend in 2014, although the average wage and the wage bill (seasonally adjusted⁴³ national account data) increased slowly in the third quarter compared with the previous quarters both in nominal and real terms⁴⁴. Slower growth in the annual labour

Employment and Nominal Wage Bill

(annual change, per cent)



Sources: NSI - SNA, BNB calculations.

 $^{^{\}rm 42}$ For more information, see the $\it Economic$ and $\it Financial$ Effects of Oil Price Declines Research topic here.

 $^{^{\}rm 43}$ The seasonal adjustment of indicators, on which the NSI does not officially publish seasonally adjusted data, was made *via* the TRAMO SEATS programme by using automated set up for diagnostics and optimisation of adjustment parameters.

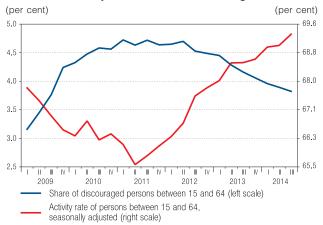
⁴⁴ Quarter-on-quarter rates of change in seasonally adjusted data indicate recent developments in indicators that are not subject to base effects in the corresponding period of prior year.

income compared with previous years (nonseasonally adjusted data on wage bill and average wage per employee) was sustained. Besides comparatively high unemployment, deflationary processes in the economy and their implications on wage bargaining are behind the above mentioned growth dynamics. In the third quarter stronger growth of remunerations was observed in the sectors with lower average wage as agriculture, forestry and fishing, trade, transport, hotels and restaurants, and professional activities and scientific research. In the remaining services sub-sectors gross wages went down on both annual and quarterly basis. These divergent sectoral developments coupled with low employment and worsened household sentiment are expected to retain consumption at close to current levels in the short run.

According to the NSI Labour Force Survey⁴⁵, labour supply in the third quarter (as measured by the labour force changes) did not change significantly, with the fall in unemployed mostly reflecting the increased employment. Labour force, however, remained broadly unchanged. The seasonally adjusted activity rate⁴⁶ increased as a result mainly of the stronger fall of workingage population. Discouraged persons continued going down.

The Labour Force Survey shows that in the third quarter of 2014 the seasonally adjusted unemployment rate⁴⁷ slightly decreased reaching 11.5 per cent (the non-seasonally adjusted unemployment rate came to 10.7 per cent). Based on the Employment Agency data⁴⁸, the seasonally adjusted unemployment rate slightly decreased in the third and fourth quarters of 2014 to reach 10.5 per cent (10.7 per cent according to non-seasonally adjusted data) in December 2014. The Labour Force Survey

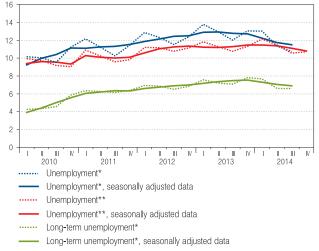
Economic Activity and Share of Discouraged Persons



Sources: NSI Labour Force Survey, BNB calculations.

Unemployment Level

(per cent of labour force)



^{*} NSI data.

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

Economic Activity

⁴⁵ The labour force (currently economically active population) comprises persons aged 15 and older who provide the supply of labour for the production of goods and services. The labour force includes both employed and unemployed persons.

⁴⁶ Labour force participation rate is the proportion between economically active persons (labour force) and the population of the same age.

⁴⁷ Unemployment rate is the proportion between the number of unemployed and the labour force based on Labour Force Survey data.

⁴⁸ The definition of unemployment rate according to Employment Agency data corresponds to that referred to in note 47, but using a constant rate of labour force comprising the number of persons in the respective age group since the last census of the population.

^{**} Employment Agency data.

shows that the number of long-term unemployed (persons unemployed more than a year) remained comparatively high in the third quarter, albeit decreasing as a share of labour force to 6.9 per cent.

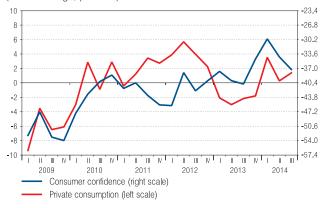
According to seasonally adjusted national account data, in the third quarter of 2014 household consumption rose (by -0.4 per cent) on a quarterly basis, but still remained comparatively low. At the same time, it rose by 1.3 per cent on an annual basis (seasonally unadjusted data) due mainly to the lower base. In the third quarter of 2014 retail trade volumes also increased on a quarterly basis mainly due to automobile fuels and lubricants and, to a lesser extent, to computer and communication equipment and food.

In October and November 2014 a slight decline in average retail trade turnover at constant prices on its third quarter's average was observed. As a result, the annual growth rate of trade volumes in real terms started to slow down. This broadly indicates that consumption will retain its relatively low levels in the fourth guarter of 2014. The fall in consumer confidence indicator was also reported by the NSI in its October consumer survey⁴⁹. Expectations of the economic situation, household financial position and unemployment also worsened. The political instability and the effects of KTB conservatorship are likely to have added temporarily to the worsened consumer sentiment which is expected to gradually fade away over the next quarters.

The share of savings in household disposable income⁵⁰ (NSI household budget survey data) decreased slightly, though remaining relatively high in the third quarter of 2014. A high share was also reported by households which intend to increase their savings in the following 12 months (consumer survey of October 2014). Households' net assets measured by their net position *vis-à-vis* the banking system (BNB mon-

Private Consumption and Consumer Confidence

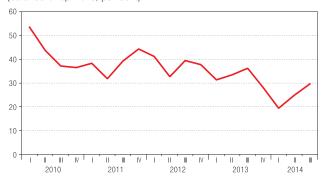
(annual change, per cent)



Sources: NSI Consumer Survey and BNB calculations.

Unemployment Expectations in the Following 12 Months

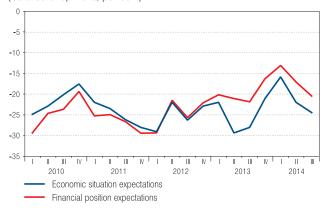
(balance of opinions; per cent)



Source: NSI Consumer Survey.

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

(balance of opinions; per cent)



Source: NSI Consumer Survey.

⁴⁹ 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 12 months for the development of: financial position and savings of households, the overall economic situation in the country and unemployment (the latter with the sign reversed).

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

Employment and Income Dynamics

	2011				20)12		2013					2014		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Per cent on the previous quarter (seasonally adjusted data															
Employed	-0.4	-0.3	-0.9	-0.3	-0.8	-1.3	0.4	-0.6	-0.2	0.4	-0.4	0.0	0.4	0.0	0.2
Nominal wage per employee*	1.7	3.6	2.1	0.7	2.4	2.6	2.3	2.1	3.1	1.0	0.3	1.1	-1.4	0.2	0.5
Real wage per employee**	0.6	2.8	1.7	0.0	2.0	1.9	1.4	1.9	2.8	1.3	0.9	1.3	-0.5	0.3	0.3
Wage bill, nominal terms	1.3	2.1	1.5	1.6	0.9	2.0	2.3	1.4	2.8	0.9	0.3	0.4	-0.5	0.3	0.3
Wage bill, real terms**	-1.0	2.1	0.7	0.2	1.5	0.9	1.2	1.0	3.1	1.1	0.7	0.9	-0.5	0.8	0.7
Per cent on the corresponding period of the previous year (non-seasonally adjusted data)															
Employed	-1.6	-2.3	-2.3	-2.6	-2.3	-3.5	-1.9	-2.3	-1.7	0.7	-0.1	-0.7	0.3	0.3	0.7
Nominal wage <i>per</i> employee*	0.8	7.4	8.7	9.1	7.1	7.9	8.5	8.3	12.3	8.6	6.2	6.6	0.0	-0.2	0.9
Real wage per employee**	-3.5	3.8	5.5	6.4	5.2	6.0	5.4	5.3	9.9	7.4	6.9	7.7	1.9	1.5	2.1
Wage bill, nominal terms	-0.5	5.9	7.5	6.5	4.9	5.8	7.6	5.5	9.8	8.0	5.3	5.6	-0.6	0.0	0.9
Wage bill, real terms**	-4.8	2.4	4.3	3.9	3.0	3.9	4.5	2.6	7.4	6.9	6.0	6.7	1.3	1.6	2.1

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

Sources: NSI - SNA, BNB calculations, Eurostat.

Retail Trade Turnover

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

	2011				2012			2013				2014				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Oct Nov.
Retail trade turnover, excluding cars and motorcycles incl.	0.4	-0.4	-0.3	0.7	5.8	-1.4	0.0	-0.6	8.0	1.8	1.9	1.4	1.7	-0.4	1.8	-0.6
Foods, drinks and tobacco	0.6	0.3	1.0	1.2	1.6	0.7	0.4	0.6	-3.1	2.9	7.1	-4.3	1.2	1.1	1.9	0.2
Textile, clothing, footwear and leather	1.9	-1.2	-2.1	-0.2	10.0	-3.9	1.9	1.9	6.7	4.1	2.7	-0.4	-0.1	-1.1	0.1	-2.8
Household goods and home appliances	-0.5	-2.1	-0.1	1.2	9.2	-0.4	-2.5	-1.1	0.4	1.8	2.8	4.0	0.9	-2.3	1.0	0.8
Computers and communication equipment, etc.	-3.8	-0.1	-1.5	0.6	-1.8	-0.3	-0.5	-7.7	2.2	2.7	1.8	5.5	5.9	-3.5	4.5	-4.4
Pharmaceutical and medical goods, cosmetics and toiletries	-0.3	3.3	1.8	5.6	3.8	-0.2	0.5	-4.2	-1.4	3.3	3.4	2.7	0.2	-1.3	1.6	1.7
Non-specialised stores with different kinds of goods	2.0	0.5	-1.1	0.0	6.2	-2.3	1.1	2.6	2.9	7.0	-2.5	0.5	0.8	0.1	-2.6	-3.8
Automobile fuels and lubricants	-1.7	-2.1	-1.4	1.1	4.4	0.2	2.5	1.0	-0.9	3.4	-1.3	-2.4	-0.5	-2.1	10.4	-1.3

Source: NSI Domestic Trade Survey.

etary statistics) continued to increase in both the third and fourth quarters of 2014 (data as of December), following KTB exclusion as a reporting unit from monetary statistics.

Available indicators of household behaviour give grounds to expect retention of relatively sluggish consumer demand and still high savings rate. Consumer demand and savings rate may be higher-than-expected due to higher household real disposable income, provided that oil prices continue to fall, contributing to the ongoing deflationary trend in the overall price level⁵¹. On the other hand, continuous domestic deflation processes might require the firms to reduce their labour costs, which would adversely affect household disposable income.

Household Propensity to Save

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

15

10

10

5

10

2011

2012

Savings* (left scale)

Net lending (+)/net borrowing (-)* (left scale)

Household net position *vis-à-vis* banking system** (right scale)

Note: Since November 2014 KTB has been excluded as a reporting

Sources: NSI Household Budget Survey, BNB.

Economic Activity

^{**} Data deflated by HICP.

 $^{^{\}rm 51}$ See the Low Oil Price Effects on the Global and Bulgarian Economy box.

unit from monetary statistics.

* NSI data

^{**} BNB data.

Fiscal Policy Effects on the Economy

In the last quarter of 2014 the trend of relatively high growth rates of budgetary expenditure, which significantly exceeded the growth of total revenue, was sustained. Following the temporary improvement in budget position in November (the consolidated fiscal programme reported a monthly surplus of BGN 159.4 million) government expenditure growth accelerated. As a result, the cumulative deficit for 2014 was BGN 3048.2 million (3.7 per cent of GDP)⁵². According to MF data, the bulk of additional spending on investment, health insurance payments and wages, which was planned in the Amendment to the 2014 State Budget Law, was paid in December 2014.

In December the growth rate of tax revenue moderated to 2.9 per cent (against 3.7 per cent in November) driven mostly by the fall in VAT revenue (-1.4 per cent)⁵³ and excise rates (-0.4 per cent). Tax revenue implementation *visà-vis* the levels provided for in the Amendment to the State Budget Law was 98.8 per cent, with social security contributions and corporate tax overperformance not entirely offsetting the weaker performance of indirect taxes.

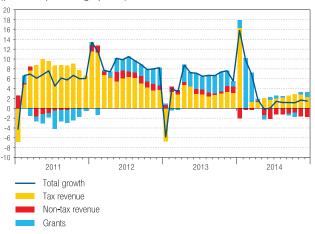
Non-tax revenue reported a substantial decline on an annual basis as a result of the base effect of revenue from dividends and one-off arbitration award in favour of the government received in 2013.

In 2014 grants revenue contributed positively to total revenue growth: after unfreezing the funds under the Operational Programme Environment, a total of BGN 1008.0 million was received under EU programmes over the last two months of the year.

In the January to November period a moderate deceleration in budget expenditure growth was observed, which may be explained by waiting for the amendments to the state budget and National Health Insurance Fund budget for 2014 to be adopted by the National Assembly.

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

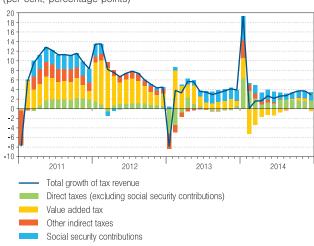
(per cent, percentage points)



Sources: MF, BNB calculations.

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

(per cent, percentage points)



Sources: MF, BNB calculations.

⁵² The data source is the monthly reports on the cash implementation of budget and EU fund accounts of first-level budget spending entities.

⁵³ In the MF monthly bulletin this decrease is explained predominantly by the lower tax credit refund at the end of the year (BGN 105 million against BGN 240 million by end-2013).

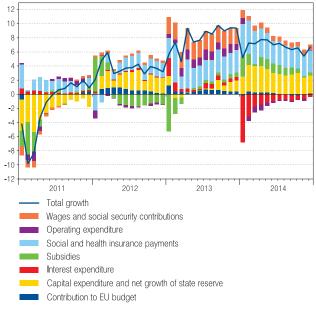
Between January and November social payments and capital expenses contributed most substantially to total expenditure growth.

