# **Economic Review**

4/2009

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Bulgarian monetary policy regime seeks national currency stability with a view to price stability. The BNB quarterly *Economic Review* presents information and analysis of balance of payments dynamics, monetary and credit aggregates, their link with the development of the real economy, and their bearing on price stability. External environment is also analyzed since the Bulgarian economy is influenced by international economic fluctuations. This publication contains quantitative assessments of the development in major macroeconomic indicators in the short run: inflation, economic growth, monetary and credit aggregate dynamics and interest rates.

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#### **Abbreviations**

BIR Base interest rate
BOP balance of payments

BTC Bulgarian Telecommunications Company

b.p. basis points

CEECs Central and East European countries
CEFTA Central European Free Trade Association

CIF Cost, insurance, freight

CIS Commonwealth of Independent States

CZK Czech koruna

DXY an index measuring the exchange rate of the US dollar

against the basket of six major currencies

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

EU European Union

EURIBOR Euro Interbank Offered Rate FDI foreign direct investment FOB Free on board

GDP Gross Domestic Product GFMS Gold Fields Mineral Services

HICP Harmonized Index of Consumer Prices

HRW hard red wheat HUF Hungarian forint

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

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

NPISHs Non-profit institutions serving households

NSI National Statistical Institute

OECD Organization for Economic Cooperation and

Development

OPEC Organization of Petroleum Exporting Countries

PLN Polish zloty

PMI Purchasing Managers' Index p.p. percentage points PPP Purchasing Power Parity

CIS Commonwealth of Independent States

RON Romanian new leu
WTI West Texas Intermediate

## Summary

The fiscal and monetary measures initiated by advanced world economies to counteract the crisis started to enhance their effect on the economic activity, and by end-2009 the reported data on the euro area, the USA and China growth are higher than expected in the beginning of the year. However, uncertainty about the sustainability of the started world economic recovery remained high and the upward trends have not yet been synchronised worldwide. Asymmetry is also observed on a sectoral level (e.g. the optimistic expectations in industry and more moderate expectations in the services sector). The timing, instruments and the speed of fiscal consolidation and withdrawal of monetary stimuli in a manner to preserve the fragile balance of the starting recovery in advanced economies will be the major challenge in 2010. This makes the assessments on the global economic growth in 2010 and even in the following years extremely uncertain.

Between January and September 2009 real GDP in Bulgaria fell by 4.7 per cent compared with the same period of the previous year, with domestic demand and net exports of goods and services having a negative and a positive contribution respectively. The significant contraction in demand for goods and services, particularly external demand, and the limited access to financing prompted investment activity declines in almost all economic sectors. As a result, gross capital formation in real terms went down 23.2 per cent in the first nine months of 2009 against the same period of the prior year. Between January and September 2009 final consumption dropped by 4.4 per cent in real terms impacted by the pessimistic consumer expectations due to the high degree of uncertainty about future employment and expected income level and after the middle of the year also due to increasing unemployment. Firms initiated measures to overcome the negative effects of the crisis on their financial performance by reducing their expenditure, including labour costs. As a result, labour market conditions deteriorated and by the end of 2009 registered unemployment reached 9.1 per cent.

Between January and September 2009 imports of goods and services went down 23 per cent in real terms reflecting the contracted domestic demand and primarily the negative investment growth. Over the same period exports declined by 12.8 in real terms but as from the second half of 2009 an upward trend was observed along with the started recovery in global trade. In the first and second quarters of 2010 positive export growth and continued decline in imports are expected. Along with improved export capacities, the economic downturn is expected to slow in the first half of 2010. The downward trend in employment will continue in the first half of 2010, albeit at a slower pace.

The sustained positive net capital inflows in the Bulgarian economy along with the improved current account deficit confirmed the assessment for the country's sustainable external position. In the January to November 2009 period the overall deficit on the current and capital accounts amounted to EUR 2.1 billion (compared to EUR 7.4 billion in the same period of 2008), with foreign direct investment covering 125 per cent of the deficit. The positive growth in exports of goods and services will be the major factor for the continuing improvement of the current account balance in the first half of 2010. The balance of payments current and capital account deficit is expected to range between 4 and 7 per cent of GDP on an annual basis in the first half of 2010 and foreign direct investment inflow is expected to entirely cover the deficit.

