

Economic Review

1/2015



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

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Contents

Summary	7
1. External Environment	9
Current Business Situation	9
International Commodity Prices	19
2. Financial Flows, Money and Credit	22
External Financial Flows	23
Monetary and Credit Aggregates	26
Interest Rates	29
Financial Flows between the General Government and the Other Sectors of the Economy	33
3. Economic Activity	35
Household Behaviour	38
Fiscal Policy Effects on the Economy	42
Behaviour of Firms and Competitiveness	44
Exports and Imports of Goods	50
4. Inflation	56

Highlights

- ECB Public Sector Purchase Programme Details 13

Research Topics

- Analysis of the Bank Lending Survey Results for the 2003–2014 Period ... 63

Charts

Global PMIs	9	New Loans to Non-financial Corporations (Monthly Volumes)	28
World Trade	9	Annual Growth of Loans to Households and Contribution by Type of Loans	28
Inflation Measured through CPI	10	New Loans to Households (Monthly Volumes)	29
Contribution to Real GDP Growth in the Euro Area by Component (Quarterly)	10	Interbank Money Market Interest Rates	29
Euro Area Consumer Confidence Indices	11	Interbank Money Market Yield Curve	30
Manufacturing and Services PMIs	11	Interest Rates on New Time Deposits	30
Euro Area Inflation Rate	12	Distribution of Interest Rates on New Household Time Lev Deposits	31
Euro Area Unemployment Rate and Employment Growth	12	Interest Rates on New Loans to Non-financial Corporations by Currency	31
Weekly Purchases under ECB Asset Purchase Programmes	12	Interest Rates and Annual Percentage Rate of Charges on New Household Loans	32
ECB and EONIA Interest Rates and Excess Liquidity in the Euro Area	13	Distribution of Interest Rates on New Housing Loans in Euro	33
EURIBOR Dynamics	13	Interest Rates on Ten-Year-and-Six-Month Government Bonds on the Primary and Secondary Markets	33
Contribution to US GDP Growth by Component (Quarterly)	16	Consolidated Budget Effect on Other Sectors' Liquidity (Quarterly)	34
US Manufacturing and Services ISM-PMIs and GDP Growth (Quarterly)	16	Contribution to GDP Growth by Final Use Component	36
US Consumer Confidence Indices	17	Business Climate and Consumer Confidence	36
US Inflation Rate (on an Annual Basis)	17	Fan Chart of the Expected Annual Rate of Change of GDP	37
US Unemployment Rate and Number of New Employees in the USA	17	Employment and Wage Bill	38
China's GDP Growth on an Annual and Quarterly Basis	18	Activity Rate and Share of Discouraged Persons	38
Manufacturing PMIs, Output and New Orders in China	18	Unemployment Level	39
Inflation Indices in China	18	Private Consumption and Consumer Confidence	39
Bank Market Interest Rates and Minimum Required Reserve Rates	19	Unemployment Expectations in the Following 12 Months	39
Interbank Interest Rate and Minimum Required Reserve Rate ...	19	Expectations about the Financial Position and Economic Situation in the Following 12 Months	40
Yuan/US Dollar Exchange Rate and Trading Band Set by the People's Bank of China	19	Household Propensity to Save	40
Crude Oil Prices	20	Contribution of Major Groups of Revenue to Growth in Total Revenue and Grants, Cumulatively (on an Annual Basis)	42
World Crude Oil Supply and Demand (Quarterly)	20	Contribution of Major Tax Groups to Tax Revenue Growth, Cumulatively (on an Annual Basis)	42
Brent Crude Oil Futures Prices	20	Contribution of Major Groups of Expenditure to Total Expenditure Growth, Cumulatively (on an Annual Basis)	43
Price Indices of Major Raw Material and Commodity Groups	21	Contribution of Government Consumption to Real GDP Growth	43
Foreign Currency Purchases and Sales between the BNB and Banks (on a Monthly Basis)	23	Value Added Growth and Contribution by Sector	44
Current and Capital Account Dynamics and Contribution by Component (on an Annual Basis)	23	Industrial Production Index and Production Capacity Utilisation in Industry	45
Financial Account Dynamics and Contribution by Component (on an Annual Basis)	24	Industrial Production Index and Production Capacity Utilisation in Producing Consumer and Investment Goods under the Major Industrial Groupings Classification	45
Net FDI in Bulgaria by Type of Investment (on an Annual Basis)	25	Contribution by Components to Industrial Turnover Dynamics ...	46
M3 and Contribution of Individual Components	26	Construction Output Dynamics and New Buildings Permits Issued	46
Deposits of Non-financial Corporations and Households	26	Expectations about Future Economic Activity	46
Bank Deposits with the BNB	27	Contribution to the Quarterly Rate of Change in Expenditure on Acquiring Fixed Assets by Industry	47
Reserve Money	27	Gross Operating Surplus at Current Prices	47
Currency in Circulation	27		
Receivables from the Non-government Sector and Contributions of Individual Sectors	28		

Financing Sources	47
Contribution to Changes in the Number of Employed by Economic Sector	48
Labour Productivity Developments (Value Added per Employee)	48
Nominal Unit Labour Costs	48
Real Unit Labour Costs	49
Contribution of Changes in Production Factors to GDP Growth	49
Export and Import Dynamics	50
Services Export and Import Dynamics	50
Dynamics of Exports to EU and non-EU Countries	51
Geographical Distribution of Exports	51
Exports of Mineral Products and Fuels	52
Exports of Machines, Vehicles, Appliances, Instruments and Weapons	52
Exports of Base Metals and Related Products	52
Exports of Animal and Plant Products, Food, Drinks and Tobacco	53
Exports of Chemical Products, Plastics and Rubber	53
Annual Changes in Services Exports and Contributions by Sub-component	53
Imports of Energy Resources	54
Imports of Raw Materials	54
Imports of Consumer Goods	55
Imports of Investment Goods	55
Annual Changes in Services Imports and Contributions of Sub-components	55
Annual Inflation and Contribution of Major Commodity and Services Groups to It	56
Diffusion Indices for Major Goods and Services Groups	57
Rate of Change in Manufacturing CPI and HICP	57
Annual Rate of Change in Producer Prices on the Domestic Market by Major Industrial Groupings	58
Annual Growth Rate of Nominal Retail Trade Excluding Automobile Fuels and Lubricants	58
Share of Firms Pointing to Insufficient Demand as a Factor Limiting Their Activity	58
Core inflation	59
Contribution of Non-food Goods (Excluding Energy Products) and Major Goods Sub-groups Inflation to Overall Inflation	59
Contribution of Services and Major Sub-groups of Services to Overall Inflation	59
Monthly Rate of Change in the Prices of Brent Crude Oil and A95 Petrol	60
Contribution of Major Sub-groups of Administratively Controlled Prices to Overall Inflation	60
Rate of Change of Food Price Index	60
Selling Prices Expectations in Industry in the Following Three Months	61

Selling Prices Expectations in Services in the Following Three Months	61
Selling Prices Expectations in Retail Trade in the Following Three Months	62
Fan Chart of the Expected Annual Inflation Rate	62
Bank Lending between the Fourth Quarter of 2003 and the Fourth Quarter of 2014	64
Changes to the Terms of Corporate Loans (2003–2014)	65
Factors Contributing to Changes in Demand for Loans by Corporations (2003–2014)	66
Factors Contributing to Changes in Banks' Lending Policies (2003–2014)	67

Tables

Projected Annual Rate of Change in Real GDP in the Euro Area	11
Projections of Euro Area Annual Inflation Rate	12
Schematic Representation of the ECB Public and Private Assets Purchases Programmes	14
List of International and Supranational Institutions and National Agencies whose Debt Securities are Eligible for Purchases under the PSPP by 15 April 2015	14
Geographical Distribution and Weighted Average Maturity of Securities Purchased under the PSPP between 9 and 31 March 2015	15
Flows on Balance of Payments Accounts	24
Banks' Flows on Balance of Payments Financial Account	25
Gross External Debt in January 2015	25
Real GDP Growth by Component of Final Use	38
Employment and Income Dynamics	41
Retail Trade Turnover	41
Revenue, Expenditure and Budget Balance on Consolidated Fiscal Programme for 2014–2015	44
Gross Value Added Growth	49
Net Exports of Commodity Groups By Use, January–December 2014	50
Exports by Commodity Group, January–December 2014	51
Imports of Commodity Groups By Use, January–December 2014	54
Rate of Change in Major Goods and Services Groups Prices and Their Contribution to Inflation	61
Dependent Variable: Δ In Claims on Non-financial Corporations (Δ In Kt)	69
Dependent Variable: Δ In Loans to Corporations (Δ In K)	70

Abbreviations

ABSPP	Asset-Backed Securities Purchase Programme
APRC	Annual percentage rate of charge
BOP	balance of payments
CBPP3	Covered Bond Purchase Programme
CFP	Consolidated Fiscal Programme
CIF	Cost, insurance, freight
CLIs	composite leading indicators
CNY	Chinese Yuan
CPI	consumer price index
EA	Employment Agency
EC	European Commission
ECB	European Central Bank
EMMI	European Money Market Institute
EONIA	Euro OverNight Index Average (a registered trademark of EMMI)
EU	European Union
EURIBOR	Euro Interbank Offered Rate (a registered trademark of EMMI)
FDI	foreign direct investment
FOB	Free on board
FOMC	Federal Open Market Committee
GDP	Gross Domestic Product
HICP	Harmonised Index of Consumer Prices
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
NSI	National Statistical Institute
OECD	Organisation for Economic Cooperation and Development
OPEC	Organisation of Petroleum Exporting Countries
PMI	Purchasing Managers' Index
PSPP	Public Sector Purchase Programme
SITC	Standard International Trade Classification
VAT	value added tax

Summary

In the first quarter of 2015 the global economic indicator continued its upward trend, signalling an ongoing improvement in the global economic activity. Divergences were observed across geographic areas as in the first months of 2015 the economic indicators showed expectations for accelerating economic growth in the euro area, retained growth in the USA and Japan, and a slowdown in the economic activity in some of the developing countries like China, Brazil and Russia. The trend in the global trade developments remained unchanged as trade volumes continued to increase, with the US foreign trade growth further outstripping that of the euro area.

Global inflation continued its downward trend under the effect of the international prices of crude oil and other commodity groups decline. Regionally, differences in the rate of the inflation decline were observed, showing a weaker pace of deceleration in the developing economies than in the developed economies, due to the depreciation of the currencies of a number of countries in this group which partly offsets the decline in international prices of major raw materials.

The improvement in the global economic environment and the expected acceleration of the economic growth in the euro area, Bulgaria's major trading partner, would increase the external demand for Bulgarian goods and services. In addition, factors, as depreciation of the euro against the US dollar, relatively low oil prices and reduction in interest rates in the euro area would favourably affect the economic activity in the country.

The decrease in international prices of major raw materials continued to affect the change in nominal exports and imports of goods in 2014 and early 2015. In 2014 nominal goods exports decreased slightly against 2013, while imports increased as in the second half of the year the growth was much more pronounced and supported by the stronger domestic demand in Bulgaria. The balance of payments trade deficit rose but its impact on the current account balance was partly offset by the higher surplus on the services balance. In 2014 the overall current and capital account surplus increased, mainly because of the higher capital account surplus. In the second and third quarters 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 observed in early 2015, mainly due to the narrowing trade deficit.

In the beginning of 2015 attracted funds in the banking system continued to grow, increasing the liquidity of the system in an environment of still low demand for loans and limited investment opportunities in the international financial markets. In the second and third quarters of 2015 the annual broad money growth is expected to be positive, with levels close to those observed in the first two months of the year. Bank loans to the private sector are expected to rise slightly on a quarterly basis.

Deposits and lending interest rates continued to decline in the first months of 2015. In the second and third quarters of 2015 interest rates on time deposits are expected to continue their downward trend, with the decline in the cost of funds attracted by banks likely to push down lending interest rates.

In the fourth quarter of 2014 quarterly growth of real GDP stayed unchanged from the previous quarter at 0.4 per cent. Private consumption grew on a quarterly basis and contributed most substantially to the GDP growth. Real investment in fixed capital rose on a quarterly basis, although its growth rate moderated compared with the previous quarter under the effect of weakening public investment. Quarterly growth of exports of goods and services outstripped that of imports of goods and services, and net exports had a positive contribution to the GDP growth. Government consumption had a low positive contribution to the economy growth, while the change in inventories had a negative one.

Based on the improved expectations of economic agents observed in the first quarter of 2015, private consumption and private investment in fixed capital are expected to continue to recover slowly on a quarterly basis in the second and third quarters of 2015. The growth of exports of goods and services is expected to be higher than that of imports of goods and services, contributing positivity to the economic growth. Assuming that the planned fiscal consolidation should be done in accordance with the 2015 State Budget Law, it might be expected that this will lead to significantly lower overall growth of government consumption and public investment against the corresponding period of the previous year, narrowing their contribution to real GDP growth. The described dynamics by components is expected to result in deceleration of quarterly GDP growth in the second and third quarters of 2015 against the fourth quarter of 2014.

In the first quarter of 2015 end-user consumer prices continued their downward trend on an annual basis which started in mid-2013, and in March inflation was -1.1 per cent (against -2.0 per cent by end-2014). The decline in the overall price level was mainly driven by transport fuels under the influence of falling international oil prices. A reduction in the negative contribution to the overall inflation was reported in core inflation due to the depreciation of the euro against the US dollar and the exhausted effect of price decreases in some services, which was a result of statutory and methodological changes since the beginning of 2014. In early 2015 administrative prices contributed positively to the overall inflation rate, 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 second and third quarters of 2015 inflation is expected to remain negative and the negative growth rate to shrink with the materialisation of the expected upward trend in international prices and the depreciation of the euro. The exhausted effect of one-off price declines in some services sub-groups in 2014 will contribute to a lesser extent to the deceleration of deflation.

1. External Environment

In the first quarter of 2015 the global economic indicator continued its upward trend, signalling an ongoing improvement in the global economic activity. Divergences were observed across geographic areas as in the first months of 2015 the economic indicators showed accelerating economic growth in the euro area, retained growth in the USA and Japan, and a slowdown in the economic activity in some of the developing countries like China, Brazil and Russia. The trend in the global trade developments remained unchanged as trade volumes continued to increase, with the US foreign trade growth further outstripping that of the euro area.

Global inflation continued its downward trend under the effect of the international prices of crude oil and other commodity groups decline. Regionally, differences in the rate of the inflation decline were observed, showing a weaker pace of deceleration in the developing economies than in the developed economies due to the depreciation of the currencies of a number of countries in this group which partly offsets the decline in international prices of major raw materials.

The improvement in the global economic environment and the expected acceleration of the economic growth in the euro area, Bulgaria's major trading partner, would increase the external demand for Bulgarian goods and services. In addition, factors as depreciation of the euro against the US dollar, relatively low oil prices and reduction in interest rates in the euro area would favourably affect the economic activity in the country.

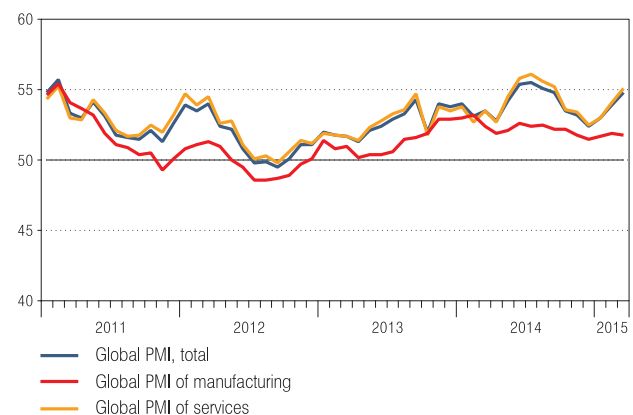
Current Business Situation

From the beginning of 2015 the global composite PMI indicator increased significantly, indicating an improvement in the global economic environment. The composite index growth was mainly due to the improved expectations in the services sector, while the sentiment index in the manufacturing sector slowed down slightly on an annual basis and stayed above the neutral limit of 50.

Despite the acceleration in the global economic activity in early 2015, it may be expected that the observed divergent growth trends in 2014 across geographical regions will be preserved. In 2014 the economic activity in the developed countries like the USA and the euro area accelerated, while the economic growth in the developing countries as Russia, China and Brazil moderated. By April 2015 the OECD composite leading indicators (CLIs) showed accelerating economic growth in the euro area, retained growth in the USA and Japan, and growth slowdown in China, Brazil and Russia.

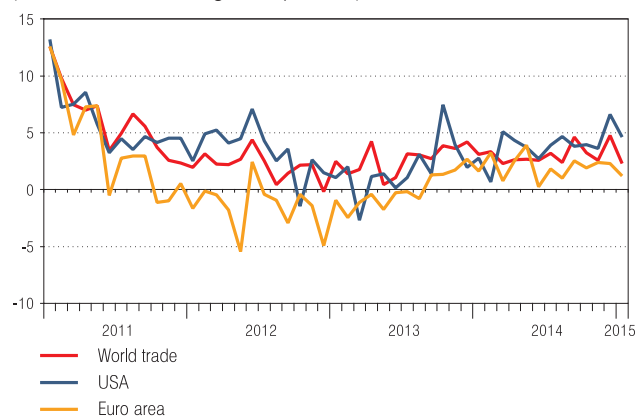
At the end of 2014 and the beginning of 2015 world trade volumes continued to increase year on year. The trend of the US external trade growth exceeding that in the euro area was preserved, corresponding to the significantly higher

Global PMIs



World Trade

(annual rate of volume growth, per cent)



economic activity in the USA than in the euro area.

At the end of 2014 and the beginning of 2015 global inflation continued to slow down mainly due to the decline in the international prices of crude oil and other major commodity groups. There was a more significant rate of decline in the developed economies. The contribution of declines in international prices of major raw materials to the inflation deceleration in the developing economies was partly offset by the depreciation of the currencies of several countries in this group.

Since the beginning of 2015 the improvement in the global economic situation is expected to be beneficial for the Bulgarian economy. The improvement in the global economic activity and the acceleration of the economic growth in the euro area will push up demand for Bulgarian goods and services. The depreciation of the euro, relatively low oil prices and declining interest rates are expected to favourably affect the economic activity in Bulgaria.

Euro Area

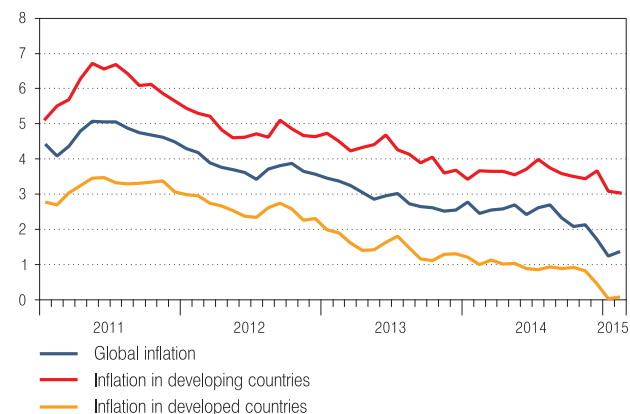
The annual real GDP growth in the euro area was 0.9 per cent in 2014, compared with a fall of 0.4 per cent in 2013.¹ The economic growth in Germany and France amounted to 1.6 per cent and 0.4 per cent, respectively. Italy's real GDP decreased again (by -0.4 per cent), while that in Spain rose by 1.4 per cent. Cyprus reported the largest GDP drop in 2014 (-2.3 per cent) and Ireland the strongest economic growth (4.8 per cent).

On a quarterly basis, real GDP rose by 0.3 per cent in the fourth quarter of 2014 against an increase of 0.2 per cent in the previous period. GDP components with a positive contribution to growth were household consumption (0.2 percentage points), net exports (0.2 percentage points) and investment (0.1 percentage points). Inventories had a negative contribution (-0.2 percentage points), while government consumption had a neutral effect on the economic growth. A quarterly decline in GDP was observed in Cyprus (-0.7 per cent), Greece (-0.4 per cent),

¹ Eurostat data.

Inflation Measured through CPI

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

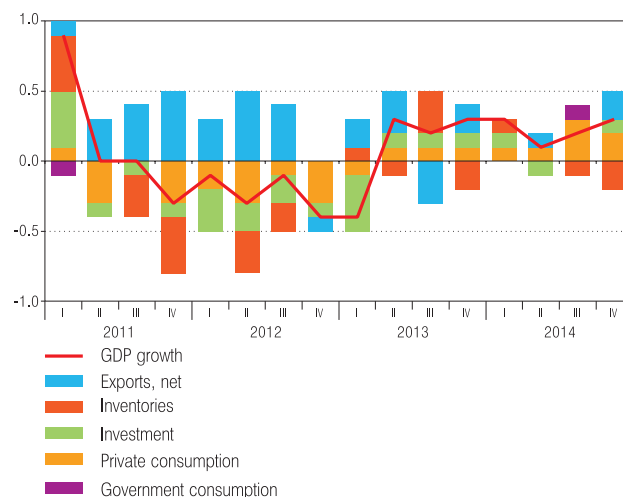


Note: The World Bank measures the change of CPI in individual groups as a weighted average of CPI changes in the countries of the group. For calculating the weights of the countries, real GDP based on purchasing power parity is used. Groups include only World Bank Member States classified by the World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

Austria (-0.2 per cent) and Finland (-0.2 per cent).²

Since the beginning of 2015 the European Commission (EC) economic sentiment and consumer confidence indices gradually increased and in March came to 103.9 and -3.7, respectively against 100.9 and -10.9 in December 2014. The EC business climate index in the euro area, which is an indicator of the regional investment activity, also grew moderately in the first quarter of 2015. In March 2015 the composite PMI was 54.0 (against 51.4 in December 2014) and manufacturing and services PMIs were 52.2 and 54.2, respectively (against 50.6 and 51.6 in December).

In the first quarter of 2015 the leading economic indicators in the euro area rose, signalling acceleration of the economic growth. This gave grounds for the European Commission (in February) and the ECB (in March) to revise upwards their euro area economic growth projections in 2015.

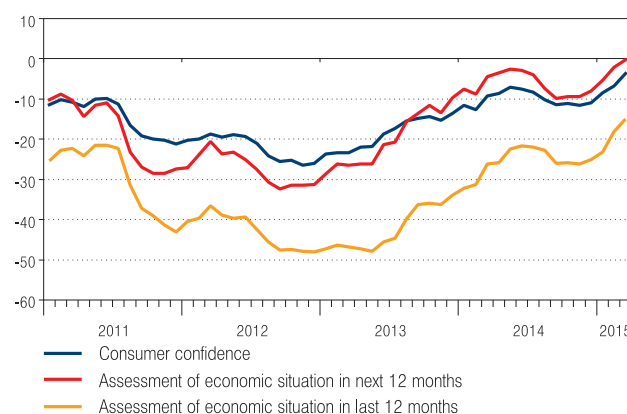
According to the Eurostat's flash estimate published on 31 March 2015, euro area annual inflation was -0.1 per cent in March, with moderation in the downward trend observed for a second consecutive month. In February 2015 euro area annual inflation came to -0.3 per cent compared with -0.6 per cent in January 2015 and -0.2 per cent in December 2014. The significant decrease in energy prices continued to be a key factor for euro area deflation, while food and services prices recorded growth. In March negative annual inflation was recorded in nine euro area countries, as the major drop was in Greece (-1.9 per cent), Lithuania (-1.5 per cent) and Spain (-1.2 per cent). Malta and Austria reported the highest inflation (0.6 and 0.5 per cent, respectively),³ and changes in the annual harmonised index in the rest of the countries were close to nil.

According to the latest EC (February) and ECB (March) forecasts, the euro area average annual inflation is expected to be close to 0 per cent in 2015. This represents a substantial downward revision compared to the previous projections of both institutions.

² No data published about Ireland, Luxembourg and Malta.

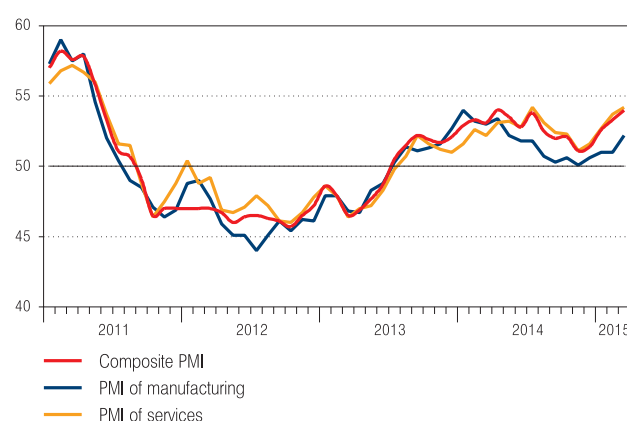
³ Preliminary data on Austria.

Euro Area Consumer Confidence Indices



Source: European Commission.

Manufacturing and Services PMIs



Source: Markit.

Projected Annual Rate of Change in Real GDP in the Euro Area

(per cent)

Institution	Publishing date	2015		2016	
		last	previous	last	previous
EC	February 2015	1.3	1.1	1.9	1.7
ECB	March 2015	1.5	1.0	1.9	1.5

Sources: EC, ECB.

In February 2015 unemployment in the euro area decreased slightly to 11.3 per cent (11.4 per cent in January 2015). In the last months the highest unemployment level by countries was recorded in Greece (26.0 per cent) and Spain (23.2 per cent).⁴ An increase in the share of persons actively seeking a job was observed in Finland, Italy, Lithuania, Cyprus and Portugal, where the indicator rose between 0.1 and 0.3 percentage points in February 2015. Germany and Austria still reported the lowest unemployment levels at 4.8 and 5.3 per cent, respectively. The indicator of the expected unemployment over the next twelve months included in the EC consumer confidence index showed improving consumer expectations concerning labour market developments. In the first quarter of 2015 the average value of the sub-index fell down to 13.4 points from 23.7 points in the fourth quarter of 2014.

Deflation in the euro area indicated that the monetary policy measures taken in 2014 to counteract risks leading to an inflation decline were insufficient. As a result, the ECB announced on its monetary policy meeting of 22 January 2015 new measures, namely the Public Sector Purchase Programme (PSPP), which began on 9 March 2015.⁵ This programme is the main part of the ECB extended asset purchase programme aiming at increasing the ECB balance sheet figure to its levels of early March 2012, when it was almost EUR 3.0 trillion.

By the end of March 2015 the ECB balance sheet amounted to EUR 2.251 trillion (an increase by 4.7 per cent on end-2014), including PSPP asset purchases of EUR 47.4 billion, CBPP3 purchases of EUR 62.9 billion, ABSPP purchases of EUR 4.6 billion and the third Targeted Longer-Term Refinancing Operation (TLTRO) conducted on 19 March 2015 when the ECB allotted EUR 97.8 billion among 143 banks (EUR 0.7 billion *per* participant on average). The higher interest in the third Targeted Longer-Term Refinancing Operation of 19 March 2015 was likely to reflect the lower resource price.⁶ In

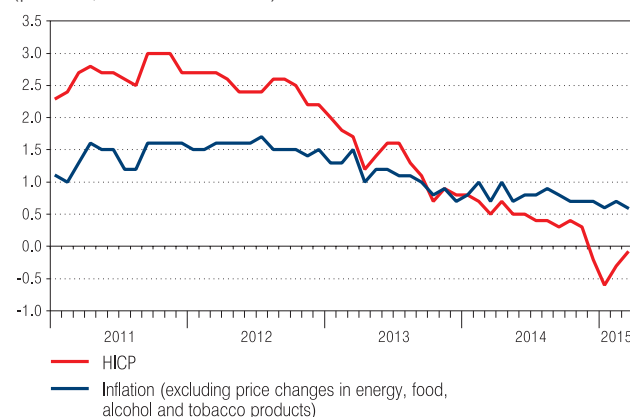
⁴ Latest available data for Greece refer to December 2014, and for Spain – to February 2015.

⁵ See New Decisions of ECB Governing Council on Monetary Policy of 22 January 2015, Highlights, Economic Review, issue 1/2015, p. 15, and Details on ECB Public Sector Purchase Programme (PSPP), Highlights in this issue.

⁶ On 22 January ECB Governing Council eliminated the difference with 10 basis points from the rate on main refinancing operations.

Euro Area Inflation Rate

(per cent, on an annual basis)



Source: Eurostat.

Projections of Euro Area Annual Inflation Rate

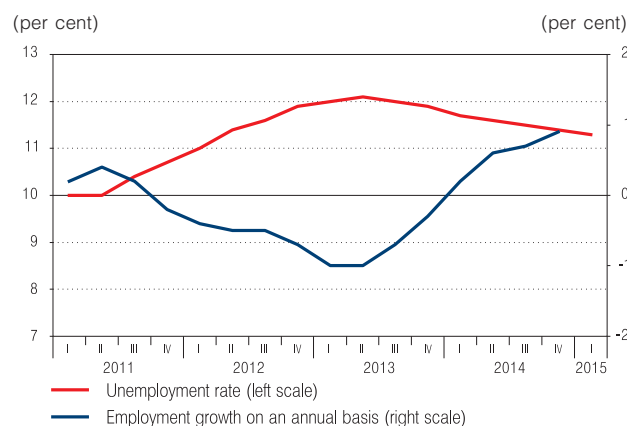
(per cent)

Institution	Publishing date	2015		2016	
		last	previous	last	previous
EC	February 2015	-0.1	0.8	1.3	1.5
ECB	March 2015	0.0	0.7	1.5	1.3

Sources: EC, ECB.

Euro Area Unemployment Rate and Employment Growth

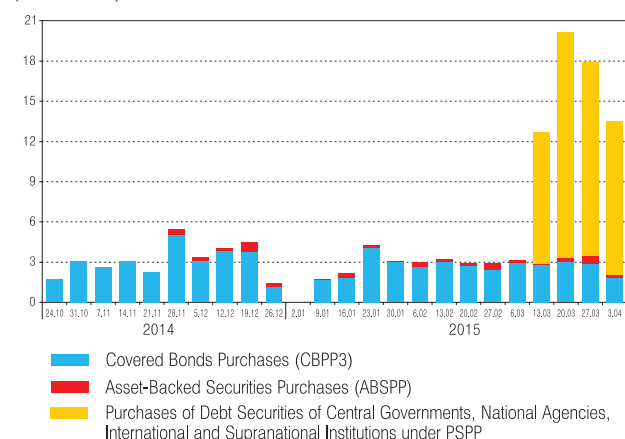
(per cent)



Source: Eurostat.

Weekly Purchases under ECB Asset Purchase Programmes

(billion EUR)



Source: ECB.

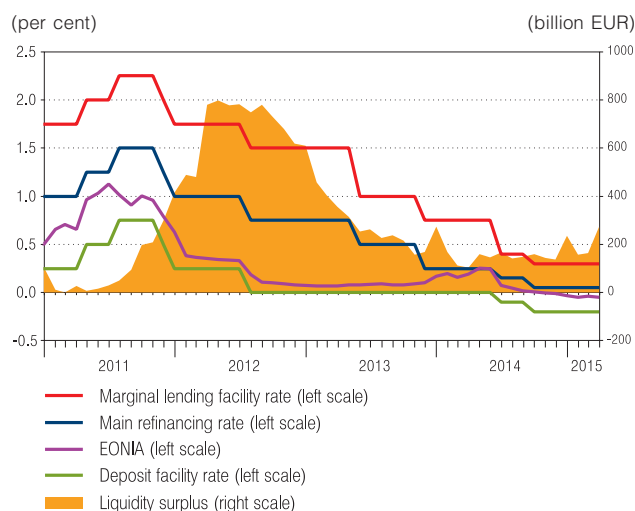
the forthcoming quarters the increased demand can be considered as a signal of the improving economic activity expectations and the restoring growth in lending to the real economy in the euro area.

As a result of the ECB operations and programmes, the amount of excess liquidity in the euro area grew by EUR 273.2 billion by the end of March 2015 (against EUR 235 billion by the end of December 2014). During the first quarter liquidity surplus hovered within the range of EUR 126.5 billion to EUR 273.2 billion.

Due to the increase in the excess liquidity in the first quarter of 2015, the average value of the EONIA overnight interest rate fell to -0.05 per cent (against -0.02 per cent in the fourth quarter of 2014), moving within the range of -0.02 per cent to -0.08 per cent over the review period. The volume of overnight deposits in euro area's interbank market trade increased as their daily average value in the first three months was EUR 28.1 billion (against EUR 25.4 billion in the fourth quarter of 2014).

In the first quarter of 2015 EURIBOR interest rates on interbank market deposits declined. On 31 March 2015 one-month interest rates reached -0.02 per cent (-3 basis points on end-December 2014), and those with maturities of six and twelve months came to 0.09 per cent (-8 basis points on end-December 2014) and 0.20 per cent (-13 basis points on end-December 2014) respectively.