Budget expenditure dynamics in December reflected the amendments to the state budget and National Health Insurance Fund budget for 2014 adopted by the National Assembly. As of December the annual growth of total budget expenditure, including Bulgaria's contribution to the EU budget, reached 6.7 per cent. Their performance was 98.4 per cent of the targets in the Amendments to the 2014 Law on the State Budget. Social expenditure (3.1 percentage points) and capital expenses (2.6 percentage points) had a major contribution to the total expenditure growth, a trend being sustained throughout most of the year. The growth rate of capital expenditure in 2014 remained high (19.4 per cent), contributing greatly to gross fixed capital formation overall in the economy. In the third quarter of 2014 general government sector investment posted positive real growth on both annual and quarter-on-quarter basis. Concurrently, the contribution of government consumption to GDP growth over the third quarter of 2014 was negative, reflecting mostly lower operating expenditure. The contribution of government consumption to GDP growth in the fourth quarter is likely to be positive, though insignificant.

According to the 2015 State Budget Law and latest government's medium-term budget projection of January 2015, the 2015 target for consolidated fiscal programme cash deficit is BGN 2488.9 million (3.0 per cent of GDP projected by the MF). The improvement of budget balance reflects mainly the projected consolidation of budget expenditure.⁵⁴ Therefore, growth rates of capital expenses are expected to slow down and their role as a driving factor for total investment growth to be less pronounced. The annual growth of social payments will moderate, but given the expected low nominal growth in compensation per employee in total economy, budgetary transfers will continue to have a major impact on household disposable income in the first half of 2015. If planned budgetary

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

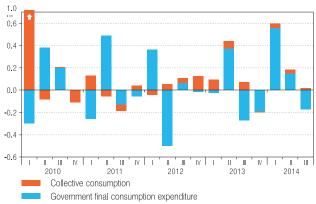
(per cent, percentage points)



Sources: MF, BNB calculations.

Contribution of Government Consumption to Real GDP Growth

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



Sources: NSI, BNB calculations.

Economic Activity

⁵⁴ See the box on the main parameters of the 2015 State Budget of the Republic of Bulgaria and three-year budget forecast for 2015-2017.

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

					21	013							20	014			2	013	2	014
Consolidated Fiscal Programme	Ιqι	uarter	ll qı	uarter	III q	uarter	IV qı	uarter	06	бщо	l qu	arter	II qu	ıarter	III qı	uarter		uary – ember ¹		uary – ember ²
	million BGN	per cent ³	million BGN	per cent ³	million BGN	per cent ³	million BGN	per cent ⁶	million BGN	per cent ³	million BGN	per cent	million BGN	per cent ³	million BGN	per cent	million BGN	per cent	million BGN	per cent ³
Total revenue and grants	6 158	3.4	8 008	10.2	7 142	5.6	7 670	2.5	28 977	5.5	6 576	6.8	7 594.9	-5.2	7 386	3.4	28 981	5.5	29 407	1.5
Tax revenue	5 118	3.3	5 767	2.8	5 638	3.8	5 847	5.7	22 370	3.9	5 200	1.6	5 979.8	3.7	5 895	4.6	22 370	3.9	23 028	2.9
Corporate tax	464	-10.9	450	1.3	192	-27.6	446	80.8	1 553	5.1	453	-2.4	496.0	10.2	219	13.9	1 553	5.1	1 679	8.1
Personal income tax	512	-1.3	596	-6.6	628	15.2	613	2.8	2 348	2.2	623	21.6	677.9	13.8	645	2.6	2 334	2.3	2 583	10.7
Value added tax	1 804	16.0	1 805	-3.2	1 872	2.2	1 885	-0.8	7 366	3.0	1 617	-10.3	1 869.3	3.5	2 029	8.4	7 366	3.0	7 264	-1.4
Excise	806	-5.6	1 001	2.5	1 185	0.2	1 065	2.7	4 056	0.2	855	6.1	979.7	-2.1	1 152	-2.7	4 056	0.2	4 039	-0.4
Customs duties	32	14.4	34	18.2	44	36.0	36	26.4	146	24.2	35	9.6	35.1	2.1	42	-5.4	146	24.2	153	4.8
Social and health insurance contributions	1 319	2.3	1 587	14.0	1 551	10.9	1 603	5.7	6 060	8.3	1 396	5.8	1 641.3	3.4	1 644	6.0	6 060	8.4	6 449	6.4
Other taxes	182	-4.0	294	10.3	165	-6.7	199	-3.7	840	0.0	221	21.6	280.5	-4.5	172	4.3	855	-0.2	860	0.6
Non-tax revenue	886	7.0	1 306	11.6	727	-13.6	1 031	40.7	3 951	10.6	859	-3.1	965.6	-26.0	874	20.2	3 966	10.8	3 457	-12.8
Grants	153	-11.5	935	91.7	776	59.6	791	-35.1	2 656	12.2	518	238.0	649.4	-30.6	616	-20.7	2 645	11.7	2 922	10.5
Total expenditure (incl. the contribution to EU budget)	6 956	4.6	7 216	10.8	7 497	14.1	8 749	8.1	30 418	9.3	7 451	7.1	7 716.6	6.9	7 868	5.0	30 430	9.4	32 455	6.7
Wages and social secu- rity contributions	1 347	12.7	1 446	13.7	1 424	11.8	1 606	9.5	5 823	11.8	1 396	3.7	1 492.4	3.2	1 471	3.3	5 821	11.8	6 036	3.7
Operating expenditure	1 078	7.3	1 113	5.2	1 026	6.3	1 480	1.9	4 697	4.8	1 016	-5.7	1 145.5	34.1	1 023	-0.3	4 706	5.6	4 725	0.4
Interest	319	10.3	61	-13.6	275	72.9	34	-37.2	689	20.3	200	-37.4	40.6	-33.4	271	-1.6	689	20.3	580	-15.8
Social security, assistance and social care	3 047	4.2	3 239	9.8	3 202	8.5	3 258	8.0	12 747	7.6	3 375	10.8	3 363.5	3.8	3 388	5.8	12 751	7.3	13 709	7.5
Subsidies	311	-15.1	340	39.8	279	15.7	487	27.2	1 417	14.9	329	5.7	510.2	50.2	291	4.6	1 429	16.0	1 554	8.7
Capital expenditure and state reserve growth	525	-6.3	811	6.7	1 077	31.6	1 698	10.2	4 112	11.7	786	49.5	9 51.5	17.3	1 285	19.3	4 101	11.8	4 895	19.4
Contribution to EU budget	328	6.9	206	28.6	214	31.7	187	3.6	934	15.4	349	6.4	212.9	3.6	139	-35.1	934	15.4	955	2.2
	million BGN	difference ⁴ (million BGN)	million BGN	difference ⁴ (million BGN)	million BGN	difference ⁶ (million BGN)	million BGN	difference (million BGN)	million BGN	difference ⁴ (million BGN)	million BGN	difference (million BGN)	million BGN	difference ⁴ (million BGN)	million BGN	difference (million BGN)	million BGN	difference (million BGN)	million BGN	difference ⁴ (million BGN)
Budget balance on a cash basis	-798	-107	792	39	-355	-546	-1 079	-468	-1 441	-1 082	-875	-77	-122	-913	-483	-127	-1 448	-1 098	-3 048	-1 600

Source: MF.

constraints on wages and health materialise, the contribution of government consumption to GDP growth is anticipated to be very low or even negative over the first two quarters of 2015.

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

Based on monthly reports on the implementation of budget and extra budgetary accounts, and funds of first-level budget spending entities.

² Based on monthly reports on the implementation of budget and EU fund accounts of first-level budget spending entities.

³ Annual rate of change on the same period of previous year.

⁴ Budget balance changes in million BGN on the same period of previous year.

Basic Parameters of the 2015 Law on the State Budget of the Republic of Bulgaria and the Updated Medium-term Budget Forecast for the Period 2015-2017

According to the State Budget Law for 2015 and latest government's medium-term budget projection of January 2015, the target for consolidated fiscal programme cash deficit for 2015 is BGN 2488.9 million (3.0 per cent of GDP forecast). In the next two years budget consolidation is projected to be 0.5 per cent of GDP *per* year. Accordingly, only in 2017 budget balance is projected to fulfil the fiscal rule for a cash-based deficit to the amount of 2.0 per cent of GDP set out in the Law on Public Finance. The government debt to GDP ratio is projected to rise to 29.7 per cent in 2015 and 30.2 per cent in 2016, before starting to decline to 27.4 per cent in 2017.

In 2015 the improvement of budget balance is scheduled to be implemented almost entirely by spending cuts. The total revenue and grants to GDP ratio will increase insignificantly compared to the implementation expected for 2014 (from 36.7 per cent of GDP to 36.8 per cent of GDP). As regards the budget revenue, taxes and social security contributions revenue is expected to grow (by 2.6 per cent compared to the implementation for 2014), while non-tax revenue and grants are projected to fall by 2.7 per cent and 2.6 per cent respectively.

The implementation of tax and social security contributions revenue will be positively affected by the rise in maximum social security income (from BGN 2400 to BGN 2600), minimum insurance income for farmers (from BGN 240 to BGN 300) and minimum insurance thresholds by major economic activity and occupational groups by 4.4 per cent on average, and minimum wage (from BGN 340 to BGN 360 since January 1 and BGN 380 since July 1). The scope of the taxable income from deposit interest was expanded. Tax relief on income not exceeding 12 times the minimum wage was replaced by introducing new family tax deductions. Measures to boost control and tax collectability and promote the use of electronic services by taxable persons are also envisaged.

The fall projected in non-tax revenue is driven mainly by the lower rate of deductions from profits of state-owned companies (60 per cent in 2015 against 70 per cent in 2014) and the cancellation of the fee on electricity generated from renewable sources. Dynamics of revenue from grants was in line with the projected end of payments for the programming period 2007-2013 and the start of the new one.

In 2015 budgetary expenditure (including the contribution to EU budget) is projected to decrease both in nominal terms and as percentage of GDP (by 0.6 percentage points *vis-à-vis* the implementation expected for 2014). Main consolidation measures are focused on cuts in current expenditure and capital expenditure is planned to grow, though more slowly than in 2014, in order to maximise EU funds absorbtion for the 2007–2013 programming period.

Current expenses are projected to go down by BGN 311.4 million² in 2015 *vis-à-vis* the implementation planned for 2014 and the introduction of measures to reduce health insurance payments of BGN 80 million³. Pensions are envisaged to be adjusted by around 1.9 per cent as of 1 July 2015 according to the Swiss rule for the annual indexation. The measures taken to limit pension expenditure relate to the four-month increase of the length of service required for acquiring entitlement to pension and cancellation of second social disability pensions. As a result of these measures and the lower rate of pension indexation over the year, the growth rate of social payments is projected to moderate *vis-à-vis* 2014.

Upon entry into force of the Law on the Social Security Budget for 2015, people entering the labour market for the first time will have the one-off option to choose whether to contribute to a universal pension fund or to make their contributions entirely to the Pension Fund of the National Insurance Fund (NOI). Similar option is given to employed persons who already have opted to have individual accounts in a universal pension fund. In this case, the amount accumulated in the individual account will be transferred to NOI to which all future receipts from contributions will be allocated.

The rapid build-up of government debt and Bulgaria's commitment to fiscal consolidation provided for in the Stability and Growth Pact and the Law on Public Finance impose timely elimination of budgetary imbalances. Expenditure-based consolidation is advisable in view of the subdued expectation for economic growth in 2015. At the same time, the 2015 State Budget Law and the updated medium-term budget forecast do not envisage sufficient buffers, which may be used for securing the implementation of budget balance if a possible risk related to higher than envisaged budget deficit occur over the projection horizon. In case the drop in international oil and energy prices continues⁴, the lower than projected inflation implies a risk for the implementation of budget revenue. There are also risks of failure to fulfil the projected expenditure-reduction measures related to compensation of employees and health insurance payments⁵.

51 Economic Activity

The three-year budget forecast contains also projections for the accrual deficit under ESA 2010 methodology, which is anticipated to step down to about 3 per cent of GDP already in 2015. Only in 2014 Bulgaria is expected to exceed this indicator's limit laid down in the Stability and Growth Pact.

² For the first time, maximum eligible expenditure on budget units' wages are provided for in the 2015 State Budget Law.

³ It is foreseen the healthcare spending to be reduced by BGN 186 million in 2015 compared to the projections for 2014 due to one-off expenses in 2014 including previous year's obligations paid to tissue establishments.

See here Economic and Financial Effects of Oil Price Declines in Research Topics.

Impossibility to bring these costs under control necessitated two successive revisions of the National Health Insurance Fund budget over 2014. As a result, expenses exceeded the projected limit by BGN 325 million.

Behaviour of Firms and Competitiveness

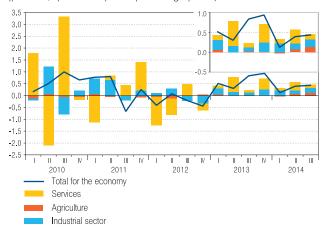
Over the third quarter of 2014 real value added increased by 0.4 per cent on the second quarter according to seasonally adjusted national accounts data. The industrial and services sectors had the major contribution to the growth. By sub-sectors, industry, real estate operations, professional activities and scientific research⁵⁵ and trade contributed most.

Nominal industrial turnover posted a quarterly growth in the second and third quarters of 2014, which was sustained in October and November under the influence of higher revenue from domestic and export sales. In the case that industrial firms generate steady expectations of rising revenue, it may have a positive effect on investment and employment in industrial sector over the first and second quarters of 2015.

After falling in the second and third quarters of 2014, the industrial production index at constant prices went up on average on a quarterly basis in the period October - November compared with the third quarter. Manufacturing, in particular manufacture of chemical products and manufacture of machinery and equipment, had the main contribution to growth. In line with the growth in industrial production, production capacity utilisation in the fourth guarter of 2014 remained high, as recorded in the third quarter. In the fourth quarter higher production capacity utilisation was observed in all industrial sub-sectors⁵⁶, while by type of product an increase was recorded in production of consumer durables⁵⁷ and in intermediate consumption goods. Production of investment goods exhibited an upward trend in the capacity utilisation observed since mid-2013. It may be interpreted as a gradual rise in demand for this type of goods. If the higher capacity utilisation is sustained in the following quarters, as was reported by January 2015,

Value Added Growth and Contribution by Sector

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

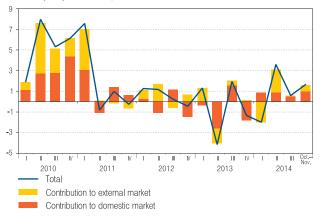


Note: Non-additive data on contributions due to direct seasonal adjustment of value added and its components.