The annual broad money growth started to accelerate slowly in the fourth quarter of 2009, although it remained relatively low, reflecting the economic activity slowdown and lower lending growth. Interest rates on time deposits remained at 7.2 per cent in lev deposits and 5.4 in euro deposits but the rates are expected to start declining in the following months. These expectations are supported by the gradual stabilization in international financial markets, high banking system liquidity (the liquidity ratio was 21.9 per

cent in December) and lower lending activity resulting in a weaker demand for resources for financing credit operations.

The downward trend in credit growth was sustained over the whole 2009 due to weaker demand and the tightening of banks' credit standards. The decline in interest rates in the interbank money market in the euro area and in Bulgaria has not yet spilled over into lending interest rates. The sustained gradual decrease in deposit rates may help lower the cost of borrowed funds.

In the first nine months of 2009 consolidated fiscal programme balance came to BGN -549.0 million. Over the last quarter the government managed to stop the monthly deficit accumulation by strictly reducing the expenditure. The Ministry of Finance data show that Bulgaria's budget deficit in 2009 came to BGN 529.5 million on a cash basis (0.8 per cent of the projected GDP for 2009). Given the accrued but unpaid budget obligations on an accrual basis (under ESA95) and in accordance with the assessment of the revised Convergence Programme of the government, the consolidated state budget deficit is estimated at 1.9 per cent of GDP. Adherence to a tight fiscal discipline will remain a priority in 2010, with government consumption expected to contribute negatively to economic growth in the first half of 2010.

Annual inflation is expected to slightly increase in the first half of 2010 compared with 1.6 per cent as of Decemebr 2009 due to the upward dynamics of food and fuel prices and the increased prices of tobacco products.

## 1. External Environment

According to macroeconomic and leading economic indicators, by end-2009 and in early 2010 recovery in world economy may materialise faster than expected mainly as a result of substantial fiscal and monetary stimuli in the United States, China and the euro area. Projections for growth in 2010 were revised upwards; however, uncertainty over the medium term stayed high. A major task of the ECB and the Federal Reserve System in 2010 will be the choice of the appropriate moment, instruments and speed of discontinuing the monetary stimuli widely used during the previous year. The possible adverse effect of monetary stimuli discontinuation and fiscal consolidation on the economic recovery increased the uncertainty regarding economic growth in 2010.

In the fourth quarter the business situation kept on improving, albeit at lower rates compared with the first half of the year. Optimism in industry stayed higher than that in the services sector, indicating heightened uncertainty about future recovery of world economy.

#### Global PMI



Source: JP Morgan.

The signals for recovery from the crisis by end-2009 were unevenly distributed at the regional level. Asian economies continued reporting a considerably faster recovery than that of the euro area and the United States. The growth in Chinese economy went beyond expectations, reaching a rate of 10.7 per cent on an annual basis for the fourth quarter of 2009 and 8.7 per cent for the whole year. The monetary policy conducted in China contributed to the fast growth of newly extended loans to CNY 10,555 billion (about EUR 1058 billion): some 31.5 per cent of the country's GDP.

Taking into account these trends, in January 2010 the IMF revised its projections for the global rate of real growth during the year to 3.9 per cent (up 0.8 percentage points compared with the previous projections).

#### World Trade

(annual rate of volume growth, %)



Source: CPB Netherlands Bureau for Economic Policy Analysis.

As of November 2009 world trade decreased by 1 per cent on the same period of 2008, with substantial improvement being registered during the second half of 2009 compared with the first half of the same year.

Inflation accelerated globally in November due to the rises in energy product prices. The prices of other major commodities preserved their slightly upward trend underpinned by strong investment demand.

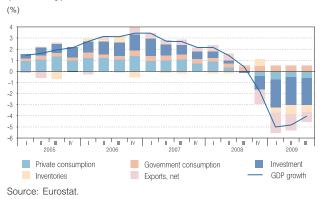
#### Euro Area

Euro area economy recovered from the recession in the third quarter of 2009 following the 0.4 per cent growth in GDP on a quarterly basis registered for the first time since 2008. The decline in GDP came to -4.0 per cent on an annual basis against -4.8 per cent in the second quarter. The contribution of government consumption, net exports and the change in inventories to economic growth was positive, while that of consumption and investment was negative.