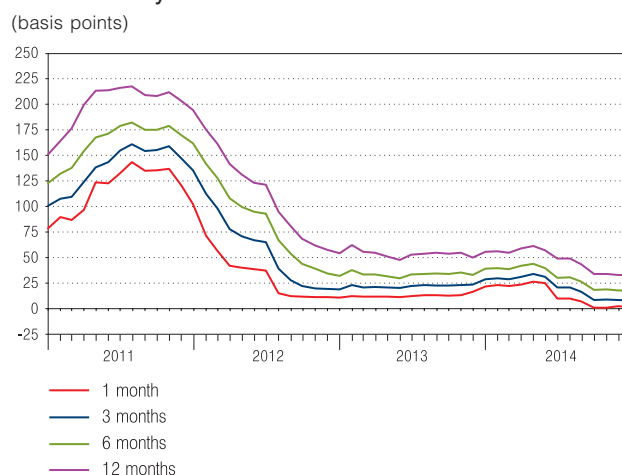
ECB and EONIA Interest Rates and Excess Liquidity in the Euro Area



Note: Average EONIA data for the month.

Source: ECB.

EURIBOR Dynamics



Source: ECB.

ECB Public Sector Purchase Programme Details

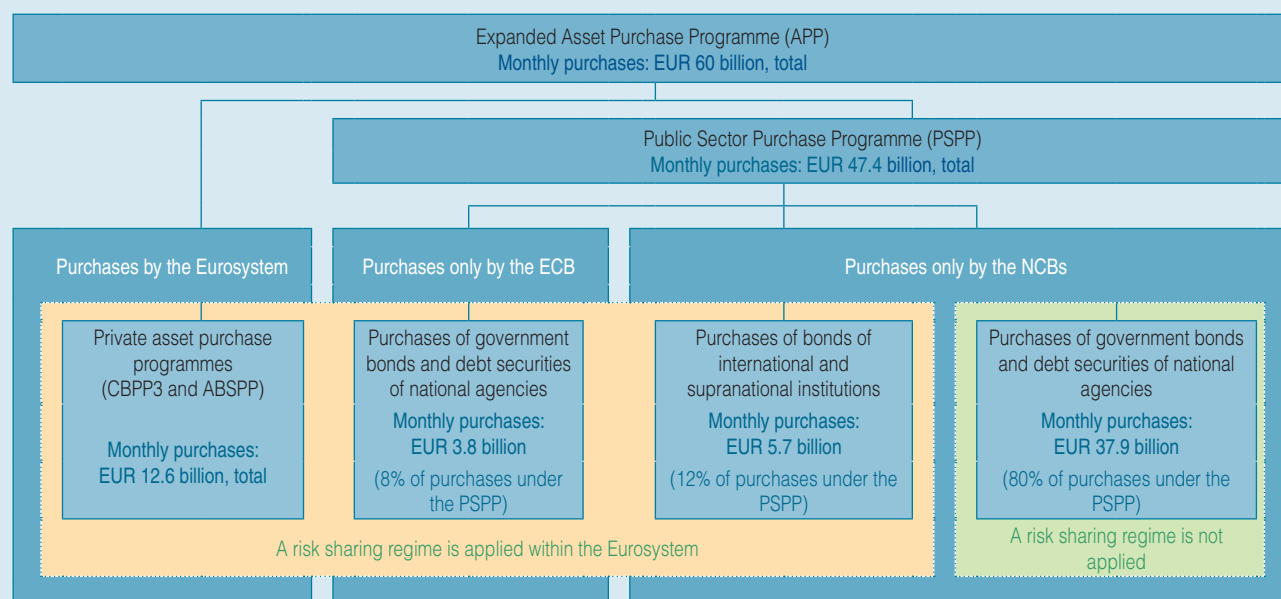
Additional Information on the Allocation of the Securities Purchased under the PSPP

The Public Sector Purchase Programme (PSPP) is a main element of the ECB Expanded Asset Purchase Programme. Under the PSPP, bonds issued by euro area central governments, agencies and European institutions are purchased outright (see Table 1) and together with the CBPP3 and ABSPP they will amount to EUR 60 billion monthly.¹

The ECB coordinates the PSPP implementation but the purchases are made in a decentralised manner by the national central banks (NCBs). The volume of the monthly purchases made by each NCB is based on its share in the ECB capital (capital key). Purchases of bonds issued by the euro area central governments and agencies comprise 88 per cent of the total volume of the programme. A risk sharing regime is not applied to the securities purchased by the NCB and each NCB purchases securities issued by the central government and agencies only under the jurisdiction of the country in which they are based. The ECB has the right to purchase securities from the central government sector and agencies from all countries in the euro area amounting to 8 per cent of the total volume of PSPP, applying the risk sharing regime between the NCBs in the Eurosystem. The share of debt securities purchases issued by supranational institutions is 12 per cent of the total volume of the programme. A risk sharing regime is also applied to those purchases made only by the NCBs.

¹ See *New Decisions of ECB Governing Council on Monetary Policy of 22 January 2015*, Economic Review, issue 1/2015, p. 14.

Schematic Representation of the ECB Public and Private Assets Purchases Programmes



Note: The distribution of monthly purchases in the scheme is based on PSPP purchases made in March.

Source: ECB and BNB.

Table 1. List of International and Supranational Institutions and National Agencies whose Debt Securities are Eligible for Purchases under the PSPP by 15 April 2015

International and supranational institutions within the euro area	National agencies within the euro area	
Council of Europe Development Bank	Bpifrance Financement SA	Caisse d'amortissement de la dette sociale (CADES)
European Atomic Energy Community	Nederlandse Financieringsmaatschappij voor Ontwikkelingslanden N.V. (FMO)	Union Nationale Interprofessionnelle pour l'Emploi dans l'Industrie et le Commerce (UNEDIC)
European Financial Stability Facility	Caisse des Dépôts et Consignations (CDC)	Instituto de Credito Oficial
European Stability Mechanism	Agence Française de Développement (AFD)	Kreditanstalt fuer Wiederaufbau
European Investment Bank	Cassa Depositi e Prestiti S.p.A.	Landeskreditbank Baden-Württemberg Foerderbank
European Union	Finnvera Oyj	Landwirtschaftliche Rentenbank
Nordic Investment Bank	Bank Nederlandse Gemeenten N.V. (BNG)	ACOSS
	Nederlandse Waterschapsbank N.V. (NWB)	SID – Slovenska izvozna in razvojna banka, d.d.
		NRW Bank

Note: This list may be amended by the ECB Governing Council.

Source: ECB

Additional Information on Restrictions in Purchasing Securities under the PSPP

The PSPP is implemented on the secondary market, with eligible securities with a remaining maturity between two to 30 years and 364 days. NCBs and the ECB can purchase up to 33 per cent of each individual issuer's outstanding securities. The purchases restriction of not more than 25 per cent of each securities issue will be applied only in the first six months of the programme implementation, after which it will be revised by the ECB Governing Council.

In case of difficulties in the implementation of the monthly purchases quota by a central bank, the institution could compensate the shortfall with securities purchases of eligible bonds issued by national agencies and supranational institutions. Under exceptional circumstances, depleted alternatives and prior approval by the ECB Governing Council, the NCBs may carry out bond purchases issued by public non-financial corporations under the jurisdiction of the country in which they are based. These bonds should fulfil the ECB collateral eligibility requirements.

Additional Information on the Securities Purchase Price under the PSPP

There are no restrictions in purchasing securities traded at a negative return in the secondary market as long as it is higher than the ECB deposit facility interest rate (-0.20 per cent).

Additional Information on the Accountability of Purchases under the PSPP

On a weekly basis, information about the volume of purchased securities with settled transactions in the preceding week will be published.² Information on the purchases' geographical allocation and the average maturity of purchased securities will be published on a monthly basis. The share of purchased securities issued by supranational institutions will be disclosed separately from the other purchases.

Lending of Securities Purchased by the ECB

In order to reduce the negative effect of the expected liquidity decline of the government securities market in the euro area, the ECB announced that as of 2 April 2015, the securities purchased under the PSPP and securities purchased under the SMP are made available for securities lending. The transactions are carried out by agents chosen by the Eurosystem central banks. Securities purchased by the ECB are available for lending:

- against provision of collateral including all holdings eligible for security purchases under the PSPP (incl. securities with a residual maturity of less than two years);
- against fixed charge equivalent to 40 basis points;
- within a week, with possible extension by a week more, up to three times, increasing the fee charge by 10 basis points *per* extension.

The counterparties may borrow securities up to 2.5 per cent of each individual issue outstanding value but not more than EUR 200 million. In addition, the NCBs establish autonomously the conditions to lend the purchased securities, incl. the type of assets accepted as collateral, the haircuts, the transactions term *etc.*, in line with the specifications and infrastructure of the local bond market.

Table 2. Geographical Distribution and Weighted Average Maturity of Securities Purchased under the PSPP between 9 and 31 March 2015

Government debt securities and bonds issued by the national agencies of:	Value of securities purchased (billion EUR)	Weighted average maturity of securities purchased (years)	Share of total purchases of securities under the PSPP (per cent)
Germany	11.1	8.1	23.4
France	8.8	8.2	18.5
Italy	7.6	9.1	16.1
Spain	5.4	11.7	11.5
Netherlands	2.5	6.7	5.2
Belgium	1.5	8.8	3.2
Austria	1.2	7.8	2.6
Portugal	1.1	11.0	2.3
Finland	0.8	7.3	1.6
Ireland	0.7	9.4	1.5
Other*	1.0	8.1	2.1
Government debt securities and bonds of national agencies, total	41.7	8.8	88.0
Supranational institutions	5.7	7.3	12.0
Securities purchases under the PSPP, total	47.4	8.6	100.0

* Lithuania, Luxembourg, Latvia, Malta, Slovenia and Slovakia.

Source: ECB, BNB calculations.

Information on the Allocation of PSPP Purchases in March 2015

Bonds amounting to EUR 47.4 billion with an average maturity of 8.6 years were purchased in the first month of the PSPP implementation between 9 and 31 March 2015. Securities purchases issued by supranational institutions accounted for EUR 5.7 billion. Securities purchased by the central banks of Spain and Portugal had the longest weighted average maturity (11.7 and 11.0 years, respectively).

² The settlement of securities is based on T+2, *i.e.* data published on the ECB website on Monday cover the securities purchased until Wednesday of the preceding week.

The United States

In 2014 the US real GDP increased by 2.4 per cent against 2.2 per cent in 2013. In the fourth quarter of 2014 the US economic growth slowed down to 0.5 per cent on a quarterly basis against 1.2 per cent growth in the third quarter and 1.1 per cent in the second quarter of the year. The slower growth was largely due to the lower net exports. Business investments also had a smaller contribution on the previous quarter. On the other hand, household consumption continued to rise in the fourth quarter of 2014, increasing its positive contribution to the quarterly growth.

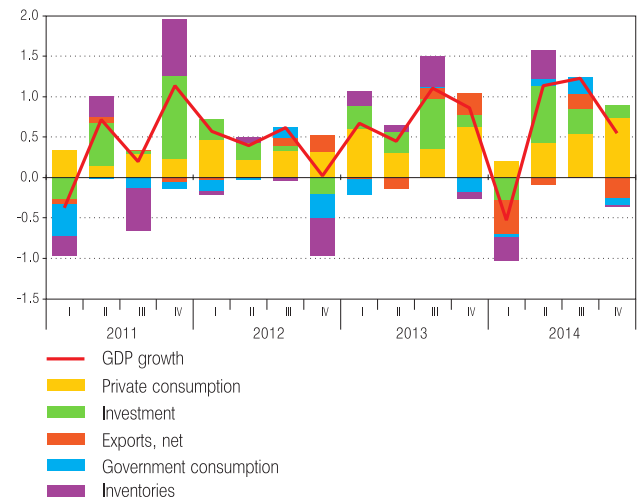
In the first quarter of 2015 US leading economic activity indicators underwent volatile and broadly downward changes. However, most indicators remained close to their level of end-2014. This dynamics suggested that economic growth in the first quarter of 2015 would be probably weaker, but close to that reported in the fourth quarter of 2014.

While recording a certain decline in the first quarter, consumer confidence indicators remained at a relatively high level, which was close and even higher than the level reported just before the beginning of the financial crisis in 2007. On the other hand, the monthly growth rate of consumer expenditure and retail sales was mainly negative and did not correspond to the high level of consumer confidence. The economic indicators across sectors broadly declined, signalling economic activity growth, although at a relatively lower rate than in the previous quarters. Output and construction indicators showed a stronger decrease and services indicators remained relatively stable.

In February 2015 the annual inflation rate measured by the personal consumption expenditure deflator (PCE) increased insignificantly to 0.3 per cent, from 0.2 per cent in January 2015 and 0.8 per cent in December 2014. In the beginning of 2015 the low consumer inflation was mainly driven by the significant fall in fuel prices. The annual growth rate of the core PCE price index (excluding foods and fuels) reached 1.4 per cent in February against 1.3 per cent in the previous two months.

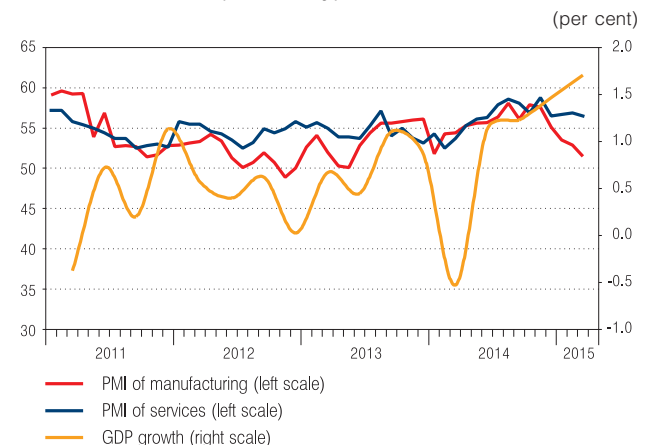
Contribution to US GDP Growth by Component (Quarterly)

(per cent; percentage points)



Source: Bureau of Economic Analysis.

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



Source: Institute for Supply Management.

The annual growth rate of the consumer price index, the other measure of the US inflation, posted a zero increase in February compared to -0.1 per cent in January. In February 2015 the core CPI annual growth rate accelerated to 1.7 per cent against 1.6 per cent in January and December.

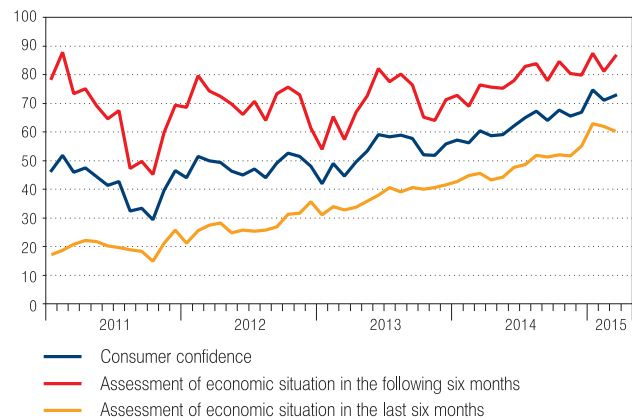
In the first quarter of 2015 the expectations of consumer price inflation in the period to five years, a component of the University of Michigan consumer confidence index, remained relatively stable, increasing insignificantly to 2.8 per cent in March from 2.7 per cent in February and 2.8 per cent in January. Short-term inflation expectations up to one year, a component of the same index, declined to 2.5 per cent in January 2015 but increased in the next two months, reaching 3.0 per cent in March 2015. In the second quarter and by end-2015 inflation in the USA is expected to rise, but remain below 2 per cent on an annual basis.

The recovery of the labour market in the USA continued in the first quarter of 2015. In March the unemployment level stayed at 5.5 per cent for a second consecutive month, the lowest level recorded since July 2008. In March 2015 the number of employed in the US non-agricultural sector rose by 126,000 compared to the increase of 264,000 in February and 201,000 in January. On an average monthly basis, in the first quarter the employment in the non-agricultural sector slowed down to 197,000 persons against 324,000 in the previous quarter, staying close to the average monthly level reported in the first quarter of 2014 (193,000 monthly).

At its meeting of 17 and 18 March, the US Federal Open Market Committee (FOMC) decided to keep its federal funds rate unchanged within a range of 0.00 to 0.25 per cent. On this meeting, the Committee decided to change the communication aiming at preparing the market participants for the forthcoming start of the normalisation process of the US monetary policy, firmly emphasising that the decisions to change the targeted rate should be based on a wide range of economic data. In order to avoid any dramatic fluctuations in the financial markets, it was pointed out that FOMC members do not expect changes in the targeted rate at the April 2015 meeting and that there will be no prede-

US Consumer Confidence Indices

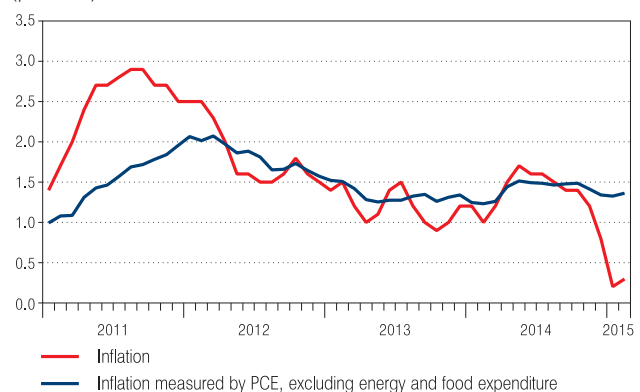
(2000 = 100)



Source: The Conference Board.

US Inflation Rate (on an Annual Basis)

(per cent)



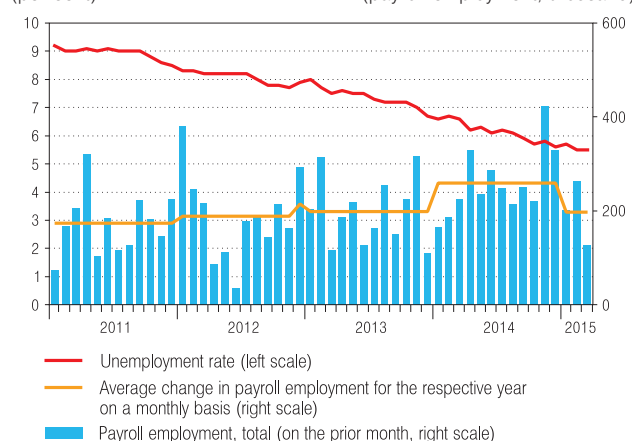
Note: Inflation is measured by the personal consumption expenditure deflator.

Source: Bureau of Labor Statistics.

US Unemployment Rate and Number of New Employees in the USA

(per cent)

(payroll employment, thousand)



Source: Bureau of Labor Statistics.

terminated moment from which the key rate rise to start. FOMC members' median projections for the appropriate target range of the key rate at the end of 2015, 2016 and 2017 were lower than their previous values,⁷ signalling a significantly smoother interest rate rise in two rather than four steps in 2015.

China

In the first quarter of 2015 GDP growth in China posted a year-on-year slowdown to 7.0 per cent (target growth of 7.0 per cent for 2015). Quarter-on-quarter growth slowed down to 1.3 per cent against 1.5 per cent in the fourth quarter of 2014. On the one hand, the deceleration of the economic growth reflected short-term negative effects related to the structural reforms and closing of the polluting enterprises. And on the other hand, the deceleration of the Chinese economy could be interpreted as a sign of structural imbalances accumulated as a result of the export-oriented growth model supported for nearly two decades.

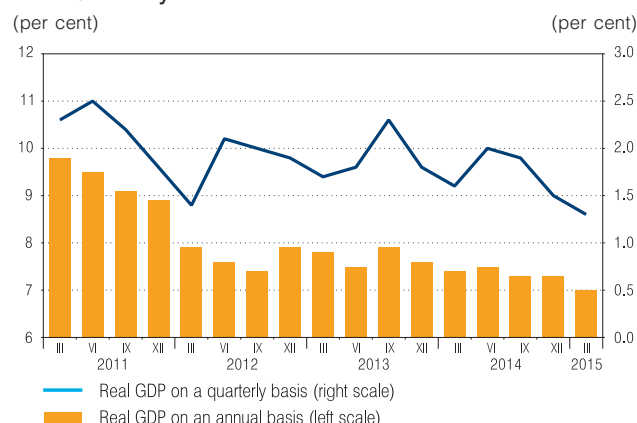
In the first months of 2015 the investment growth rate declined to 13.5 per cent (against 15.7 per cent in December 2014). Investments in industry and construction had the major contribution to the growth slowdown. More stringent monetary conditions, the continuous decline in housing prices and the measures of the general government restricting certain infrastructure initiatives of local governments had a dampening effect on the investment growth.

In January and February 2015 manufacturing PMI in China fell by 50 points, but increased to 50.1 points in March 2015. Dynamics of individual components of the index showed balanced weakening in both current activity and in new orders, including exports. In March growth rates of industrial production moderated to 5.6 per cent, and in February industrial enterprises' profit (operating surplus) declined by 4.2 per cent year on year.

By the end of the first quarter of 2015 CPI inflation fell to 1.4 per cent on an annual basis (from the 3.0 per cent inflation target in 2015). The downward trend of inflation in the second half of 2014 was mainly due to the falls in non-food

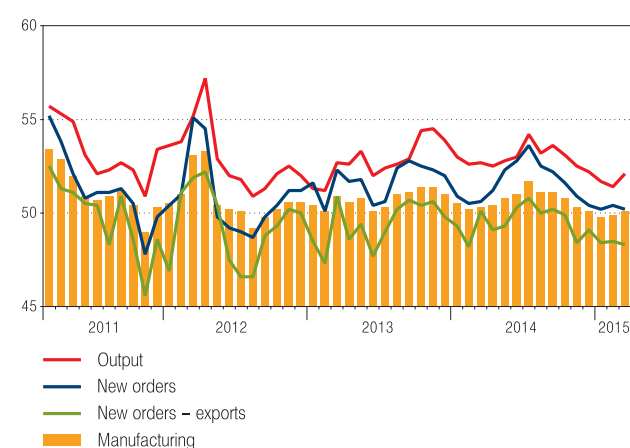
⁷ Refers to the individual forecasts median.

China's GDP Growth on an Annual and Quarterly Basis



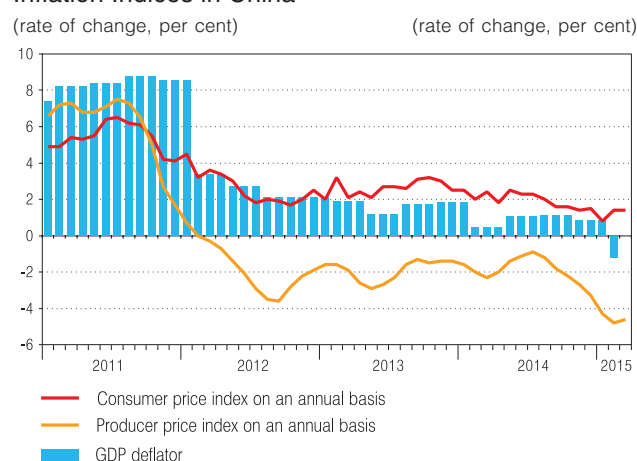
Source: National Bureau of Statistics of China.

Manufacturing PMIs, Output and New Orders in China



Source: China Federation of Logistics and Purchasing.

Inflation Indices in China



Source: National Bureau of Statistics of China.

prices, reflecting to a certain degree the decline in petroleum prices. In the first quarter of 2015 GDP deflator had a negative value of -1.2 per cent on an annual basis.

In early February the People's Bank of China lowered the banks' reserve requirements ratio by 50 basis points to 19.5 per cent, counteracting economy's slowdown and aiming at increasing the aggregate credit. The estimated effect of the decrease in the rate was growth of the interbank market in China by CNY 600 billion and a reduction of the interbank interest rates. By end-February this measure of the central bank was supplemented by cuts in one-year interest rates on bank loans by 25 basis points (to 5.35 per cent) and one-year deposit rates by 25 basis points (to 2.50 per cent). Concurrently, the permitted deviation of the reference deposit rate increased from 1.2 to 1.3.⁸ In the first quarter of 2015 the People's Bank of China, in managing the value of the renminbi against the US dollar, set a lower fixing at 6.20–6.25.

International Commodity Prices

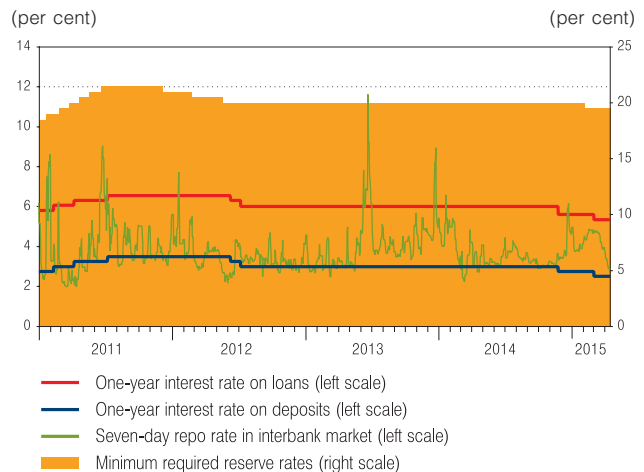
Crude Oil

The significant downward trend of the Brent crude oil price started in July 2014 was sustained, with the price in USD decreasing by 50 per cent year on year to USD 53.9 (EUR 48) *per barrel* on an average basis. In February 2015 the slow quarter-on-quarter increase caused by the oil demand growth in Europe and Asia was followed by a fall in March. This decline was mainly due to the decrease in the global crude oil demand due to the refineries renovation and the large stocks of petroleum, mainly in the USA. The increase in production from the USA, Iraq and Saudi Arabia and the agreement reached on Iran's nuclear programme contributed to the fall in oil prices in the beginning of 2015. Another factor behind the oil price decline was the continuous appreciation of the US dollar against the euro (by 17.7 per cent in the first quarter of 2015).

In April 2015 the International Energy Agency (IEA) revised upwards its forecast about crude oil demand in line with the expectations of an

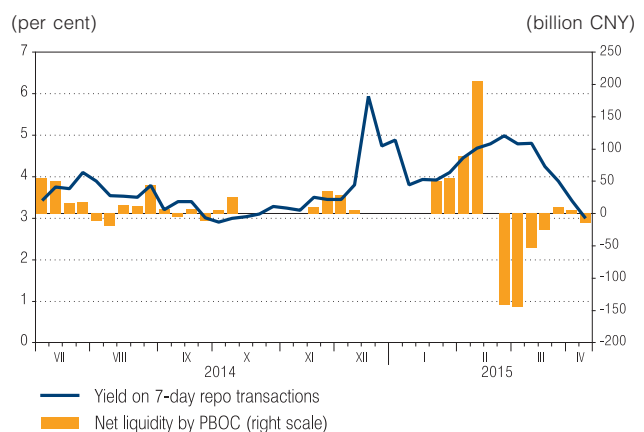
⁸ Last value: $2.50\% \times 1.3 = 3.25\%$, previously: $2.75\% \times 1.2 = 3.30\%$

Bank Market Interest Rates and Minimum Required Reserve Rates



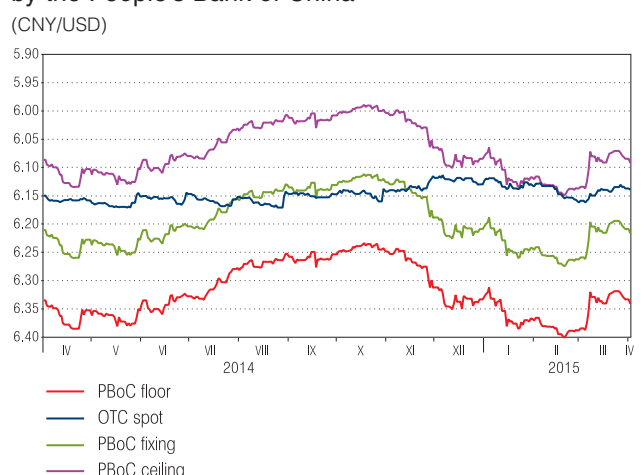
Source: People's Bank of China.

Interbank Interest Rate and Minimum Required Reserve Rate



Source: People's Bank of China.

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



Source: People's Bank of China.

improvement of the economic activity. According to the Agency, the expected increase in production from Iraq and the expected shale gas extraction in the USA were factors having an impact on crude oil supply. The increased demand in combination with the expected weaker yields are likely to push up oil prices from the current levels but they are unlikely to reach the level of 2014.

After the dramatic fall of the oil price in the first half of 2015, expectations of crude oil futures prices tended to move upwards in March. Given the geopolitical events in Iran and the pending OPEC meeting in the first half of 2015, oil price forecasts feature great uncertainty, with market expectations varying within USD 60 to 70 *per barrel* in the second and third quarters of 2015.

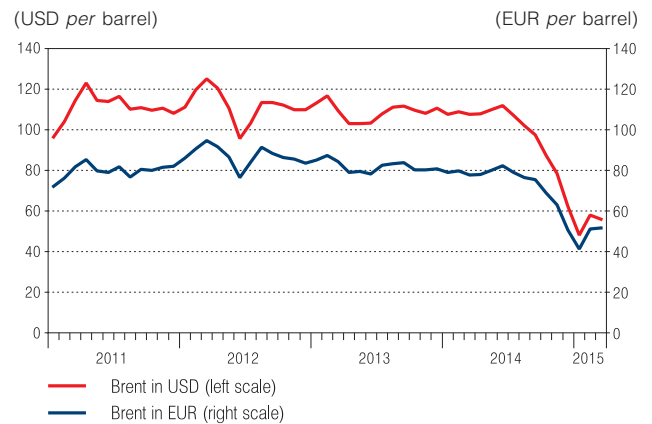
Major Raw Material and Food Prices

In the first quarter of 2015 international prices in US dollars of major goods groups continued to decline. Concurrently, the 17.7 per cent year-on-year appreciation of the US dollar against the euro in the first quarter of 2015 led to a mismatch in the price indices dynamics in euro and US dollars of certain commodity groups.

In the first quarter of 2015 the metals price index in EUR published by the ECB decreased by 7 per cent year on year (against a decrease of 23 per cent in USD). The prices of iron ore declined most significantly due to the commissioning of production capacities in Australia and Brazil and the weaker demand by China. In the first quarter of 2015 the annual growth of copper prices in euro was sustained compared with the fourth quarter of 2014, mainly due to depreciation of the euro against the US dollar. Concurrently, the copper price in dollars for the quarter came down to 17 per cent year on year. Over the corresponding period the factors for the decline in copper prices (in US dollars) were mainly related to supply infraction due to flooding in Chile and reduced demand by China.

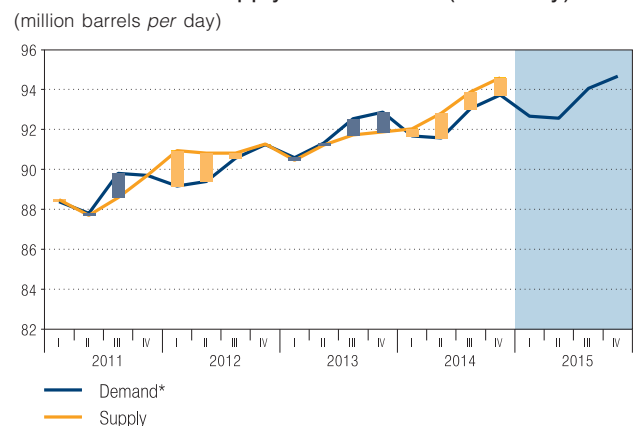
In the second and third quarters of 2015 metal prices in euro are expected to decline due to weaker Chinese demand and strong supply. A risk of an increase in prices on an annual basis stems from a more significant than projected depreciation of the euro.

Crude Oil Prices



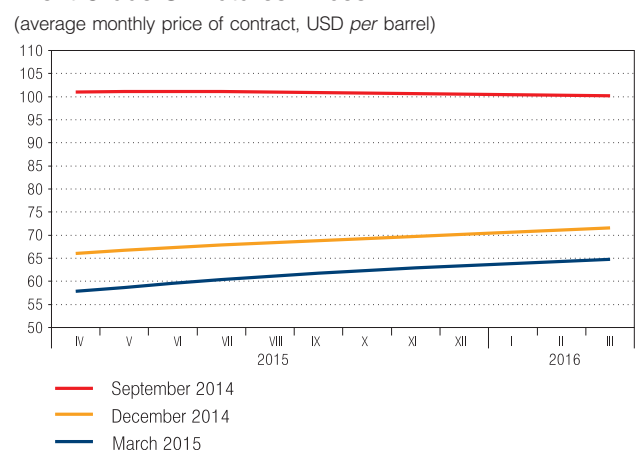
Source: World Bank.

World Crude Oil Supply and Demand (Quarterly)



* Including the April 2015 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



Source: JP Morgan.

In the first quarter of 2015 the food price index in US dollars decreased by 9.2 per cent against the same period of 2013, while the euro price posted an increase of 10.4 per cent. In the first quarter of 2015 wheat prices in euro went down by 6.7 per cent year on year, with the decline reflecting mainly the good harvest in 2014. By the end of 2014 wheat prices increased temporarily, which was due to Russia's intentions to impose a duty on wheat exports from February 2015. However, the introduction of the duty had no significant effect on exported volumes of wheat from Russia and together with the good global harvest led to a recovery of the price decline trend.⁹

In the second and third quarters of 2015 the food price index in euro will continue its growth on an annual basis due to depreciation of the euro, while the food price index in US dollars is expected to retain its year-on-year downward trend.