Sources: NSI, BNB calculations.

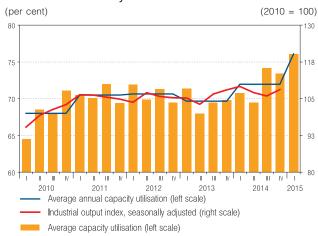
Industrial Turnover Dynamics

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



Sources: NSI, BNB calculations.

Industrial Output Index and Production Capacity Utilisation in Industry



Note: Data on industrial output index for the fourth quarter of 2014 are averaged for the October to November period.

Sources: NSI - Industry Business Survey, BNB calculations

⁵⁵ The professional and scientific activities, administrative and ancillary activities sub-sector by A10 breakdown of economic activities.

⁵⁶ Data by sub-sector from the European Commission's Survey of Business Developments in Industry.

⁵⁷ The Main Industrial Groupings classification was used covering the following sectors: manufacture of intermediate consumption goods, energy products and water related activities, investment products and consumer goods.

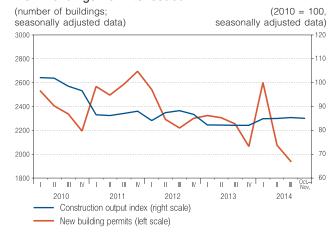
investment activity may improve in some industrial sub-sectors in order to boost production capacities. Nevertheless, given the enhanced uncertainty of international environment and still pessimistic managers' expectations about future economic activity, the prevailing trend of weak investment activity in industry is anticipated to be retained.

After the quarterly decline in the second quarter of 2014, gross value added in the construction sector went up in the third quarter. The construction output index (at constant prices) rose slightly in the third quarter of 2014 on a quarterly basis due mainly to the positive contribution of civil construction. Between October and November the construction output index fell, reflecting the drop in both of its sub-components (residential and civil construction). Based on property register data showing weak sales dynamics in the first nine months of 2014, it may be presumed that at present there is no recovery in housing market demand. Given the weak economic activity in construction and dynamics of construction production, managers' expectations about future economic activity also deteriorate in the fourth quarter of 2014.

Quarterly growth in services sector decelerated in the third quarter, with a more seizable decline of financial and insurance activities. Professional and scientific activities, and real estate operations posted the most significant growth in gross value added across services sub-sectors.

Consistent with positive household consumption dynamics observed in the third quarter of 2014, retail trade volumes also grew. Between October and November 2014 retail sales revenues at current prices posted a decrease, with nominal retail trade of automobile fuels and lubricants falling most significantly following the substantial downward adjustment in their consumer prices. Although turnover in constant prices increased for the whole sector during the same period, it fell on a quarterly basis in some sub-groups, such as automobile fuels and lubricants and computer and communication equipment.

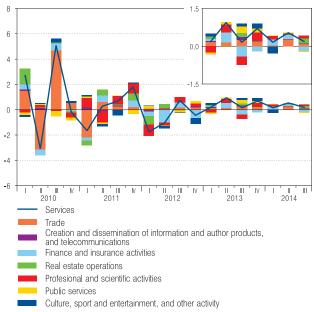
Construction Output Dynamics and New Buildings Permits Issued



Sources: NSI, BNB calculations.

Value Added Growth in Services and Contribution by Sub-sector

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

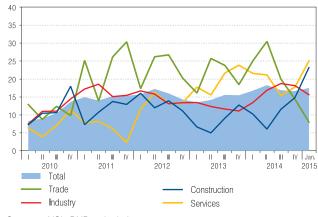


Note: Non-additive data on contributions due to direct seasonal adjustment of the total amount and its components.

Sources: NSI, BNB calculations.

Expectations about Future Economic Activity

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



Sources: NSI, BNB calculations.

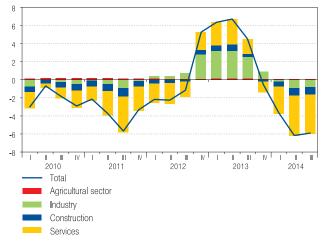
Irrespective of the worsened managers' expectations about future economic activity compared to the third quarter of 2014, over the fourth quarter the expectations increased. Compared with the previous quarter, an improvement was observed in all sectors without trade. Nonetheless, perceptions of current economic conditions improved in trade in December, whereas inventories of goods fell from relatively high levels reported in the previous months. This was probably attributable to increased sales registered in December 2014 that may be related to the higher consumption during the Christmas and New Year holidays. Elevated level of inventories was also reported in industrial sector over the fourth guarter of 2014. but this rather reflected the assessment of higher output assured with orders both for Bulgaria and abroad. As of January 2015 expectations of future economic activity improved compared with the fourth guarter of 2014 in the construction and services sectors, while in industry and trade they worsened.

According to national accounts data, in the third quarter of 2014 investment in fixed capital went up in real terms on a quarterly basis, but decreased in nominal terms. Nominal expenditure on acquisition of fixed assets indicating allocation of investments across sectors shows a decline, with services contributing most. By services sub-sectors, trade, cars and motorcycles repair, transport, storage and mail services, hotels and restaurants had the major contribution to this decline, which is associated with the worsening of managers' expectations in the sector over the third guarter of 2014. The political uncertainty and deflationary processes in the economy may have negatively affected managers' intentions to launch investment projects in services sub-sectors.

Gross operating surplus which is approximation for firms' profits and corresponding financial position posted a quarterly increase in the third quarter. The creation and dissemination of information and author products, and telecommunications sub-sector had the largest positive contributions to this, while construction contributed less. The increase in the gross operating surplus is likely to be driven by the decline in unit labour costs in these sectors. It may be a reaction of firms to the deflationary processes in Bulgaria.

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

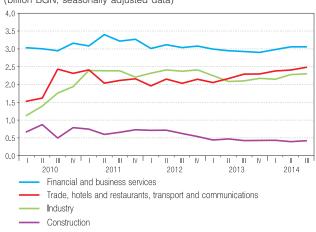
(per cent, quarter-on-quarter percentage points, seasonally adjusted data)



Note: Preliminary quarterly data due to the lack of final data. Sources: NSI, BNB calculations.

Gross Operating Surplus at Current Prices

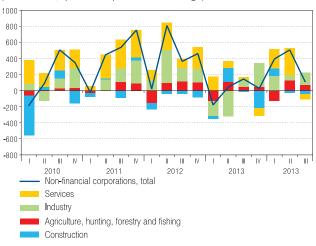
(billion BGN, seasonally adjusted data)



Sources: NSI, BNB calculations.

Bank Loans to Non-financial Corporations

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



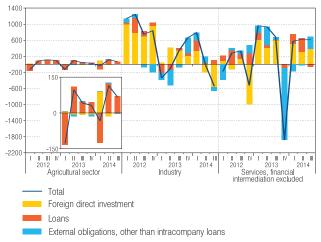
Bank lending to non-financial corporations increased in the third guarter of 2014, with industry and agriculture contributing most strongly. Nevertheless, external obligations other than intercompany loans contributed most to the growth in financing sources, other than gross operating surplus. The increase in external debt was reported only in services sector (without financial intermediation). It was most pronounced in the wholesale trade and trade intermediation, except for motor vehicles and motorcycles. Industry saw a decline in foreign direct investment, repayment of external obligations, and volume of financing sources, other than gross operating surplus. As sales reported growth in this sector over the second and third quarters of 2014 and due to the change of ownership from non-residents to residents, it may be suggested that the importance of external financing to this sector has diminished.

Over the third quarter of 2014 value added growth in agriculture contributed to the employment growth in this sector dominated by self-employed. Furthermore, a slight increase of employed in industry and construction was recorded. On the other hand, a decline in employment was observed in the services sector, in particular in the trade, cars and motorcycles repair, transport, storage and mail services, hotels and restaurants sub-sector, which may be associated with pessimistic managers' sentiment and expectations in the sector. As a result of these developments, employment over the third quarter of 2014 in overall economy remained close to its second quarter's level.

Following two quarters of declines, labour productivity rose slightly in the third quarter of 2014. The upward trend in productivity continued in industry, although its growth moderated somewhat. Higher productivity growth was reported in construction where value added growth outstripped the increase in the number of employed. Lower productivity was reported in the services sector without imputed rent, particularly in professional activities and scientific research.

Financing Sources*

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

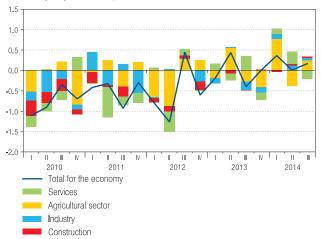


 * The chart displays financing sources other than gross operating surplus.

Source: BNB.

Contribution to Changes in the Number of Employed by Economic Sector

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

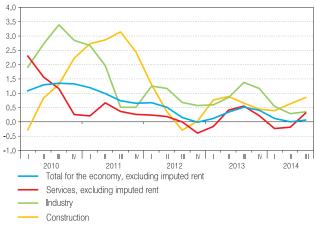


Note: Non-additive data on contributions due to direct seasonal adjustment of the total amount and its components.

Sources: NSI, BNB calculations.

Labour Productivity Developments (Value Added *per* Employee)

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



Sources: NSI, BNB calculations.

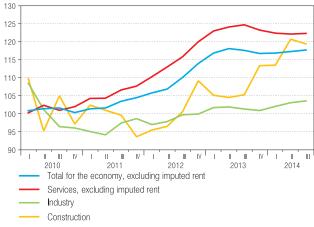
Given the lower labour productivity growth compared with that in compensation of employees, nominal unit labour costs (ULC) in the total economy posted a slow quarter-on-quarter increase in the third quarter of 2014. An increase in ULCs was observed in industry and services without imputed rent, while construction exhibited a contraction. On the other hand, given the deflationary processes in the economy real ULCs remained close to previous quarters' level.

The upward trend in the capital contribution to real GDP growth decomposed by production factor was sustained in the third quarter of 2014 due to the ongoing rise in fixed capital investments and sustained high levels of production capacity utilisation. Given the slow employment dynamics labour contribution remained insignificant and total factor productivity contributed negatively to growth.

Firms are expected to remain conservative in their investment plans due to the continuing uncertainty in Bulgaria. The slowdown in domestic demand growth is likely to contribute to the slightly negative employment dynamics in the first and second quarters of 2015 and its retention at the levels close to those observed in 2014.

Nominal Unit Labour Costs

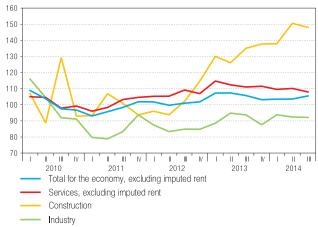
(seasonally adjusted data; 2010 = 100)



Sources: NSI, BNB calculations.

Real Unit Labour Costs

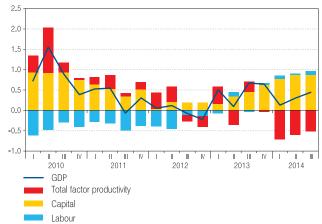
(seasonally adjusted data; 2010 = 100)



Sources: NSI, BNB calculations.

Contribution of Changes in Production Factors to GDP Growth

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



Sources: NSI, BNB calculations.

Gross Value Added Growth

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

	2011				2012				2013				2014		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Agriculture and forestry, hunting and fishing	1.5	-1.2	-0.1	-1.4	-1.4	-2.8	-0.3	1.0	1.2	-0.1	0.4	0.1	-0.7	1.5	2.7
Mining and quarrying, manufacturing, production and distribution of electricity, heating and gaseous fuels; water supply; sewerage, waste management and remediation activities	3.2	2.4	-1.4	0.9	0.5	1.4	-0.5	1.1	-1.0	0.9	0.4	1.6	0.8	0.8	0.7
Construction	-0.4	2.2	1.5	0.2	0.1	-0.3	-1.5	-8.7	7.6	-0.8	0.3	-1.6	0.7	-0.5	0.4
Trade, cars and motorcycles repair; transport, storage and mail services; hotels and restaurants	-6.9	2.0	0.9	0.7	0.4	0.4	0.6	0.6	0.5	0.4	0.8	0.5	0.1	0.8	0.3
Creation and dissemination of information and author products; telecommunications	2.2	-1.4	0.9	-0.5	-2.1	0.2	0.2	0.4	0.5	0.0	1.2	0.4	0.1	0.1	0.2
Finance and insurance activity	-2.0	4.3	-0.2	4.0	-2.6	-7.9	3.1	-5.3	0.6	3.5	-3.4	-1.8	2.2	1.3	-1.7
Real estate activities	-2.3	2.8	0.5	3.3	-3.9	1.8	-0.5	0.1	0.6	-0.1	0.9	0.1	-0.1	0.3	1.2
Professional activities and scientific research; administrative and ancillary activities	10.5	-11.1	8.7	10.3	-10.3	-3.0	5.4	2.8	-3.0	4.0	-3.9	4.3	1.7	0.3	1.3
General government; education; healthcare and social services	0.7	-0.6	0.1	-1.7	0.9	-0.3	-0.7	1.0	-0.4	0.4	1.3	0.8	0.0	0.2	-0.2
Culture, sport and entertainment; other activity; activities of households as employers; non-identified activities of households producing goods and services for own use; activities of extraterritorial organisations and bodies	2.0	-3.9	-9.0	1.0	0.9	-4.3	-0.6	-11.5	3.5	0.3	3.4	5.6	-6.8	0.0	0.1
Gross value added, total for the economy	0.8	0.8	-0.7	0.3	-0.4	0.1	-0.2	-0.4	0.5	0.3	0.8	0.9	0.1	0.4	0.4

Source: NSI.