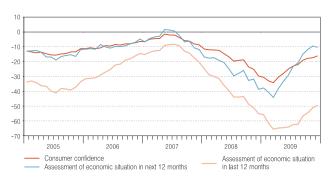
Euro area economic indicator dynamics stayed positive during the last quarter of 2009. Rising

unemployment and decreasing credit aggregates, however, led to the formation of mixed expectations about economic activity. The positive effect of economic stimuli in the euro area had a limited influence on the activity owing to consumer and investor caution in decision-making. The persistence of this type of cautious behaviour means that euro area economy is likely to recover slowly and at uneven rates.

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

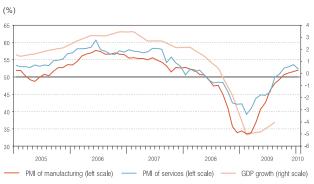


#### Euro Area Consumer Confidence Indices



Source: EC.

### PMI of Manufacturing and Services and Euro Area GDP Growth

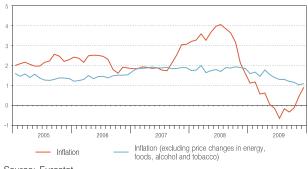


In December 2009 the ECB revised upwards, albeit moderately, its euro area economic growth projections within the range of -4.1 per cent to -3.9 per cent (the previous revision was within the

range of -4.4 to -3.8 per cent) and within the range 0.1 to 0.5 per cent (the previous revision was within the range of -0.5 to 0.9 per cent) for 2009 and 2010 respectively. In 2011 GDP growth is anticipated to be between 0.2 per cent and 2.2 per cent.

#### Euro Area Inflation Rate

(percentage change on same period of previous year)

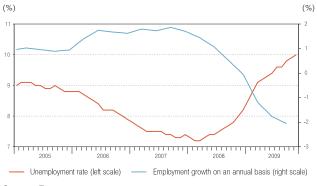


Source: Eurostat.

During the last quarter of 2009 deflation processes in consumer price index dynamics were overcome due mainly to the subsiding base effect of fuel prices. As of December 2009, inflation reached 0.9 per cent on an annual basis, while core inflation retained its downward dynamics (1.1 per cent on an annual basis in December).

The trend towards a rise in harmonized inflation may be preserved at the start of 2010 due to the base effect of energy prices in the previous year. Market expectations show that inflation will remain stable and at low levels over the first half of 2010. The substantial unused production capacity in economy, the unfavourable employment outlook and the decline in lending, which will impede the recovery of consumption and investment, will be the major factors behind this dynamics.

#### Euro Area Unemployment Rate and Employment Growth



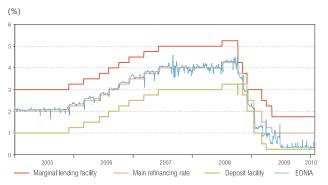
Source: Eurostat.

In December 2009 the ECB revised slightly upwards its inflation projections within the range of 0.9 to 1.7 per cent for 2010 (the previous revision

Sources: NTC Research, Eurostat.

was within the range of 0.8 to 1.6 per cent). The ECB expectations show that inflation will move between 0.8 and 2.0 per cent in 2011.

#### **ECB Interest Rates**



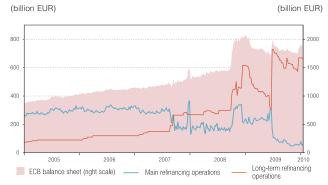
Source: Bloomberg

During the last quarter of 2009 the ECB kept the interest rate on its major refinancing operations at 1.00 per cent. Market expectations suggest preservation of this level in the first half of the year as well.

In early December 2009 the ECB announced changes in its refinancing operations reflecting the strategy of gradual monetary stimuli discontinuation in line with the economic performance. These changes aimed to limit refinancing of banks through longer-term operations in the money market. Until mid-April 2010 the ECB will continue to

provide unlimited refinancing at a fixed interest rate but the operations will be less frequent. One three-month operation a month and one, final sixmonth operation at the close of the first quarter are scheduled. Following the one-year operation (EUR 96.9 billion) conducted in December 2009, these operations were discontinued. Unlike the previous two, this one was executed at a floating interest rate linked to the interest rate on main refinancing operations.