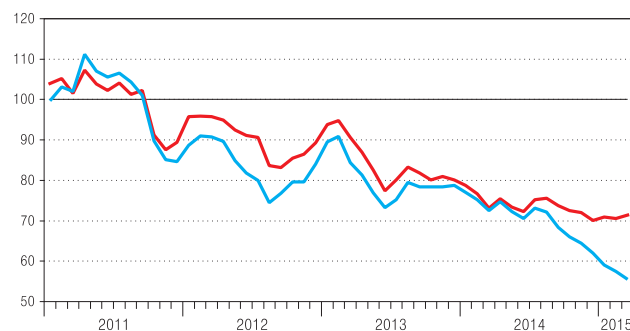
If expectations for prices of major commodity groups materialise, the terms of trade in Bulgaria would improve, thus contributing to higher nominal growth of exports *vis-à-vis* imports in the second and third quarters of 2015. In addition, the expected growth of food prices in euro is a precondition for a deflation decline in Bulgaria.

⁹ USDA, Wheat Outlook, April 2015.

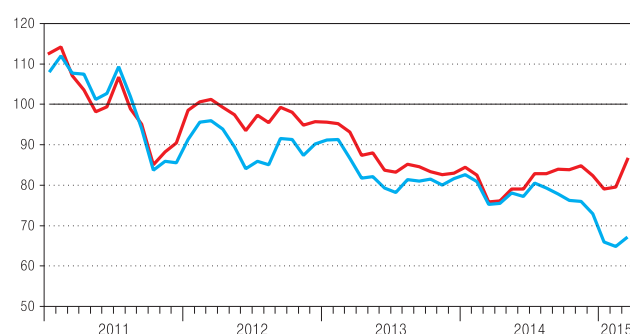
Price Indices of Major Raw Material and Commodity Groups

(2011 = 100)

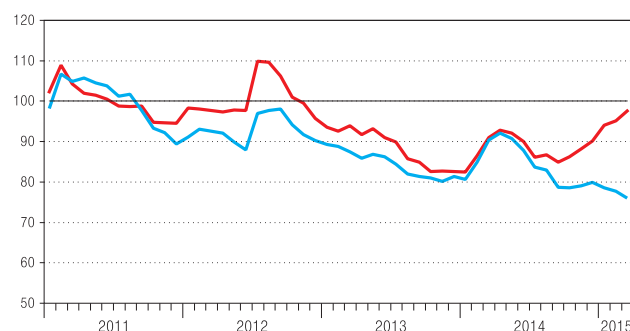
Metals



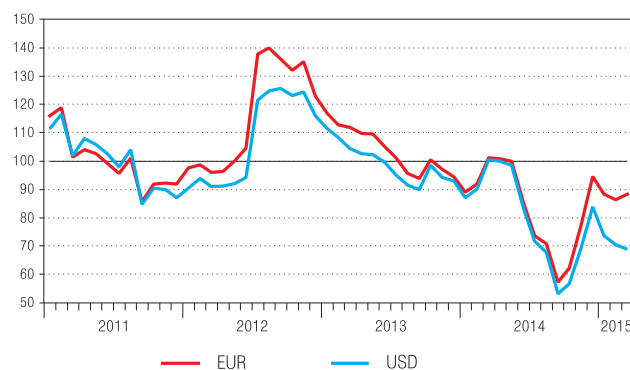
Copper



Food



Wheat



Sources: ECB and BNB calculations.

2. Financial Flows, Money and Credit

The decrease in international prices of major raw materials continued to affect the change in nominal exports and imports of goods in 2014 and early 2015. In 2014 nominal goods exports decreased slightly against 2013, while imports increased as in the second half of the year the growth was much more pronounced and supported by the stronger domestic demand in Bulgaria. The balance of payments trade deficit rose but its impact on the current account balance was partly offset by the higher surplus on the services balance. In 2014 the overall current and capital account surplus increased, mainly because of the higher capital account surplus. In the second and third quarters 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 observed in early 2015, mainly due to the narrowing trade deficit.

In the beginning of 2015 attracted funds in the banking system continued to grow, increasing the liquidity of the system in an environment of still low demand for loans and limited investment opportunities in the international financial markets. In the second and third quarters of 2015 the annual broad money growth is expected to be positive, with levels close to those observed in the first two months of the year. Bank loans to the private sector are expected to rise slightly on a quarterly basis.

Deposits and lending interest rates continued to decline in the first months of 2015. In the second and third quarters of 2015 interest rates on time deposits are expected to continue their downward trend, with the decline in the cost of funds attracted by banks likely to push down lending interest rates.

Given the interaction of external and internal economic factors and resulting financial flows, Bulgaria's international foreign exchange reserves (excluding valuation adjustments and price revaluations) posted a year-on-year increase of EUR 3163.1 million in February 2015 (based on BOP data). The market value of international reserves¹⁰ (assets on the Issue Department balance sheet) rose by EUR 5003.4 million to BGN 37.1 billion (EUR 19.0 billion) at the end of March 2015.

Increased banks' reserves with the BNB and liabilities to government and budget organisations contributed most significantly to the higher year-on-year Issue Department balance sheet value of liabilities¹¹ by March 2015. The change in international reserves in line with the currency board principles corresponded to the increase in liabilities. In February 2015 international reserve coverage of the average nominal

¹⁰ The market value of international reserves includes changes stemming from transactions, valuation adjustments and price revaluation.

¹¹ 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.

imports of goods and non-factor services over the last 12 months increased to 7.1 months against 6.8 months in December 2014.

In the first quarter of 2015 foreign currency trade between the BNB and banks retained its 2013 trend where BNB sales exceeded purchases of foreign currency.

International reserves are expected to grow further on an annual basis, banks' deposits with the BNB to remain high in the context of growing attracted funds, weak lending activity and limited investment alternatives abroad. In the second and third quarters the government deposit with the BNB will be higher as compared with the corresponding period of 2014, its dynamics depending mainly on budget implementation. Currency in circulation is expected to continue growing on an annual basis, though at moderating rates.

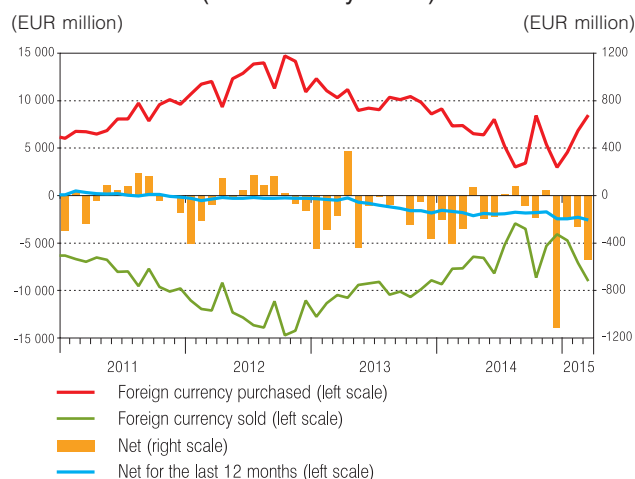
External Financial Flows

In 2014 the surplus of the balance of payments overall current and capital account balance increased reflecting primarily the lower deficit on the primary income account and higher capital account surplus.¹² Concurrently, the current account surplus contracted compared with 2013 due to lower net secondary income and higher trade deficit.

The decrease in international prices of major raw materials continued to dampen the change in nominal imports and exports of goods in 2014 and early 2015. In 2014 exports of goods decreased slightly against 2013, while imports increased stronger in the second half of the year. Services trade balance was positive in 2014 and improved compared with 2013.

In early 2015 the annual growth rates of exports and imports of goods accelerated, contributing to a decrease in the trade balance deficit compared with the corresponding period of 2014. Concurrently, exports and imports of services went down from early 2014 prompting

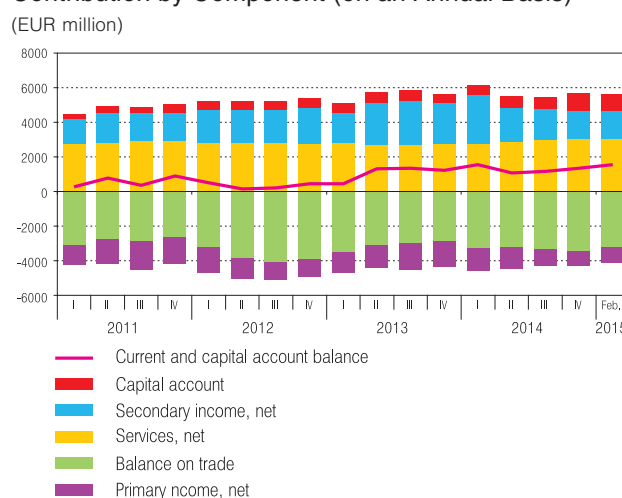
Foreign Currency Purchases and Sales between the BNB and Banks (on a Monthly Basis)



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.

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



Source: BNB.

¹² The analysis in this section is based on statistical data in accordance with the balance of payments analytical reporting, compiled under the sixth edition of the IMF Balance of Payments and International Investment Position Manual (BPM6), starting from 17 April 2015.

a minimal decrease in services trade balance surplus.¹³

In 2014 the deficit on the primary income account¹⁴ contracted compared with 2013. The reported decline in investment income repayment was primarily due to the lower outflows on dividends and distributed profit of the direct investment income sub-item. Such dynamics could be explained through the lower gross operating surplus in 2013 *vis-à-vis* 2012 and lower dividends, distributed profit and interest paid to foreign investors. In early 2015 the deficit on the primary income account went up compared with the corresponding period of 2014 due to higher payment outflows of portfolio investment income.

The positive balance of the secondary income account¹⁵ decreased significantly in 2014, reflecting mainly lower revenue to the general government sector.

In the second and third quarters 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 observed at the end of 2014 and in early 2015, depending mainly on the contraction of the trade deficit. If the expectations of sustaining favourable terms of trade for the Bulgarian economy in the the second and third quarters of 2015 and of decelerating domestic demand materialise, nominal year-on-year growth of goods exports is anticipated to outpace that of imports. The external environment remains a source of uncertainty for the projection and a possible worsening of the euro area economic activity would have a negative effect on external demand for Bulgarian goods, while keeping the petroleum prices at a lower than projected level would prompt a decrease

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

¹⁴ With the introduction of the BPM6, the former income and current transfers sub-items have been redistributed among the new primary income and secondary income items in compiling the balance of payments statistical data. The primary income item encompasses revenue and expenditure from/on income associated with the use of labour force, capital and land, as well as taxes on output and imports and subsidies. In addition to compensation of employees and investment income, the primary income item comprises also some of the components of the former current transfers items: taxes on output, subsidies and rent. The secondary income item reflects income redistribution.

¹⁵ See footnote 16.

Flows on Balance of Payments Accounts

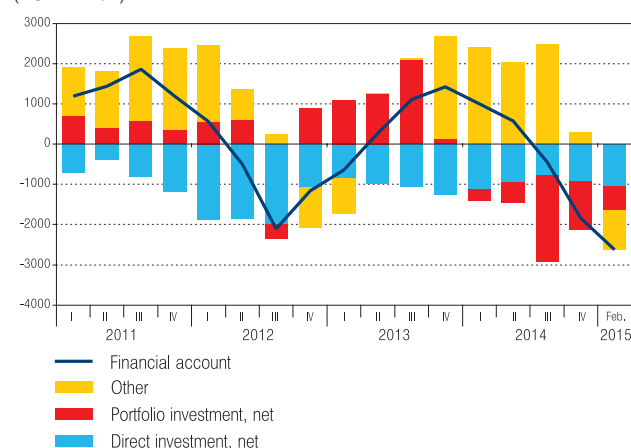
(EUR million; cumulative since the beginning of the year)

	2013	2014	January – February 2015
Current account	765.2	359.2	-239.7
Trade balance	-2 890.7	-3 429.2	-454.4
Services, net	2 735.1	3 048.3	229.9
Primary income, net	-1 474.9	-876.1	-119.5
Secondary income, net	2 395.6	1 616.3	104.2
Capital account	469.3	992.4	62.4
Financial account	1 421.6	-1 845.3	-231.1
FDI in Bulgaria, net	-1 243.1	-924.9	-144.8
Changes in reserves	-531.8	1 810.4	400.6

Source: BNB.

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

(EUR million)



Source: BNB.

in the nominal trade deficit as Bulgaria is a net importer of petroleum products.

The financial account balance for 2014 was negative amounting to EUR 1845.3 million (against a positive balance of EUR 1421.6 million in 2013).¹⁶ This was due to a large extent to the strong increase in liabilities, with the new external government debt of 2014 contributing most substantially to this effect. In early 2015 the financial account balance was negative, reflecting the decreased assets associated with operations of banks which decreased their foreign assets in the form of currency and deposits in February. Liabilities on the financial account also posted a decline, with government repayment of a maturing international debt issue in January 2015 contributing to this effect.

Net direct investment in 2014 was negative amounting to EUR -925 million. As to direct investment assets, non-residents' obligations to Bulgarian non-financial corporations and households increased. Liabilities on direct investment slightly increased in 2014, the increase in liabilities on the debt instruments being the main reason behind this. Concurrently, obligations of Bulgarian residents to foreign investors in terms of equity stocks decreased.¹⁷ In early 2015 both liabilities and assets on direct investment posted a decline compared to the corresponding period of 2014, with the net item remaining negative.

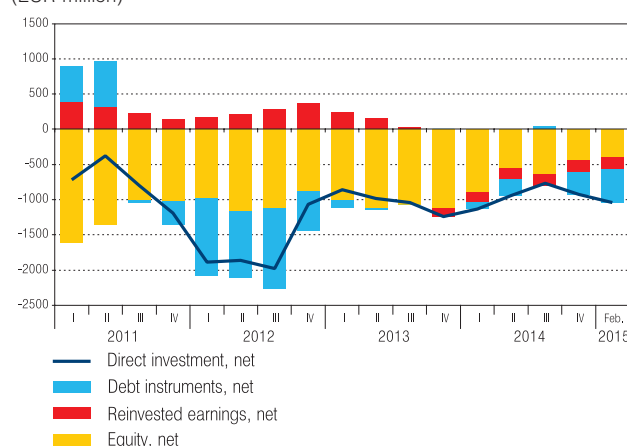
In 2014 banks' financial transactions on the financial account fluctuated on a monthly basis. As a whole, over the review period banks continued to decrease their foreign liabilities and

¹⁶ With the introduction of the BPM6, the financial account balance is computed by deducting the value of liabilities on the account from the value of assets in compiling balance of payments statistical data. According to the new reporting, an increase in assets and liabilities is recorded with a plus sign and a decrease with a minus sign (under the Balance of Payments Manual fifth edition, the plus sign denoted a decrease of assets and an increase of liabilities and the minus sign denoted an increase of assets and a decrease of liabilities).

¹⁷ With the introduction of the BPM6, direct investment is recorded in accordance with the assets/liabilities principle in compiling balance of payments statistical data. It is of primary importance whether the transaction/position is related to an asset or liability of the resident entity. The initial relationship between the parties to the transaction comes second by significance. In practice, this means that direct investment is reported on a gross basis similar to the remaining financial account items.

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

(EUR million)



Source: BNB.

Banks' Flows on Balance of Payments Financial Account

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

	2013	2014	January – February 2015
Direct investment			
assets	18.1	27.2	0.7
liabilities	109.1	106.1	26.8
Portfolio investment			
assets	292.3	-309.4	178.0
liabilities	67.0	-50.6	-0.1
Other investment			
assets	2 007.5	1 228.5	-897.4
liabilities	-811.7	-240.3	-159.4
Assets, total	2 318.0	946.3	-718.6
Liabilities, total	-635.6	-184.8	-132.7
Assets, net	2 953.6	1131.1	-585.9

Source: BNB.

Gross External Debt in January 2015

(EUR million)

	Amount	Change	
		Since December 2014	For the last 12 months
General government	5 634.3	-392.2	2 175.8
Central bank	0.0	0.0	0.0
Banks	5 368.2	-154.1	-406.9
Other sectors	12 075.3	26.3	-202.9
FDI: intercompany loans	15 962.9	-204.4	386.3
Total	39 040.6	-724.5	1 952.3

Source: BNB.

to increase their foreign assets. In early 2015 banks' foreign assets exhibited a decrease.¹⁸

In December 2014 Bulgaria's external debt posted an increase on the end of 2013, reflecting mostly higher obligations of the general government sector. The increase in external debt was also due to intercompany lending. The issue of government debt in international financial markets in mid-2014 resulted in an increase in the share of long-term external debt at the close of the year.

In January 2015 a maturing government securities issue on international markets was repaid prompting a decrease in the external debt of the general government sector compared with the end of 2014. A decline in external liabilities was recorded in both intercompany lending and the banks sector. This led to a decline in the gross external debt in January 2015 compared with December 2014.

In 2014 and in early 2015 the conditions for access to new external financing and servicing residents' external obligations improved, reflecting to a large extent decreasing interest rates on international financial markets.

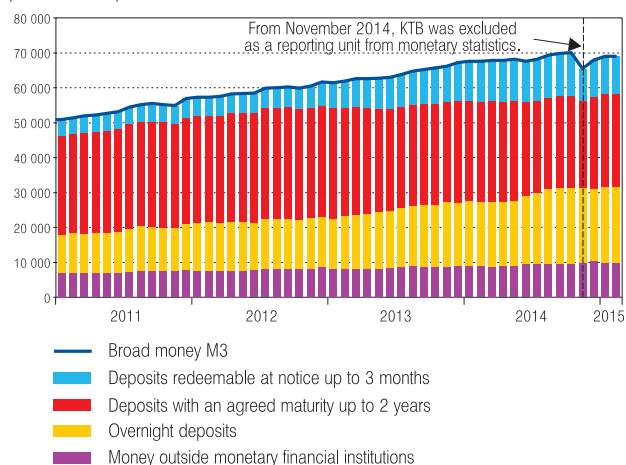
Monetary and Credit Aggregates

Broad money posted an increase of 2.0 per cent at the end of February 2015 against annual growth of 1.1 per cent at the end of 2014. Broken down by broad money component, in January – February an increase was reported mainly in overnight deposits and in deposits with an agreed maturity of up to two years as compared with December 2014. The household sector contributed most strongly to growth of deposits in the banking system in the first two months of the year. An increase was reported mostly in time deposits in contrast with the previous two years when households saved in overnight deposits and deposits redeemable at notice. The trend of the second half of 2013 was sustained in non-financial corporations: growth was mainly reported in overnight deposit and a decrease in deposits with an agreed maturity.

¹⁸ A more detailed analysis of banks' behaviour is presented in the *Monetary and Credit Aggregates* section.

M3 and Contribution of Individual Components

(BGN million)



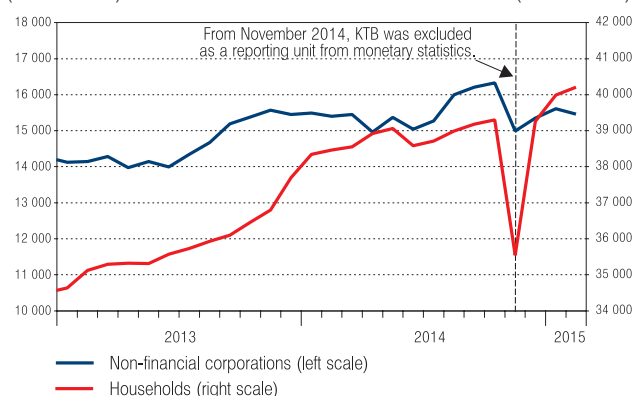
Note: The contribution of marketable instruments is not shown on the chart due to their insignificant contribution to broad money growth.

Source: BNB.

Deposits of Non-financial Corporations and Households

(BGN million)

(BGN million)



Source: BNB.

In the first two months of 2015 banks' liquidity continued to grow. In the context of weak demand for loans in Bulgaria and limited investment opportunities in international markets, banks increased their excess reserves on accounts with the BNB using to a lesser extent attracted funds to increase their receivables from the general government sector and to reduce their foreign liabilities.

The liquidity ratio¹⁹ of the banking system increased to 32.85 per cent in February against 30.12 per cent in December 2014.²⁰ Excess reserves on banks' minimum reserve accounts with the BNB over the required minimum under Ordinance No 21 came to 81.5 per cent on an average daily basis in the first quarter and to 92.0 per cent in March 2015 (56.5 per cent in December 2014). The effective implicit rate of minimum required reserves reached 8.97 per cent²¹ in March, with bank reserves with the BNB comprising 7.95 percentage points, and the remaining 1.02 percentage points being formed by cash and funds on banks' settlement accounts in the TARGET2-BNB system.²²

In the first quarter of 2015 reserve money, comprising bank deposits with the BNB and currency in circulation, retained their upward trend from the fourth quarter of 2014. In February the reserve money growth rate accounted for 36.8 per cent (against an increase of 11.1 per cent in December 2014). Growth of banks' excess reserves continued to have the strongest effect on the reserve money dynamics. Over the review quarter the positive contribution of the currency in circulation remained relatively high, probably reflecting the uncertainty surrounding the economic environment and lower deposit rates. The annual growth rate of currency in circulation at the end of the first quarter of 2015

¹⁹ See Ordinance No 11 of the BNB.

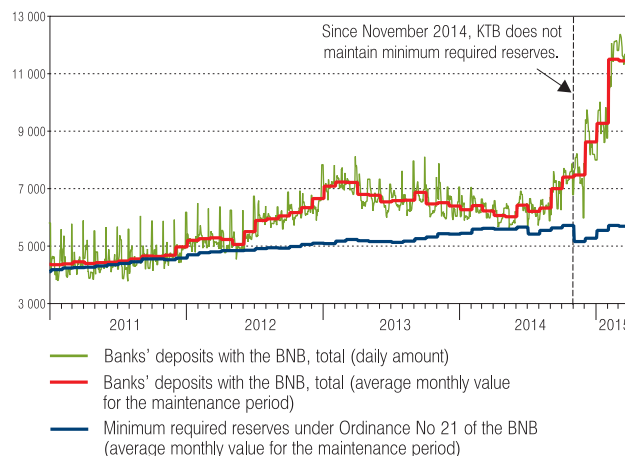
²⁰ In the first quarter additional factors responsible for the dynamics in the banking system liquidity involved USD-denominated global securities held by resident financial institutions, maturing in January, residents' purchases of a portion of Eurobonds issued by the Bulgarian government in international markets in March, as well as the bridge loan repaid by the government in March.

²¹ 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.

²² See Article 4 of Ordinance No 21 of the BNB.

Bank Deposits with the BNB

(BGN million)

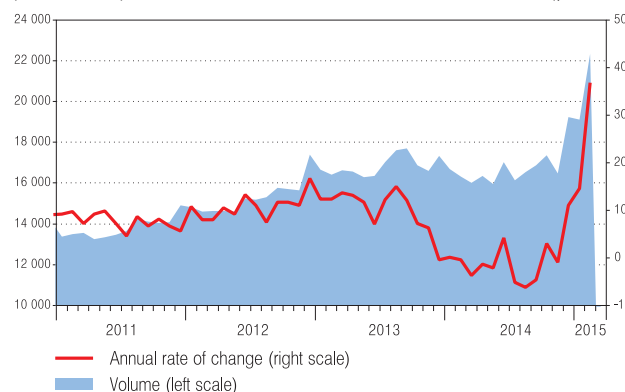


Source: BNB.

Reserve Money

(BGN million)

(per cent)

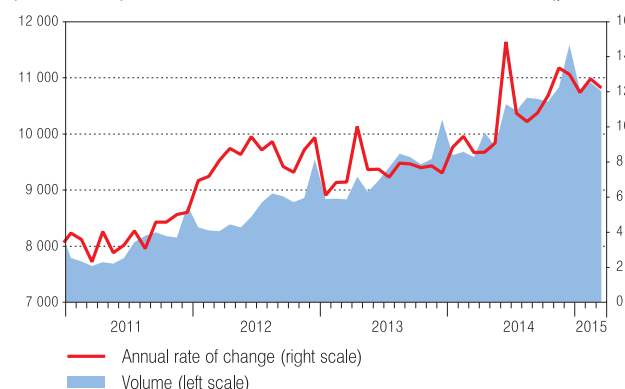


Source: BNB.

Currency in Circulation

(BGN million)

(per cent)



Source: BNB.

accounted for 12.2 per cent (13.0 per cent at the end of 2014).

Against the background of uncertain economic environment and a slow recovery of economic activity, demand for loans by corporations remained weak. Concurrently, banks were cautious and maintained relatively high credit standards limiting credit growth.

The bulk of new loans to non-financial corporations continued to be with a maturity of over five years, the volume for the last 12 months accounting for 49.2 per cent of all new loans by February. As regards the currency structure of new loans to non-financial corporations, the upward trend in the share of new loans extended in levs was sustained at the expense of the decrease in new loans denominated in euro and US dollars. Over the last 12 months the share of new lev-denominated loans in total new loans accounted for 38.3 per cent in February. EUR-denominated loans comprised 58.7 per cent in total new corporate loans, and the share of USD-denominated loans accounted for 3.0 per cent.

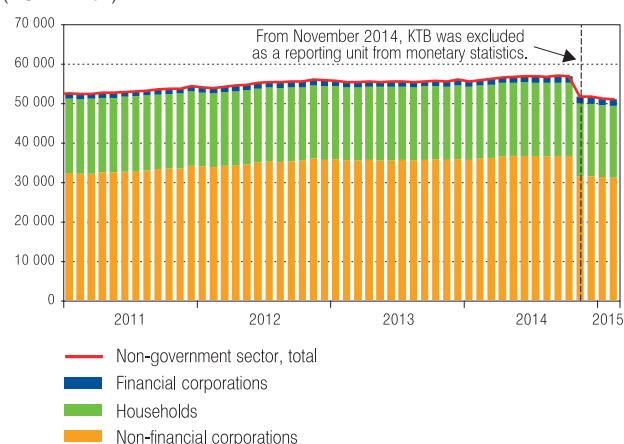
As in December, in early 2015 all categories of household loans posted a decline on an annual basis.²³ In February the fall was most strongly pronounced in the other loans category (by 16.6 per cent) and less strong in overdrafts, housing and consumer loans (by 2.3, 1.4 and 1.0 per cent on an annual basis). The decrease in household loans was probably due to the large amount of loan repayments as the upward trend in new loans to households observed from the second half of 2014 was sustained. This trend continued to be driven by the upward dynamics in new housing loans and, to a lower extent, by the increase in extended new consumer loans.

In the second and third quarters of 2015 the currency in circulation annual growth rate is expected to slow down due to the effect of the higher base observed since mid-2014. Broad money growth is expected to be positive with levels close to those observed in the first two months of 2015. Loans to the private sector are

²³ The statistical effect of the 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.

Receivables from the Non-government Sector and Contributions of Individual Sectors

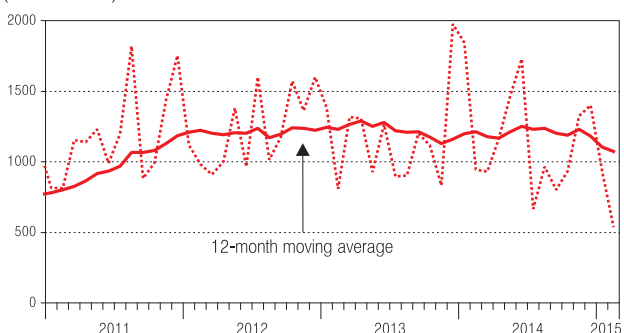
(BGN million)



Source: BNB.

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

(BGN million)

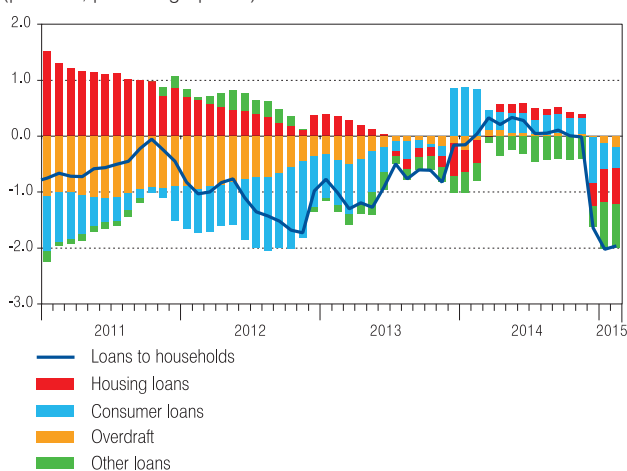


* Additional moving averages computed for appropriately selected periods, which are intended to adjust the fluctuations in the relevant time series and to reveal the trends, are used for data characterised by strong fluctuations.

Source: BNB.

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

(per cent; percentage points)



Source: BNB.

anticipated to slightly grow on a quarterly basis. The gradual decrease in lending rates may have a stronger effect on demand for loans in the second half of the year. In the context of limited investment alternatives for banks, projections suggest that banks will continue to maintain high excess reserves on their accounts with the BNB, increase their portfolios of Bulgarian government securities and decrease their foreign liabilities.

Interest Rates

In the first quarter of 2015 the dynamics of interbank money market interest rates in Bulgaria continued to reflect the ample liquidity in the banking system and the ECB monetary policy aimed at maintaining low interest rates and launching non-standard measures for providing additional liquidity.²⁴ In the first months of 2015 the gradual decrease of overnight deposit rates, observed from mid-2014, was sustained, while the quotations with a maturity of up to three weeks exhibited a faster rate of decline. Interest rates on deposits with a term of over one month continued to gradually decrease.

The spread between interest rates on overnight deposits on the interbank market in Bulgaria and in the euro area continued to widen reaching 6 basic points on average in March 2015.

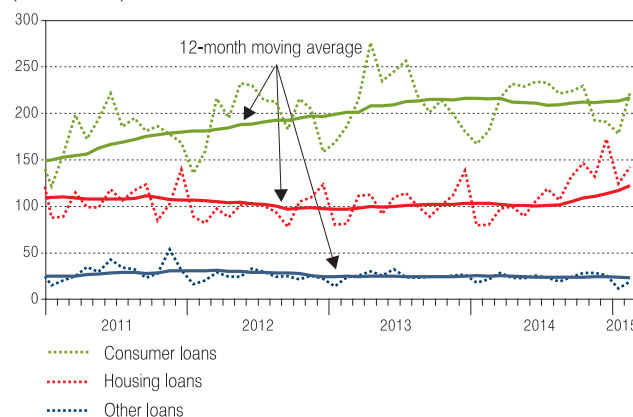
Since the year start interest rates on bank deposits with a term of three months continued to decline compared with the rates observed in the last months of 2014.²⁵ Concurrently, the decrease in three-month euro area interest rates slowed down marginally, which helped keep the spread between the average three-month SOFIBOR/SOFIBID index and EURIBOR close to the values registered at the end of 2014. Quotations of long-term maturities in the interbank money market continued to decline in 2015. In March 2015 interest rates on 6-month deposits were lower by 36 basis points than those in the corresponding period of 2014, and those on 12-month deposits by 75 basis points.

²⁴ For further details on the ECB monetary policy, see Chapter 1 *External Environment* and the box *The Effect of 2014 ECB Monetary Policy Measures on the Euro Area Financial Market and Bulgaria's Banking System*, Economic Review, 3/2014.

²⁵ The analysis is based on the average value of SOFIBOR and SOFIBID of unsecured three-month deposits in lev.

New Loans to Households (Monthly Volumes)

(BGN million)

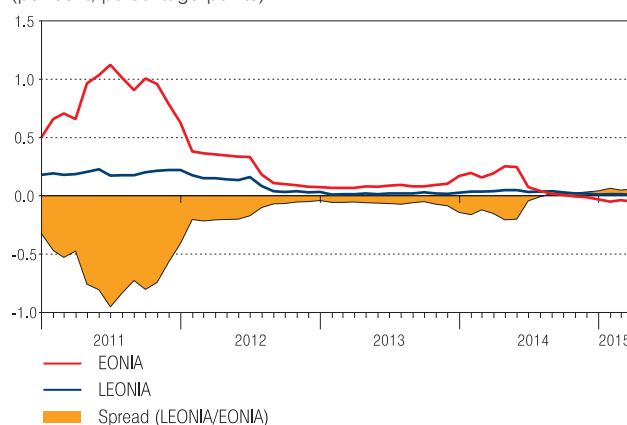


Source: BNB.