Exports and Imports of Goods

In the third and in the beginning of the fourth quarter of 2014 nominal export and import dynamics continued to be driven to a large degree by decreases in international prices of groups of goods important for the foreign trade turnover. According to the balance of payments data for the January–November 2014 period exports went down by 1.6 per cent on an annual basis, reflecting mainly the decrease in exports to non-EU countries. On the other hand, imports grew by 0.4 per cent on an annual basis over the same period. In the January–November 2014 period trade deficit came to EUR 2492.3 million, deteriorating by EUR 420.5 million on an annual basis.

Non-seasonally adjusted GDP data point to a real annual decline in exports of goods by 1.4 per cent (against an increase of 2.4 per cent in the second quarter of 2014). At the same time real imports of goods declined by 1.1 per cent on an annual basis (against growth of 3.7 per cent in the second quarter of 2014). The third quarter of 2014 saw a mismatch between the

Net Exports of Commodity Groups By Use, January–October 2014

	Balance, million EUR	Change*, million EUR	Export growth**, per cent	Import growth**, per cent
Consumer goods	579.8	177.8	10.6	7.2
Raw materials	5.4	-419.8	-6.5	-1.4
Investment goods	-1 751.1	-361.1	8.1	13.4
Energy resources	-2 019.1	172.0	-16.1	-12.5
Total	-3 258.9	-431.5	-1.4	0.8

^{*} Balance change on the same period of previous year.

57 Economic Activity

^{**} Growth of exports and imports for the period (on an annual basis). Source: BNB.

dynamics of goods and service import and export deflators from the national accounts and the foreign trade statistics. Export and import deflators according to the national accounts are positive which led to a decrease in exports and imports in real terms, while import and export deflators based on foreign trade data under the Standard International Trade Classification (SITC) are negative which suggest real growth of exports and imports of goods. International price dynamics provides indications of a deflationary effect of the external environment on import and export prices and this is a ground for the analysis in this section to be based on the foreign trade statistics.

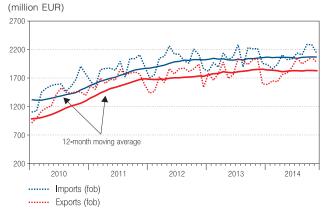
Using the import and export deflators based on foreign trade statistics for the third quarter of 2014 real quarterly growth of exports is estimated at 2.8 per cent, with miscellaneous finished products⁵⁸ and unprocessed materials having the largest positive contribution⁵⁹.

Estimated real growth of imports in the third quarter of 2014 based on foreign trade statistics deflators was 5.2 per cent on an annual basis, with imported cast iron and steel, and automobiles contributing most substantially to this growth. Concurrently, after the real decline in exports and imports of oil products in the first quarter of 2014 due to the repair and construction of new oil production capacities, in the second and third quarters of 2014 this group's negative contribution to real growth of exports and imports of goods tended to decrease.

In the first half of 2015 export growth is expected to outpace that of imports due to an improvement in the terms of trade, and a slow-down in domestic demand growth and economic activity in Bulgaria. The annual trade balance deficit is projected to be around 6 per cent of GDP in the first and second quarters of 2015. The trade deficit could be higher than projected if the economic activity in the EU Member States worsens which would result in a weaker than expected external demand and, correspondingly in lower export growth. On the other hand, a stronger deficit contraction may be expected in

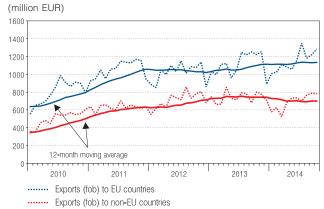
58 The Miscellaneous finished products n.e.c. group under SITC

Export and Import Dynamics



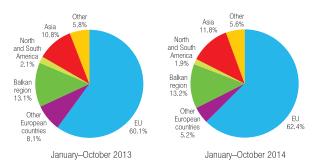
Source: BNB.

Dynamics of Exports to EU and non-EU Countries



Source: BNB.

Geographical Distribution of Exports



 $^{^{\}rm 59}$ The Inedible (crude) materials (excluding fuels) group under SITC.

case of lower than projected international prices of petroleum products and other commodities, for which Bulgaria is a net importer, and enhanced external demand.

Between January and October 2014 exports of goods to EU countries rose by 2.4 per cent on an annual basis, with exports of machines⁶⁰ and textile products⁶¹ contributing most strongly to growth. Animal and plant products⁶², base metals⁶³ and oil products⁶⁴ had a negative contribution. Exports to non-EU countries went down 7.1 per cent, with oil products contributing most substantially to the fall. The share of exports to EU countries increased by 2.3 percentage points on an annual basis between January and October 2014, with exports to Belgium contributing most strongly to growth. At the same time, the share of exports to non-EU countries decreased largely due to lower exports to Gibraltar and Ukraine. In the third guarter of 2014 the share of Bulgarian exports to the EU in total imports of the Union continued to increase.

Between January and October 2014 nominal exports in most commodity groups posted growth. Exports of machines had the largest positive contribution, while oil products had the largest negative contribution followed by animal and plant products and base metals.

Exports of oil products decreased by 16.2 per cent on an annual basis between January and October 2014, with the decline being mainly ascribable to non-EU countries. The bulk of the decrease reflected the reduction of exported volumes due to the repair and construction of new oil production capacities, with international prices being also an important factor.⁶⁵ Petroleum price

Exports by Commodity Group, January–October 2014

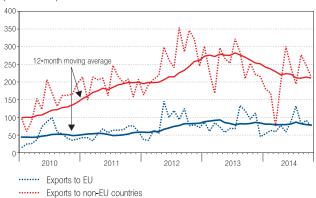
	million EUR	Change*	Growth**, per cent	Contribution**, percentage points
Mineral products and fuels	2 871.0	-554.4	-16.2	-3.0
Machines, vehicles, appliances, instruments and weapons	3 970.5	350.7	9.7	1.9
Base metals and related products	3 093.5	-152.6	-4.7	-0.8
Animal and plant products, food, drinks and tobacco Chemical products,	2 970.6	-391.0	-11.6	-2.1
plastics and rubber	2 059.6	204.7	11.0	1.1
Wood products, paper, ceramics and glass	943.1	109.3	13.1	0.6
Textiles, leather, clothing, foot- wear and other consumer goods	2 473.7	170.3	7.4	0.9
Total exports	18 382.0	-262.9	-1.4	-1.4

^{*} Change on corresponding period of previous year, million EUR.

Source: BNB.

Exports of Mineral Products and Fuels

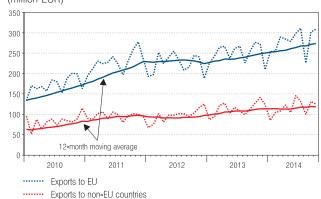




Source: BNB.

Exports of Machines, Vehicles, Appliances, Instruments and Weapons

(million EUR)



⁶⁰ In this chapter it should read "the machines, vehicles, appliances, instruments and weapons" group under the Combined Nomenclature.

⁶¹ The textiles, leather, clothing, footwear and other consumer goods group under the Combined Nomenclature.

⁶² In this chapter it should read the animal and plant products, foods, drinks and tobacco group under the Combined Nomenclature.

 $^{^{\}rm 63}$ In this chapter it should read the base metals and their products group under the Combined Nomenclature.

⁶⁴ In this chapter it should read mineral products and fuels group under the Combined Nomenclature.

According to the Balance of Payments, November 2014, p. 40, and using the quarterly export deflators of the mineral fuels, oils and related products group under SITC for the first, second and third quarters of 2014.

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

decreases (on an annual basis) are expected to further limit the nominal change of exported oil products in the first and second quarters of 2015.

Exports of machines continued to grow steadily and posted a 9.7 per cent annual increase between January and October, contributing most strongly to total export growth. The increase in exported volumes had the strongest effect on growth, while prices reported a decline. Steady growth of group's exports is expected to be sustained in the second and third quarters of 2015 in the context of increasing external demand.

Between January and October 2014 exports of the base metals group fell on an annual basis, with exports of copper having the largest negative contribution to the decline among subcomponents. The major factor behind the decline in nominal exports of the group continued to be the fall in international metal prices, while the exported volumes posted an increase. 66 The expected declines in international metal prices in euro will limit nominal export growth in the group in the first and second quarters of 2015.

Exports of animal and plant products exhibited an annual decline in the January–October 2014 period which was almost entirely attributable to the cereals and oil seeds and fruit subcomponents. In the first three months of 2014 international prices of these goods indicated strong decreases which had a negative effect on nominal exports⁶⁷. At the same time, exported volumes also posted a decline. This might be attributed to the poorer harvest⁶⁸, which limited quantities available for exports. Over the projection horizon nominal exports in the group are expected to continue decreasing impacted by declines in international food prices.

Exports of chemicals⁶⁹ went up on an annual basis between the January and October 2014

⁶⁶ According to the Balance of Payments, November 2014, p. 40, for the non-ferrous metals sub-group using the quarterly export deflators for the cast iron and steel group under SITC for the first, second and third quarters of 2014.

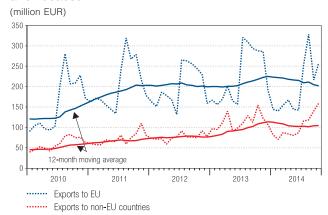
Exports of Base Metals and Related Products

(million EUR)

400
350
300
250
200
150
100
50
12-month moving average
2010 2011 2012 2013 2014
Exports to EU
Exports to non-EU countries

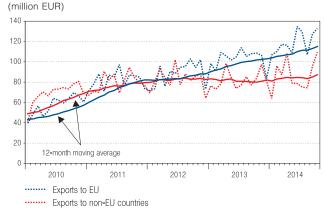
Source: BNB.

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



Source: BNB.

Exports of Chemical Products, Plastics and Rubber



⁶⁷ The quarterly export deflators for the cereals and oil seeds and fruit sub-components under SITC were used to estimate the price effect in the first, second and third quarters of 2014.

⁶⁸ Based on NSI data on the initial assessment of final agricultural produce in 2014.

⁶⁹ The chemical products, plastics and rubber group under the Combined Nomenclature.

with pharmaceuticals contributing most significantly. The increase in nominal terms was due to the increase both in prices and physical volumes. In the first and second quarters of 2015 exports in the group are expected to continue growing at steady rates.

Between January and October 2014 nominal imports (CIF) slightly increased on an annual basis. Based on foreign trade data it may be argued that the fall in international prices limited nominal growth, while imported physical volumes increased. Investment goods and consumer goods, to a lesser extent, contributed to nominal growth of imports by use.

Between January and October 2014 imports from EU Member States increased by 4 per cent on the corresponding period of 2013 and imports from non-EU countries fell by 2.2 per cent. The share of imports from EU countries increased by 1.5 percentage points on an annual basis, with enhanced imports from Germany contributing most strongly to growth. The decline in imports from non-EU countries was mostly due to Russia, which is Bulgaria's major trading partner in imports of petroleum products.

Imports in the energy resources group posted a decline in the January–October 2014 period by 12.5 per cent on an annual basis. This was mainly due to lower imported physical volumes and, to a lesser extent, to falling international prices⁷¹. The major reason behind the decline in imported physical volumes was the lower output in the oil refining sector as a result of the repair and building of new oil production capacities. Expectations point to a year-on-year decrease in international petroleum prices in the first half of 2015 which will have a negative effect on the nominal change of imports in the group.

Imports of the raw materials group experienced a decrease on an annual basis between January and October 2014, with ores having the strongest negative contribution. The decline in nominal

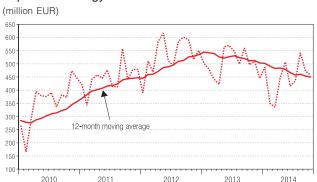
Imports of Commodity Groups By Use, January–October 2014

	million EUR	Change*	Growth** per cent	Contribution**, percentage points
Consumer goods	4 206.8	281.6	7.2	1.3
Raw materials	7 584.9	-110.6	-1.4	-0.5
Investment goods	5 301.7	627.2	13.4	2.9
Energy resources	4 445.3	-637.3	-12.5	-3.0
Imports, total (cif)	21 641.0	168.6	0.8	

^{*} Change on corresponding period of previous year, million EUR.

Source: BNB.

Imports of Energy Resources



Source: BNB.

Imports of Raw Materials

(million EUR) 950 850 750 650 550 450 350 12-month moving average 250 150 2010 2011 2012 2013 2014

⁷⁰ The quarterly export deflators for the chemicals and chemical products group under SITC were used to estimate the price effect in the first, second and third quarters of 2014

According to the Balance of Payments, November 2014, p. 40, and using the quarterly import deflators of the mineral fuels, oils and related products group under SITC for the first, second and third quarters of 2014.

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

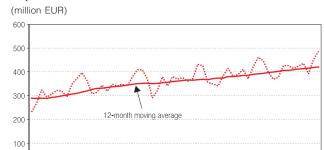
Economic Activity

imports of the group was due both to lower imported volumes⁷² and a fall in international prices. In early 2015 nominal growth of imports is expected to be dampened due to a weaker domestic demand and declines in international prices.

Imports of consumer goods rose by 7.2 per cent on an annual basis in the January–October 2014 period in line with the strengthened consumption in Bulgaria. Medicines and cosmetics and clothing and footwear had the largest contribution to growth in imported consumer goods. In the first quarter of 2015 growth in imports of the group is expected to be limited due to slower real growth of consumption, and to gradually increase by mid-year following the dynamics of domestic demand.

Imports of investment goods reported a rise of 13.4 per cent on an annual basis between January and October reflecting higher imported physical volumes, while prices in the group declined on an annual basis⁷³. The projected slowdown in investment activity from the fourth quarter of 2014 will probably continue in the frst half of 2015, which gives grounds to claim that imports of investment goods will remain at a level close to the current one.

Imports of Consumer Goods



Source: BNB.

Imports of Investment Goods



According to the Balance of Payments of Bulgaria, November 2014, p. 40, and the respective quarterly import deflators of the groups of food and live animals, inedible (crude) materials (excluding fuels), chemicals and chemical products and manufactured goods classified chiefly by materials under SITC for the first, second and third quarters of 2014.