#### **ECB Balance Sheet**



Source: ECB.

Liquidity absorption operations of the ECB will probably be accompanied by additional measures aimed at mitigating the adverse effects on financial markets at the maturity date of the first one-year operation in early July 2010 (amounting to EUR 442 billion).

#### **EU-8\***

In the third quarter of 2009 GDP contraction in noneuro area Member States moderated. EU-8 countries reported an overall decrease of 3.7 per cent on an annual basis, against 4.0 per cent in the previous quarter.

GDP growth in Poland – the only EU Member State reporting positive growth rates in 2009 – remained at 1.2 per cent on an annual basis. The other countries in this group saw slowing down decline rates. The Baltic countries continued to report the most pronounced contraction in GDP: Latvia (-19.0 per cent), Estonia (-15.6 per cent) and Lithuania (-14.2 per cent). Investment in fixed capital (14.4. per cent) and exports (-8.3 per cent) contributed most to this decline. Inventories adjustment was relatively lower compared to the previous three quarters.

#### Growth and Inflation in EU-27 and EU-8



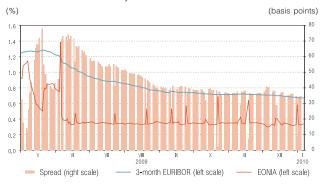
Sources: Eurostat, own calculations.

The decline in private consumption remained a key factor behind the drop in real GDP in the Baltic countries and in Romania.

In the fourth quarter of 2009 inflation moderated, reaching 2.9 per cent on an annual basis – 0.5 percentage points lower than in the previous quarter.

<sup>\*</sup> EU-8 includes the states that have joined the EU since 2004 (Slovenia, Malta, Cyprus and Slovakia excluded). As of 1 January 2007 Slovenia, as of 1 January 2008 Malta and Cyprus and as of 1 January 2009 Slovakia have the status of full-fledged members of the Economic and Monetary Union.

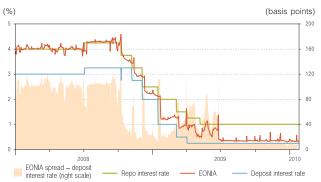
### Liquidity Risk Premium (Spread between the Three-month EURIBOR and EONIA)



Source: Bloomberg.

At the close of December 2009 covered bond purchases under the ECB programme came cumulatively to EUR 28.2 billion. The bulk of purchases was made in the secondary market and their volume totaled EUR 21.4 billion. The operations under this programme will be carried out by the ECB until 30 June 2010.

#### Short-term Euro Area Interest Rates



#### **United States**

Source: Bloomberg.

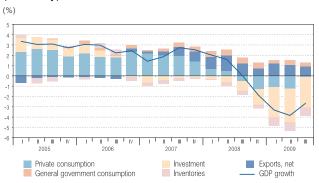
In contrast to the reported decline in the first half of 2009, in the third quarter GDP in the United States picked up by 0.5 per cent on a quarterly basis (from -0.2 per cent). On an annual basis, the fall in economic activity moderated to -2.6 per cent (from -3.8 per cent). Household consumption, underpinned by government stimuli for purchases of new automobiles, had a major contribution to the growth on a quarterly basis (0.5 percentage points). For the first time within a fourteen-quarter period housing investment reported an increase (by 4.4 per cent on a quarterly basis, contributing 0.1 percentage points to GDP growth).

According to expectations, the rise in industrial activity, related mainly to the recovery in inventories, and the momentum of economic stimuli should support GDP growth until the end of the

first half of 2010, once their positive effects on economic activity has faded.

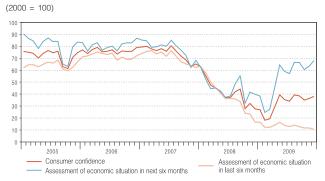
At the same time, the signals coming from economic indicators are contradictory. Consumer activity is expected to stay low reflecting worsened household balance sheets. Unemployment hit its historical high in the last twenty six years (10 per cent by the close of 2009) and so did the average period for finding new jobs, which reached 29.1 weeks. These trends in the labour market affected negatively disposable income. The savings ratio remained relatively high due to the increased uncertainty of employment outlook.