Interbank Money Market Interest Rates

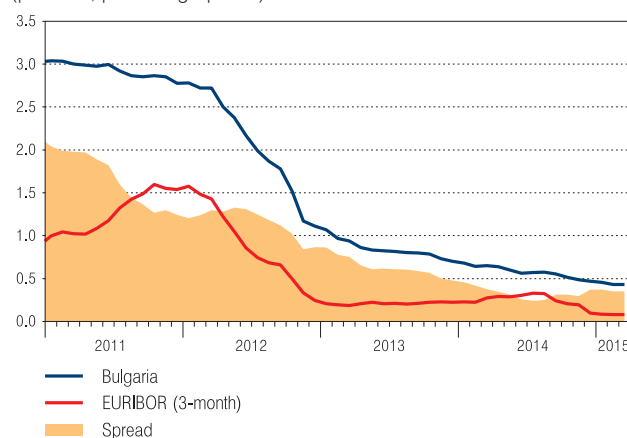
a) Overnight deposits

(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 lev.

Source: BNB, ECB.

A downward dynamics was also observed in interest rates on new time deposits of households and non-financial corporations.²⁶ In February the average weighted interest rate on new time deposits of households and non-financial corporations accounted for 1.6 per cent (2.1 per cent in December 2014). Compared with end-2014, the fall in household deposit rates was stronger than that in interest rates on deposits of non-financial corporations. In the last two months interest rates on deposits to non-financial corporations remained unchanged.

Interest rates on new time deposits denominated in levs and in euro continued to decrease from the end of the previous year, while those on USD-denominated deposits remained unchanged. Data on the currency structure of non-government sector's deposits suggest that the share of foreign currency deposits tended to increase in the first two months of 2015, and in February it reached 43.2 per cent (42.3 per cent in December 2014).

In February 2015 deposit rates in all maturities reported a decline from December 2014. The rate of decline in long-term deposits with a term of over two years, which was the strongest in 2014, slowed down.

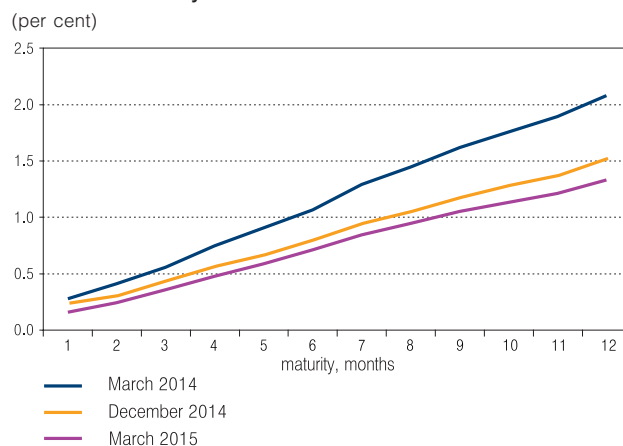
In February the number of banks offering deposit rates in the low bands (from 1 per cent to 2 per cent) increased compared with December 2014, while those in high bands (from 3 per cent to 4 per cent) decreased. Between December 2014 and February 2015 the average interest rate level dropped by 59 basis points to 2.07 per cent and the standard deviation decreased by 15 basis points to 0.99 percentage points.

Following the amendments to the Law on Consumer Credit (in force as of 23 July 2014) concerning the setting of the reference interest rate²⁷ on household loans, the dynamics of in-

²⁶ As of November 2014, KTB was excluded as a reporting agent from monetary statistics data.

²⁷ According to the amendments, banks shall determine the reference lending rate based on an official market index (LIBOR, EURIBOR or SOFIBOR) and/or indicators published by the Bulgarian National Bank and/or the National Statistical Institute or a combination thereof, while previously banks were allowed to use a market index and/or percentage computed under a methodology specified by them (Consumer Loans Act, Additional Provisions, § 1, item 6).

Interbank Money Market Yield Curve

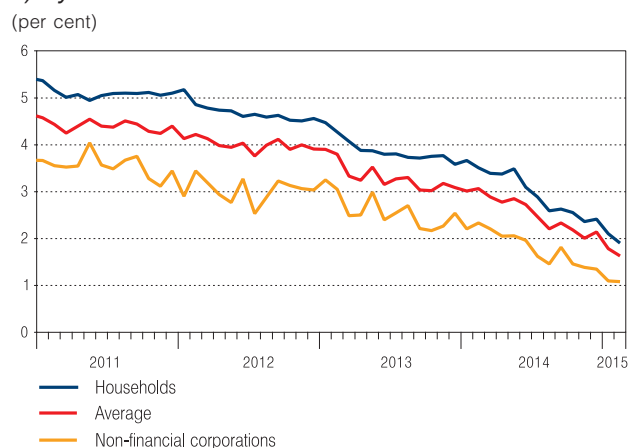


Note: The values reflect the average value of SOFIBOR and SOFIBID of unsecured deposits in levs.

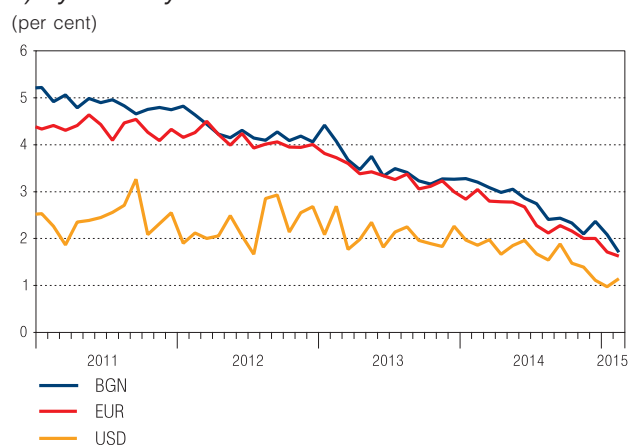
Source: BNB.

Interest Rates on New Time Deposits

a) By sector



b) By currency



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

Source: BNB.

interest rates on the interbank money market in the euro area and in Bulgaria has not only an indirect effect on interest rates on these loans through the price of bank resources but also a direct effect. The review of banks' interest rate policies in Bulgaria by the end of the first quarter of 2015 suggests that conventionally the value of the used market index, most often 3-month or 6-month EURIBOR is applied not only to household deposits but also in determining the reference interest rate on loans extended to non-financial corporations. A certain lag in transmission of interbank market quotation dynamics in the euro area and in Bulgaria to the loan dynamics is due to the fact that banks renew the value of the used market index 2–4 times annually. As a result of above factors and given the enhanced competition in the banking system against the background of weak loan demand, lending rates continued to fall.

Since early 2015 interest rates on new lev-denominated loans to non-financial corporations continued to decrease and in February 2015 the average interest rate on these loans accounted for 6.6 per cent.²⁸ Interest rates on EUR-denominated loans, remaining in 2014 relatively close to the 2013 interest rate levels, posted a slight fall in February 2015 compared with 2014. The interest rate on loans denominated in US dollars amounted to 8.9 per cent in February 2015, hovering around the prior year's level.

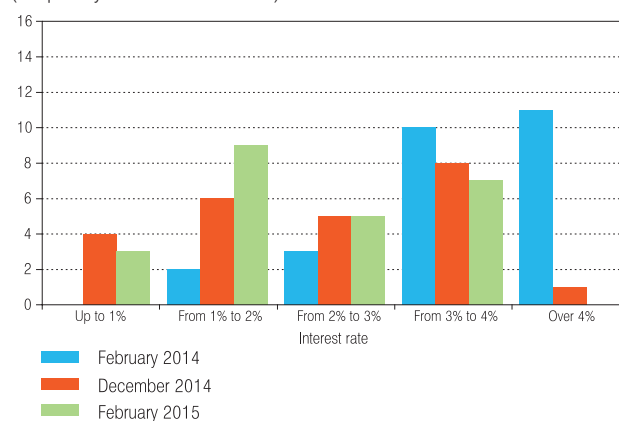
In the first two months of 2015 the downward trend in the annual percentage rate of charge (APRC) on new consumer loans to households, started in August 2014, was sustained.²⁹ In the second half of the previous year the rate of decline in APRC depended to a larger degree on the decrease in fees and commissions, while since the start of 2015 interest rates have had a stronger negative contribution to the change of APRC. Amendments to the Law on Consumer Credit, removing fees and commissions accrued by banks on credit utilisation and management,

²⁸ The interest rates below are the weighted average of the interest rates on loans to non-financial corporations on a 12-month basis.

²⁹ The values indicating APRC and lending rates are the weighted average of the interest rates on household consumer and housing loans on a 12-month basis.

Distribution of Interest Rates on New Household Time Lev Deposits

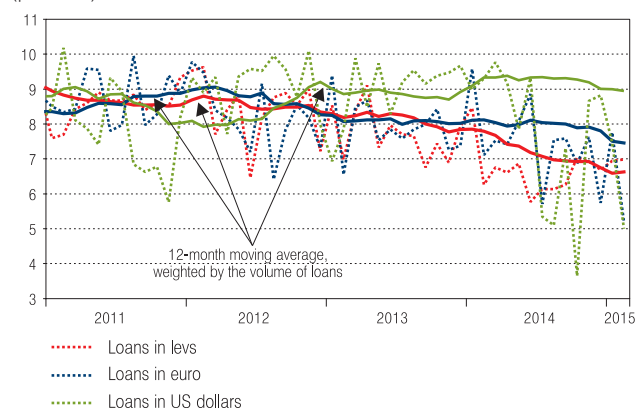
(frequency – number of banks)



Source: BNB.

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

(per cent)



Source: BNB.

pushed down the implicit rate of non-interest charges on consumer loans to households since August 2014. In February 2015 APRC on consumer loans to households accounted for 12.2 per cent, declining by 18 basis points compared with the end of the previous year. The decline in interest expenditure over the same period amounted to 11 basis points and in non-interest expenditure to 7 basis points.

The downward trend in APRC on new housing loans, started in 2011, continued in the first two months of 2015, and in February APRC accounted for 7.3 per cent. The dynamics continued to be driven by the fall in interest rates on this type of deposits, and as of August 2014 the non-interest component also contributed to the decline.

In February 2015 the number of banks extending loans at rates of up to 6 per cent and between 6 and 7 per cent increased compared with December 2014 at the expense of the decreased number of banks offering interest rates in higher bands. In February the average interest rate level dropped by 39 basis points on December 2014 to 6.3 per cent, and the standard deviation fell by 30 basis points to 0.64 percentage points.

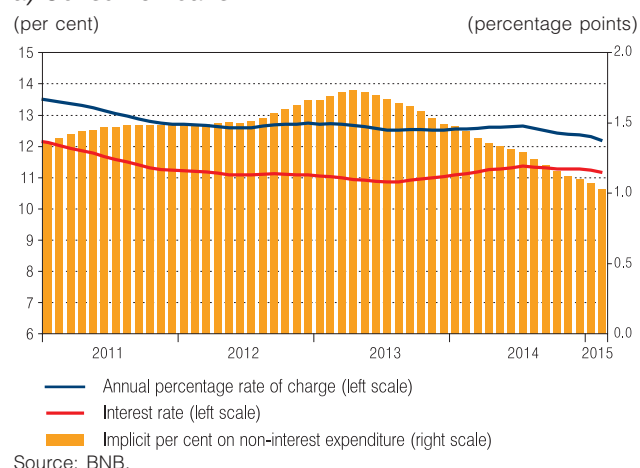
In the first quarter of 2015 a price increase and correspondingly a yield fall was observed at all Bulgarian government securities auctions on the primary market. Low government securities supply and strong demand by banks and institutional investors contributed to the downward yield dynamics. The average annual yield at the auctions of treasury bills and medium-term government securities denominated in levs was 0.32 per cent for 6-month government securities, 0.69 per cent for 3-year government securities and 1.00 per cent for 5-year government securities. The yield of government securities with a maturity of 10.5 year (3.09 per cent) was significantly lower compared with the yield at the first opening of the benchmark issue in January 2014 (3.74 per cent).³⁰

In the secondary market, the long-term interest rate used to assess the degree of convergence

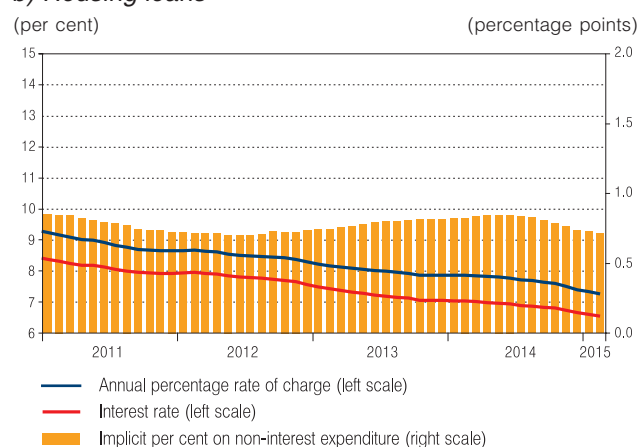
³⁰ Compared with the December 2014 auction, the average annual yield attained in January was higher by 19 basis points, reflecting to some extent the difference in the residual maturity of the two issues.

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

a) Consumer loans



b) Housing loans



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

Source: BNB.

posted a decline in the first quarter of 2015, which may be explained by the effect of the same factors responsible for the yield decrease in the primary market. In March the long-term interest rate came to 2.49 per cent, decreasing by 47 basis points on 2014 and by 105 basis points on the corresponding period of the previous year. The downward trend in the yield over the first quarter of 2015 was also observed in Bulgarian Eurobonds traded in the secondary market.

Interest rates on time deposits are projected to continue their downward trend in the second and third quarters of 2015. Ample banking system liquidity and the ECB monetary policy will add most substantially to this effect. Lending rates are also expected to decline in the following two quarters as a result of further price declines in banks' attracted resources.

Given the fully met budget funding needs using funds accumulated from the March issue on global capital markets, risks to the budget financing in 2015 remain low. Consequently, the downward trend in domestic market government securities yields and lending rates is expected to be sustained in the second and third quarters of 2015.

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

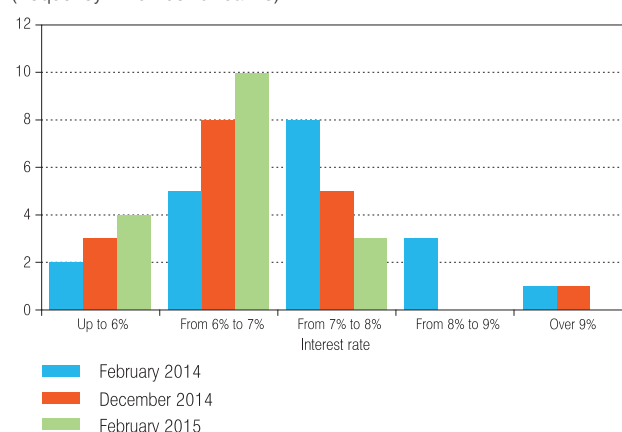
Government revenue and expenditure policy and budget financing operations affected the allocation of liquidity among economic sectors.³¹

Over the last quarter of 2014 the external sector was the main source of liquidity for the consolidated state budget, and the inflow of liquid funds from this sector to the budget accounted for 12.8 per cent of GDP for the quarter. The banking sector (the BNB excluded) was also a net source of liquidity for the budget and the inflow of liquid funds from this sector to the budget accounted for 0.9 per cent of GDP for the quarter.

³¹ 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.

Distribution of Interest Rates on New Housing Loans in Euro

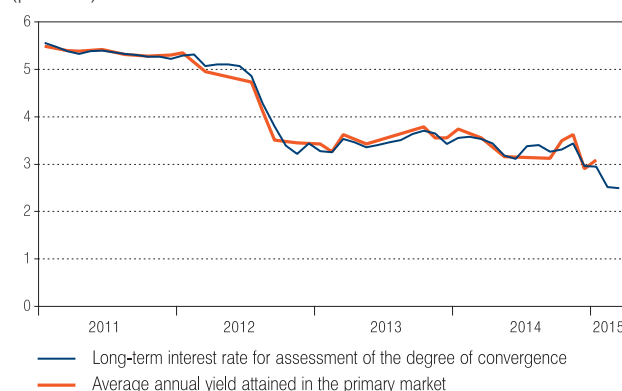
(frequency – number of banks)



Source: BNB.

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

(per cent)



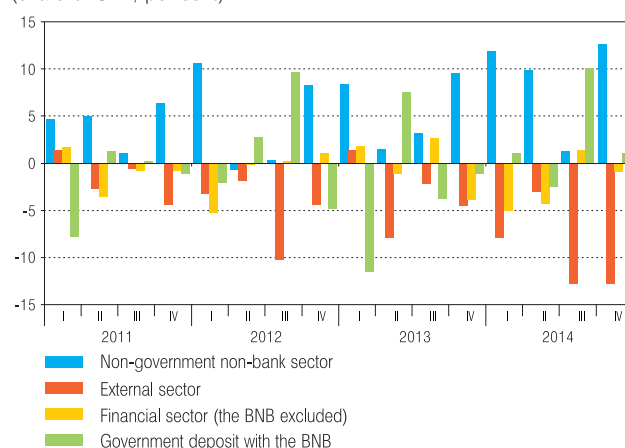
Source: BNB.

The bulk of attracted financial resources from the external and financial sectors was used to finance the budget deficit in the last quarter of 2014 (BGN 1594 million) implying allocation of liquid resources mainly to the non-government non-bank sector. A smaller portion of the funds was used to increase the government deposit with the BNB (by BGN 241 million).

According to preliminary monthly data of mid-April 2015, it may be concluded that in the first quarter of 2015 the external sector continued to be the main source of liquidity for the consolidated state budget, with the operations on net external debt financing and EU liquid funds associated with agricultural and current and capital grants, received in the first quarter contributing to this effect. On 19 March Bulgaria's government issued three new benchmark issues (7-year, 12-year and 20-year) totalling EUR 3.1 billion, with securities acquired by Bulgarian investors accounting for 16 per cent. Concurrently, a bridge bank loan (EUR 1.5 billion) was repaid and USD-denominated global bonds, equivalent to BGN 1765.8 million, matured. In March the European Commission refunded subsidies (BGN 940.5 million) on payments made by the government in January under the EU Common Agricultural Policy. Funds received under the EU Structural Funds and Cohesion Fund amounted to BGN 452.2 million in the first quarter. Over the same period, the bulk of external funding flows, a result of the operations on net debt financing, was used to increase the government deposit with the BNB (by BGN 2136 million).

Consolidated Budget Effect on Other Sectors' Liquidity (Quarterly)

(share of GDP, per cent)



Sources: MF, BNB calculations.

3. Economic Activity

In the fourth quarter of 2014 quarterly growth of real GDP remained unchanged at 0.4 per cent on the previous quarter. Private consumption grew on a quarterly basis and contributed substantially to the GDP growth. Real investment in fixed capital rose on a quarterly basis, although its growth rate moderated compared with the previous quarter, under the effect of weakening public investment. Quarterly growth of exports of goods and services outstripped that of imports of goods and services, and net exports had a positive contribution to the GDP growth. Government consumption had a low positive contribution to economy growth, while the change in inventories had a negative one.

Based on the improved expectations of economic agents observed in the first quarter of 2015, private consumption and private investment in fixed capital are expected to continue to recover slowly on a quarterly basis in the second and third quarters of 2015. The growth of exports of goods and services is expected to be higher than that of imports of goods and services, contributing positivity to the economic growth. Compared with the corresponding period of the previous year a lower overall growth of government consumption and public investment might be expected, narrowing their contribution to real GDP growth. The described dynamics by components is expected to result in deceleration of quarterly GDP growth in the second and third quarters of 2015 as compared to the fourth quarter of 2014.

In 2014 the economic activity in Bulgaria increased, with the rate of real GDP growth accelerating to 1.7 per cent compared with 1.1 per cent in 2013. Private consumption had the major contribution, having recovered after the reported decline in 2013 consistent with the gradual improvement in the labour market resulting in a decrease in unemployment and a slight increase in employment. Government consumption exhibited an increase in 2014 and was impacted by both higher remunerations and increased health insurance payments in the public sector. Investment in fixed capital, comprising mostly public investment, also contributed to the increase in real GDP despite the slower quarterly growth reported over the year. Net exports had a negative contribution to real GDP growth over the year. The strengthened domestic demand and slower growth of exports, primarily a result of one-off factors (repair and construction of new oil production capacities and decreased exports of products of plant and animal origin), contributed to the higher growth rate of imported goods and services as compared with exported goods and services.

According to seasonally adjusted NSI national accounts data,³² in the fourth quarter of 2014 quarterly growth of real GDP remained unchanged on the previous quarter at 0.4 per cent. Private consumption rose on a quarterly basis despite the worsened consumer confidence. Real investment in fixed capital rose but at a slower rate compared with the previous quarter, impacted by lower growth of public investment. Quarterly growth of exports of goods and services outstripped that of imports of goods and services, and net exports had also a positive contribution to GDP growth. Government consumption had a low positive contribution to economic growth, while the change in inventories contributed negatively.

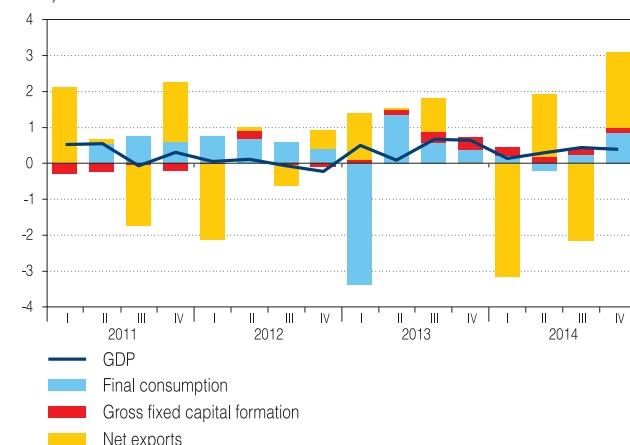
Short-term economic indicators improved in the first quarter of 2015, indicating a diminishing negative effect of the factors, such as uncertainty associated with the internal political instability and events related to the revocation of the Corporate Commercial Bank license and Ukraine and Russia crisis, on business expectations and sentiment. The household confidence indicator improved due to higher expectations of the future economic situation and future household financial status, as well as expectations of lower unemployment. This was a prerequisite for the private consumption recovery to continue in the second and third quarters of 2015.

The overall business situation indicator tracking business sentiment went up in the first quarter of 2015 on the fourth quarter of 2014, reflecting the more favourable assessment about the expected business situation. All sectors except for trade, improved, with industry reporting the most significant improvement. Despite these improvements, the uncertain economic environment in all sectors continued to be considered as one of the major factors limiting firms' activity. An improvement of firms' expectations about the number of their personnel has been observed since July 2014, indicating that employment will continue to recover gradually.

³² 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

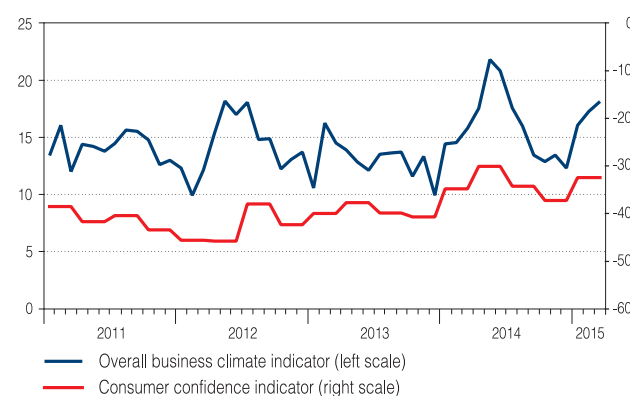
(per cent, quarter-on-quarter percentage points, seasonally adjusted data)



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.

Business Climate and Consumer Confidence



Sources: NSI, BNB calculations.

In the second and third quarters of 2015 private consumption is expected to recover further, reflecting the improved consumer confidence and the gradual recovery of labour market conditions. Irrespective of the improvement in business sentiment about the current and future economic activity observed in early 2015, firms are expected to remain cautious about their investment activity due to still uncertain economic environment, while private investment in fixed capital is projected to recover at a moderate pace in the second and third quarters of 2015. Quarter-on-quarter growth of government consumption and public finance is expected to be limited. The economic activity recovery in Bulgaria's major trading partners and stronger external demand for Bulgarian goods and services will contribute to higher goods and services exports on a quarterly basis. Due to more limited growth in domestic demand over the second and third quarters of 2015, the growth of goods and services imports is expected to remain weaker than that of goods and services exports. As a result, net exports are expected to have a slightly negative contribution to GDP growth over the same period.

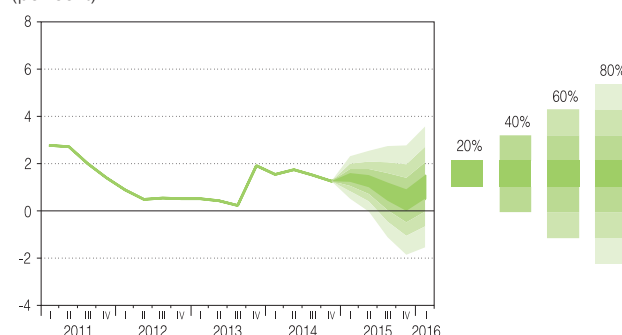
In line with the above quarter-on-quarter dynamics, annual real GDP growth is projected to slow down in the second and third quarters of 2015. The weaker domestic demand growth will have the main contribution to the slowing annual growth in economic activity.

Risks to this outlook relate mainly to the uncertainty surrounding external environment developments and particularly to the euro area and EU growth. Risks arising from the protracted period of deflation in Bulgaria are already considered to be balanced. At the beginning of 2015 consumer price deflation was mainly driven by the price falls in transport fuels. This may have a positive effect on private consumption.³³ On the other hand, if deflation spreads further over other goods and services groups, this may prompt a decline in firms' profits, leading to a postponement of investment plans and reduction in labour costs. To sum up, total risks to the outlook are assessed as broadly balanced.

³³ For more detailed information, see the box entitled *Economic and Financial Effects of Oil Price Declines*, Economic Review, 4/2014, p. 78.

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.

Real GDP Growth by Component of Final Use

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

	2012				2013				2014			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Consumption	1.0	0.9	0.7	0.5	-4.1	1.7	0.7	0.5	0.3	-0.3	0.3	1.1
incl.												
Household consumption	2.0	0.6	0.1	-0.4	-2.2	0.7	-0.3	0.4	1.3	-0.4	0.4	0.9
Final government consumption expenditure	4.7	-6.2	0.8	-0.2	-0.3	4.9	-3.4	-2.5	7.5	1.9	-2.1	1.5
Collective consumption	-0.6	0.7	0.5	1.6	1.2	0.8	0.9	-0.1	0.5	0.4	0.2	0.5
Gross fixed capital formation	0.0	1.0	-0.2	-0.4	0.5	0.7	1.4	1.6	1.1	0.9	0.7	0.6
Exports of goods and non-factor services	-5.9	6.6	-1.4	0.8	5.8	1.3	3.3	-0.1	-2.2	2.2	-2.6	8.3
Imports of goods and non-factor services	-2.3	6.1	-0.4	-0.1	3.5	1.2	1.8	-0.1	2.6	-0.5	0.7	4.6
Real GDP growth	0.1	0.1	-0.1	-0.2	0.5	0.1	0.7	0.6	0.1	0.3	0.4	0.4

Source: NSI.

Household Behaviour

In the fourth quarter, just like during most of 2014, household behaviour was characterised by relatively low consumption growth, a high savings rate and weak labour supply. This behaviour was underpinned by the uncertain economic and political environment, relatively high unemployment rate, low rate of employment growth, and slower growth in labour income.

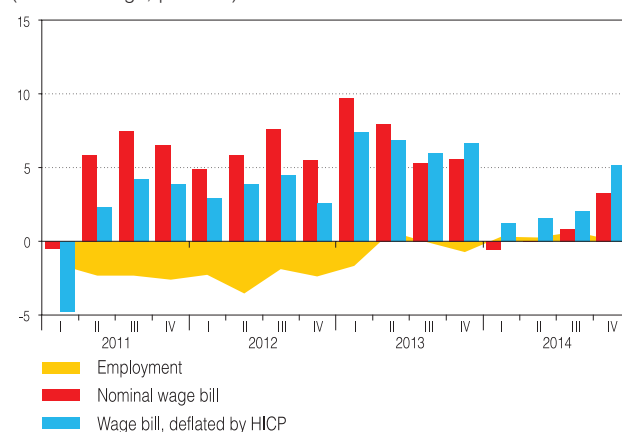
Employment remained at relatively low levels in 2014, albeit slightly increasing in some sectors. This, coupled with the deflation in certain goods and services groups, may have had negative implications on wage bargaining in 2014. Growth in the annual household income moderated significantly compared with 2013 (non-seasonally adjusted data on wage bill and average wage *per employee*). In the fourth quarter of 2014 a slight quarter-on-quarter acceleration in labour income growth was observed compared with the rest of 2014 (seasonally adjusted³⁴ national account data)³⁵ concentrated in very few sectors (industry, finance, insurance, professional activities and scientific research). If the rate of employment remains relatively low, labour income is expected to grow in most of

³⁴ 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.

³⁵ 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.

Employment and Wage Bill

(annual change, per cent)

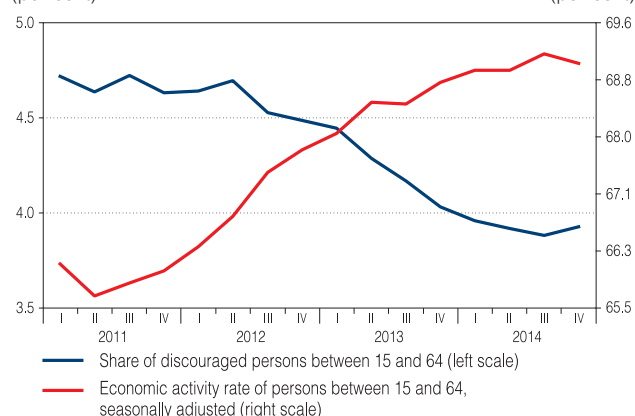


Sources: NSI – SNA, BNB calculations.

Activity Rate and Share of Discouraged Persons

(per cent)

(per cent)



Sources: NSI Labour Force Survey, BNB calculations.

the sectors, reflecting the gradual fading out of deflationary effects in 2015, despite firms' cautious labour cost policy. In the short-term horizon, however, consumption is expected to remain at levels close to its current levels.

In the context of relatively low labour demand by corporations, household labour supply (as measured by the labour force changes³⁶) did not change significantly according to the NSI Labour Force Survey. The increase in economic activity rate throughout most of the year was driven mainly by the fall of working-age persons. The marginal decline in the activity rate³⁷ according to seasonally adjusted data for the fourth quarter of 2014 reflected slightly dropping labour force over the same quarter. The number of discouraged persons remained broadly unchanged at comparatively high levels.

The Labour Force Survey shows that in 2014 the seasonally adjusted unemployment rate³⁸ decreased. This trend was sustained in the fourth quarter, unemployment reaching 10.5 per cent (the non-seasonally adjusted unemployment rate came to 10.6 per cent). The seasonally adjusted unemployment rate³⁹ calculated using the Employment Agency data also decreased in 2014 and in the first quarter of 2015 it reached 10.4 per cent (11 per cent according to non-seasonally adjusted data) in March 2015. Short-term unemployed (up to one year) experienced more essential declines. The Labour Force Survey for the fourth quarter shows that the number of long-term unemployed (those jobless for more than a year) remained comparatively high at 6.6 per cent as a share of labour force.

³⁶ The labour force (currently economically active population) comprises persons aged 15 and older who provide the supply of labour for the production of goods or services. The labour force includes both employed and unemployed persons.

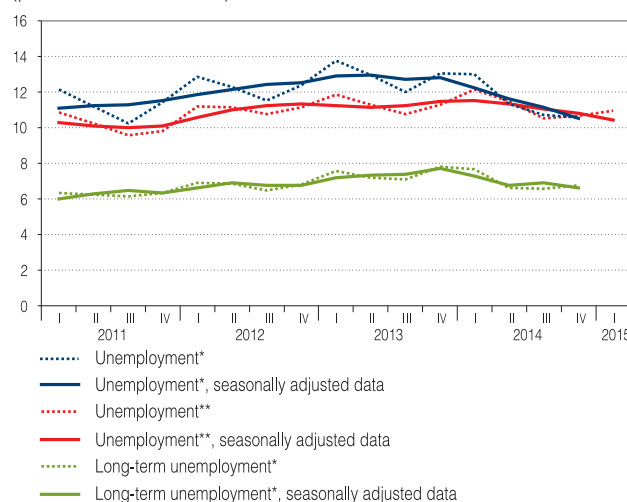
³⁷ Economic activity rate is the proportion between economically active persons (labour force) and the population of the same age.

³⁸ Unemployment rate is the proportion between the number of unemployed and the labour force based on Labour Force Survey data.

³⁹ The definition of the unemployment rate according to Employment Agency data corresponds to that referred to in note 38, 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.

Unemployment Level

(per cent of labour force)



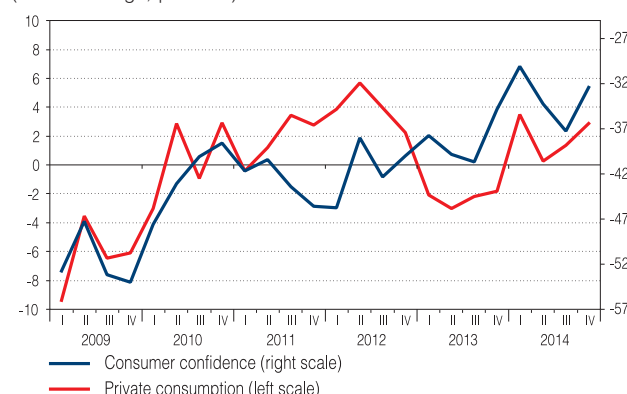
* NSI data.