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

4. Inflation

In 2014 the deflationary trend that started in mid-2013 was sustained. In December 2014 the inflation was -2.0 per cent (against -0.9 per cent in end-2013). This was as a result of the increase in the negative contribution of core inflation due to cheaper telecommunication services, dental services and durable goods, and the decrease of transport fuels under the influence of falling international oil prices in the second half of 2014. Over the year the year-on-year decline in the administrative prices that had started in mid-2013 was reversed. In the fourth quarter this group had a positive contribution to the overall inflation mostly due to the increase in prices of electricity for households by 1.7 per cent in July and 10.1 per cent in October 2014.

In the first half of 2015 inflation is expected to remain negative, but with a slightly decelerating pace of decline that will be driven mainly by a decrease in prices of energy products and retrenchment of the negative rate in core inflation as a result of the exhausted effect of one-off price declines in some services sub-groups in 2014.

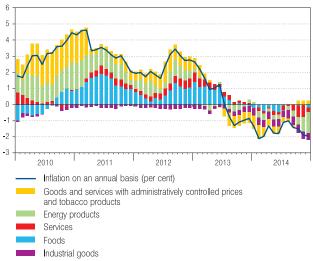
The deflation observed since the second half of 2013 enhanced in 2014.⁷⁴ As of December the annual rate of change in end-user consumer prices accounted for -2.0 per cent (against -0.9 per cent in December 2013).

Consumer price dynamics in 2014 was determined by the combined effect of external and internal factors. External factors relating to changes in international prices of fuels, food and major commodities, finished consumer goods, as well as to developments in the euro exchange rate *vis-à-vis* currencies of major trading partners had a divergent effect on inflation but the downward effect prevailed. Based on foreign trade data in the third quarter of 2014 the index of imported goods prices continued its downward trend which started in early 2013 and the change accounted for -3.2 per cent on an annual basis (against a decline of 4.5 per cent on average in 2013).⁷⁵

Internal factors, which also added to the increase in the negative contribution of core inflation in 2014, were associated with statutory price decreases in telecommunication and dental services and the weak recovery of household consumption. Concurrently, in 2014 the year-on-year decline in administrative prices started in mid-2013 was reversed. In the fourth

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

(per cent, percentage points)



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

 $^{^{74}}$ The analysis in this section is based on NSI data on HICP.

⁷⁵ Data on import deflators under the Standard International Trade Classification (SITC).

Inflation

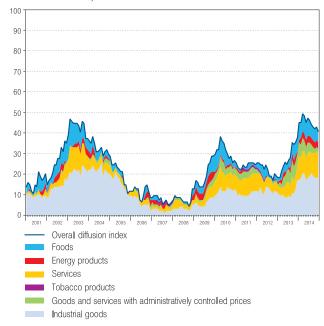
quarter this group contributed positively to the overall inflation rate. This was mostly due to the increase in prices of electricity for households by 1.7 per cent in July and 10.1 per cent in October 2014.

In the first quarter of 2014 the diffusion index reached its highest value and started slowly to decrease. He are to groups with comparatively high weight in HICP: fuels, durable goods and telecommunication services. He factor behind the retained overall deflation along with a decline in the diffusion index was the slight price rise in the sub-groups with positive inflation. These sub-groups occupied relatively lower weights in the consumer basket, which increased from 38.9 per cent in April to 49.0 per cent in December 2014, but appeared to be insufficient to offset the negative contribution of goods and services with falling prices.

The transmission of the dynamics of international prices on the inflation in Bulgaria through the supply chain may be seen through producer price dynamics. In 2014 domestic market producer prices continued to decrease on an annual basis, though at slower rates compared with end-2013, posting a slight increase of 0.3 per cent in November (against -2.8 per cent by end-2013). This dynamics reflected the discontinued downward trend in prices of electricity production⁷⁸ following the administratively risen electricity prices⁷⁹ in October and, to a lesser extent, the lower negative contribution of the price change in mining and quarrying due to a slower annual rate of decline in import prices of metals⁸⁰ and coal⁸¹ in the third quarter. The negative

Diffusion Index of Major Goods and Services Groups

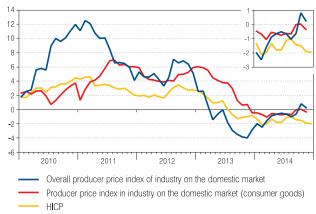
(per cent, relative shares of declining HICP sub-indices on an annual basis)



Sources: NSI, BNB calculations.

Rate of Change in Manufacturing CPI and HICP

(per cent, on an annual basis)



Source: NSI.

⁷⁶ The diffusion index is calculated as a share of declining HICP sub-indices on an annual basis. Based on the four-digit COICOP indices (classification of individual consumption by purpose).

⁷⁷ More detailed analysis of the factors for deflation is provided in the box entitled: Inflation Dynamics in Bulgaria and EU Member States between August 2013 and September 2014, Economic Review, 3/2014.

 $^{^{78}\,\}mbox{Production}$ and distribution of electricity, heating and gas.

⁷⁹ By Decision No. C-16 of 1 October 2014 the State Energy and Water Regulatory Commission raised as of 1 October the price at which the National Electricity Company (NEC), in a capacity as a public supplier, sells electricity to end suppliers and the prices at which electricity distribution companies transmit electricity through the distribution network to all customers.

⁸⁰ Metal ores and metal scrap under the SITC.

⁸¹ Coal, coke and briquettes under the SITC.

contribution of the price change in manufacturing industry to the producer price dynamics by the end of 2014 reflected mostly the behaviour of prices in producing food products⁸² and refined oil products⁸³, which posted a year-on-year decline in November.

In the second half of 2014 the depreciation observed since mid-2013 of intermediate consumption goods, which influenced production costs of industrial firms, was discontinued. This was a prerequisite for the slower decline in enduser consumer prices at the end of 2014 and was in line with the reported decrease in the diffusion index.

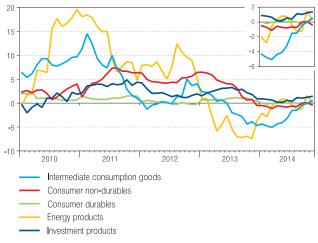
Firms' labour costs policy, another factor with a potential impact on end-user consumer prices, remained cautious since early 2014 and was focused on limiting labour costs growth. In the first nine months of 2014 unit labour costs in total economy went down by 0.8 per cent on an annual basis compared with an increase of 7.2 per cent in 2013. Broken down by major sub-sector a low positive growth rate was recorded in unit labour costs in manufacturing, while the services sector, where labour costs are the major pricing factor, reported a decline on an annual basis.

In the first nine months of 2014 household consumption remained weak. According to the national account data, between January and September 2014 household final consumption expenditure real growth averaged 1.6 per cent on an annual basis following the reported fall of 2.3 per cent for the whole 2013. Retail trade turnover, another consumer demand indicator, also signalled a slow recovery of household consumption since early 2014.84 Between January and November 2014 retail trade turnover (excluding fuels and lubricants) continued to grow in real terms on an annual basis but at a slower rate (1.5 per cent by November) in the context of a decreasing overall price index. The NSI Consumer Survey suggests that real household consumption remained at relatively low level by the end of the year and corresponded to the decline in consumer confidence in Octo-

82 Production of food, drinks and tobacco products.

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

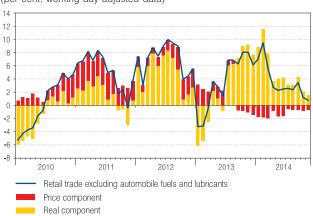
(per cent)



Source: NSI.

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

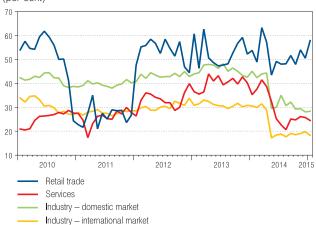
(per cent, working-day adjusted data)



Sources: NSI, BNB calculations.

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

(per cent)



Sources: NSI, BNB calculations.

65 Inflation

⁸³ Production of coke and refined petroleum products.

⁸⁴ For further details see Chapter 3, Household Behaviour in the Economic Activity section.

ber 2014. Worsened expectations of households about their financial state, unemployment and the economic situation in Bulgaria may have a dampening effect on household consumption in early 2015 which will continue to be among major constraints to the activity of retail trade firms.

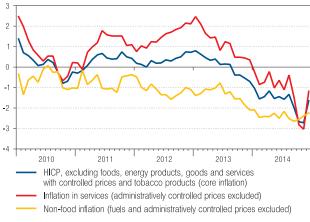
In December core inflation accounted for -1.6 per cent (-0.7 per cent in December 2013), recording the second largest negative contribution to overall inflation (-0.73 percentage points). The deceleration of inflation in this group observed since the year start was mainly attributable to deflation in services, while prices of non-food goods retained their rate of decline reported at the end of 2013. The increase in transport services prices in December contributed to the lower core inflation.

In December non-food inflation was negative at -2.2 per cent (-2.1 per cent by end-2013) and reflected mainly price declines of automobiles and other durable goods. The appreciation of the euro against the currencies of some trading partners from mid-2013 until mid-2014 was another factor with a potential negative effect on the inflation of non-food goods. The turnaround of this trend in the second half of 2014 was a prerequisite for limiting deflation of durable goods at the close of the year. In December non-durable prices went up slightly from the corresponding period of the previous year.

In 2014 inflation in services (excluding administratively controlled prices) was negative and followed a downward trend (-1.2 per cent in December against 0.4 per cent by end-2013). One-off factors affecting prices of individual services sub-groups contributed to this effect: a cut in the price caps for roaming from July 2014⁸⁷; a decrease by 28.6 per cent in fees for visits to dentists who had contracts with the National Health Insurance Fund since January 2014. The methodological change related to the improvement in reporting air transport prices was the reason behind the stronger than usual volatility of this sub-group observed in 2014. Higher

Core inflation

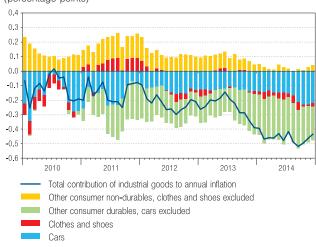
(per cent, on an annual basis)



Sources: NSI, BNB calculations.

Contribution of Inflation in Non-food Goods (excluding energy products) and Major Sub-groups of Goods to Overall Inflation

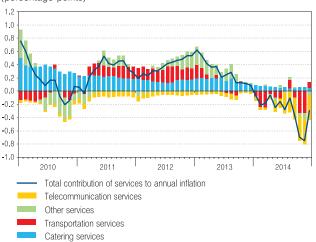
(percentage points)



Sources: NSI, BNB calculations.

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

(percentage points)



Sources: NSI, BNB calculations.

⁸⁵ NSI data on the turnover index of the trade, repair of motor vehicles and motorcycles division are used.

⁸⁶ See the box entitled Inflation Dynamics in Bulgaria and EU Member States between August 2013 and September 2014, Economic Review, 3/2014.

⁸⁷ This decrease is valid for all EU Member States.

prices of air transport in December contributed to the lower deflation in the group of transport services.

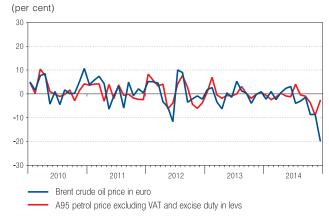
Inflation of energy products in 2014 followed the dynamics of international oil prices (in euro). 88 The strong decline in the oil price since July was quickly spilled over to the end-use transport fuel prices which decreased by 14.8 per cent on an annual basis in December and had the largest negative contribution to overall inflation (1.27 percentage points).

The downward trend in administratively set prices started in mid-2013 was discontinued in the third quarter of 2014 and in December controlled prices rose by 1.2 per cent on an annual basis. This was attributable both to the base effect of the decreases in regulated price of electricity for households in March and August 2013 and the increases by 1.7 per cent and 10.1 per cent in July and October 2014. Other changes in controlled prices related to the decreased fees (by 28.6 per cent since early 2014) paid to GPs and specialists having concluded contracts with the National Health Insurance Fund.

In December the inflation in the group of foods accounted for -0.7 per cent (-0.3 per cent at the end of 2013) and reflected the price declines of both processed and unprocessed food. The deflation of unprocessed food was ascribed to the meat and meat products group in the context of lower import prices of these products in 2014 as compared with 2013 and lower animal breeding costs due to decreased feed prices. Fruit and vegetables had a positive contribution to overall inflation at the end of the year, probably a result of unfavourable weather conditions in Bulgaria in the third quarter.

Slight deflation in processed food prices was observed in 2014 accounting for -0.7 per cent in December (a -0.12 percentage point contribution to overall inflation). Within the group the sugars and sugar confectionery⁸⁹ and animal and vegetable fats and oils sub-groups had the strongest

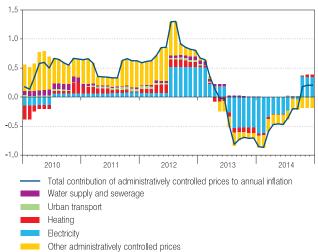
Monthly Rate of Change in the Prices of Brent Crude Oil and A95 Petrol



Sources: ECB, NSI, BNB calculations.

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

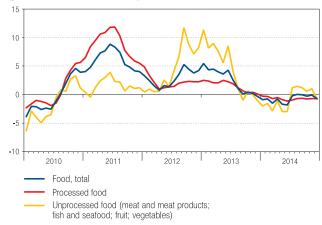
(percentage points)



Sources: NSI, BNB calculations.

Rate of Change of Food Price Index

(per cent, on an annual basis)



Sources: NSI, BNB calculations.

67 Inflation

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

 $^{^{\}mbox{\footnotesize 89}}$ Sugar, jams, honey, chocolate and confectionery under the SITC.

negative contribution.⁹⁰ As of the second half of 2013 import prices in these sub-groups posted a substantial decrease which was quickly spilled over to producer prices and end-user consumer prices through the supply chain.

According to the NSI business situation survey, as of January 2015 most managers in industry, retail trade and services expect that selling prices in the following three months will remain unchanged. The opinion balance in retail trade alone is negative due to the larger share of managers expecting price declines as compared with those expecting prise rises. Entrepreneurs' sentiment gives no ground of expecting an upward pressure on selling price rises in the following months, which is likely to suggest that economic environment uncertainty, competition in the industry and weak demand pointed by entrepreneurs as major impediments to their activity, will be sustained.