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



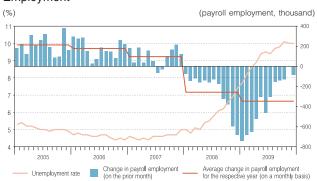
Source: Bureau of Economic Analysis.

#### **US Consumer Confidence Indices**



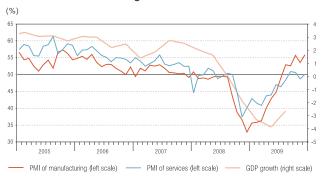
Source: The Conference Board.

#### US Unemployment Rate and Changes in Payroll Employment



Source: Bureau of Labour Statistics.

#### US PMI of Manufacturing and Services and GDP Growth



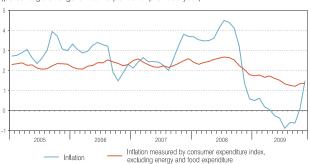
Sources: Institute for Supply Management, Bureau of Economic Analysis (BEA).

Housing market prospects also remained negative despite the increased investment activity. The significant fall in house prices and tax reliefs for house purchases provided by the government underpinned demand for real estate at the end of 2009 and, respectively, investment activity. The increased number of bad and overdue loans, however, had an opposite effect. Free production capacity in the sector will further subdue business investment. The restricted access to financial resources will continue to have a negative impact on investment decisions, particularly in small- and medium-sized enterprises.

As a result of base effects, overall inflation, measured by the deflator of personal consumer expenditure (PCE), started to rise since October 2009, while in November the increase came to 1.5 per cent on an annual basis. The base index, excluding energy and food, reversed its downward trend and stabilized at 1.4 per cent on an annual basis in the fourth quarter of 2009. Inflationary expectations – short-term and long-term – remained contained, despite concerns about the rising budget deficit and the excess reserves in the banking system. The significant free production capacity is likely to continue mitigating price rises in the medium term.

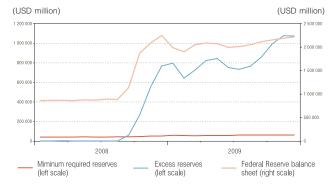
#### **US Inflation Rate**

(percentage change on same period of previous year)



Source: Bureau of Labour Statistics.

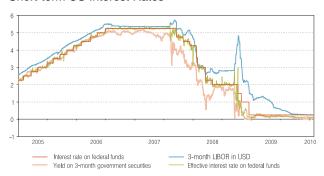
#### Bank Reserves and Federal Reserve Balance Sheet



Source: Bloomberg.

Against the backdrop of uncertainty about economic growth and expected low inflation in the coming months, the Federal Reserve System retained its reference interest rate on federal funds within the range of 0.00 to 0.25 per cent. The short-term interest rate benchmark will most likely be retained at the current level at least until mid-2010.

#### Short-term US Interest Rates



Source: Bloomberg.

A major medium-term task of the Federal Reserve System is to withdraw the monetary accomodation for the banking sector. The withdrawal started effectively with the termination of the extraordinary liquidity provision programmes (TSLF, PDCF, AMLF<sup>1</sup> and the swap lines with central banks) at the end of January 2010. The TAF programme<sup>2</sup> will be in action for an indefinite period, and the frequency and the amount of operations will be reduced gradually.

<sup>&</sup>lt;sup>1</sup> TSLF (Term Securities Lending Facility) – a programme for exchanging treasury bonds for pre-specified collateral (this applies to primary dealers only).

PDCF (Primary Dealer Credit Facility) – a programme for extending overnight loans to primary dealers in exchange of eligible collateral. AMLF (Asset-backed Commercial Paper Money Market Mutual Fund Liquidity Facility) – a programme for financing deposit institutions' purchases of commercial securities (with high ratings), covered by mutual funds assets on the money market.

 $<sup>^2\,\</sup>mathrm{TAF}$  (Term Auction Facility) – a programme for providing short-term liquidity to deposit institutions.

At its last meeting for 2009, the Open Market Committee decided to stop the programme for purchases of assets collaterised by mortgage loans on 31 March 2010. So far, the net value of effected purchases has come to USD 1.3 trillion of the USD 1.45 trillion target. TALF operations<sup>3</sup> will also be conducted until the end of March. The final decision on the discontinuation or expansion of the programmes will probably be made at the meeting of the Committee in mid-March 2010.