** Employment Agency data.

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

Private Consumption and Consumer Confidence

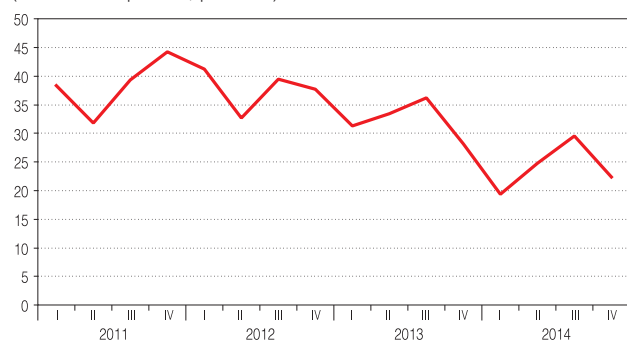
(annual change, per cent)



Sources: NSI Consumer Survey and BNB calculations.

Unemployment Expectations in the Following 12 Months

(balance of opinions; per cent)



Source: NSI Consumer Survey.

According to seasonally adjusted national account data, household consumption recovered in 2014, rising 0.9 per cent on a quarterly basis and 2.9 per cent on an annual basis. Retail trade turnover also increased throughout the year, posting a quarter-on-quarter increase in the fourth quarter of 2014, mainly in automobile fuels and lubricants and, to a lesser extent, in household appliances, furniture and household goods, and computer and communication equipment.

Retail trade turnover in early 2015 suggests a continuing increase in consumption in the first quarter of 2015. In January and February 2015 average retail trade turnover at constant prices grew compared with its fourth quarter's average. The annual growth rate of trade volumes in real terms remained close to that observed in the second half of 2014. An improvement in the consumer confidence indicator was also reported by the NSI in its January consumer survey.⁴⁰ Expectations of the economic situation, household financial position and unemployment, which may have been temporarily affected by the events of the last year, also improved.

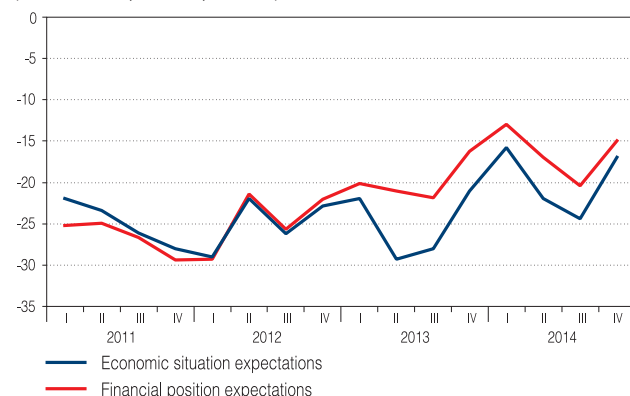
Households retained their relatively high savings rate in 2014. The share of savings in household disposable income (NSI household budget survey data) decreased over the third quarter, though remaining at relatively high levels persisting in the fourth quarter of 2014. A high share of households intending to increase their savings in the following 12 months was sustained (October 2014 consumer survey). Households' net assets measured by their net position *vis-à-vis* the banking system (BNB monetary 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.

Consumer demand in the second and third quarters of 2015 is expected to increase at comparatively low rates, the household savings

⁴⁰ 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).

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

(balance of opinions; per cent)

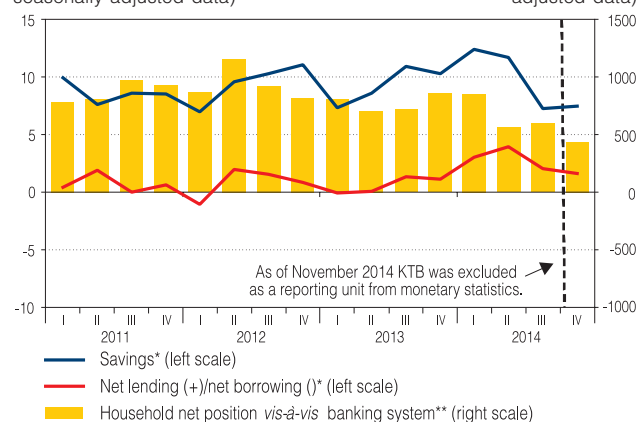


Source: NSI Consumer Survey.

Household Propensity to Save

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

(million BGN, quarterly change, seasonally adjusted data)



Note: Since November 2014 KTB has been excluded as a reporting agent from monetary statistics.

* NSI data.

** BNB data.

Sources: NSI Household Budget Survey, BNB.

Employment and Income Dynamics

	2012				2013				2014			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Per cent on the previous quarter (seasonally adjusted data)												
Employed	-0.7	-1.0	0.1	-0.2	-0.2	0.4	-0.2	-0.1	0.2	0.0	0.2	0.0
Nominal wage <i>per employee</i> *	1.1	2.8	2.6	1.5	3.8	0.5	0.5	0.7	-0.8	0.6	1.0	1.6
Real wage <i>per employee</i> **	2.0	2.1	1.3	2.2	2.3	1.4	1.1	0.5	0.3	1.0	1.8	2.5
Wage bill, nominal terms	0.3	2.2	2.6	0.7	3.7	0.5	0.2	0.5	-0.9	0.8	0.9	1.5
Wage bill, real terms**	1.3	1.5	1.3	1.4	2.2	1.3	0.8	0.2	0.2	1.1	1.7	2.4
Per cent on the corresponding period of the previous year (non-seasonally adjusted data)												
Employed	-2.3	-3.5	-1.9	-2.3	-1.7	0.7	-0.1	-0.7	0.3	0.3	0.7	0.1
Nominal wage <i>per employee</i> *	7.1	7.9	8.5	8.3	12.3	8.6	6.2	6.6	0.0	-0.2	0.9	3.7
Real wage <i>per employee</i> **	5.2	6.0	5.4	5.3	9.9	7.4	6.9	7.7	1.9	1.5	2.1	5.6
Wage bill, nominal terms	4.9	5.8	7.6	5.5	9.8	8.0	5.3	5.6	-0.6	0.0	0.9	3.3
Wage bill, real terms**	3.0	3.9	4.5	2.6	7.4	6.9	6.0	6.7	1.3	1.6	2.1	5.2

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

** Data deflated by HICP.

Sources: NSI – SNA, BNB calculations, Eurostat.

Retail Trade Turnover

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

	2012				2013				2014				2015
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	January – February
Retail trade turnover, excluding cars and motorcycles	5.9	-1.0	-0.5	-0.5	1.0	3.1	1.4	1.4	1.0	-0.1	1.9	0.9	1.0
incl.													
Foods, drinks and tobacco	1.5	0.9	0.0	1.5	-4.6	3.6	3.9	0.2	0.8	0.7	0.9	0.8	-2.4
Textile, clothing, footwear and leather	8.2	-4.8	2.3	3.5	2.2	4.6	6.3	-3.4	-3.6	1.8	3.1	-0.1	-0.6
Household goods and home appliances	8.4	0.5	-2.4	-0.8	1.4	2.7	2.4	2.4	0.0	0.6	1.5	2.5	1.1
Computers and communication equipment, etc.	-3.3	1.4	0.0	-8.1	5.1	5.6	1.5	5.5	4.2	-2.5	1.1	0.7	-0.9
Pharmaceutical and medical goods, cosmetics and toiletries	2.6	0.8	1.2	-4.6	7.2	5.3	4.3	1.7	-1.2	0.0	1.8	3.9	0.1
Non-specialised stores with different kinds of goods	8.6	-1.4	-1.3	1.2	0.5	11.7	-4.6	-1.2	-1.2	0.4	-0.3	0.1	-0.3
Automobile fuels and lubricants	5.1	0.2	1.3	0.9	-3.6	4.6	-5.4	-0.8	1.3	-0.9	6.8	-1.1	7.3

Source: NSI Domestic Trade Survey.

rate to remain relatively high and labour supply relatively low. Consumer demand and the savings rate may be temporarily higher-than-expected due to higher positive effects on household real disposable income reflecting the ongoing fall in oil prices and some commodity groups of high priority for the households.⁴¹ As the second-round deflationary effects are expected to be limited in the next months, they will not have a significant effect on the disposable income.

⁴¹ See the box entitled *Economic and Financial Effects of Oil Price Declines*, Economic Review, 4/2014.

Fiscal Policy Effects on the Economy

Quarterly data on consolidated fiscal programme performance show that the cash-based budget deficit for 2014 came to BGN 3072.9 million (3.7 per cent of GDP). On an accrual basis, the general government deficit was BGN 2336.9 million (2.8 per cent of GDP).

In 2014 fiscal policy affected the economic activity mainly through expenditure on public investment, government consumption and social payments. General government's sector real investment followed the trend observed since 2013 to contribute significantly to gross fixed capital formation overall in the economy, while the high positive contribution of government consumption reflected the increase in compensation of employees and healthcare spending. Despite the lower annual growth at the close of 2014, social payments still occupied the largest share in the total expenditure due both to higher health insurance payments and increased expenditure on pensions.

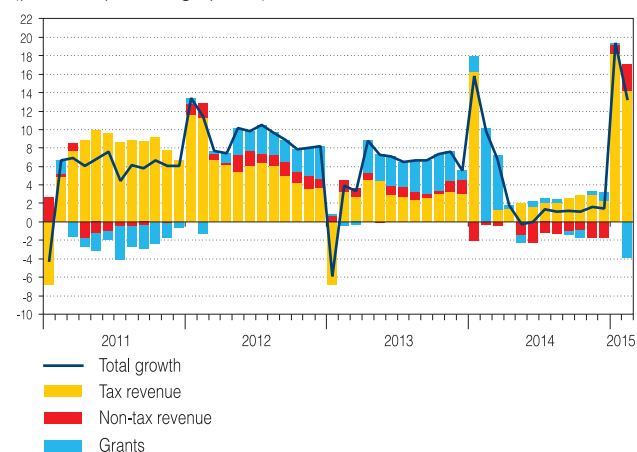
Following the slight annual growth in total revenue on the consolidated fiscal programme (CFP) in 2014, in the first two months of 2015 their growth rate accelerated significantly largely due to one-off factors. These factors include the annual increase in VAT receipts as of February (29.5 per cent), reflecting mainly the higher VAT receipts from domestic and intra-Community transactions (net), while receipts from VAT on imports posted a cumulative decline of 10.9 per cent. Non-cumulative VAT revenue in February was BGN 528 million against BGN 509 million in the same month of 2014 and BGN 605.4 million in monthly average revenue throughout the whole 2014. Receipts from excise duties also exhibited a significant annual increase (10.6 per cent) in January and February 2015 mainly due to higher fuel excise receipts. Income from social and health insurance contributions rose cumulatively by 22.5 per cent on February 2014, reflecting both the legislative changes⁴² introduced in early 2015 and the base effect of lower revenue as of February 2014.

By end-February 2015 total consolidated fiscal programme expenditure since the beginning

⁴² For further details, see *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*, Economic Review, 4/2014.

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

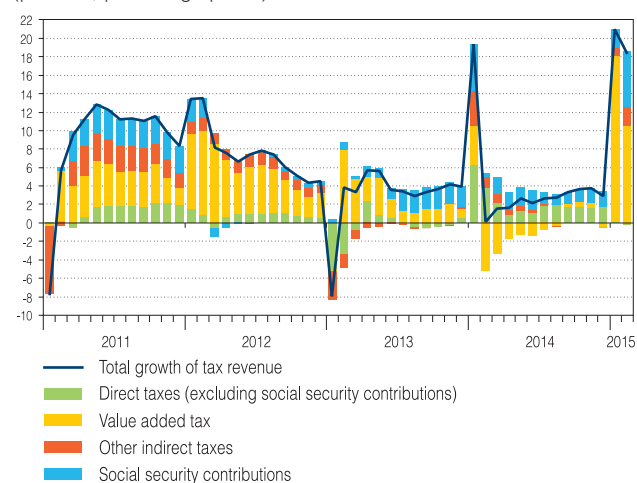
(per cent, percentage points)



Sources: MF, BNB calculations.

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

(per cent, percentage points)



Sources: MF, BNB calculations.

of the year fell by 0.5 per cent on an annual basis, with spending on EU budget contribution, capital expenditure and social payments contributing mainly. Concurrently, the low annual growth rate of expenses on compensation *per* employee matched that of February 2014, while operating expenditure posted a minimum decline. As a result, in the first quarter of 2015 government consumption formed mainly by compensation *per* employee and operating expenditure is expected to have a low positive contribution to GDP growth.

According to preliminary data and MF estimates, CFP balance in the first quarter of 2015 is likely to be positive due mainly to better-than-expected tax revenues. Given the completion of the 2007-2013 programming period and the efforts to fully absorb the funding under the operational programmes co-financed by EU Structural Funds and Cohesion Fund, it may be expected that the cumulative growth rate of general government sector investment will be positive in June and September, though significantly lower than that in 2014.

At the same time, after discontinuation of the effect of one-off factors in early 2015, tax revenue growth is projected to slow down in the following two quarters owing to the sustained negative inflation of consumer prices.

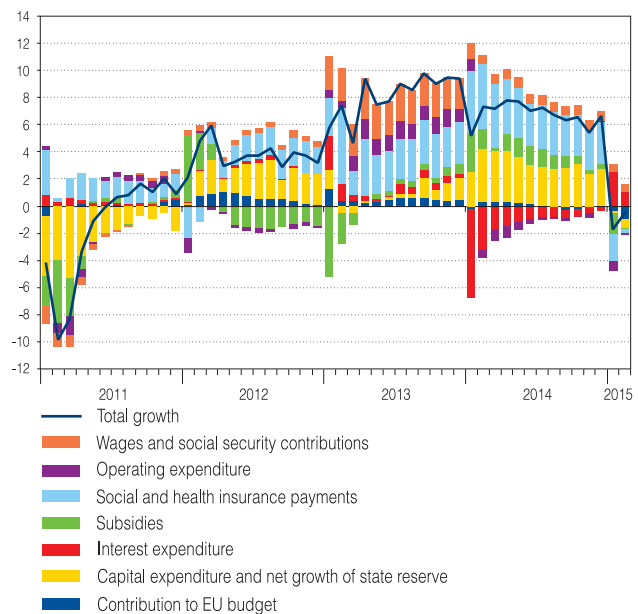
Assuming that the planned fiscal consolidation of compensation of employees and health insurance payments is implemented in accordance with the 2015 State Budget Law,⁴³ government consumption is likely to have a low negative contribution to real GDP growth in the second and third quarters of the year.

Positive effects on low-income household consumption may be expected as a result of the pension supplements approved by the government on 6 March 2014 to be paid in April, as well as planned pension rises from July according to the Swiss rule for the annual indexation. Positive effects of the government social policy on disposable income and possibly on private consumption will most likely have a short-run effect and will, to a large extent, depend on limited liquid resources of households and their propensity to save.

⁴³ See note 42.

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

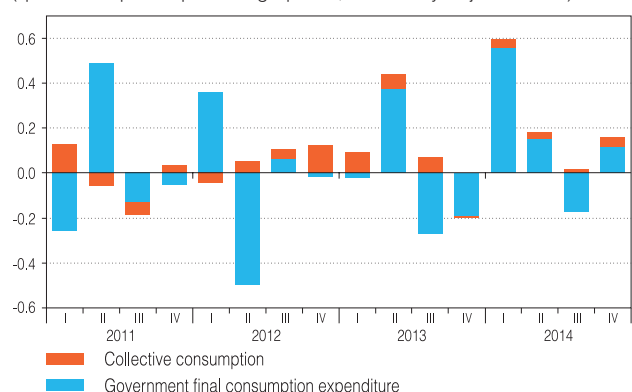
(per cent, percentage points)



Sources: MF, BNB calculations.

Contribution of Government Consumption to Real GDP Growth

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



Sources: NSI, BNB calculations.

Revenue, Expenditure and Budget Balance on Consolidated Fiscal Programme for 2014–2015

Consolidated Fiscal Programme	2014										2014		2015	
	I quarter		II quarter		III quarter		IV quarter		Total		January – February ¹		January – February ¹	
	million BGN	per cent ²	million BGN	per cent ²	million BGN	per cent ²	million BGN	per cent ²	million BGN	per cent ²	million BGN	per cent ²	million BGN	per cent ²
Total revenue and grants	6 576	6.8	7 594.9	-5.2	7 386	3.4	7 852.8	2.4	29 409.1	1.5	4 203	9.8	4 762	13.3
Tax revenue	5 200	1.6	5 979.8	3.7	5 895	4.6	5 952.8	1.8	23 027.8	2.9	3 251	0.1	3 850	18.4
Corporate tax	453	-2.4	496.0	10.2	219	13.9	511.3	14.6	1 679.3	8.1	53	39.5	77	45.1
Personal income tax	623	21.6	677.9	13.8	645	2.6	651.5	6.4	2 596.6	10.6	465	29.2	398	-14.3
Value added tax	1 617	-10.3	1 869.3	3.5	2 029	8.4	1 749.0	-7.2	7 264.4	-1.4	1 161	-12.8	1 504	29.5
Excise	855	6.1	979.7	-2.1	1 152	-2.7	1 051.5	-1.2	4 038.7	-0.4	588	6.7	651	10.6
Customs duties	35	9.6	35.1	2.1	42	-5.4	41.4	15.6	153.1	4.8	23	14.1	26	11.6
Social and health insurance contributions	1 396	5.8	1 641.3	3.4	1 644	6.0	1 767.6	10.2	6 448.8	6.4	876	1.0	1 073	22.5
Other taxes	221	21.6	280.5	-4.5	165	-0.3	180.5	-9.5	846.8	0.8	86	6.4	122	42.8
Non-tax revenue	859	-3.1	965.6	-26.0	874	20.2	761.6	-26.1	3 460.0	-12.4	549	-2.6	670	22.0
Grants	518	238.0	649.4	-30.6	616	-20.7	1 138.4	43.8	2 921.4	10.0	403 2	439.6	242	-39.9
Total expenditure														
(incl. the contribution to EU budget)	7 450	7.1	7 716.6	6.9	7 868	5.0	9 446.7	8.0	32 482.0	6.8	4 891	7.3	4 867	-0.5
Wages and social security contributions	1 396	3.7	1 492.4	3.2	1 471	3.3	1 659.4	3.3	6 019.6	3.4	914	3.1	942	3.0
Operating expenditure	1 016	-5.7	1 145.5	2.9	1 023	-0.3	1 541.0	4.1	4 725.5	0.6	618	-4.0	616	-0.4
Interest	199	-37.4	40.6	-33.4	271	-1.6	69.1	103.8	579.9	-15.8	166	-47.0	216	30.1
Social security, assistance and social care	3 375	10.8	3 363.5	3.8	3 388	5.8	3 582.1	10.0	13 709.1	7.5	2 226	10.7	2 213	-0.6
Subsidies	329	5.7	510.2	50.2	291	4.6	420.6	-13.6	1 551.1	9.5	215	49.8	205	-4.5
Capital expenditure and state reserve growth	786	49.5	951.5	17.3	1 285	19.3	1 920.1	13.1	4 942.1	20.2	477	57.5	449	-5.9
Contribution to EU budget	349	6.4	212.9	3.6	139	-35.1	254.5	36.1	954.9	2.2	274	6.4	226	-17.4
	million BGN	difference ³ (million BGN)	million BGN	difference ³ (million BGN)	million BGN	difference ³ (million BGN)	million BGN	difference ³ (million BGN)	million BGN	difference ³ (million BGN)	million BGN	difference ³ (million BGN)	million BGN	difference ³ (million BGN)
Budget balance on a cash basis	-875	-77	-122	-913	-483	-127	-1 594	-515	-3 073	-1 632	-688	44	-106	583

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

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

² Annual rate of change on the same period of previous year.

³ Budget balance changes in million BGN on the same period of previous year.

Source: MF.

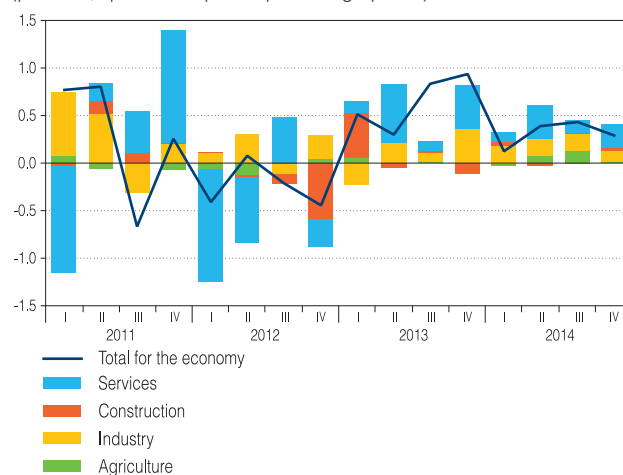
Behaviour of Firms and Competitiveness

After gradually accelerating in the second and third quarters of 2014 on a quarterly basis, real value added growth moderated slightly to 0.3 per cent in the fourth quarter (0.4 per cent in the third quarter). Services and industry had the major contributions to the growth.

Data on short-term indicators at the beginning of 2015 show that the upward trend in value added in industry observed in 2014 was retained. The industrial production index at constant prices went up on average on a quarterly basis between January and February 2015 compared with the fourth quarter of 2014, with manufacturing, production and distribution of electricity, heating and gas contributing most to

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.

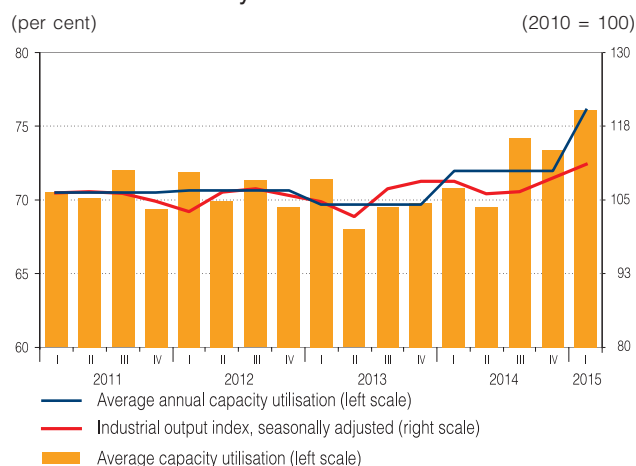
the growth. Manufacture of food, drinks, metal products, except machinery and equipment, and of vehicles, except motor vehicles, had the largest contribution among manufacturing sub-sectors. By type of goods, the strongest rise in industrial production was reported in production of non-durable consumer, energy and investment products.⁴⁴

Production capacity utilisation marked an increase in the beginning of the first quarter of 2015, with its rate remaining above its average over 2009–2014, as in the last two quarters. In the fourth quarter higher production capacity utilisation was observed in the following industrial sub-sectors⁴⁵: installation services of industrial machinery and equipment, manufacture of wood and wood products, except furniture, manufacture of vehicles, except motor vehicles, and manufacture of electrical equipment. Manufacture of all product types except for intermediate consumption goods also recorded an increase. Production of investment goods followed its upward trend in the capacity utilisation observed since mid-2013, signalling a rise in demand for this type of goods. The sustained high capacity utilisation may require investments to boost production capacities in some industrial sub-sectors expecting an increase in orders. The NSI investment activity survey in industry of October 2014, which examines firms' sentiment in this sector concerning their investment plans in 2015, gives a similar indication. According to the survey, 36 per cent of firms would direct their investments at capacity expansion. In comparison, over the 2012–2014 period it was reported that most of the requested firms would turn investments on improving the production efficiency. Nevertheless, in the Survey of Business Developments in Industry, managers continued to point to the economic uncertainty as a main factor impeding their activity. Taking this into account, firms in this sector are expected to remain cautious about their investment policy.

⁴⁴ The Main Industrial Groupings classification was used covering the following sectors: production of intermediate products, energy products and water related activities, investment and consumer products.

⁴⁵ Data by sub-sector from the European Commission's Survey of Business Developments in Industry.

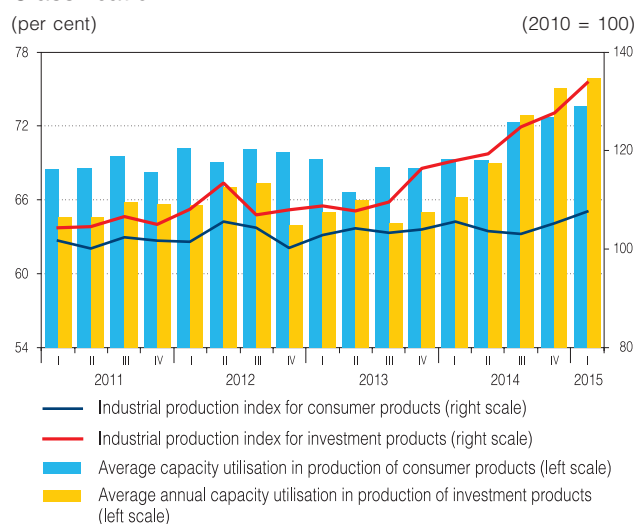
Industrial Production Index and Production Capacity Utilisation in Industry



Note: Data on industrial production index for the first quarter of 2015 are averaged for the January to February period.

Sources: NSI – Industry Business Survey, BNB calculations.

Industrial Production Index and Production Capacity Utilisation in Producing Consumer and Investment Goods under the Major Industrial Groupings Classification



Note: Data on industrial production index for the first quarter of 2015 are averaged for the January to February period.

Sources: EC, NSI, BNB calculations.

Nominal industrial turnover posted quarterly growth on average in the January to February 2015 period compared to the fourth quarter of 2014, following its upward trend observed in the previous three quarters. Manufacturing and production and distribution of electricity, heating and gas contributed positively, while quarrying contributed negatively to the nominal turnover. Between January and February 2015 real income from domestic sales had the main positive contribution to the growth, while price declines on both external and internal markets and, to a lesser extent, real revenue from external market sales contributed negatively.

Value added growth in construction remained low in the fourth quarter of 2014, though accelerating slightly on the previous quarter. In the January – February 2015 period overall construction output index (at constant prices) remained close to its level of the fourth quarter of 2014. The building construction component posted a decline, while civil construction grew for the same period. Property register data show an increase in the number of sales in the fourth quarter of 2014 and the first quarter of 2015, though if a more lasting trend is not formed, it will be difficult to conclude that there is a recovery in housing market demand. Despite the weak economic activity in construction and dynamics of construction production, managers' expectations about future economic activity improved in the first quarter of 2015.

In the services sector, value added growth accelerated in the fourth quarter of 2014 on the third quarter. Real estate operations had a significant positive contribution. Slight declines in value added were recorded by the creation and dissemination of information⁴⁶ and culture, sport and entertainment⁴⁷ sub-sectors.

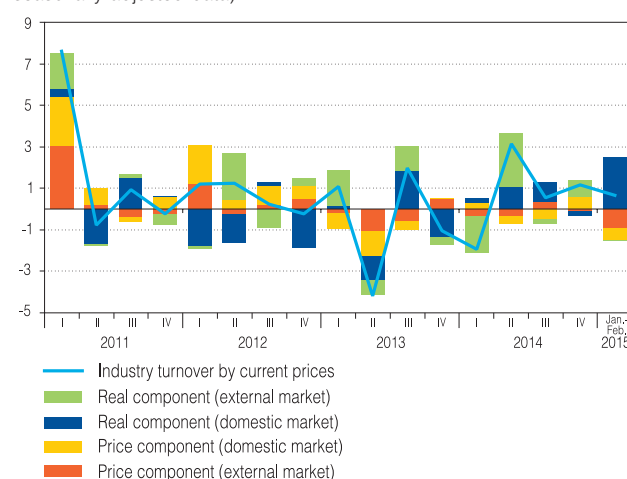
In the first months of 2015 positive developments continued to be observed in the retail trade services sub-sector, occupying a considerable share in value added for the overall

⁴⁶ The creation and dissemination of information and author products; telecommunications sub-sector according to A10 breakdown of economic activities.

⁴⁷ The 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 sub-sector according to A10 breakdown of economic activities.

Contribution by Components to Industrial Turnover Dynamics

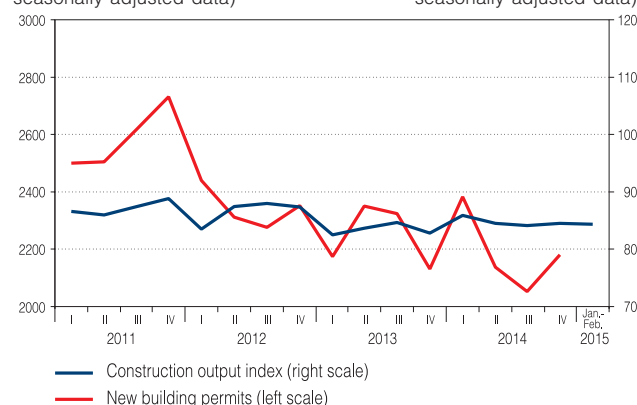
(per cent, quarter-on-quarter percentage points, seasonally adjusted data)



Sources: NSI, BNB calculations.

Construction Output Dynamics and New Buildings Permits Issued

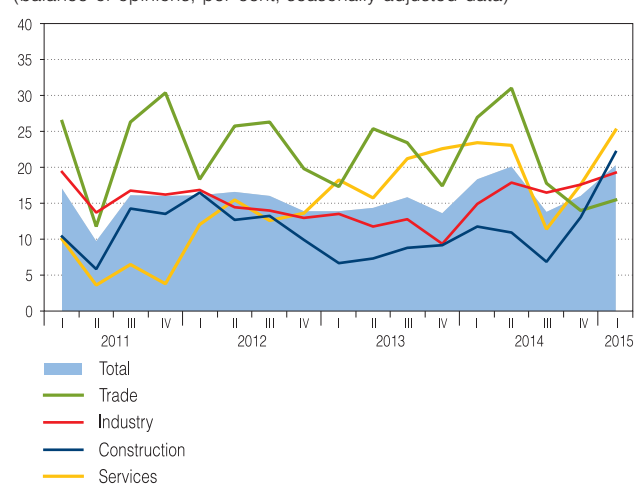
(number of buildings; seasonally adjusted data) (2010 = 100, seasonally adjusted data)



Sources: NSI, BNB calculations.

Expectations about Future Economic Activity

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



Sources: NSI, BNB calculations.

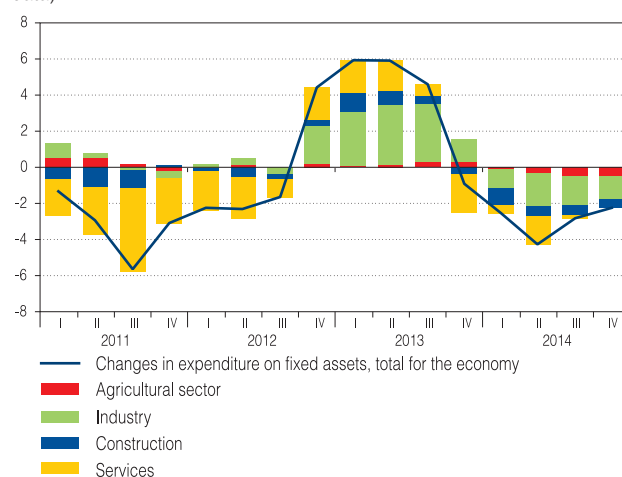
economy. After rising in the third and fourth quarters of 2014 on a quarterly basis, the turnover of retail trade at constant prices grew at the beginning of the year. Between January and February 2015 income from sales in retail trade of automobile fuels and lubricants and retail trade of household appliances marked the largest increase, which may be linked to the higher demand against the background of decreases in prices of these goods. Retail trade in food, drink and tobacco products and retail trade in computer and communication equipment and other consumer goods reported a slowdown in trade volumes.

The deterioration observed in the second half of 2014 in business expectations and sentiment, measured by the business climate indicator, was discontinued in the first quarter of 2015 in all sectors, except for trade. Managers' perceptions of current economic activity and expectations about future economic activity improved in all sectors in the first quarter of 2015. In industry, the assessment of production assured by orders from both Bulgaria and abroad improved, while trade reported improved expectations for future sales. In the first quarter all sectors exhibited higher expectations about the number of personnel, indicating that employment will continue recovering.

According to national account data, in the fourth quarter of 2014 investment in fixed capital went up quarterly in real terms. However, the trend towards a slight deceleration in the growth of fixed capital investments was formed by the fourth quarter, which was probably attributable to the reduction of public investment growth. Nominal expenditure on acquisition of fixed assets indicating allocation of investments across sectors showed a decline in the fourth quarter of 2014, with industry registering the major negative contribution, and agriculture and construction contributing less. With the formation of a more lasting trend toward a recovery in economic activity and the retention of higher economic growth rates, firms are likely to assess the economic environment as safer, which will create conditions for strengthening economic activity.