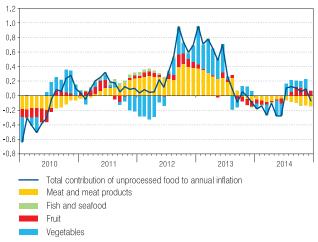
Inflation expectations for the first six months of 2015 and related uncertainty are presented in the fan chart on the annual rate of change in the HICP⁹¹. In the first quarter of 2015 inflation is projected to range from -2.0 per cent to -1.2 per cent and in the second quarter of 2015 between -1.8 per cent to -0.6 per cent⁹². The slower annual rate of decline in consumer price index in these quarters will mainly reflect the lower negative contribution of core inflation and, to a lesser extent, reduced deflation in energy products.

The projection is based on the assumption for a stabilisation of international food prices in the first half of 2015 and a continuous decline on an annual basis. The petroleum price (in euro) is expected to continue decreasing in the first quarter of 2015. After that it will start slightly increasing but annual rates of change will remain negative.

Major risks to the outlook for a lower than projected inflation in the following two quarters relate to a possible further decrease in oil prices

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

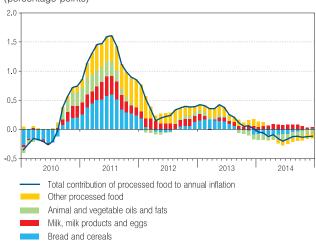
(percentage points)



Sources: NSI, BNB calculations.

Contribution of Major Sub-groups of Processed Food to Overall inflation

(percentage points)



Sources: NSI, BNB calculations.

Selling Prices Expectations in Industry in the Following Three Months

(balance of opinions, per cent)



Source: NSI.

 $^{^{\}rm 90}$ Animal or vegetable oils, fats and waxes under the SITC.

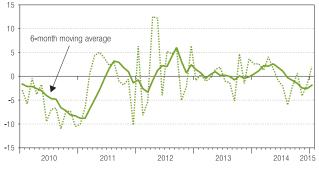
⁹¹ For further details, see the Measurement and Presentation of Uncertainty in Forecasting Economic Indicators box, Economic Review, 1/2012. 1.

⁹² 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.

on an annual basis at faster than projected rates and occurrence of steady expectations for retaining inflation at comparatively low levels and reducing production costs. This would become a factor for further depreciation of goods and services, particularly gas supply and transport services, for which fuels play a key role in pricing. 94

Selling Prices Expectations in Services in the Following Three Months

(balance of opinions, per cent)



Source: NSI

Selling Prices Expectations in Retail Trade in the Following Three Months

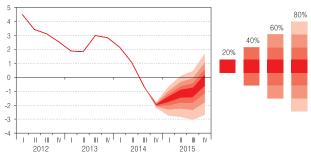
(balance of opinions, per cent)



Source: NSI

Fan Chart of the Expected Annual Inflation Rate

(per cent)



Note: The fan chart shows the expert views of the forecasters on the uncertainty around the projected value based on probability distribution. The middle band of the chart, depicted in the darkest colour, includes the central projection 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.

69 Inflation

⁹³ The prices declines of alternative to natural gas energy products in international markets from end-2014 affected the price of the natural gas bought from Bulgargas and this may be used as a ground by the State Energy and Water Regulatory Commission to decrease the price of the natural gas in the second guarter of 2015.

⁹⁴ See Economic and Financial Effects of Oil Price Declines in the Research Topics Section.

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

Inflation (per cent)	as of Dece (December	ccumulated mber 2013 2012 = 100)	as of Dece (December	ember 2014 2013 = 100)	as of Dece (December	flation rate ember 2014 2013 = 100)
	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
Foods	-0.3	-0.09	-0.7	-0.19	-0.7	-0.19
Processed food	0.1	0.01	-0.7	-0.12	-0.7	-0.12
Unprocessed food	-1.1	-0.10	-0.8	-0.07	-0.8	-0.07
Services	0.4	0.09	-1.2	-0.30	-1.2	-0.30
Catering services	1.9	0.10	0.9	0.05	0.9	0.05
Transport services	0.3	0.01	2.4	0.09	2.4	0.09
Telecommunication services	-0.7	-0.03	-7.7	-0.37	-7.7	-0.37
Other services	0.1	0.01	-0.6	-0.07	-0.6	-0.07
Energy products	2.2	0.20	-13.9	-1.28	-13.9	-1.28
Transport fuels	2.8	0.24	-14.8	-1.27	-14.8	-1.27
Industrial goods	-2.1	-0.39	-2.2	-0.43	-2.2	-0.43
Goods and services with administratively controlled prices*	-3.9	-0.71	1.2	0.20	1.2	0.20
Tobacco products	0.9	0.03	1.0	0.04	1.0	0.04

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

Sources: NSI, BNB calculations.

Research Topics

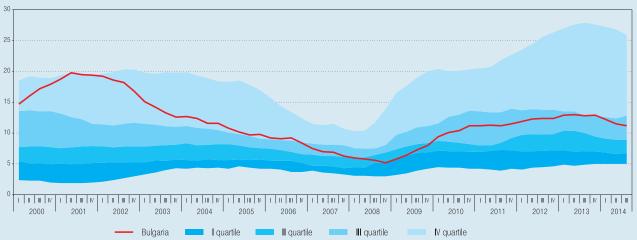
Unemployment Dynamics in Bulgaria and EU-28¹ between 2008 and 2014

Between 2008 and 2014 unemployment in Bulgaria doubled and stayed relatively high among the new Member States and in EU-28 for an extended period of time, tending to slowly decrease in 2014. In the third quarter of 2014 Bulgaria had the fourth highest unemployment rate among the new Member States after Croatia, Cyprus and Slovakia. This analysis presents the main factors which led to this strong increase and retention of unemployment in Bulgaria compared with selected countries from EU-28.

Countries with higher unemployment show a few common trends in gross value added across sectors which reflected on the employment. In those countries a stronger decline of the gross value added in the sectors mostly affected by the crisis was observed and the fall covered most of the economic sectors for a longer period of time. The reasons for the weak recovery of employment in Bulgaria are the lasting decline in the share of some higher labour intensive sectors in gross value added (e.g. agriculture, forestry and fishing, and construction) and reduced or lower labour intensity of some recovering sectors (e.g. industry).

Unemployment in Bulgaria and EU-28

(per cent, seasonally adjusted data)



Sources: NSI Labour Force Survey, Eurostat.

Level of Unemployment

The increase in unemployment in all countries reflects primarily the degree of decline in labour demand (measured by economic activity), which led to dismissal of employees and an increase in the number of unemployed. Though to a lesser degree, growth in unemployment reflects changes in labour supply measured by labour force. This analysis is therefore focused on the changes in employment.

Besides Bulgaria, countries experiencing more essential declines in employment between 2008 and 2014 were Greece, Cyprus, Ireland, Italy, Latvia, Lithuania, Estonia, Slovenia, Portugal and Spain. All these countries differ from each other in terms of flexibility and security of the labour

71 Research Topics

¹ The analysis includes those countries from EU-28 for which data on respective indicators are available in Eurostat.

Contribution to the Unemployment Change

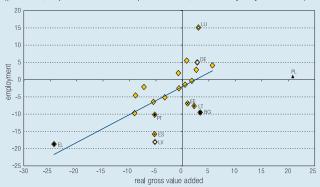
(percentage points; I quarter 2008 - III quarter 2014)



Sources: Eurostat, BNB calculations.

Cumulative Change of Employment and Real Gross Value Added

(per cent; I quarter 2008 - III quarter 2014, seasonally adjusted data)



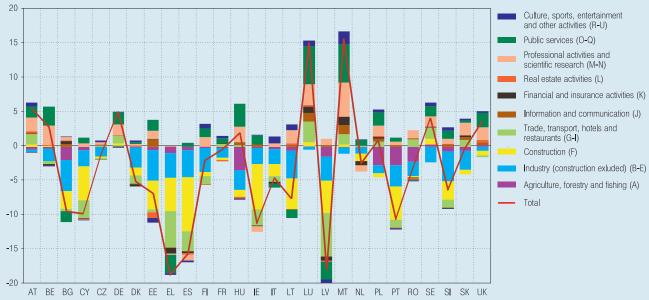
Note: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Germany, Denmark, Estonia, Greece, Spain, Finland, France, Hungary, Italy, Lithuania, Luxembourg, Latvia, Netherlands, Portugal, Sweden, Slovenia and Poland are included.

Source: Eurostat.

market². Latvia, Lithuania, Estonia, Bulgaria and Ireland may be characterised as economies with an average to high level of labour market flexibility and comparatively low levels of employment security. Spain, Italy, Portugal, Greece and Cyprus are characterised by a comparatively low level of labour market flexibility and a high level of security for workers with permanent jobs, with an increasing share of part-time employed, which were more easily dismissed over the analysed period. Despite the institutional differences, these countries show a few common trends across industries which appear to have been reflected in employment.

Contribution to the Employment Change by Sector

(percentage points; I quarter 2008 - III quarter 2014, seasonally adjusted data)

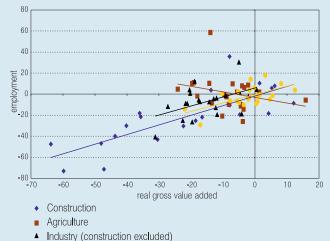


Sources: Eurostat, BNB calculations.

² The level of flexibility and security (flexicurity) is characterised by resilient and reliable contractual arrangements, learning programmes, active labour market measures and social protection systems which enable both temporarily employed and unemployed persons to find jobs and permanent forms of work, on the one hand, and corporations and their permanently employed persons to respond and remain competitive enough under changing economic conditions (Commission Staff Working Document Accompanying the European Commission's Communication, *Towards a Job-rich Recovery, Open, Dynamic and Inclusive Labour Markets*, SWD (2012) 97 final, 2012).

Cumulative Change of Real Gross Value Added and Employment

(per cent; I quarter 2008 - III quarter 2014, seasonally adjusted data)



Sources: Eurostat, BNB calculations.

Trade, transport, hotels and restaurants

Share of Employed in the Sector and Cumulative Employment Change

(per cent; I quarter 2008 - III quarter 2014)

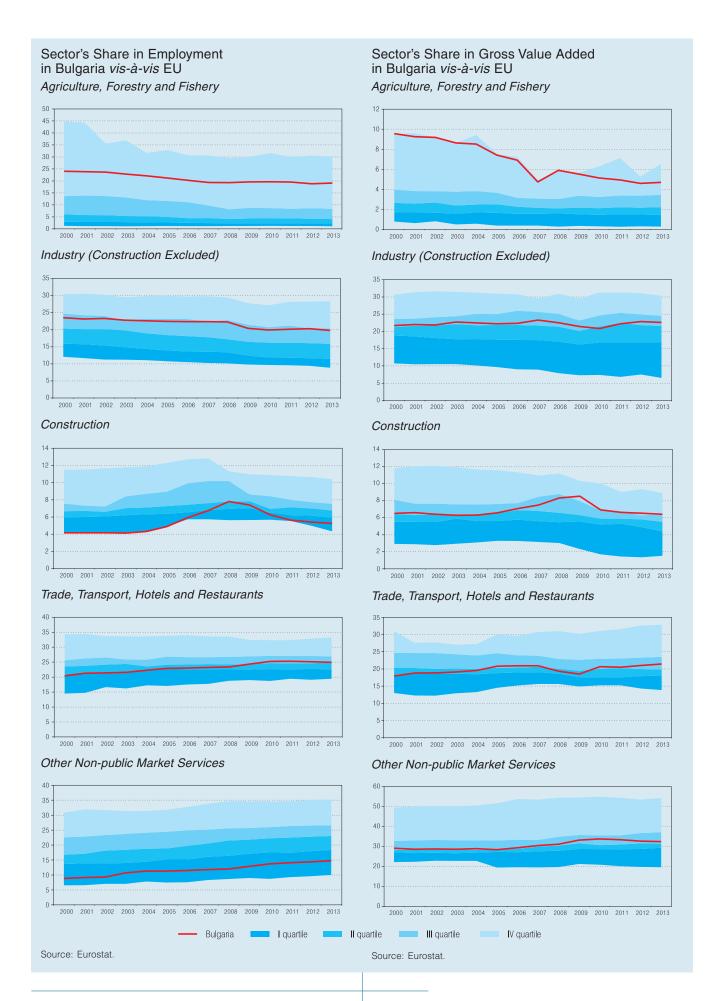


Sources: Eurostat, BNB calculations.

In most EU-28 countries, agriculture, forestry and fishery (A) and industrial sub-sectors (B-E, F) had negative contributions to cumulative employment growth from the first quarter of 2008 to the third quarter of 2014, while some services sub-sectors, as professional activities and scientific research (M-N), and public services (O-Q), made positive contributions. This is attributable to the different degree to which individual sectors were affected by the crisis over the analysed period and to certain long-term trends. In the countries with comparatively high unemployment, a stronger decline in gross value added and employment was recorded in the adverseely affected sectors. Among the EU-28 countries, industrial sub-sectors and the sector of trade, transport, hotels and restaurants were the most severely hit by the crisis in comparison with other services sub-sectors which underwent only insignificant declines in their gross value added.

Some of the stronger affected sectors have traditionally required more labour resources in the production process due to their specific technologies (e.g. agriculture, forestry and fishery, construction, trade, hotels and restaurants). High labour intensity suggests hiring additional personnel in periods of expanding production and correspondingly more significant dismissal of employees in the periods of value added declines. Broadly retaining the degree of their labour intensity, the decrease in the shares of these sectors in employment was coupled by declines in their shares in value added. The higher some sectors' shares in gross value added and employment compared to those in other countries, the more pronounced are the processes of sector's declining and moving towards average EU-28 levels. In economies like Bulgaria, where the share of agriculture in value added and employment is significantly higher than that in other countries, long-term trends of decline in this sector are much more pronounced, especially during periods of crisis.