#### Federal Reserve Balance Sheet

(USD trillion)



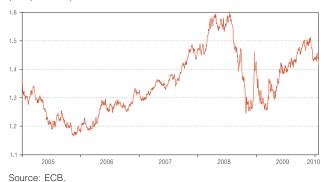
At the close of 2009 the Federal Reserve System started to prepare the launching of two new instruments (reverse repo transactions and term deposit facility) which will be used in absorbing the excess liquidity from banks. The aim of the Federal Reserve is to check the efficiency of these instruments and its operational preparedness to introduce them at the appropriate moment. The Federal Reserve is expected to start using them upon the occurrence of more convincing signals about sustainable growth and/or of inflationary pressure.

#### The USD/EUR Exchange Rate

During the fourth quarter of 2009 the US dollar appreciated by 2.1 per cent against the euro and by 1.6 per cent against the basket of the six most traded currencies in the DXY index. Over the period the US dollar fluctuated within a relatively wide range of 1.43 to 1.51 against the euro.

#### USD/EUR Exchange Rate

(USD per EUR 1)



The USD exchange rate dynamics reflected two major factors: the interest rate differential between the European and US yield on government securities and the expectations about the spreads between the reference interest rates in US dollars and in euro, as well as the investor risk appetite. The relatively good macroeconomic data at the start and in the middle of the period, and the expectations about the monetary policy of the Federal Reserve and the ECB activated investors who took advantage of the opportunities for making profits from carry trade. This led to an appreciation of the high-yielding currencies at the expense

Expectations about the Federal Reserve monetary policy changed at the end of the period, and the US dollar started to appreciate parallel to growing signals about the recovery of the economy. Repatriation of large investment flows in US dollars associated with the close of the calendar year was also a factor behind the appreciating US dollar. At the same time, in December 2009 concerns about difficulties of some euro area countries relating to their debt began to mount, impacting negatively the value of the euro.

of the low-yield US dollar and Japanese yen.

During the first quarter of 2010 the appreciation of the US dollar may be curbed by the decreasing risk aversion and the recovery of arbitrage trading. The USD/EUR exchange rate adjustment will probably also result from technical factors that will offset the very fast appreciation of the US dollar in December 2009. Given the unchanged market fundamentals and the growing signals about absorbing liquidity at the global level, a gradual depreciation of the US dollar may be observed during the first half of the year.

<sup>&</sup>lt;sup>3</sup> TALF (Term Asset-backed Securities Loan Facility) – a programme for extending loans in exchange of collateral of structured products (AAA-rated), secured by the value of student and consumer loans, loans to small and medium businesses, as well as loans for purchasing motor vehicles and loans for financing purchases or construction of property for trading.

#### The Balkan Region

All countries in the region reported GDP contraction in the third quarter of 2009. The overall downward trend in fixed capital investment and, to a lesser extent, in private consumption remained sustained. The trade in goods, imports in particular, also decreased. Industrial production stabilized in the third quarter of 2009, but recovery signals were far from certain. In the fourth quarter of 2009 the downward trend in inflation came to a halt mainly due to the increase in fuel prices. Macedonia reported deflation on an annual basis for a third consecutive quarter.

Expectations point to a slight economic recovery in the first half of 2010 and to a negative annual growth.

Real GDP Growth and Inflation in Balkan Countries (Quarterly)

	2007			2008					2009		
	Total	-1	II	III	IV	Total	1	II	III	IV	Total
Growth (on the corresponding											
period of previous year, %)											
Bulgaria	6.2	7.0	7.1	6.8	3.5	6.0	-3.5	-4.9	-5.4		
Greece	4.5	2.7	2.7	2.0	0.7	2.0	-0.5	-1.2	-1.7		
Macedonia	5.9	6.4	7.9	6.4	1.2	4.8	-0.9	-1.4	-1.8		
Romania	6.3	8.2	9.3	9.2	2.9	7.3	-6.2	-8.7	-7.1		
Turkey	4.7	7.2	2.8	1.0	-6.5	0.9	-14.7	-7.9	-3.3		
Croatia	5.5	4.3	3.4	1.6	0.2	2.4	-6.7	-6.3	-5.7		
Serbia	6.9	8.8	6.4	4.6	3.0	5.5	-4.2	-4.2	-2.3		
Inflation (averaged for the period, %)											
Bulgaria	7.6	12.4	14.0	12.6	9.1	12.0	5.1	3.1	0.8	0.9	2.5
Greece	3.0	4.3	4.8	4.8	3.1	4.2	1.8	0.8	0.8	2.0	1.4
Macedonia	2.3	9.5	9.9	8.4	5.5	8.3	0.9	-0.6	-1.4	-2.1	-0.8
Romania	4.9	8.0	8.6	8.2	6.9	7.9	6.8	6.1	5.0	4.5	5.6
Turkey	8.8	8.8	10.3	11.7	10.9	10.4	8.4	5.7	5.3	5.7	6.3
Croatia	2.9	5.9	6.5	7.4	4.5	6.1	3.8	2.8	1.2	1.6	2.4
Serbia	6.4	13.4	15.8	12.3	10.2	12.9	9.7	8.1	7.7	5.8	7.8