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)

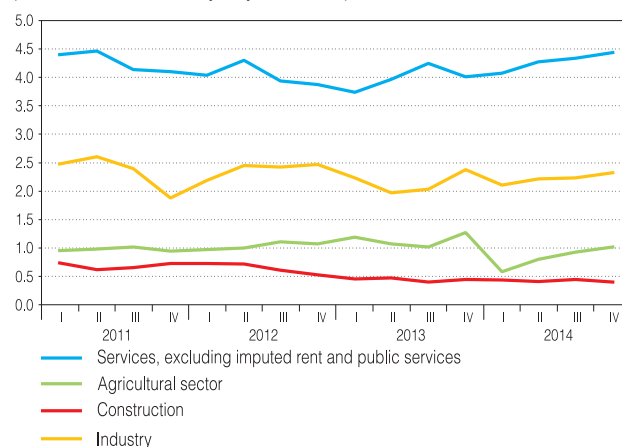


Note: Preliminary quarterly data due to the lack of final data.

Sources: NSI, BNB calculations.

Gross Operating Surplus at Current Prices

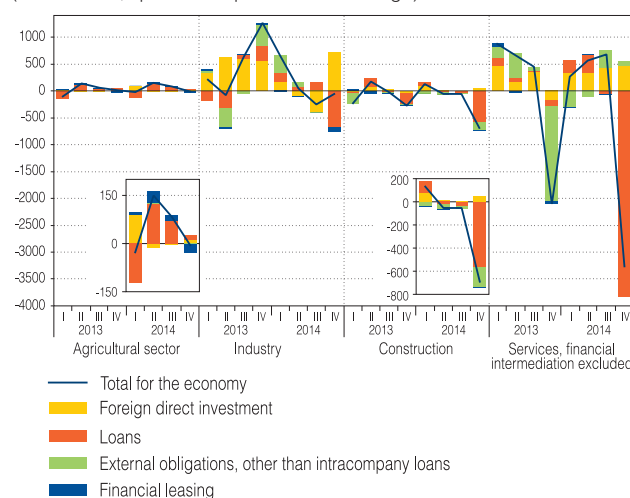
(billion BGN, seasonally adjusted data)



Sources: NSI, BNB calculations.

Financing Sources*

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



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

Source: BNB.

Gross operating surplus in 2014 remained close to its previous quarter's level. Dynamics by sectors was divergent throughout the year. Negative changes occurred mainly in the agricultural sector due to its strong decrease in the first quarter. Construction also reported a decline. Gross operating surplus rose in almost all services sub-sectors and industry. In the fourth quarter of 2014 most economic sectors, except for construction, reported growth in gross operating surplus on a quarterly basis. Financing sources other than gross operating surplus reported growth in all sectors' foreign direct investment, which were concentrated mostly in industry.

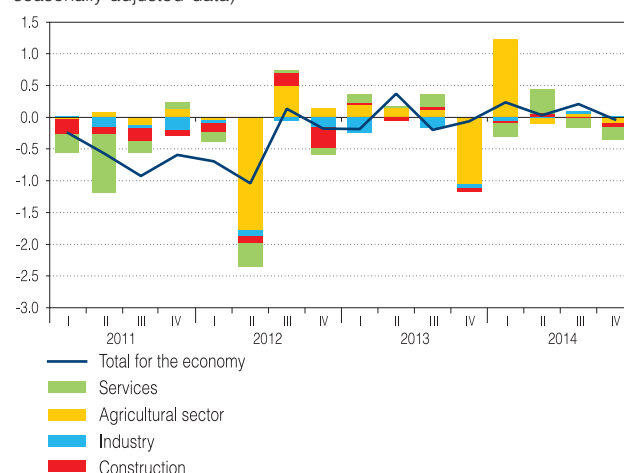
In line with the improvement in firms' sentiment about the number of personnel and the recovery of economic activity in all economic sectors in 2014, employment rose slightly after a protracted period of declines since 2008. In the fourth quarter employment retained its previous quarters' level, according to seasonally adjusted national account data.

In the context of a recovery of value added and stabilisation of employment levels, labour productivity continued to grow gradually in 2014. In the fourth quarter of 2014 such a trend was observed in most economic sectors. Higher productivity growth was reported in construction where gross value added grew along with a slight decline in the number of employed.

In 2014 in the context of still low employment and deflation in certain goods and services groups, a more pronounced optimisation in labour costs through wage restraints was observed. The annual growth rate of nominal compensation *per* employee moderated significantly in 2014. The quarter-on-quarter growth rate of compensation *per* employee accelerated somewhat in the fourth quarter of 2014 compared to the previous three quarters, particularly in industry and some services sub-sectors (finance, insurance, professional activities and scientific research).

Contribution to Changes in the Number of Employed by Economic Sector

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

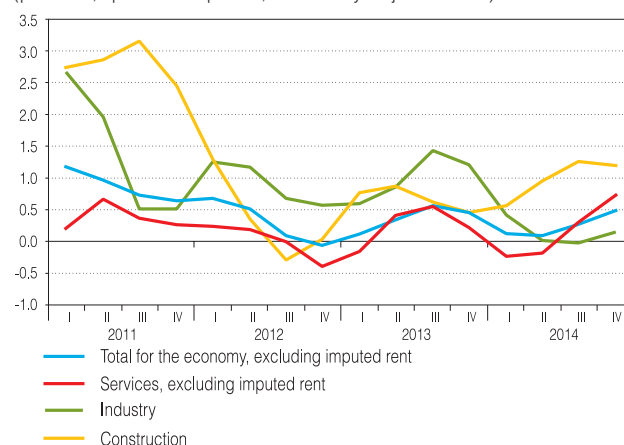


Note: Non-additive data on contributions due to direct seasonal adjustment of the total amount and its components.

Sources: NSI, BNB calculations.

Labour Productivity Developments (Value Added *per* Employee)

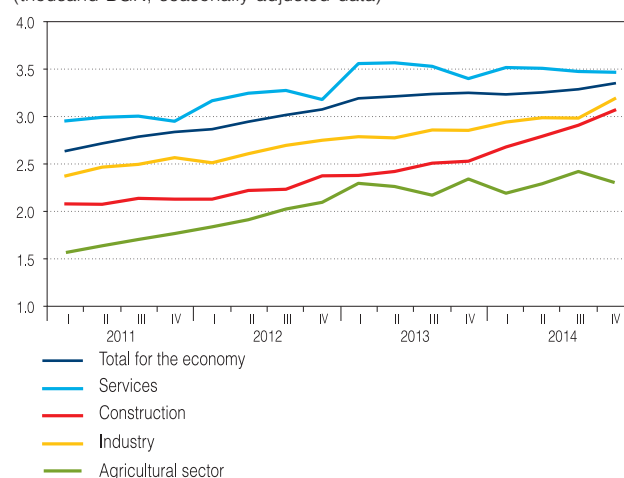
(per cent, quarter-on-quarter; seasonally adjusted data)



Sources: NSI, BNB calculations.

Nominal Unit Labour Costs

(thousand BGN, seasonally adjusted data)



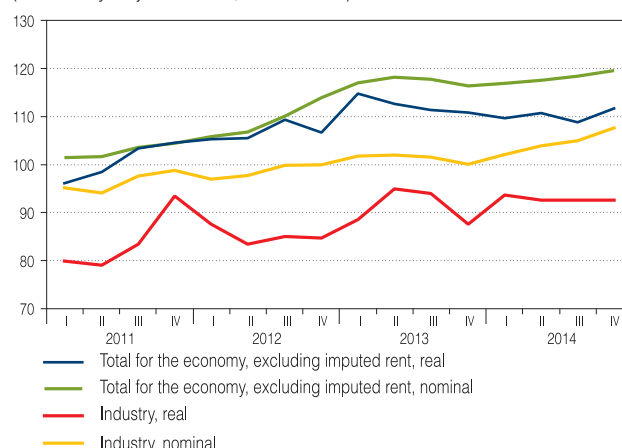
Sources: NSI, BNB calculations.

Reflecting the substantial moderation in the growth of compensation *per* employee amid a continued increase in labour productivity, nominal unit labour costs for the whole economy slowed down in 2014. Over the fourth quarter of 2014 indicator growth accelerated on a quarterly basis in construction and, to a lesser extent, in export-oriented industry. On the other hand, reflecting price declines in some sectors over the year, real unit labour costs remained close to the previous quarters' level.

In the classification of the factors of production, the upward trend in the capital's contribution to real GDP growth was sustained throughout the whole 2014 due to the ongoing rise in fixed capital investments and sustained high levels of production capacity utilisation. Given the weak employment dynamics, the contribution of labour remained insignificant, and total factor productivity contributed negatively to the growth.

Real Unit Labour Costs

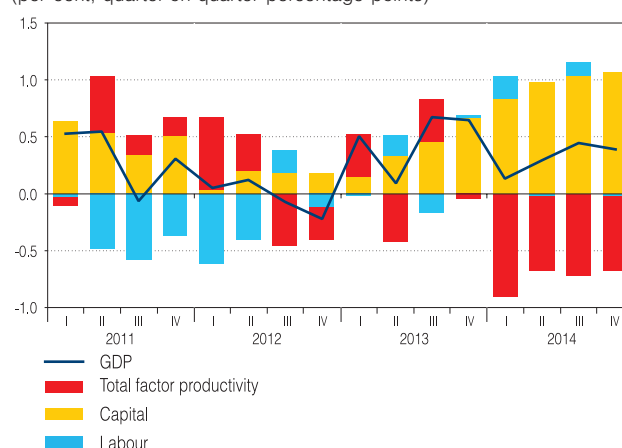
(seasonally adjusted data; 2010 = 100)



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)

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

Source: NSI.

Exports and Imports of Goods

In the third and the beginning of the fourth quarter of 2014 nominal goods exports and imports continued to be largely driven by decreased international prices of the goods essential for the foreign trade turnover of Bulgaria. Another important factor behind import dynamics was the increase in domestic demand for investment goods as a result mainly of public investment growth. BOP data for 2014 show that goods exports fell by 0.8 per cent, and goods imports grew by 1.5 per cent on an annual basis. Over 2014 trade deficit came to EUR 3429.2 million, deteriorating by EUR 538.6 million on an annual basis.

The services balance surplus for 2014 posted an increase due mainly to the larger exports of services compared to 2013. In early 2015 both exports and imports of services dropped in nominal terms on the corresponding period of 2014, reflecting largely the decreased exports and imports of processing services. Hence, the services balance surplus posted an insignificant drop from the beginning of 2014.

According to non-seasonally adjusted GDP data, real annual growth in exports of goods came to 5.2 per cent in the fourth quarter of 2014, with real goods exports rising by 1.4 per cent throughout 2014. Real goods imports also posted annual growth of 9.8 per cent over the fourth quarter, reaching 4.5 per cent for 2014. Concurrently, real services exports growth was 4.7 per cent in 2014, while services imports fell by 0.2 per cent on 2013. The year-on-year growth of services exports and imports was most pronounced in the fourth quarter of 2014, with real services export growth reaching 19.2 per cent and that of imports 4.4 per cent.

Cross-checking the changes in exports and imports in nominal and real terms shows that the falls in global prices curbed nominal growth of foreign trade flows in the fourth quarter of 2014. According to export and import price indices under Standard International Trade Classification (SITC), in the fourth quarter the year-on-year fall of export prices was 2.6 per cent and that of import prices 3.7 per cent.

In the second and third quarters of 2015 goods exports are expected to increase further in the context of strengthened external demand. Our

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

	Balance, million EUR	Change*, million EUR	Export growth**, per cent	Import growth**, per cent
Consumer goods	624.5	441.4	10.0	7.1
Raw materials	24.4	540.5	-5.6	-0.3
Investment goods	-2 264.5	-1 797.3	8.3	13.8
Energy resources	-2 368.9	-2 652.2	-14.0	-12.6
Total	-4 073.7	-3 556.7	-0.7	1.4

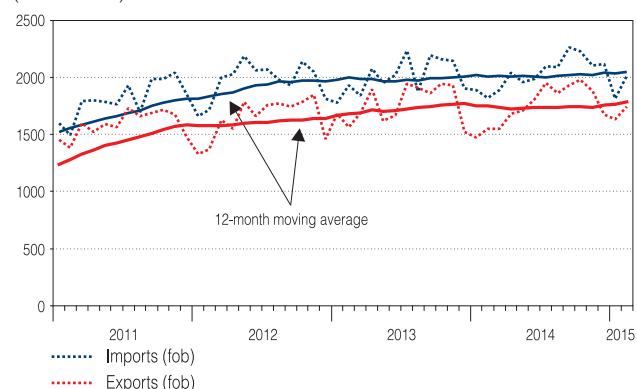
* Balance change on the same period of previous year.

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

Source: BNB.

Export and Import Dynamics

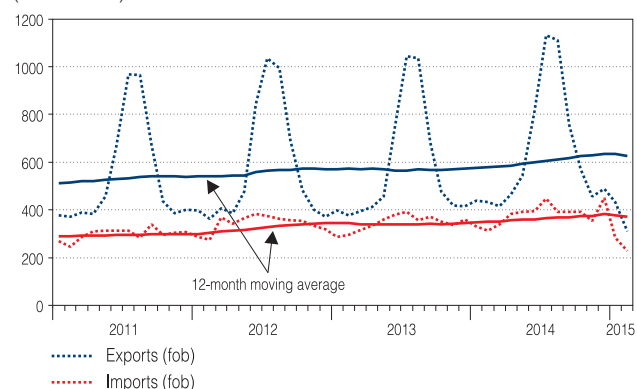
(million EUR)



Source: BNB.

Services Export and Import Dynamics

(million EUR)



Source: BNB.

projection for goods imports shows a moderated growth rate on the end of 2014 in line with the expected slowdown of domestic demand growth. In the second and third quarters of 2015 the annual trade balance deficit is projected to decline as a share of GDP.

A smaller than projected trade deficit in the second and third quarters of 2015 could be reported due to the faster growth of demand by Bulgaria's major trading partners, weaker than expected household consumption and lower than expected oil prices, given the fact that Bulgaria is a net importer.⁴⁸ A risk of greater than projected trade deficit evolves in the case of a possible acceleration of the geopolitical conflict between Russia and Ukraine and economic activity deterioration in Greece.

In the second and third quarters of 2015 expectations show an increase in real services exports and imports, though lower income from tourist services exports may pose a risk to the projection.

In 2014 goods exports to EU Member States rose on an annual basis by 3.2 per cent in line with the improvement of the EU economic activity, this growth most strongly pronounced in the fourth quarter of 2014. This upward trend was sustained in early 2015. Exports to Belgium contributed mostly to the growth in 2014. Nominal exports of machines⁴⁹ had the major contribution to the goods exports to EU Member States. Exports to non-EU countries went down 6.6 per cent in 2014, reflecting primarily the weaker exports to Gibraltar and Ukraine. Oil products⁵⁰ continued to contribute most substantially to this fall, with animal and plant products⁵¹ and base metals⁵² also contributing negatively. Exports to non-EU countries declined further in January 2015. The share of goods exports to EU Member States rose by 2.4 percentage points in

⁴⁸ See the *Economic and Financial Effects of Oil Price Declines* box, Economic Review, 4/2014.

⁴⁹ In this chapter, it should read 'the machines, vehicles, appliances, instruments and weapons' group under the Combined Nomenclature.

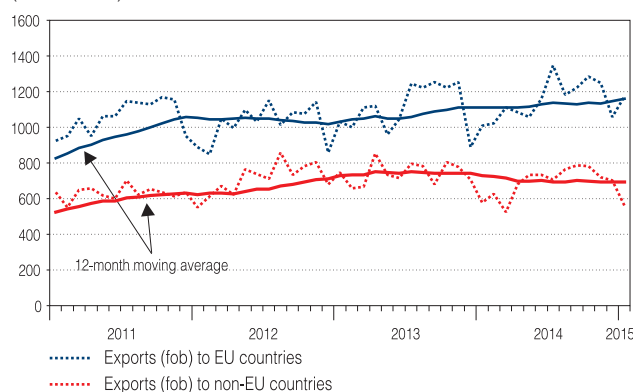
⁵⁰ In this chapter, it should read mineral products and fuels group under the Combined Nomenclature.

⁵¹ In this chapter, it should read the animal and plant products, foods, drinks and tobacco group under the Combined Nomenclature.

⁵² In this chapter, it should read the base metals and their products group under the Combined Nomenclature.

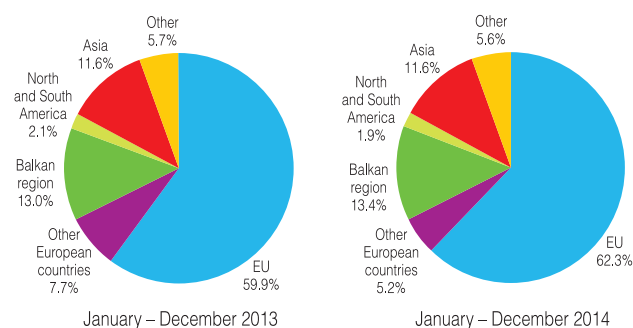
Dynamics of Exports to EU and non-EU Countries

(million EUR)



Source: BNB.

Geographical Distribution of Exports



Source: BNB.

Exports by Commodity Group, January–December 2014

	million EUR	Change*	Growth** per cent	Contribution** percentage points
Mineral products and fuels	3 450.7	-568.3	-14.1	-2.6
Machines, vehicles, appliances, instruments and weapons	4 799.5	431.9	9.9	1.9
Base metals and related products	3 679.9	-185.8	-4.8	-0.8
Animal and plant products, food, drinks and tobacco	3 699.2	-369.8	-9.1	-1.7
Chemical products, plastics and rubber	2 463.1	240.1	10.8	1.1
Wood products, paper, ceramics and glass	1 103.4	116.7	11.8	0.5
Textiles, leather, clothing, footwear and other consumer goods	2 919.8	179.6	6.6	0.8
Total exports	22 115.8	-155.7	-0.7	

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

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

Source: BNB.

2014, while that of exports to non-EU countries posted a decline followed by a slight improvement by end-2014.

Nominal exports of most commodity groups posted growth in both 2014 and early 2015, with exports of machines contributing most positively to the growth in 2014. Oil products, animal and plant products, and base metals had negative contributions.

Oil product exports declined from the beginning of 2014, this trend slowing down since mid-year. The 2014 decline was mainly ascribable to exports to non-EU countries. The fall reflects mainly international oil prices⁵³ along with decreased exported volumes, notwithstanding the growth recorded in the last quarter of 2014. In January 2015 oil product exports was recovered. Petroleum price decreases are expected to further limit the nominal change of exported oil products in the second and third quarters of 2015.

The upward trend in machine exports was retained in 2014 and early 2015, their developments driven by the increase in exported volumes. The prices, however, had a dampening effect.⁵⁴ Steady growth of this group's exports is expected to be sustained in the second and third quarters of 2015 in the context of expanding external demand.

In 2014 exports of base metals declined on 2013 due to lower global prices of metals, with this fall being limited by the growth in exported volumes⁵⁵ over the second quarter of 2014. Copper exports continued to contribute most negatively. In early 2015 the trend was reversed as a result mainly of the recovered copper exports. Subdued export dynamics is expected over the projection horizon, reflecting declines in international metal prices.

In 2014 exports of animal and plant products posted an annual decline in nominal terms, this

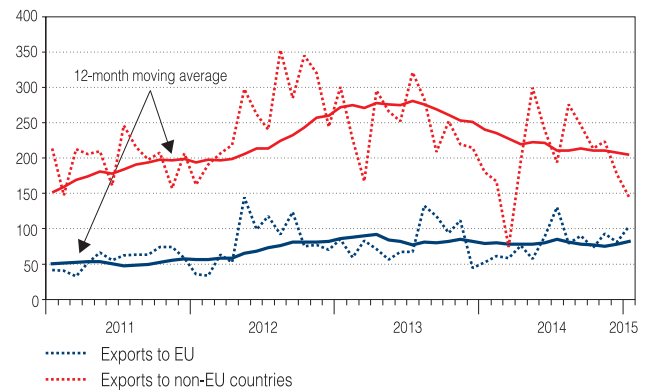
⁵³ According to the Balance of Payments of Bulgaria, January 2015, p. 43, and using the quarterly export deflators of the mineral fuels, oils and related products group under SITC for 2014.

⁵⁴ The quarterly export deflators for the machines, equipment and vehicles group under SITC were used to estimate the price effect in 2014.

⁵⁵ According to the Balance of Payments, January 2015, p. 43, for the non-ferrous metals sub-group using the quarterly export deflators for the cast iron and steel group under SITC for 2014.

Exports of Mineral Products and Fuels

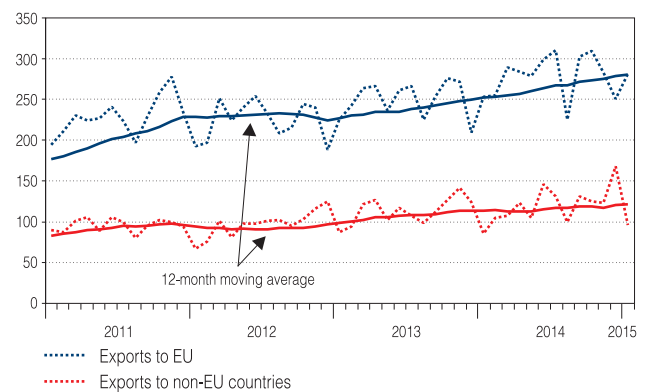
(million EUR)



Source: BNB.

Exports of Machines, Vehicles, Appliances, Instruments and Weapons

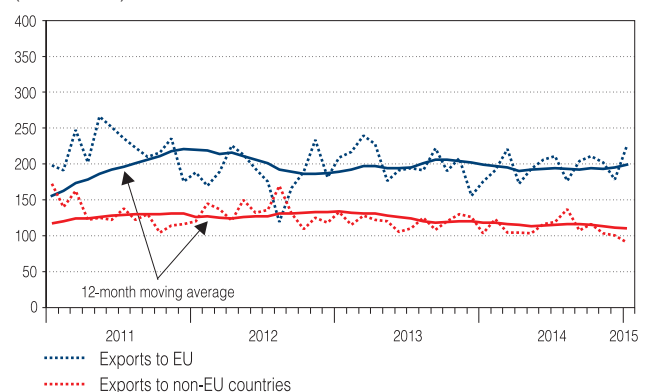
(million EUR)



Source: BNB.

Exports of Base Metals and Related Products

(million EUR)



Source: BNB.

trend moderating over the fourth quarter. In early 2015, however, this group recorded growth. The sub-groups of cereals and oil seeds and fruit had the largest negative contributions to the fall in this group in 2014. Over the year declines were registered in both international prices of these goods and exported stocks.⁵⁶ Our expectations for the second and third quarters of 2015 point to a rise in international food prices in euro and a fall in US dollars, which will broadly reduce nominal exports of this group.

Exports of chemical products⁵⁷ followed an upward trend in 2014 and in January 2015. This trend was due to the increased prices and physical volumes.⁵⁸ Increased exports of pharmaceutical products contributed most significantly to the group growth. Over the projected horizon, this group's exports are expected to continue increasing at rates close to the observed values.

Tourism and transport services had the largest shares in services exports over 2014. Transport and technical trade-related services had the major contribution to the growth of total exports of services in both fourth quarter and the whole 2014. Tourism revenue for 2014 posted a slight increase on 2013, with NSI data showing growth of foreigners visiting Bulgaria. Among non-EU countries, declines were observed in tourists from Russia and Ukraine which may be explained by the geopolitical tensions between the two countries. At the same time, visits of EU citizens to Bulgaria grew on 2013 largely due to more Greek tourists visiting Bulgaria, unlike the decreasing visits from most European countries. In early 2015 exports of services dropped on early 2014, with exports of services on processing goods contributing most significantly. Concurrently, tourism earnings continued to rise.

In 2014 imports (CIF) of goods posted growth of 1.4 per cent on the previous year. It could be said on the basis of NSI data on export and import price indices that this growth was due to the increased imported physical volumes.

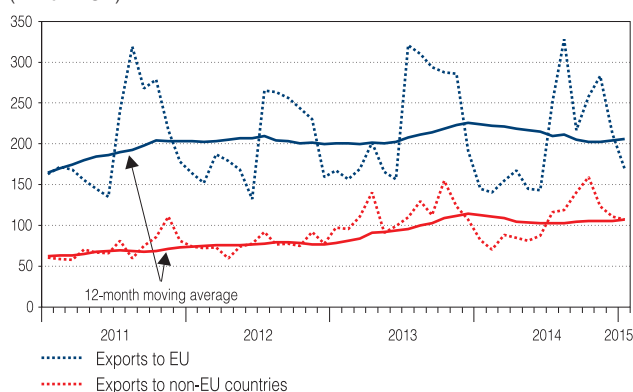
⁵⁶ The quarterly export deflators for the cereals and mill products and oil seeds and fruit sub-groups under SITC were used to estimate the price effect in 2014.

⁵⁷ The chemical products, plastics and rubber under the Combined Nomenclature.

⁵⁸ The quarterly export deflators for the chemicals and chemical products group under SITC were used to estimate the price effect in 2014.

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

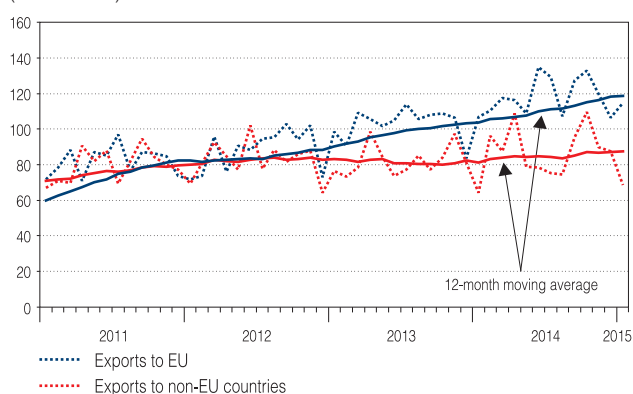
(million EUR)



Source: BNB.

Exports of Chemical Products, Plastics and Rubber

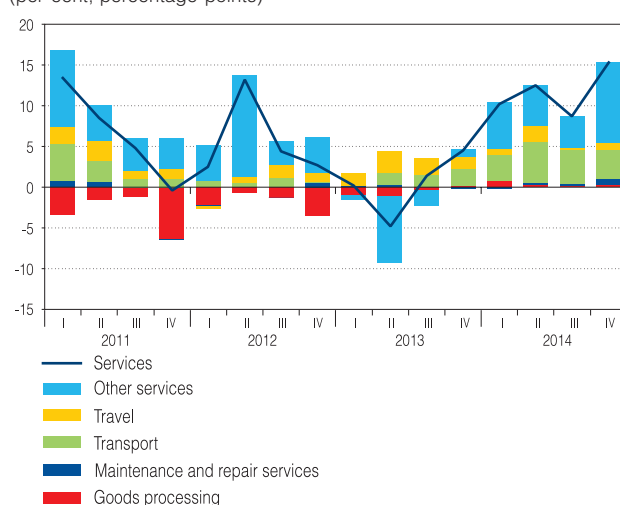
(million EUR)



Source: BNB.

Annual Changes in Services Exports and Contributions by Sub-component

(per cent; percentage points)



Source: BNB.

On the other hand, international prices exerted a dampening pressure. Investment and, to a lesser extent, consumer goods contributed to the nominal growth of goods imports by use. In January 2015 goods imports declined on an annual basis, with energy product imports contributing most essentially to this drop.

In 2014 goods imports from EU Member States rose by 4.9 per cent on 2013, with the increased imports from Germany, the Czech Republic and United Kingdom having the largest contribution. In January 2015, however, goods imports from the EU declined, with the greatest fall reported in imports from Italy. Imports from non-EU countries dropped by 1.9 per cent annually, a trend which was sustained in early 2015, with Russia, Bulgaria's major trading partner in imports of petroleum products, contributing most to the fall. Over 2014 the share of imports from EU countries continued to rise (1.7 percentage points on an annual basis).

Imports in the energy group declined throughout 2014, reflecting largely the falling international prices of imported energy resources⁵⁹ and decreased imported physical volumes. The decrease in imported physical volumes resulted from reduced production in the oil processing sector due to renovation and building of new capacities, most pronounced in the second quarter of 2014. In early 2015 exports of energy resources continued to decrease on an annual basis. Oil prices are expected to slightly increase on a quarterly basis during the second and third quarters of 2015, while remaining lower on an annual basis. This will further subdue the nominal change in group imports.

Imports of raw materials went down during 2014. The estimate of price developments suggests that the fall in nominal imports of this group was primarily due to declines in international prices of relevant goods,⁶⁰ whereas imported stocks recorded growth throughout

⁵⁹ According to the Balance of Payments of Bulgaria, January 2015, p. 43, and using the quarterly import deflators of the mineral fuels, oils and related products group under SITC for 2014.

⁶⁰ Based on information of the Balance of Payments of Bulgaria, January 2015, p. 43, and the relevant 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 2014.

Imports of Commodity Groups By Use, January–December 2014

	million EUR	Change*	Growth** per cent	Contribution** percentage points
Consumer goods	5 110.4	340.1	7.1	1.3
Raw materials	9 111.3	-26.7	-0.3	-0.1
Investment goods	6 566.2	798.5	13.8	3.1
Energy resources	5 278.7	-758.4	-12.6	-2.9
Imports, total (cif)	26 189.3	361.1	1.4	

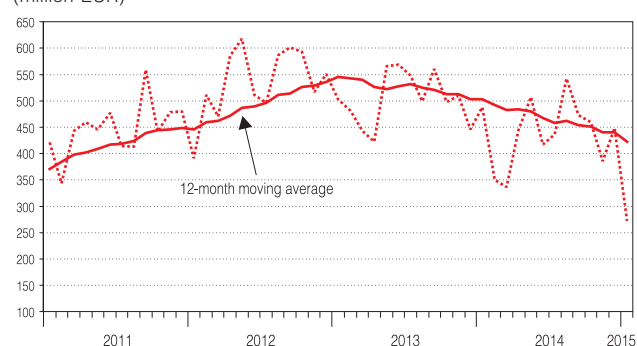
* Change on corresponding period of previous year, million EUR.

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

Source: BNB.

Imports of Energy Resources

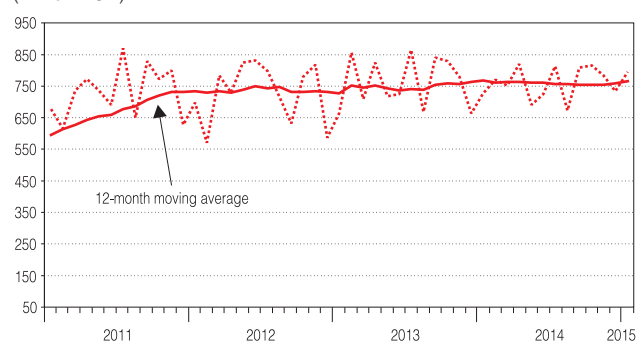
(million EUR)



Source: BNB.

Imports of Raw Materials

(million EUR)



Source: BNB.

most of the year. Ore imports had the strongest negative contribution. In January 2015 just the opposite dynamics was observed in imports of this group, reflecting mainly growth in ore imports. Over the projection horizon, nominal imports in this group are expected to be limited in the context of an expected slowdown in the growth of domestic demand and international price declines.

Imports of consumer goods posted year-on-year growth in 2014, with medicines and cosmetics and clothing and footwear having the largest contribution to this. Group dynamics corresponded to the increased consumption in Bulgaria, being sustained in January 2015. In the second and third quarters import growth in these groups is expected to retain its rate of growth if private consumption dynamics remains close to the current level.

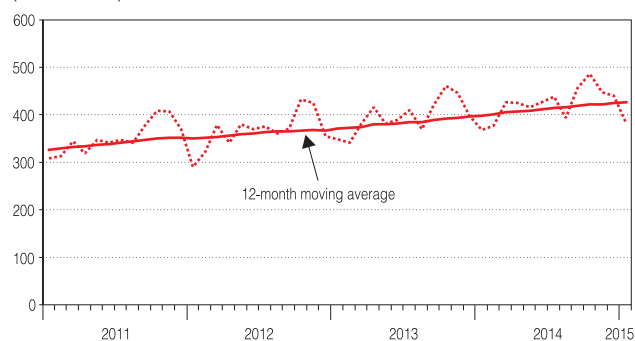
Growth of investment goods imports in 2014 played a key role in total imports, with quarterly positive developments remaining stable in all major sub-groups. This growth was due to the rise in imported physical volumes, while prices recorded an annual decline.⁶¹ In early 2015 imports of investment goods continued to go up on an annual basis. The projection for the second and third quarters shows retention of a level close to the current one, reflecting the projected moderate dynamics of investment activity.