In the labour intensive sector of construction in EU-28 countries experiencing more severe effects on employment, the shares of the construction industry in both value added and employment deviated temporarily from their long-term trend. After the temporary rise in the 2004 to 2008 period, the relevant shares decreased between 2009 and 2013, returning to the levels close to the average long-term values. This is the likely reason behind the current lack of more essential growth of value added and employment in the Bulgarian construction sector. The higher the sector's share in employment in 2008, the stronger the decline in employment between 2009 and 2014. Reflecting the higher labour intensity in construction and sustainable declines in gross value added, the fall in employment could not have been alleviated through measures, such as a temporary working time reductions, until the recovery of value added in this sector.



In other more affected sectors (*e.g.* agriculture, forestry and fishery, industry), long-term downward trends were observed in labour intensity, as reflected in stronger declines of their shares in employment than in gross value added. This may lead to a stronger response of employment to the changes in gross value added in a period of subdued economic activity and a possible lack of a more significant employment recovery even in the periods of value added growth. A downward trend in the share of employment was recorded in most countries, pushing down the average EU-28 value. This was the reason for most EU-28 countries to reduce their employment permanently in industry during the crisis. The relationship with the sector's share in employment was less pronounced as the intra-EU-28 process of moving towards similar average values was accompanied by an overall trend of decline in the average EU-28 level, typical for the majority of the countries. A similar development, though towards an increase in labour intensity, was observed in non-public market services.

Long-term trends of simultaneous declines in the shares of certain sectors in both employment and value added may be associated with shifts of capital and labour from lower productivity sectors to such with higher potential rises in labour productivity (e.g. industry and services).³ In turn, further stronger declines of the shares of these sectors in employment compared to those in gross value added are likely to reflect predominance of routine occupations in agriculture, forestry and fishery, and industry (excluding construction), which are gradually replaced by product, technical and organisational innovations. Correspondingly, the shares of some services sub-sectors in employment have increased in the long run. These sub-sectors, however, are dominated by non-routine occupations, as managers and specialists or staff involved in the provision of services to the public, trade, security. The process of increasing non-routine jobs and decreasing routine employment is known as job polarisation⁴. Some researchers suggest that the continuous employment decline in sectors with routine jobs occurs mainly during recessionary periods.⁵

Additional domestic factors which are likely to cause labour intensity declines in agriculture and industry involve restructuring by expanding intensive plants at the expense of fruit and vegetables (partially subsidised)⁶, as well as recent years' changes in the structure of goods exports from higher labour intensive production, as textiles and base metals, towards higher technological exports of machines, vehicles, appliances, instruments and weapons since 2008⁷.

Assuming that the average EU-28 shares of the sectors in employment and gross value added indicate expected future developments based on the trends observed so far, it may be presumed that the structure of employment will undergo stronger changes than that of gross value added in the economy. In Bulgaria, the structure of gross value added across sectors is closer to that in EU-28 compared to the structure of employment.

Agriculture, forestry and fishery, and partly industry (excluding construction) occupied higher shares in employment unlike the lower shares of public and non-public market services (excluding trade, transport, hotels and restaurants)⁸. In early 2008 Bulgaria's industries more severely hit by the crisis reported higher shares of their gross value added (approximately 60 per cent) compared to EU-28 countries (48 per cent), occupying one of the highest shares of employed in these sectors

³ McMillan, M., Rodrik, D. *Globalization, structural change, and productivity growth* (NBER working paper 17143). Cambridge: NBER, 2011.

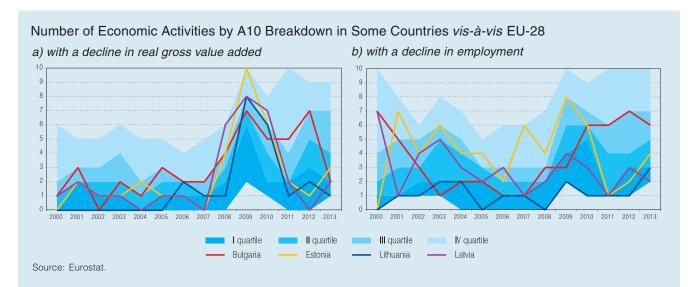
⁴ M. Goos, A. Manning, A. Salomons. *Explaining job polarization in Europe: the roles of technology, globalization and institutions*. Technical Report, Center for Economic Performance, LSE, 2010.

⁵ Jaimovich, H. Siu. *The trend is in the cycle: Job polarization and jobless recoveries*. Technical report, National Bureau of Economic Research, 2012.

⁶ For further details, see *Inflation Dynamics in Bulgaria and EU Member States between August 2013 and September 2014*, Economic Review, 3/2014.

⁷ See Exports and Imports of Goods Section in Chapter 3.

⁸ This study includes: creation and dissemination of information and author products, telecommunications, financial and insurance activities, real estate operations, professional and scientific activities, administrative and ancillary activities, culture, sports and entertainment, activities of households as employers, undifferentiated goods- and services-producing activities of households for own use, activities of extraterritorial organisations and bodies.

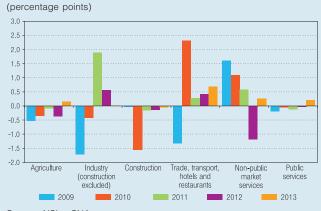


(approximately 72 per cent of total employment) against 54 per cent in EU-28. The shares of trade, transport, and hotels and restaurants in value added and employment are similar to those in EU-28, and these long-term trends are likely to play a less significant role in the future.

Duration of High Unemployment

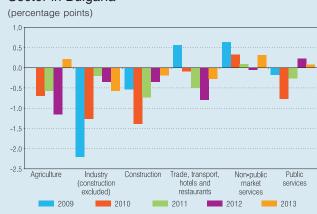
The duration of the current unemployment growth depends not only on the extent of the economic activity decline but also on the concentration of this decline in a given period of time. Unlike the significant rise in unemployment in Latvia, Lithuania and Estonia throughout 2009 and the consequent fall to levels close to those in Bulgaria, its initial increase in Bulgaria, Hungary and Slovakia was weaker, though remaining high for a more prolonged period, and only started to decrease in 2014. In countries experiencing larger initial rises in unemployment, the initial drop in gross value added affected most of the sectors. The more sectors are recovered after the decline, the faster unemployment decreases. In countries like Bulgaria with a gradually spreading negative shock across sectors, this decline hit fewer sectors than in the countries with higher unemployment, but it took a more prolonged period of time. Initially, unemployment in these countries rose less sharply but stayed high or continued to increase for a longer period. Correspondingly, employment declines hit a greater number of sectors for a longer period of time.

Contribution to the Growth of Real Gross Value Added by Sector in Bulgaria



Source: NSI - SNA.

Contribution to the Growth of Employment by Sector in Bulgaria



Source: NSI - SNA.

In the case of Bulgaria, the sizeable share of exported output by manufacturing industry and the decreasing external demand for investment, energy products and other intermediate consumption goods led to a stronger economic activity drop in industry even in 2009 coupled with a more significant decline of employed persons in this sector. The negative external shock began to gradually spread to the entire industry, and not only the export-oriented corporations, and to the trade sector. The stronger value added fall in trade during 2009 and lower demand for consumer and investment goods in the domestic market in 2010 was followed by labour cost optimisation, which lasted until the end of 2013. The reduced external demand and more conservative credit policy of banks, the weaker foreign investment inflow and heightened uncertainty exerted a negative pressure on the overall development of the Bulgarian economy. Construction activity was less hit during 2009 unlike 2010 when a stronger decline was observed due to some momentum in foreign direct investment and launched projects in construction. Hence, the employment drop in this sector was more pronounced in 2010. Agriculture, forestry and fishery, and industry continued to be less affected during 2010. Economic activity and employment in construction experienced more prolonged declines. Agriculture and non-public market services (excluding trade) in 2012 and financial and insurance activities in 2013 contributed most significantly to this drop. These developments led to a longer period of decline in employment.

Economic and Financial Effects of Oil Price Declines

In the second half of 2014 international oil prices decreased significantly, with the end-year Brent crude oil price in USD falling by almost 50 per cent and by some 40 per cent in euro on the end of 2013. Developments in early 2015 and the analysis of factors behind this drop entail risks that oil prices could be maintained at the current levels for a longer period of time, affecting further the global economy. This analysis points to the reasons behind oil price declines and the more essential implications likely to affect the global economy. It presents the major mechanisms of low oil price effects on the Bulgarian economy along with calculations of their potential effects on selected macroeconomic indicators under a given scenario of future price developments in 2015.

Reasons behind Oil Price Declines

The oil price decrease was driven by the increased supply amid weak demand for oil, as well as changes in OPEC oil price policy.

Oil supply rose significantly in 2014 due to the increased deliveries from both OPEC countries (Libya and Iraq) and non-OPEC countries, mainly the USA where development projects for shale oil fields in North Dakota and Texas boosted oil production to its highest level for the last 40 years. According to the International Energy Agency (IEA), global oil supply posted annual growth of 2.1 million barrels *per* day.

At the same time, IEA forecasts of global oil demand in 2015 underwent several downward revisions in 2014 due to the downwardly revised projection of global economic growth. The IEA forecast of December 2014 shows that global oil demand in 2015 will increase by 0.9 million barrels *per* day on average to reach 93.3 million barrels *per* day.

Oil price declines accelerated after the OPEC meeting on 27 November 2014 when the production quota was maintained at 30 million barrels *per* day despite the expected cuts. In their statements after the meeting, representatives of OPEC countries expressed their intentions not to support cuts in oil production, thereby boosting its price, no matter how low it was. Instead, their policy would be intended to maintain the existing market shares.

Brent Crude Oil Prices



Source: World Bank.

Low Oil Price Effects on the Global Economy

Economic effects stemming from the decline in oil prices are largely reliant on whether the reasons for price declines are on the demand side or on the supply side, with the effect of supply shocks on economic activity being more pronounced. The effect is expected to be positive for net importers of oil products, as well as for the countries with high energy intensity.

Cheaper oil has a positive influence on the economies of importing countries through a number of channels. The sustainable fall in oil prices may push down medium-term inflation expectations of economic agents, affecting their consumer behaviour and investment solutions. Lower oil and fuel prices can have a positive effect on real consumption, contributing to the growth in household real disposable income. However, this effect broadly depends on marginal household propensity to consume and save. The drop in oil prices leads to a reduction in firms' production and transport costs which could positively affect their profits and investment activity. In addition, subdued medium-term inflation expectations might trigger the initiation of expansionary policy measures by central banks¹ which would favourably affect the economic activity.

The effect of oil price slump on the fiscal indicators of oil importers is unclear, as it broadly depends on the share of budget expenditure, which are directly or indirectly linked to the oil price, on the opportunities for changes in oil product taxation, as well as on the linkage level of budget expenditure for wages and social allowances to the inflation rate.

According to IMF survey², the decline observed in oil prices may lead to an increase in global economic growth within the range of 0.3 and 0.7 percentage points in 2015 and the range of 0.4 and 0.8 percentage points in 2016. The positive effect on China's economic growth is expected to be 0.4-0.7 percentage points in 2015 and 0.5-0.9 in 2016, and for the economies of the USA, Japan and euro area 0.2-0.5 percentage points in 2015 and 0.3-0.6 percentage points in 2016 compared to IMF baseline scenario of these countries' developments over the review period.³

The drop in oil prices has direct and indirect financial consequences. Direct financial effects are related to the price falls themselves, while indirect implications relate mainly to the exchange rate movements. Lower oil prices typically lead to a depreciation in oil exporters' currencies against the US dollar, while long-term drop in oil prices will have a positive effect on oil importers' economic activity. Therefore, the ongoing decline in oil prices will mainly impact companies, banks and countries, which have significant USD-denominated liabilities or have large exposures to energy sector. Generally, the influence of lower oil prices on financial position of oil exporters' bank sectors will depend on the magnitude and duration of the price falls, their effect on the economic activity, the amount of their credit exposure to energy sector and the amount of their financial buffers.

Low Oil Price Effects on the Bulgarian Economy

Main channels through which the drop in the price of crude oil may affect Bulgarian main macroeconomic indicators include the change in the terms of trade and their effect on external trade, supply and demand for Bulgarian goods and services.

To assess the global effect of the decline in international oil prices the calculations are made using macroeconomic quarterly forecasting model designed at the BNB. Provided the oil price

¹ On 21 January 2015, the Bank of Canada announced that it is lowering its target for the overnight rate by 25 basis points to 0.75 per cent. The Central bank announced that the decision is taken in response to oil price slump, which will adversely impact Canadian growth and inflation. On 22 January the ECB announced new monetary policy measures specified here in the box entitled *New Decisions of ECB monetary policy meeting of 22 January 2015*. The main reason for the decision relates to the unfavourable developments in euro area inflation, largely driven by the fall in oil prices.

² Arezki, R. and O. Blanchard, 2014. Seven Questions about the Recent Oil Price Slump. IMFdirect – The IMF Blog, December 22, 2014.

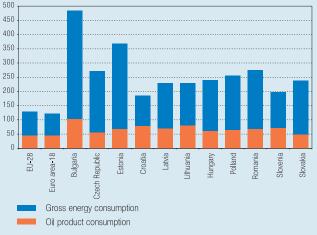
³ The lower end of the range corresponds to a scenario of a gradual slowdown in the effect of increased oil supply, while the upper end is attributable to a scenario of not declining effect of increased supply.

slump observed in the third quarter of 2014 and the slight rise throughout 2015, it may be analysed how economy reacts versus a hypothetical scenario under which oil price until the end of 2015 retains its average level of the third quarter of 2014.

In comparison to the average level for the euro area, the European Union and comparable economies, ⁴ Bulgaria has the highest level of gross energy intensity compared to the real GDP. Although the share of oil product consumption of gross energy consumption in Bulgaria is significantly lower than that in the euro area and the European Union (in 2012 in Bulgaria the share is about 20 per cent, while in the euro area and the European Union it is 36 per cent and 34 per cent respectively), the oil products to real GDP ratio remained the highest among the reference group

Gross Inland Energy Consumption and Oil Product Consumption Compared to Real GDP

(kg of oil equivalent per EUR 1000, 2012)



Sources: Eurostat, BNB calculations.

of countries. This is a precondition for expecting a more pronounced positive effect of lower international oil prices on the Bulgarian economy.