Transport services and those on processing goods had the major shares in imports of services for 2014. BOP data show that imports of technical trade-related services posted the strongest growth in both fourth quarter and the whole 2014. According to NSI data, in 2014 Bulgarian citizens's trips abroad increased by 5.8 per cent on 2013, the most significant growth registered in the visits to Turkey and Greece. This led to an annual increase in Bulgarian citizens' expenditure on travelling during 2014. In early 2015 imports of services dropped from early 2014, with decreased exports of other services and those on processing goods contributing most significantly to this. At the same time, foreign travel expenses of Bulgarian citizens continued to pick up.

⁶¹ The quarterly import deflators for the machines, equipment and vehicles group under SITC were used to estimate the price effect in 2014.

Imports of Consumer Goods

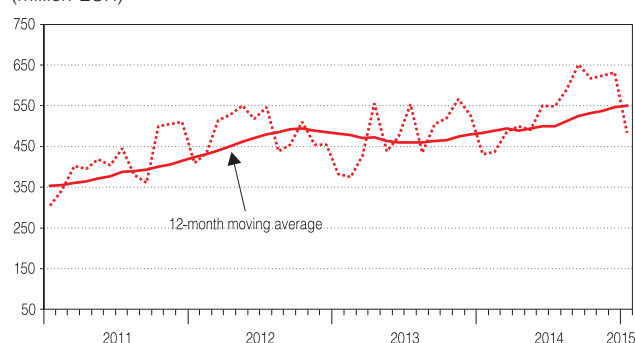
(million EUR)



Source: BNB.

Imports of Investment Goods

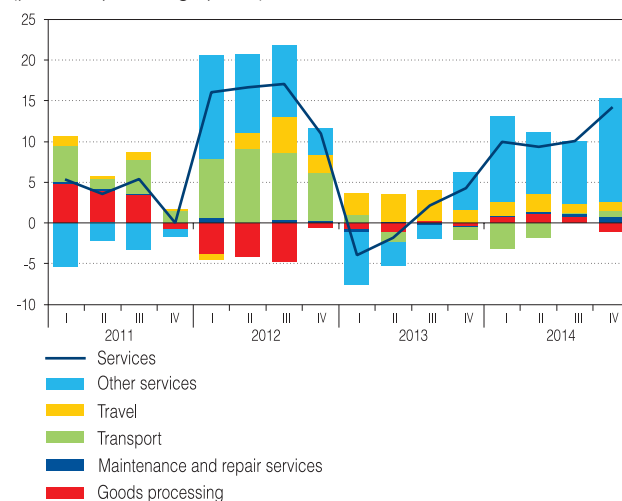
(million EUR)



Source: BNB.

Annual Changes in Services Imports and Contributions of Sub-components

(per cent; percentage points)



Source: BNB.

4. Inflation

In the first three months of 2015 the end-user consumer prices continued their year-on-year downward trend which started in mid-2013, and in March inflation was -1.1 per cent (against -2.0 per cent in end-2014). The decline in the overall price level was mainly driven by transport fuel price declines under the influence of falling international oil prices. A reduction in the negative contribution to the overall inflation was reported in core inflation due to the depreciation of the euro against the US dollar and the exhausted effect of price decreases in some services, which was a result of statutory and methodological changes since early 2014. In early 2015 administrative prices contributed positively to the overall inflation rate, 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 second and third quarters of 2015 inflation is expected to remain negative, but due to the expected dynamics in international prices and the depreciation of the euro, the negative growth rate is expected to shrink. The exhausted effect of one-off price declines in some services sub-groups in 2014 will contribute to a lesser extent to the deceleration of deflation.

In the first three months of 2015 overall HICP continued to decline on an annual basis. In March inflation was -1.1 per cent (-2.0 per cent by end-2014).⁶² Declines in import fuel, food and commodity prices had a deflationary effect. Based on foreign trade data, in the fourth quarter of 2014 import deflator fell on an annual basis to -3.7 per cent.⁶³ Euro depreciation against the US dollar contributed to some moderation in the decline rate of consumer prices of durable goods, part of which is imported and their prices are invoiced in US dollars⁶⁴. Domestic factors had a dampening effect on deflation. This reflected the exhausted effect of statutory and methodological price declines in some services over 2014.⁶⁵ Administratively set prices had a positive contribution to the overall inflation in early 2015 as a result mainly of the increased regulated electricity price for households by 1.7 per cent since July and 10.1 per cent since October 2014.

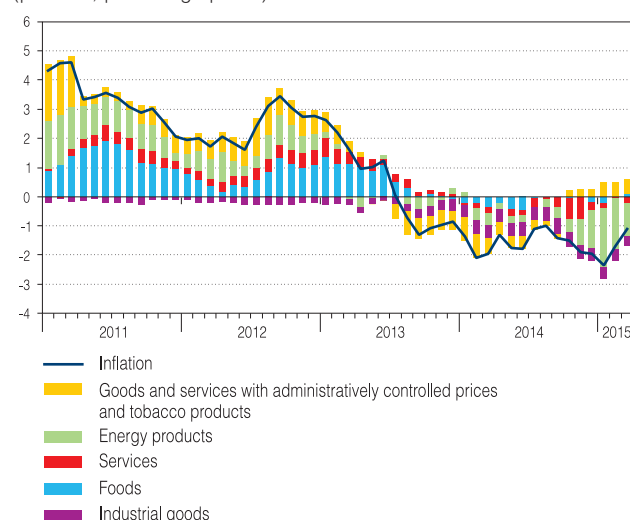
⁶² The analysis in this section is based on NSI data on HICP.

⁶³ Data on import deflators under SITC.

⁶⁴ Eurostat data show that in 2012, 38.5 per cent of imported industrial goods (product groups 5 to 8 under SITC) were invoiced in US dollars.

⁶⁵ For further details, see *Inflation Dynamics in Bulgaria and EU Member States between August 2013 and September 2014*, Economic Review, 3/2014.

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.

The downward trend in the number of goods and services groups with declining annual prices continued in 2015. In March 2015 the diffusion index was 36.6 per cent, its maximum value reaching 49.5 per cent a year earlier.⁶⁶ A factor behind the retained overall deflation in the context of a simultaneous decline of the diffusion index was the comparatively high deflation reported in the groups of goods and services having high weights in the consumer basket, such as energy products and telecommunication services, in tandem with a slight rise in the prices of sub-groups with positive inflation. This is the difference between the current period of deflation and the periods of low inflation in 2003 and 2009. The comparatively low number of goods and services with inflation higher than 1 per cent gives indications that the current period of falling import and producer prices in the domestic market, low growth of unit labour costs and slowly recovering consumer demand suggests no upward pressure on end-user consumer prices.

Global price effects and their spillover along the supply chain on domestic prices may be seen through producer price developments. In 2015 domestic producer prices declined annually by 1.2 per cent in February (down 0.9 per cent by end-2014) driven mainly by the negative contribution of manufacturing. This dynamics reflected primarily the decline in producer prices of refined petroleum products⁶⁷ and food,⁶⁸ to a lesser extent, under the influence of dropping import prices of oil and food. A positive contribution to the annual rate of change in producer prices was reported in the electricity production sub-sector⁶⁹ after the administrative increase of electricity prices in October 2014.

By major industrial groupings, in the first two months of 2015 prices of intermediate consumption goods and energy products declined, affecting firms' production costs in Bulgaria. Producer prices in the group of non-durable goods also posted a drop on an annual basis, reflect-

⁶⁶ 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).

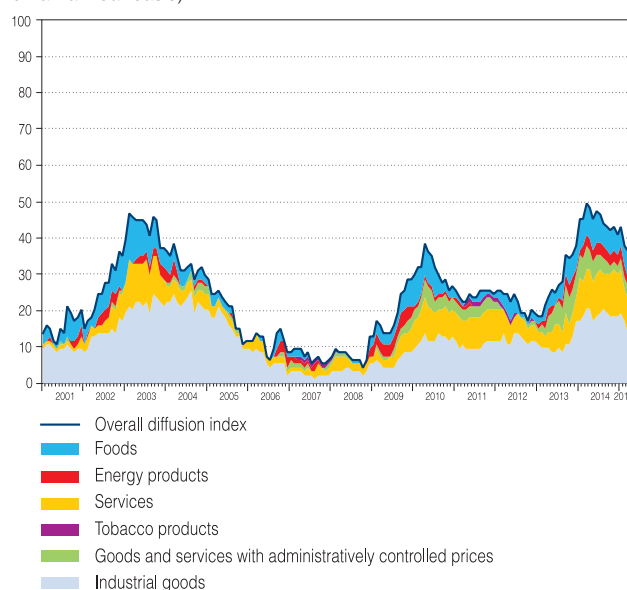
⁶⁷ Production of coke and refined petroleum products.

⁶⁸ Production of food, drinks and tobacco products.

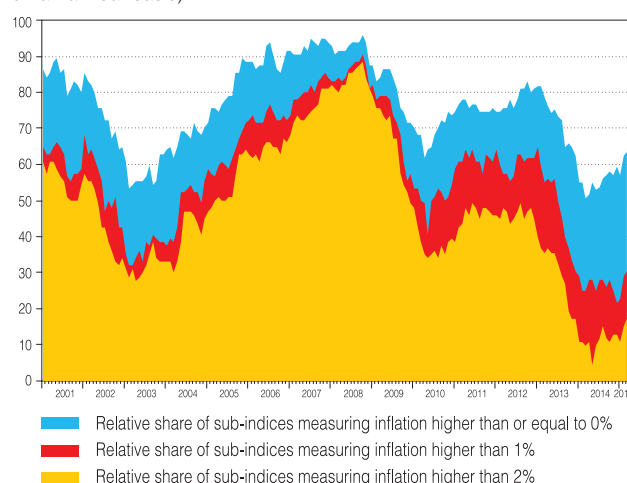
⁶⁹ Production and distribution of electricity, heating and gas.

Diffusion Indices for Major Goods and Services Groups

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



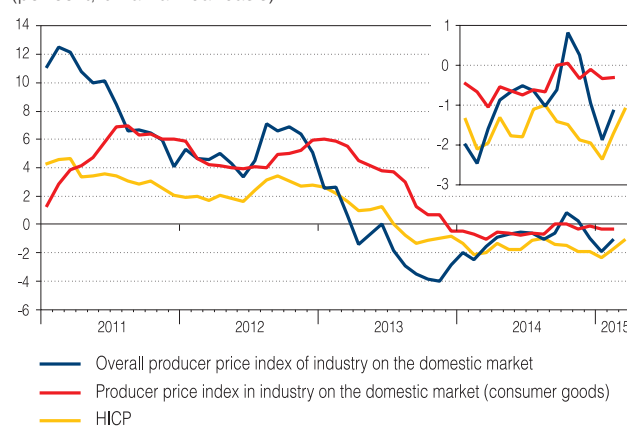
(per cent, relative shares of increasing HICP sub-indices on an annual basis)



Sources: NSI, BNB calculations.

Rate of Change in Manufacturing CPI and HICP

(per cent, on an annual basis)



Source: NSI.

ing mainly food-producing goods. This was a prerequisite for the subdued price dynamics in most goods sub-groups in early 2015, corresponding to the reported changes in the diffusion index. Producer prices of services used by businesses recorded widely divergent dynamics, while suggesting as a whole no upward pressure on end-use consumer prices.

The labour cost policy of firms also influenced consumer price formation. In the context of low employment throughout 2014, labour costs were optimised in terms of compensation of employees, with this trend being more pronounced in the services sector. In 2014 nominal unit labour costs in the total economy increased by 0.2 per cent (7.2 per cent in 2013), while the services sector, where they are the major pricing factor, reported a decline of 1.9 per cent (7.5 per cent growth in 2013).⁷⁰

The falling domestic prices in 2014 had a favourable effect on household consumption which posted growth in real terms after the decline reported in 2013.⁷¹ Retail trade volumes signal an ongoing consumer demand recovery in the beginning of 2015, consistent with the improving consumer confidence reported by the NSI in January.⁷² The NSI business situation survey of individual economic sectors shows an uneven increase of consumer demand which is a potential factor behind the formation of a different price policy for various types of goods and services. From the middle of 2014 services and industry recorded a decline in the share of firms pointing to the low demand as a limiting factor for their activity.

In March 2015 core inflation was -1.2 per cent (-1.6 per cent in December 2014), and continued to have the second negative contribution to the overall inflation (-0.60 percentage points). Both the services and non-food groups contributed to this.

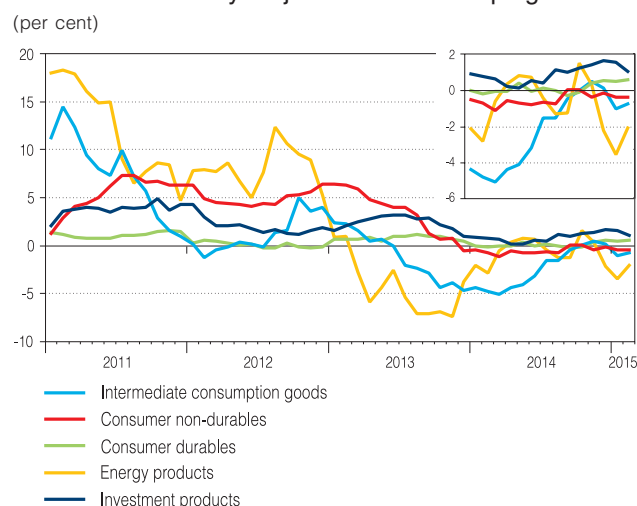
In March non-food inflation was negative at -1.7 per cent (-2.2 per cent by end-2014), reflecting further price declines in the groups of

⁷⁰ See Chapter 3.

⁷¹ National account data on household final consumption expenditure are used.

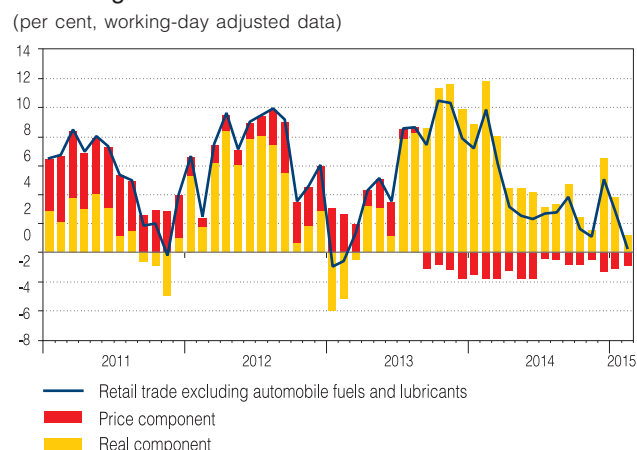
⁷² For further details, see *Household Behaviour* in the *Economic Activity* section.

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



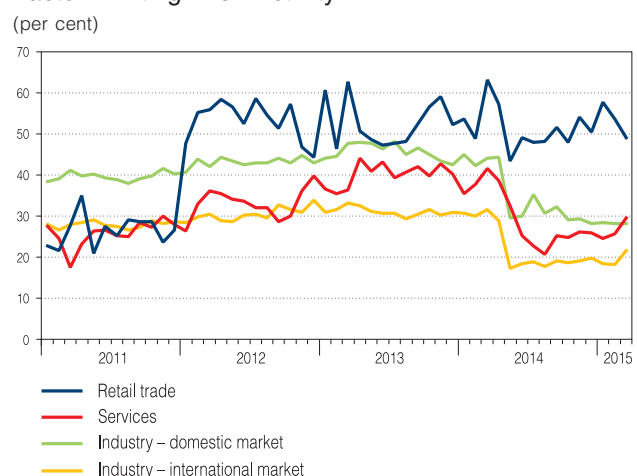
Source: NSI.

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



Sources: NSI, BNB calculations.

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



Sources: NSI, BNB calculations.

cars and other durable goods. The consumer demand recovery and euro depreciation against the US dollar since mid-2014 were the drivers for limiting deflation in some durable goods in early 2015. Non-durable prices, however, recorded low annual positive inflation over the January to March 2015 period.

In 2015 inflation in services (excluding those with administered prices) was negative at -0.8 per cent in March against -1.2 per cent by end-2014. Telecommunication services contributed to the retention of services deflation due to the cuts in mobile data roaming prices since July 2014.⁷³ The deflation fall was driven by the positive contribution of transport services and the exhausted effect of the 28.6 per cent cut in the fees for visits to dentists who had contracts with the National Health Insurance Fund since January 2014. Prices of airline tickets had the largest contribution to transport services inflation as a result of a base effect of significant price falls in this group over the corresponding period of the previous year. Currently, transport services suffer no pass-through effect of transport fuel price declines started in the second half of 2014.

Energy product inflation in 2015 followed a trend of a strong fall under the influence of the downward dynamics of international oil prices in euro.⁷⁴ The significant fall in oil prices since July 2014 was quickly spilled over to the end-use transport fuel prices which decreased in March by 14.1 per cent on an annual basis, recording the largest negative contribution to the overall inflation (-1.2 percentage points).

In March 2015 administratively controlled prices posted a year-on-year increase of 2.7 per cent, retaining their positive contribution of end-2014 to the overall inflation. This reflected largely the 1.7 and 10.1 per cent rise in regulated prices of electricity for households since July and October 2014.

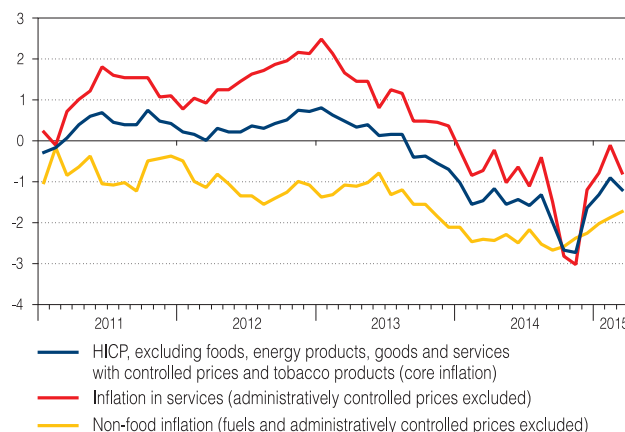
In March food inflation accounted for 0.5 per cent (-0.7 per cent at the end of 2014) and was

⁷³ This decrease is valid for all EU Member States.

⁷⁴ In the group of energy products (excluding 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.

Core inflation

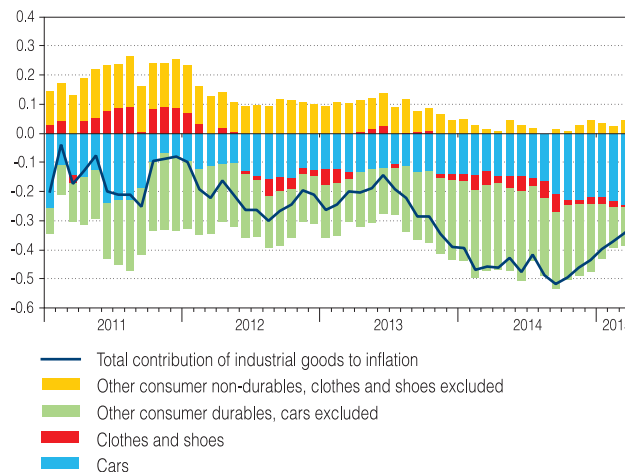
(per cent, on an annual basis)



Sources: NSI, BNB calculations.

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

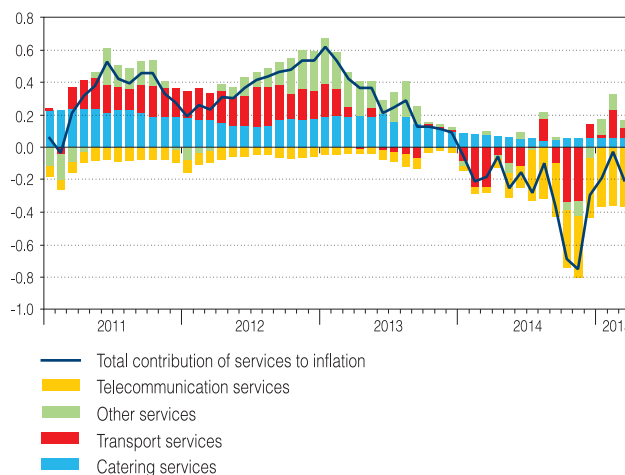
(percentage points, on an annual basis)



Sources: NSI, BNB calculations.

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

(percentage points, on an annual basis)



Sources: NSI, BNB calculations.

driven by the increased prices of unprocessed foods and a slight price fall of processed foods. Fruit and vegetable groups had positive contributions to the unprocessed food inflation. Prices of meat and meat products retained their annual downward trend of 2014 in the context of a continuous decline in import prices and animal breeding costs.⁷⁵

In the first three months of 2015 processed food prices declined further (down -0.4 per cent in March against -0.7 per cent in December 2014) mainly due to import price and producer price declines since mid-2013. Within this group, sugar and sugar confectionery⁷⁶ had the strongest negative contribution.

According to the NSI business situation survey, in March 2015 most managers in industry, retail trade and services expect that selling prices will remain unchanged in the following three months. The likely dampening factors behind the selling price stabilisation will be the uncertain economic environment and, to a lesser degree, competition in the sectors and weak demand, though a slight decline in their unfavourable effect has been observed in recent months.

Inflation expectations for the second and third quarters of 2015 and related uncertainty are presented in the fan chart on the annual rate of change in HICP.⁷⁷ Inflation is projected to range from -1.6 to -0.7 per cent in the second quarter and from -1.6 to -0.4 per cent⁷⁸ in the third quarter of 2015. The slower annual rate of decline in the consumer price index in these two quarters will mainly reflect global euro oil price stabilisation at a level higher than in the first quarter. The deflation decline will also reflect the exhausted effect of telecommunication price declines over the third quarter of 2014 and the downward trend in non-food deflation since early 2015.

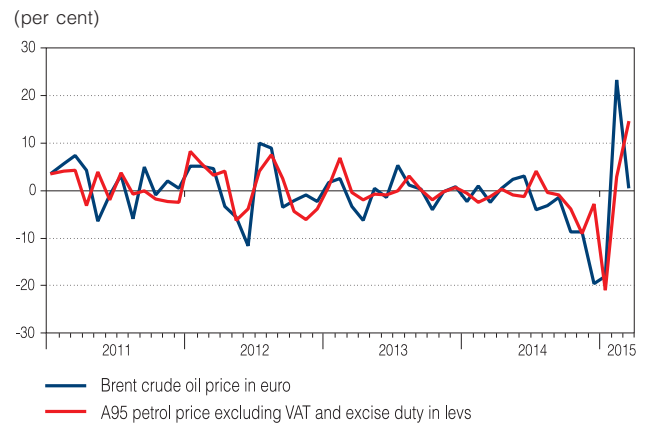
⁷⁵ NSI data on prices of goods and services currently consumed in agriculture, as well as the group of electricity, gas and other; and the group of feed.

⁷⁶ Sugar, jams, honey, chocolate and confectionery.

⁷⁷ For further details, see the *Measurement and Presentation of Uncertainty in Forecasting Economic Indicators* box, Economic Review, 1/2012.

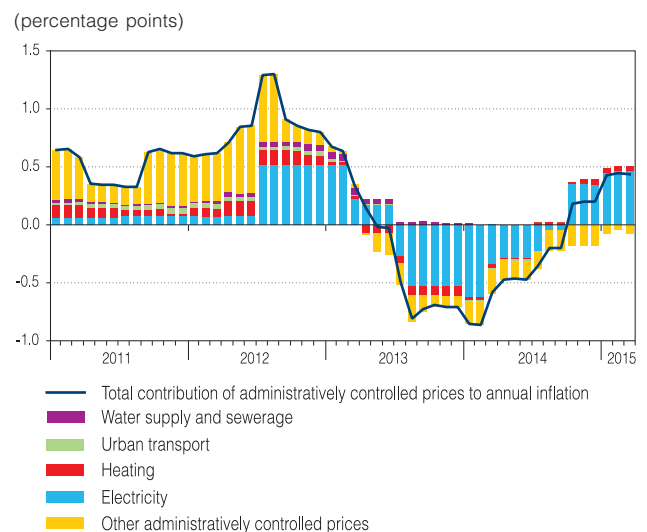
⁷⁸ Thus presented ranges of the expected annual rate of inflation correspond to 40 per cent probability distribution according to our expert forecast of the probability distribution for the relevant quarter.

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



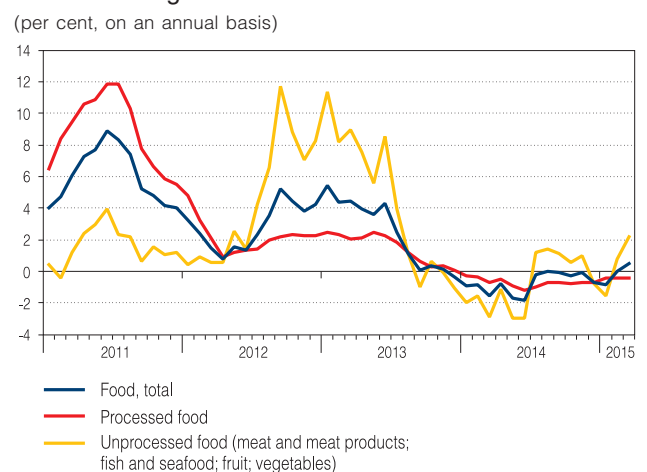
Sources: ECB, NSI, BNB calculations.

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



Sources: NSI, BNB calculations.

Rate of Change of Food Price Index



Sources: NSI, BNB calculations.

Rate of Change in Major Goods and Services Groups Prices and Their Contribution to Inflation

	Inflation accumulated as of March 2014 (December 2013 = 100)		Inflation accumulated as of March 2015 (December 2014 = 100)		Annual inflation rate as of March 2015 (March 2014 = 100)	
Inflation (per cent)	-1.1		-0.3		-1.1	
	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	0.6	0.17	1.8	0.48	0.5	0.12
Processed food	-0.5	-0.09	-0.3	-0.05	-0.4	-0.08
Unprocessed food	2.8	0.25	5.8	0.52	2.2	0.19
Services	-1.6	-0.40	-1.2	-0.31	-0.8	-0.20
Catering services	0.2	0.01	0.2	0.01	0.9	0.05
Transport services	-8.7	-0.31	-8.9	-0.33	2.2	0.07
Telecommunication services	-0.1	-0.01	-0.1	0.00	-7.6	-0.37
Other services	-0.9	-0.10	0.1	0.01	0.4	0.05
Energy products	-4.0	-0.37	-3.2	-0.25	-13.2	-1.17
Transport fuels	-4.2	-0.36	-3.4	-0.24	-14.1	-1.16
Industrial goods	-1.7	-0.32	-1.1	-0.23	-1.7	-0.34
Goods and services with administratively controlled prices*	-1.4	-0.23	0.0	0.00	2.7	0.44
Tobacco products	0.3	0.01	0.1	0.01	0.8	0.03

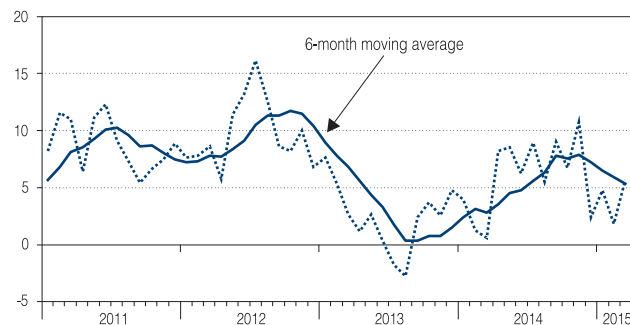
* The index of goods and services with administratively controlled prices is calculated through weighting the relevant elementary aggregates in the consumer basket.

Sources: NSI, BNB calculations.

This projection is based on the assumption of a gradual increase in global euro food prices in terms of their level and on an annual basis over the second and third quarters of 2015. Euro oil prices are expected to grow in value over the following quarters, still recording negative rates of change on an annual basis.

Selling Prices Expectations in Industry in the Following Three Months

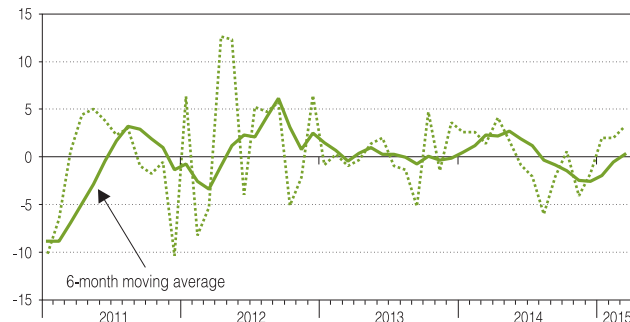
(balance of opinions, per cent)



Source: NSI.

Selling Prices Expectations in Services in the Following Three Months

(balance of opinions, per cent)

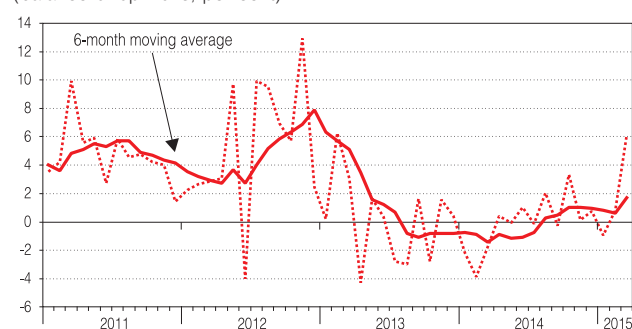


Source: NSI.

Major risks for lower than projected deflation in the following two quarters stem mainly from a possibility for oil prices not to follow their projected upward trend which could also result in stabilisation of oil price expectations at comparatively low levels. This could become a factor for further price declines in some goods and services groups, particularly gas supply and transport services, for which fuels are the main determinant of the pricing process.⁷⁹ The decision of the Energy and Water Regulatory Commission concerning the 13.2 per cent cut in the regulated price at which Bulgargaz sells natural gas to final suppliers and related heating price falls pose a risk of a higher than projected deflation.

Selling Prices Expectations in Retail Trade in the Following Three Months

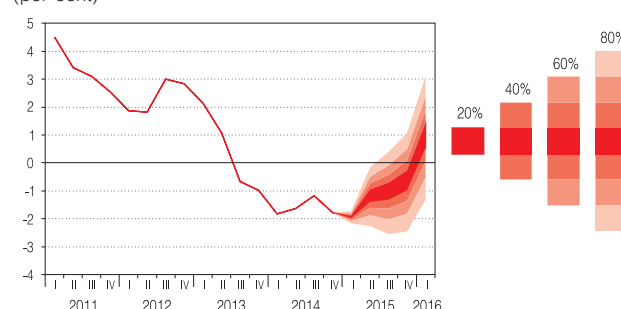
(balance of opinions, per cent)



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.

⁷⁹ See the *Economic and Financial Effects of Oil Price Declines* box, Economic Review, 4/2014.

Research Topics

Analysis of the Bank Lending Survey Results for the 2003–2014 Period

This research topic provides a summary of the results and an empirical analysis of the data contained in the Bank Lending Survey (BLS) performed by the BNB since the fourth quarter of 2003. This research is based on an analytical material, part of the BNB research activity.

Bank lending survey provides information for the purposes of the ongoing monitoring and analyses of credit conditions in Bulgaria. BLS includes questions on quarterly developments in loan demand by corporations and households, as well as changes in the credit policy of banks, factors driving loan demand and standards and conditions offered by banks in extending financial resources to households and corporations. The survey presents also changes expected by banks in the following quarter with reference to loan demand and standards of banks. The bank lending survey made by the BNB is broadly similar to the BLS used in euro area countries.

This survey is performed in the first month of each quarter. It is addressed to contact persons designated by the management of individual banks who respond electronically to the questionnaire. After the receipt of completed questionnaires, the BNB aggregates results and presents both not weighted and weighted data by the market share of banks in the relevant credit segment. Weights are calculated as a ratio of extended corporate, mortgage or consumer loans by each bank to the total amount of disbursed loans of the respective type for the whole banking system. The survey results are sent to participating banks. In addition, they are published in the BNB Economic Review quarterly bulletin.

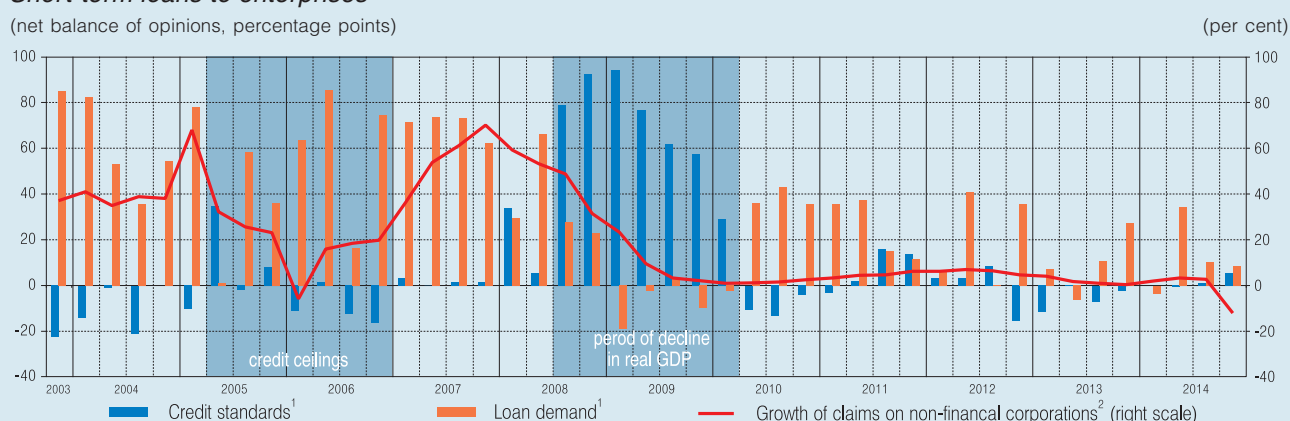
For the period from the fourth quarter of 2003 to the present day, the BLS included questions on demand and credit standards separately for short-term and long-term corporate loans. The BNB has included questions on demand and credit standards for total corporate loans and consumer and housing loans to households since the first quarter of 2010. Therefore, the analysis presented below includes a summary and an empirical assessment of the survey results focused on lending to non-financial corporations. Latest available data in the survey refer to the fourth quarter of 2014.

In interpreting survey results, it should be taken into account the qualitative nature of the data since they reflect assessments and opinions of individual banks on the developments in loan demand and standards compared to the previous quarter, as well as bank expectations of both demand and credit standards in the following quarter. Hence, the interpretation and analysis of survey results at an aggregate level call for a calculation of the net balance of opinions expressed as a percentage. As regards questions on credit standards, the net balance represents the difference between the percentage share of banks reporting a tightening of credit standards and that of banks reporting an easing of credit standards. Thus, a positive value of the net balance of opinions indicates a tightening of credit standards and a negative value points to an easing. Regarding the loan demand, the net balance represents the difference between the percentage of bank responses indicating an increase and a decrease in loan demand.

Chart 1: Bank Lending between the Fourth Quarter of 2003 and the Fourth Quarter of 2014

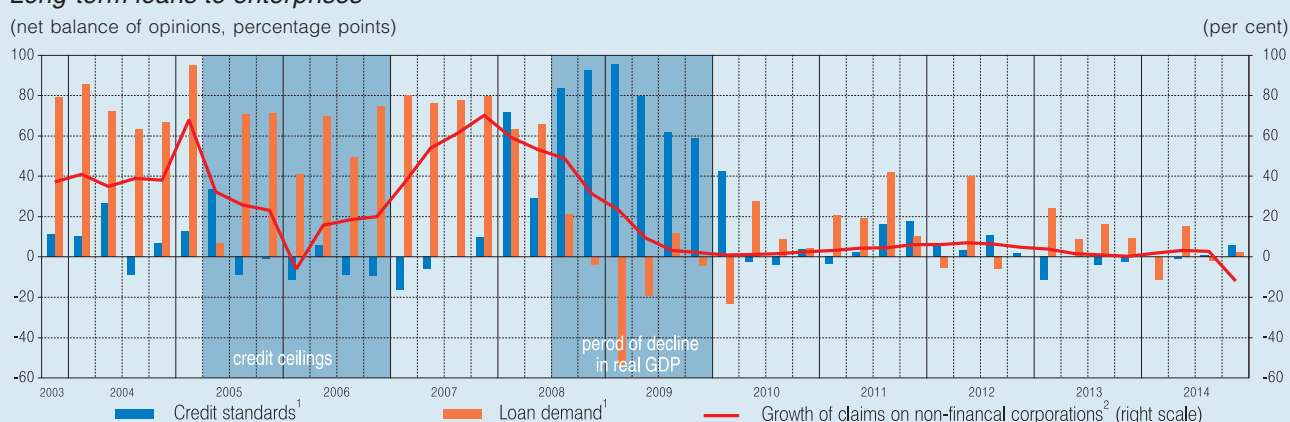
Short-term loans to enterprises

(net balance of opinions, percentage points)



Long-term loans to enterprises

(net balance of opinions, percentage points)



¹ Based on the BNB Bank Lending Survey.

² Based on monetary statistics data.

Notes: In the context of loan demand, the balance of opinions is defined as a difference in percentage points between the percentage of banks responding 'increased' ('considerably' and 'somewhat'), and the percentage of banks responding 'decreased' ('considerably' and 'somewhat'). As regards credit standards, the balance of opinions is defined as a difference in percentage points between the percentage of banks responding 'tightened' ('considerably' and 'somewhat') and the percentage of banks responding 'eased' ('considerably' and 'somewhat'). All bank responses are weighted by the bank's market share in lending to non-financial corporations for the relevant quarter.

The period of credit ceilings lasts from the second quarter of 2005 to the fourth quarter of 2006. To limit the fast growth of loans, in April 2005 the BNB introduced administrative credit limits (credit ceilings) in force until January 2007. Banks reporting quarterly credit growth exceeding the reference values set by the BNB had to maintain additional minimum required reserves.

For the purposes of the present analysis, the economic crisis period covers the third quarter of 2008 to the fourth quarter of 2009 when based on seasonally adjusted data on quarterly growth Bulgaria's GDP decreased.

In the fourth quarter of 2014 the year-on-year decline in claims on non-financial corporations is driven by the exclusion of Corporate Commercial Bank as a reporting unit from monetary statistics since November 2014 after the banking license revocation.

Source: BNB.

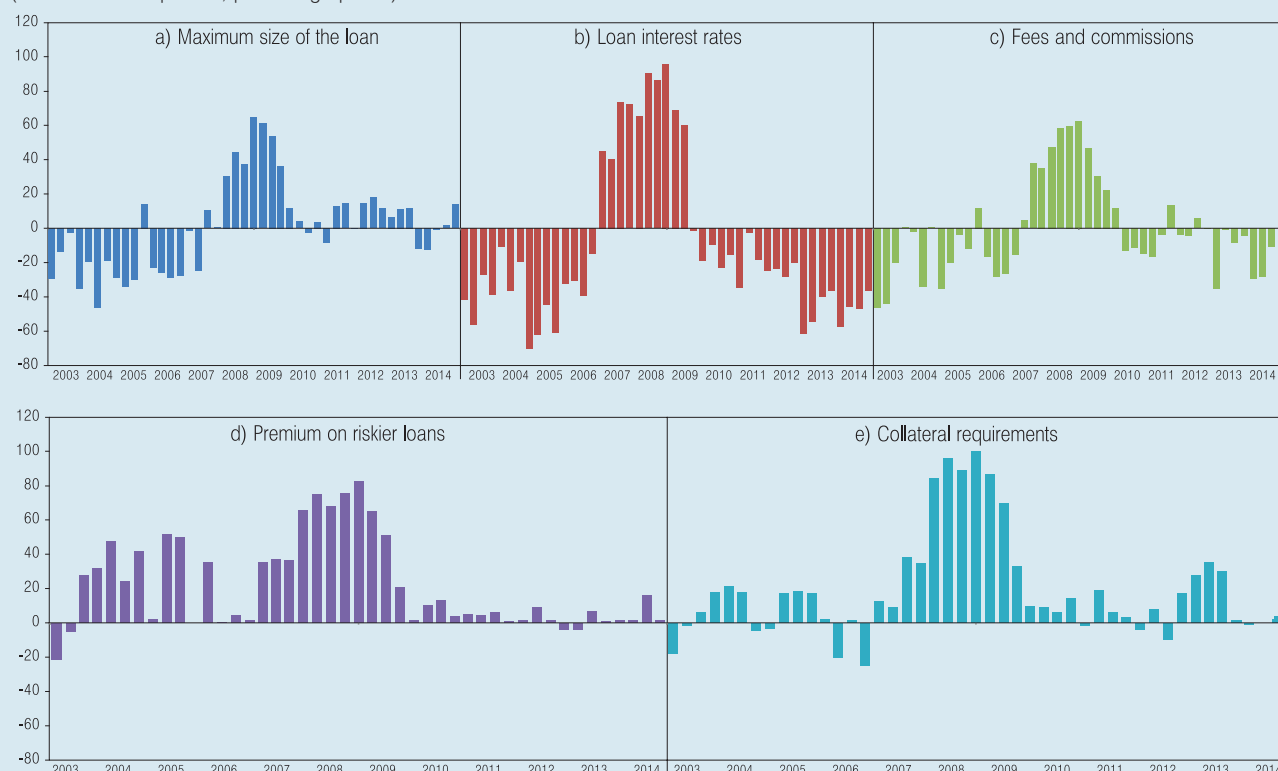
Survey data show that the period from the fourth quarter of 2003 to the second quarter of 2008 was marked by a significant increase in demand for both short-term and long-term loans by corporations, with these results corresponding to the high economic growth in Bulgaria over this period and expectations of high return on investment (Chart 1). On the part of banks, a comparatively slight easing of credit standards for short-term loans was observed prior to the global financial and economic crisis,¹ while long-term loans of banks were characterised by a net tightening in credit standards from the fourth quarter of 2003 to the second quarter of 2005 and a slight net easing thereafter. Survey credit standard results should be considered in the context of the consistent

¹ The first signs of the global financial crisis emerged at the very end of 2007 and in early 2008, though experienced several quarters later in Bulgaria. Domestic banks had no exposures to securities linked to the US real estate prices which declined significantly in 2007. Consequently, a global financial and economic crisis has developed. Global crisis effects spilled over into Bulgaria through the real economy, reflecting the increased uncertainty in international financial markets which led to a significantly lower inflow of foreign capital and an essential fall in external demand.

counter-cyclical policy of the BNB which in the years of high economic growth was reflected in stringent and conservative rules for capital adequacy, liquidity, risk classifications and bank provisions intended to limit the fast growth of loans² in the economy amid a strong inflow of foreign capital. This capital was associated with both the considerable growth of foreign direct investment into Bulgaria and the increase in financial resources provided by parent banks to the subsidiary banks and their branches in Bulgaria, intended to boost their market share in the region where banking profits were significant.

Chart 2: Changes to the Terms of Corporate Loans (2003–2014)

(net balance of opinions, percentage points)



Note: The balance of opinions in responses about factors of credit standards is defined as a difference between the percentage of banks responding 'has contributed to tightening' ('considerably' and 'somewhat') and the percentage of banks responding 'has contributed to easing' ('considerably' and 'somewhat').

Source: BNB – Bank Lending Survey.

Between the second half of 2008 and the first quarter of 2010 banks started to gradually report a strong tightening of credit standards on extending both short-term and long-term loans to corporations. Subsequently, until the end of the review period the levels of credit standards attained relatively stabilised or slightly eased. Easing of standards in recent years has been observed mainly in respect of interest rates and to a lower degree in respect of fees and commissions. As to the maximum size of the loan, the premium on riskier loans and collateral requirements remained comparatively high and/or tightened (Chart 2). Concurrently, after the banks had assessed lower demand, particularly in 2009, corresponding to the contraction in real economic activity, in 2010 and the first half of 2011 banks reported some growth in demand for short-term loans, while demand for long-term loans remained relatively lower. Overall, these results corresponded to the low positive growth rate of loans to corporations based on the monetary statistics data for the 2010–2012 period. In addition to banks' cautious lending policy, other factors that probably affected loan demand and

² The period before the global financial and economic crisis was marked by high growth rates of loans to non-financial corporations in Bulgaria. The strong moderation in credit growth in 2005 and 2006 was entirely affected by the BNB counter-cyclical policy measures to introduce credit ceilings. It was not caused by the decreasing demand for credit by corporations. See also the notes to Chart 1.

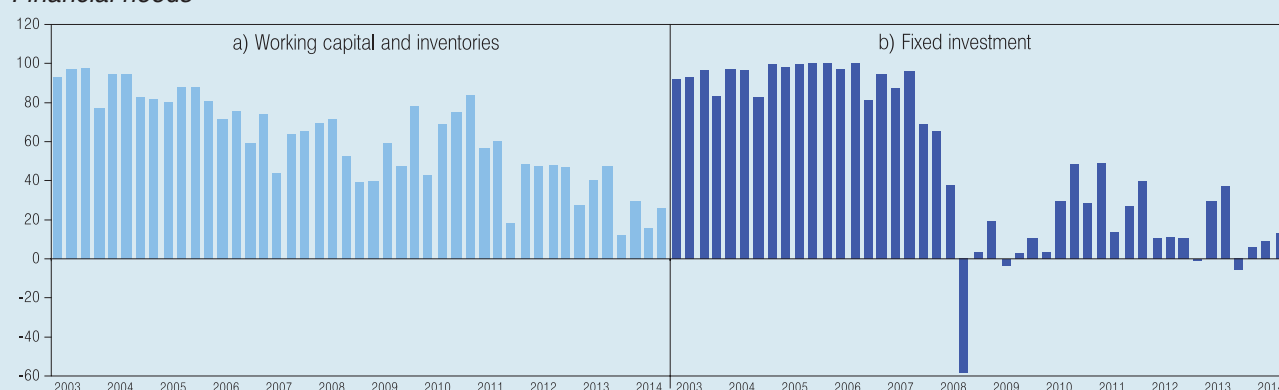
were responsible for the subdued dynamics of credit growth involved uncertain external and internal macroeconomic environment and the related postponement of investment expenditure by corporations, particularly long-term investment spending. The results of the survey confirmed relatively low loan demand.

As to the factors influencing the change of demand for loans by corporations (Chart 3), based on banks' responses, loan demand for financing corporate requirements for working capital and inventories was increasing in the course of conducting the survey albeit at lower rates. Until the third quarter of 2008 demand for corporate loans for investment purposes was assessed as strongly increasing which was in line with the enhanced economic activity over this period. In the period of a decline in real GDP growth until early 2010, consistent with subdued investment activity of corporations, banks reported a decrease in loan demand. Irrespective of these developments, in the period of a decline in economic activity the limited access of corporations to alternative sources of financing, such as funding by internal funds or loans from non-bank institutions, supported to a certain degree total corporate loan demand. As from 2011 demand for investment loans exhibited a certain recovery although it remained far lower as compared with the period prior to 2008. At the end of 2014 loan demand by corporations was mostly driven by banks' needs to ensure working capital and inventories and, to a lesser extent, by the increasing investment activity.

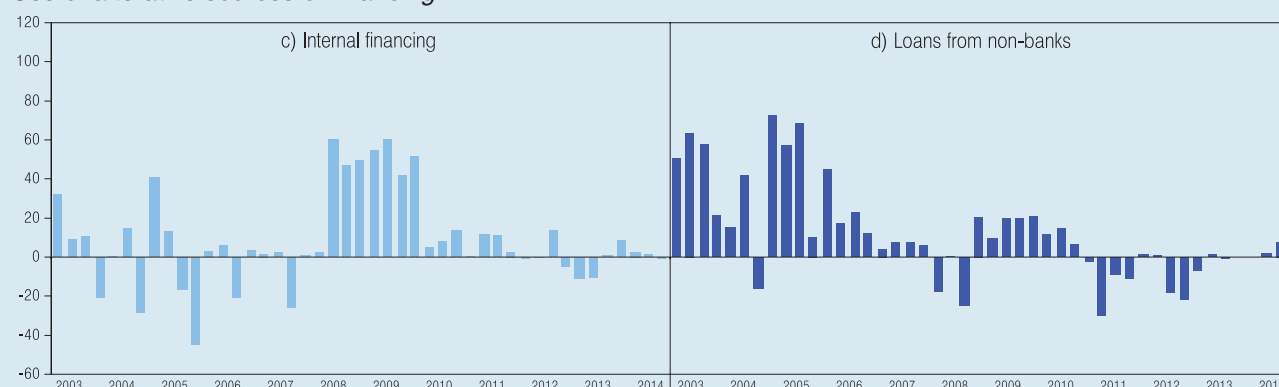
Chart 3: Factors Contributing to Changes in Demand for Loans by Corporations (2003–2014)

(net balance of opinions, percentage points)

Financial needs



Use of alternative sources of financing



Note: The balance of opinions in responses about factors of loan demand is defined as a difference between the percentage of banks responding 'has contributed to growth' ('considerably' and 'somewhat') and the percentage of banks responding 'has contributed to a decrease' ('considerably' and 'somewhat').

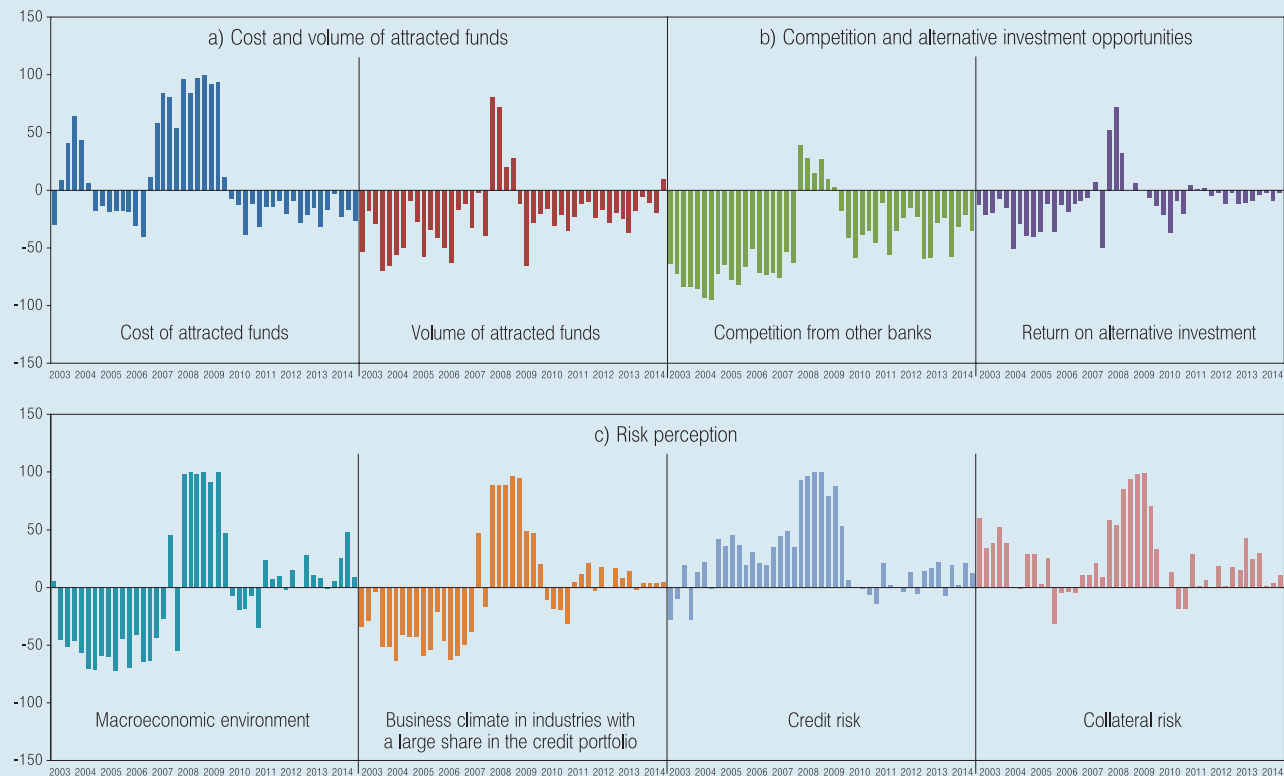
Source: BNB – Bank Lending Survey.

Summarised results of the factors behind an easing or tightening of credit standards of banks are presented in Chart 4. In the years prior to the global financial and economic crisis, banks' responses suggested that almost all factors included in the survey had contributed to easing their

credit standards: competition from other banks, favourable macroeconomic environment and business climate in industries with a large share in the credit portfolio and in the volume of attracted funds. According to banks' responses credit risk and collateral risk contributed to tightening of credit standards, which can be explained with the BNB conservative macro-prudential policy in respect of banks' capital adequacy and classification of risk and provisions.

Chart 4: Factors Contributing to Changes in Banks' Lending Policies (2003–2014)

(net balance of opinions, percentage points)



Note: The balance of opinions in responses about factors of credit standards is defined as a difference between the percentage of banks responding 'has contributed to tightening' ('considerably' and 'somewhat') and the percentage of banks responding 'has contributed to easing' ('considerably' and 'somewhat').

Source: BNB – Bank Lending Survey.

In the period of a decline in attracted funds from parent banks after the outset of the global crisis and a contraction of economic activity in Bulgaria, according to banks' responses, the major reasons behind a tightening of credit standards related to the increased cost of attracted funds and the perception of risk associated with macroeconomic environment and business climate in the industries with a large share in their credit portfolio, and the credit risk and collateral risk on extended loans. With the outset of the global financial crisis, banks increased interest rates on new deposits yet at the close of 2008 and kept these levels until end-2009 to counteract the potential negative effects on financing. This can be seen from the survey results on the significant importance of the cost of attracted funds as a factor for tightening the lending policy in the period of the crisis. The subsequent high growth rate of household deposits in the context of increased interest rates, higher household savings rates and confidence in the banking system, as well as the ongoing counter-cyclical policy of the BNB helped preserve the banking system stability and high liquidity. To curb possible negative effects of the global financial and economic crisis on the banking system, in the last quarter of 2008 the BNB took measures to facilitate banks' liquidity management using liquidity buffers created in previous years. Bank minimum reserve requirements to be maintained by banks with the BNB were changed, their rate and coverage being reduced. The measures taken helped release a considerable amount of liquid resources to the banking system.

After 2010 the factors contributing most to easing of credit standards were the competition from other banks, the increased amount of attracted funds and their lower price due to the accumulated ample liquidity in the banking system and the high savings rate in the economy, and the follow-up downward trend in deposit rates. Although the risk assessment was lower compared with the end-2008 to end-2009 period, risk perception remained a factor for tightening banks' credit policies against the background of continuing uncertainty in both external and internal environment.

The general conclusion of the descriptive analysis over the survey suggests broadly similar trends in the change of demand and credit standards based on the survey results, on the one hand, and the growth dynamics of loans to non-financial corporations based on monetary statistics data, on the other hand. A similar conclusion can be made comparing the survey results with other macroeconomic indicators as real GDP growth, investment in fixed capital and the confidence in the industry sector based on the business situation survey.

To formally assess the extent to which the survey results are statistically relevant to the overall dynamics of claims on non-financial corporations, an empirical analysis at a macro level was carried out followed by an empirical analysis at the level of individual banks. For the purpose of the macro analysis, a regression analysis based on the method of least squares was used, assessing the relationship between the dynamics of claims on non-financial corporations based on monetary statistics data, and the survey results on demand for loans by corporations and credit standards as explanatory variables. Initially, only survey results are included in the regression, and subsequently additional explanatory variables were included, such as quarter-on-quarter seasonally adjusted real GDP growth ($\Delta \ln \text{GDP}$), interest spread defined as the difference between weighted average lending rates and weighted average deposit rates for non-financial corporations, the share of bad and restructured loans in the total amount of loans to non-financial corporations (ΔBRL)³, business climate and banking system capital to assets ratio. The main results of the empirical macro analysis are presented in Table 1.

The empirical analysis outcomes show that the variable recording the change in demand for loans by corporations is statistically significant for the growth of claims, for both short-term and long-term loans to corporations. These results remain unchanged, if demand significance in the current or previous period is tested (*i.e.* if the first lag of explanatory variable is taken into account). The inclusion of additional explanatory variables into the specifications has also no impact on the robustness of estimates. The coefficient in front of the variable recording the changes in demand for loans remains stable in the various specifications, moving within a range of 0.05 to 0.08, *i.e.* the 1 percentage point increase in demand for loans positively affects the growth of claims on non-financial corporations by 0.05–0.08 percentage points. Changes in credit standards have a statistically insignificant effect on corporate loans dynamics. Among the additional explanatory variables, statistical significance for the growth of claims is found regarding real GDP growth and banking system capital to assets ratio. The coefficients in front of these variables have the expected positive signs and are relatively higher than those in front of the variables from the survey.

For the purposes of the analysis at a micro level, panel estimation with cross-section fixed effects based on quarterly data is applied. Individual bank responses to the survey are linked to the amount of corporate loans extended by the respective banks published by the Banking Supervision Department. As regards loan demand and credit standards, two pairs of variables are designed

³ The regression analysis is based on monetary statistics data on loans, which are restructured and with impaired performance past-due over 90 days, due to available time series data for the whole period under review (fourth quarter of 2003 to fourth quarter of 2014). It should be stated that in monetary statistics banks provide aggregated data on these loans, because detailed data on the exposures according to their past-due periods are not collected for the purpose of these statistics. In accordance with the international practice, reporting of monetary statistics differs from supervisory reporting, including the reporting of loans, which are restructured or with impaired performance. Therefore, the aggregated data on loans which are restructured and with impaired performance past-due over 90 days, represent neither the total loans with impaired performance, nor the share of loans with impaired performance past-due over 90 days.

Table 1. Dependent Variable: $\Delta \ln$ Claims on Non-financial Corporations ($\Delta \ln K_t$)

Explanatory variables	Short-term loans to corporations		Long-term loans to corporations	
Constant	0.01 (0.01)	0.01 (0.01)	0.01* (0.01)	0.00 (0.01)
Δ credit demand (-1)	0.05** (0.02)	0.03 (0.03)	0.07** (0.02)	0.07*** (0.03)
Δ credit standards (-1) (credit supply)	0.02 (0.03)	-0.01 (0.02)	0.01 (0.02)	-0.01 (0.02)
d_2005q1	0.20*** (0.03)	0.26*** (0.03)	0.20*** (0.03)	0.25*** (0.03)
d_2005q2	-0.32*** (0.04)	-0.27*** (0.04)	-0.31*** (0.04)	-0.26*** (0.04)
d_2014q4	-0.17*** (0.03)	-0.17*** (0.03)	-0.16*** (0.03)	-0.16*** (0.03)
Δ BRL (-1)		-0.55 (0.56)		-0.47 (0.52)
$\Delta \ln$ GDP (-1)		1.20* (0.71)		0.34 (0.73)
Δ Business climate (-1)		0.00 (0.00)		0.00 (0.00)
Δ Capital/Assets (-1)		5.41*** (1.78)		5.46*** (1.64)
Δ Interest spread (-1)		0.58 (1.11)		0.98 (1.00)
$\Delta \ln K_t$ (-1)	0.38*** (0.12)	0.43*** (0.11)	0.24** (0.12)	0.29** (0.12)
R^2	0.81	0.88	0.84	0.90
Standard error of regression	0.03	0.03	0.03	0.03
Jarque-Bera test	0.06	0.58	0.11	0.67
Breusch-Godfrey LM test	0.40	0.90	0.97	0.68
Durbin-Watson test	1.61	2.03	1.72	2.05
Breusch-Pagan-Godfrey test	0.04	0.01	0.56	0.25
Number of observations	45	42	45	42

*** reflects statistical relevance at the level of 1 per cent;

** reflects statistical relevance at the level of 5 per cent;

* reflects statistical relevance at the level of 10 per cent.

Notes: Three dummies are included in the specifications: d_2005q1, d_2005q2 and d_2014q4 for the first and second quarters of 2005, and the fourth quarter of 2014.

The results of the following test are presented in the table: Jarque-Bera normality test for distribution of residuals with null hypothesis: normal distribution, p -value is presented; Breusch-Godfrey LM test for serial correlation with null hypothesis: a lack of serial correlation in the residuals, p -value is presented; Durbin-Watson test for serial correlation in the residuals with DW statistics presented; Breusch-Pagan-Godfrey test for heteroscedasticity with null hypothesis: a lack of heteroscedasticity, p -value is presented.

According to Jarque-Bera criterium for normality of residuals, they are normally distributed. While the tests indicate that no serial correlation in the residuals is observed, Breusch-Pagan-Godfrey test reveals problems with heteroscedasticity of residuals regarding short-term loans to corporations. When applying the White's procedure to clear heteroscedasticity, the significance of coefficients in front of explanatory variables remained unchanged. Therefore, it may be concluded that it has no effect on empirical assessment conclusions.

Source: BNB.

for a decrease and an increase in loan demand by corporations and a tightening and an easing of credit standards, respectively. For example, the variable 'demand decreased' has value 1, if the bank i has reported a decrease in demand in the period t (responses: 'decreased significantly' or 'decreased somewhat'), otherwise 0. The variable 'standards tightened' has value 1, if the bank i has reported a tightening of credit standards in the period t (responses: 'tightened significantly' or 'tightened somewhat'), otherwise 0. Similarly, the variables 'demand increased' and 'standards eased' are designed. In addition to the survey results, additional explanatory variables are added to the panel. They comprise specific factors for each individual bank, such as interest spread between corporate loans and deposits by individual bank,⁴ individual bank capital to assets ratio,⁵ and variables that are common to all banks, as real GDP growth (quarter-on-quarter seasonally adjusted), business climate in Bulgaria and the share of bad and restructured loans in the total amount of loans to non-financial corporations.⁶ The panel econometric analysis is carried out for unbalanced data panel comprising the period between the fourth quarter of 2003 and the last quarter of 2014. The main results are presented in Table 2.

The results of the empirical micro analysis generally confirm macro analysis results. The variable recording the changes in demand for loans by corporations, particularly 'demand decreased', has the expected negative sign and is statistically significant for the growth of corporate loans in almost all tested specifications. The coefficient in front of it is

⁴ Interest spread between corporate loans and deposits by individual bank is implicitly calculated, using the ratio of interest income on extended loans to average loans and the ratio of interest expenditure on attracted funds to the average amount of attracted funds.

⁵ Data of the Banking Supervision Department on capital and assets of individual banks.

⁶ Monetary statistics data. See also footnote 3 above.

Table 2. Dependent Variable: Δ In Loans to Corporations (Δ In K)

Explanatory variables	Short-term loans to corporations		Long-term loans to corporations	
Constant	0.05*** (0.01)	-0.01 (0.02)	0.04*** (0.01)	-0.01 (0.02)
Δ credit demand (-1) (decrease)	-0.09*** (0.03)	-0.08*** (0.03)	-0.07*** (0.03)	-0.05* (0.03)
Δ credit demand (-1) (increase)	0.02 (0.02)	0.01 (0.02)	0.03 (0.02)	0.01 (0.02)
Δ credit standards (-1) (tightening)	-0.04* (0.02)	0.01 (0.02)	-0.02 (0.02)	0.02 (0.02)
Δ credit standards (-1) (easing)	0.03 (0.03)	0.03 (0.03)	0.04 (0.03)	0.03 (0.03)
Interest spread by bank		1.04*** (0.39)		1.00*** (0.39)
Δ In GDP		2.49*** (0.80)		2.38*** (0.80)
Δ Capital/Assets		0.72*** (0.21)		0.72*** (0.21)
Δ BRL (-1)		-2.32*** (0.69)		-2.35*** (0.69)
Δ business climate		0.01*** (0.00)		0.01*** (0.00)
Δ In K (-1)	-0.22*** (0.03)	-0.24*** (0.03)	-0.22*** (0.03)	-0.25*** (0.03)
Periods	43	43	43	43
Cross-sections	41	41	41	41
Number of observations	1303	1301	1303	1301
R ²	0.08	0.14	0.08	0.14
Durbin-Watson test	2.12	2.08	2.13	2.07

* Reflects statistical relevance at the level of 10 per cent.

** Reflects statistical relevance at the level of 5 per cent;

*** Reflects statistical relevance at the level of 1 per cent;

Notes: The results of the following test are presented in the table: Durbin Watson (DW) test for serial correlation is presented with DW statistics. The results of this test suggest that no serial correlation is observed in the residuals. The number of cross-sections is determined by the existence of restructuring in the banking sector over the review period related to mergers at banks or emergence of new banks. In the case of mergers, individual banks before the merger and the emerged new bank thereafter are treated as separate units in the panel.

Source: BNB.

dynamics. The empirical research also reveals that important factors positively affecting corporate loans dynamics at both analysing levels are real GDP growth and banks' capital to assets ratio. The analysis at an individual bank level finds that statistically significant factors for the growth in corporate loans are also the improvement in business climate in Bulgaria, the decrease in the share of bad and restructured loans in the total amount of loans, and bank-specific factors, such as the interest spread between corporate loans and deposits.

stable, ranging between -0.05 and -0.09. Overall, changes in credit standards have a statistically insignificant effect on credit growth. These results are not affected by the inclusion of additional explanatory micro and macro variables. Besides the demand for loans by corporations, a statistical significance is found regarding real GDP growth, the share of bad and restructured loans in the total amount of loans to non-financial corporations, as well as for bank-specific factors, such as interest spread between loans and deposits and individual banks' capital to assets ratio. The coefficients in front of these variables have the expected signs: positive for real GDP growth, business climate indicator and individual banks' specific interest spread and capital to assets ratio, and negative in front of the share of bad and restructured loans in the total amount of corporate loans. The coefficients in front of these variables are relatively higher than those in front of the variables derived from the survey.

In conclusion, the descriptive analysis of survey data on loans to non-financial corporations support the assumption that relatively subdued dynamics of corporate loans in last few years is influenced by the low credit demand mainly due to the need to provide funds for working capital and inventories, as well as by the relatively high credit standards that are maintained. The empirical analysis carried out on the basis of macro data and individual bank data for the 2003 to 2014 period show that changes in demand estimated by survey data have a statistically significant effect on corporate loans