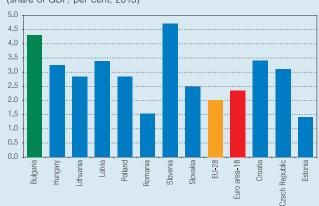
Impact on Bulgaria's External Position

Bulgaria is a net importer of crude oil and refined petroleum products. Bulgarian net imports of oil products are significantly higher as a share of GDP compared both to comparable economies (excluding Slovenia) and the average level of the euro area and the European Union. This gives grounds to assume that oil price decreases will result in a greater reduction of total import prices than export prices. This will have a stronger positive effect on Bulgarian economy as compared to the reference group of countries.

The improvement in the terms of trade in Bulgaria will positively affect the trade balance and thus the current and capital account balance. If the fall in oil prices observed in mid-2015 (compared to the third quarter of 2014) remains sustained, terms of trade are anticipated to improve

Net Imports of Petroleum Products in Selected EU Countries and EU-28

(share of GDP, per cent; 2013)



Sources: Eurostat, BNB calculations.

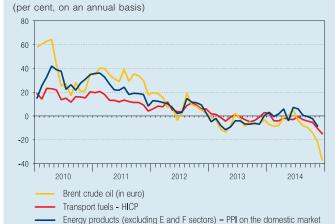
by about 0.4 percentage points for 2015. This would lead to an improvement in trade balance as a share of GDP (0.5 percentage points) and in total current and capital account balance as a share of GDP (0.7 percentage points) in 2015.

The decline in oil prices would have a positive effect also on external demand for Bulgarian goods and services. The European Union, Bulgaria's major trade partner, is also a net importer of petroleum products, which lower prices are likely to have a positive effect on real GDP growth of the Community. This gives grounds to expect an improvement of about 0.8 percentage points in

⁴ This group comprises Central and Eastern European countries joining EU since 2004 and having similar historical and economic developments: the Czech Republic, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia

Annual Rate of Change in International Oil Prices (in Euro) and Bulgaria's Energy Product Prices

a) Producer Prices and Transport Fuel End-use Prices



b) Gas and Liquid Fuel Prices for Households



Note: The group of energy products (excluding E and F sectors) comprises producer prices related to Extraction of coal, Extraction of crude petroleum and natural gas, and Production of coke and refined petroleum products. The latter have the highest weight, when calculating the more general group index.

Source: NSI.

external demand for 2015⁵ leading to higher real growth of exported goods and services, while concurrently enhanced domestic demand would result in an increase in real imports of goods and services (see the part below on impact on the real economy). Concurrently reflecting the expected price change, a decrease in nominal growth of exports and imports of goods and services may be expected (3.7 percentage points and 4.4 percentage points respectively in 2015).

Impact on Inflation

The decline in international oil prices in US dollars may have both direct effects on inflation through energy product prices, and indirect effects through firms' production costs and producer prices. It is difficult to measure the magnitude of indirect effects, as they are realised with a certain time lag. In addition, the size of potential effects depends on the degree to which international prices are passed on through the supply chain to end-user consumer prices in Bulgaria, which is linked to entrepreneurs' expectations of whether the decline in energy prices is long-lasting.

As regards direct effects, the drop in oil prices started in July 2014 and quickly affected energy product producer price and thus transport fuel end-use prices in Bulgaria. Transport fuels have relatively large weight of 8.4 per cent in the consumer basket, with their price declines on the domestic market of 14.8 per cent on an annual basis by December contributing by -1.27 percentage points to overall inflation.

Oil prices impacted also the price of alternative energy sources, including those for households. Prices of products with a significantly lower weight in the consumer basket also followed a downward trend in the second half of 2014. Other significant effects of falling oil prices may be expected in the next quarters in terms of regulated natural gas price, reflecting the price of alternatives to natural gas for nine-month period back.⁶

⁵ The calculation is based on external evaluations. For information on the range of estimates of the reaction to global demand, see *The Global Implications of Lower Oil Prices, Société Générale Cross Asset Research*, November 2014 and *Global Economic Prospects*, January 2015, the World Bank.

⁶ For further details, see Resolution of the State Energy and Water Regulatory Commission No Ц-25 dated 19.12.2014 concerning the application submitted by Bulgargaz EAD for determining the price for the first quarter of 2015, at which the public provider shall sell natural gas to final natural gas suppliers and to the consumers connected to the gas transmission network

Indirect effects on end-user consumer prices may be expected in economy sectors with relatively high share of energy product costs in total costs. In 2010 for the overall economy, the consumption of coke and refined petroleum products occupies the share of 5.7 per cent in intermediate consumption, with transport and quarrying being more dependent⁷. Services prices relating to land transport followed a downward trend since early 2013, with passenger transport by road and combined passenger transport by the end-2014 reporting a negative rate of change in the context of transport fuel deflation between 2013 and 2014. A methodological change in reporting air transport prices was the factor behind the higher than usual volatility observed in this group in 2014, which does not allow the follow-up of fuel price effects on the inflation in this group.

The magnitude of indirect effects on the inflation in Bulgaria in 2015 largely depends on economic agents' expectations for the duration of oil price drop. If the expectations are for a persistent drop, effects on sales prices are expected to be more pronounced. A possible decrease in natural gas price in the second quarter of 2015 may add to reducing production costs in manufacturing, where natural gas occupies 30 per cent of the total energy used for production. The stabilisation of fuel prices at a lower level may affect the food prices both in Bulgaria and at international level, as fuels are a critical component of agricultural production costs.

Provided the fall in petroleum prices as of mid-January 2015 compared to the third quarter of 2014 persists, overall inflation in 2015 may be expected to decrease by 2.6 percentage points mostly due to the direct effect of energy products and, to a lesser extent, to indirect effects in prices of food and core inflation.

Impact on the Real Economy

On the demand side, the effects on the economic activity relate to the impact of petroleum prices on consumer prices. Price decreases lead to an increase in household real income provided nominal income growth remains unchanged (Hamilton, 2009⁸; Kilian, 2014⁹). This would lead to a stronger consumption in case income growth has not been saved. Whether the savings rate will increase or not depends on consumer confidence and certainty inspired by the economic environment. It is important to note that growth is expected both in disposable and the so-called discretionary income¹⁰. The increase in household real discretionary income depends on the elasticity of consumer demand for the group of goods with falling prices (Edelstein & Kilian, 2007)¹¹. The more inelastic demand for the commodity with a falling price, the stronger the positive impact on the real discretionary income. Transport fuels are the major commodity group of the consumer basket which is expected to be impacted by the petroleum price fall. The demand of this group is relatively inelastic according to the economic literature (*Edestein & Kilian*, 2007). This means that falls in fuel prices would not have such a strong effect on consumption. Consequently, if household consumption increases as a result of a fall in transport fuel prices, this increase would rather occur in other commodity and service groups other than transport fuels group.

On the side of corporations, the fall in petroleum prices reflects in a reduction of production costs (Finn, 2000)¹². In sectors where the use of petroleum products in production is more intensive, the effects of cost decreases will be stronger. Corporations may pass on the cost reduction on end-prices or to preserve the increase in the profit margin depending on the competition level in the

⁷ The calculations are based on the NSI latest available data from the Supply and Use tables.

⁸ Hamilton, J 2009. *The Causes and Consequences of the Oil Shock of 2007-08*, Brookings Papers on Economic Activity 1: 215-261).

⁹ Kilian, L. 2014. *Oil Price Shocks: Causes and Consequences*. Annual Review of Resource Economics, Annual Reviews, vol. 6/1). 133-154).

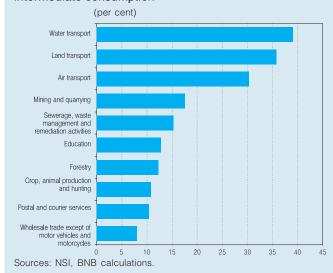
¹⁰ Discretionary income is the total income less taxes, social security contributions and expenditure on essential commodities such as food, electricity, water, heating, taxes, interest, medicines, clothing, transport, etc.

¹¹ Edelstein, P. and L. Kilian, 2007. Retail Energy Prices and Consumer Expenditures. CEPR Discussion Papers 6255.

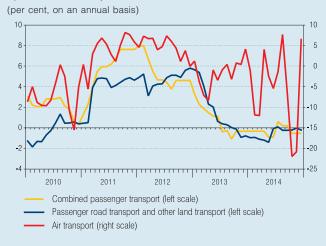
¹² Finn, M. G 2000. *Perfect Competition and the Effects of Energy Price Increases on Economic Activity*, Journal of Money, Credit, and Banking 32: 400-416).

Economic Sectors Occupying the Largest Share of Coke and Refined Petroleum Products in Intermediate Consumption (2010)

a) The share of coke and refined petroleum products in intermediate consumption



b) Prices of transport services



sector they operate. The increase in firms' operating surplus, in its turn, would lead to a surge of investment activity in Bulgaria. Similar to households, weather the increase in operating surplus will be invested or saved depends on producer sentiment and expectations.

Estimates suggest that if the petroleum price fall as of mid-January 2015 compared to the third quarter of 2014 persists, this would contribute to the 2015 real GDP growth by about 0.6 percentage points. The strongest response of economic activity is expected in private consumption: it would further increase by about 0.4 percentage points in 2015. An almost analogous response is expected in investment in fixed capital: growth by about 0.5 percentage points in response of the fall in production costs and increased demand. The stronger domestic demand prompted further growth of imported goods and services by 0.5 percentage points, while real growth of exported goods and services rose by approximately 0.8 percentage points impacted by stronger external demand due to lower petroleum prices.

Impact on the Fiscal Position

The effects of the fall in international petroleum prices on Bulgaria's fiscal position depend on the structure of budget revenue and expenditure, the tax policy and the interest and maturity structure of government debt.

The cut in petroleum product prices will have a direct effect on VAT receipts from domestic consumption of fuels. Quantitative effects on total VAT receipts will depend on the degree to which the consumer price inflation and real consumption are impacted by lower fuel prices. However, this tax revenue is expected to contract as a whole, both in nominal terms and as a percentage of GDP. Receipts from direct taxes will be also affected to an extent depending on conduits of influence of lower production costs on the operating surplus, employment and labour costs. The effect of changes in petroleum prices on corporate and household nominal income will be weaker than the nominal GDP decline. Consequently, it may be expected a relatively low nominal decrease in direct tax revenue (including social insurance contributions) and an increase in direct tax revenue ratio to GDP. Lower international petroleum prices will not have an effect only on receipts from excise

duties, accounting for 17.7 per cent of tax revenue for the January-November 2014 period. ¹³ To a lesser degree and with a lag non-tax revenue will be also affected.

The fall in petroleum prices will have a direct effect on government intermediate consumption nominal spending but given the relatively low share of expenditure on materials, fuels and energy in total budget expenditure (2.6 per cent in total expenditure) this effect will be limited. The decline in fuel costs might be offset by an increase of other current expenditure as the Republic of Bulgaria's State Budget Law provides only for total amount of operating expenditure.

Depending on the degree of the pass-through of lower fuel prices on consumer price inflation and income, other budget expenses will be also impacted. There are no mechanisms for mechanical indexation of certain expenses with current price developments in Bulgaria. A significant portion of social payments such as pension costs and some household transfers are impacted by the price level and wage dynamics of previous periods and correspondingly respond to price and wage changes with a certain lag.¹⁴

In case the nominal GDP decreases due to a negative price dynamics, the ratio of the government debt to GDP will increase. Since the fixed-interest debt accounts for the bulk of accumulated debt, its servicing is fixed in nominal terms.

The calculations suggest that if the fall in petroleum prices as of mid-January 2015 compared to the third quarter of 2014 persists, the net effect on the budget revenue will be negative. In 2015 budget revenue is expected to decrease by about BGN 300 million in nominal terms. The ratio of budget revenue to GDP will not be significantly impacted. The decline in nominal budget expenditure will be limited, with the ratio of total expenditure to GDP increasing by 0.2 percentage points. A minimal decrease in nominal government consumption may be expected in 2015. The net effect of lower international petroleum prices on the budget balance will be negative within 0.2 percentage points of GDP. The ratio of the general government debt to GDP will increase by about 0.3 percentage points of GDP in 2015.

In conclusion, it may be expected that the fall in petroleum prices will have a certain stimulating effect on the real economic activity in Bulgaria, but it will dampen nominal changes to macroeconomic indicators. Since Bulgaria is a net importer of oil products the price falls in petroleum prices will help improve terms of trade, which will result in a lower trade balance deficit and higher current and capital account surplus as a share of GDP. Depending on consumer confidence private consumption is likely to have the largest positive contribution to real growth in economic activity. Stronger external demand for Bulgaria's exports of goods and services may also boost growth. Enhanced final demand is likely to result in an increase in investment, employment, and labour costs if producer sentiment and expectations for the future are optimistic. Sustainable expectations of continued low petroleum prices pose a risk of a prolonged deflation in Bulgaria. These expectations would have a heterogeneous effect on economic growth: a possible downward pressure on economic growth provided investment projects are postponed or nominal wages and employment are cut on the one hand, and possible incentives for new investments and output expansion if real consumption and external demand increase, on the other hand. The expected negative net effect on the budget balance may dampen the projected fiscal consolidation and the plans for budget financing.

Economic Review • 4/2014

¹³ Excise duties of cigarettes will be determined as a sum total of specific and proportional excise duty but in 2014 and 2015 just around 30 per cent of total excise duty was proportionate to and correspondingly dependent on the price of the good.

¹⁴ Pension indexation is based on 'the Swiss rule' laid down in the Social Insurance Code under which pensions are indexed from 1 July of the respective year by a percentage equal to the sum total of 50 per cent of growth in the insurable income and 50 per cent of the consumer price index in the preceding calendar year. Provided this percentage is negative, pensions are not subject to indexation. Unemployment compensations, temporary disability benefits and child benefits for up to one year are determined on the basis of the income for the last 18 or 24 months.

¹⁵ The results on budget revenue and expenditure are specified on an accrual basis under ESA 2010 methodology.