Sources: Statistical institutes and central banks of respective countries.

## International Prices of Crude Oil, Major Raw Materials, and Gold

#### Crude Oil

During the fourth quarter of 2009 the price of Brent crude oil fluctuated within the range of USD 70 to USD 81. Expectations about faster recovery of world economy and the cold weather in the Northern Hemisphere were the major factors behind the upward price dynamics.

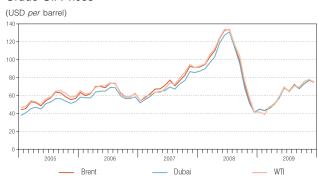
Revised data of the International Energy Agency (IEA) on crude oil market show a slight rise in demand over supply during the January to September 2009 period. According to preliminary data, this showed in the moderating growth in oil products' inventories in the OECD from 4.8 per cent on an annual basis in the second quarter to 3.3 per cent in the third quarter.

In January the IEA projections are for a contraction in world crude oil demand by 1.7 per cent in 2009: up 0.7 percentage points compared

with September projections. Asian economies which at present are recovering considerably faster compared with the euro area and the United States contributed mostly to higher demand

Market expectations about oil prices in the first half of 2010 fluctuate within the range of USD 70 to USD 90 *per* barrel.

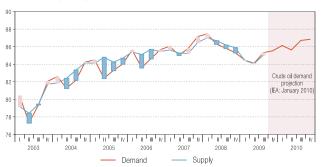
#### Crude Oil Prices



Source: World Bank.

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

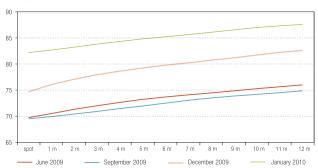
(million barrels per day)



Source: IEA.

## WTI Crude Oil Futures Prices (Average Price of the Contract in the Corresponding Month)

(USD per barrel)

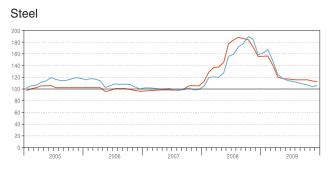


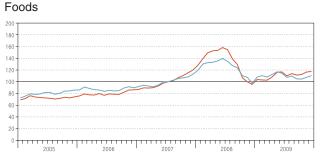
Source: JP Morgan.

#### Major Raw Materials and Commodity Groups

Favourable developments in the industrial sector stemming from the fiscal stimuli in leading economies and the high demand in China were the ma-

Price Indices of Major Commodities and Commodity Groups (2007 = 100)



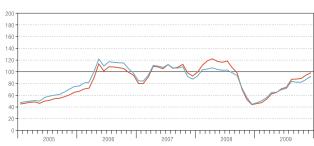


Sources: World Bank, ECB, BNB

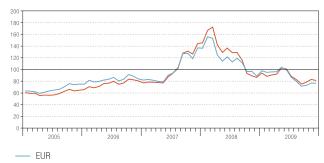
jor factors behind ongoing metal price rises. In the fourth guarter of 2009 the increase in the metal price index moderated to 7.2 per cent on a quarterly basis with price rises registered mainly in non-ferrous metals: zinc (26 per cent), lead (19 per cent), copper (13 per cent) and aluminum (11 per cent). The prices of steel products remained almost unchanged compared to the third quarter. Steel output dropped by some 8 per cent in 2009, with all major producing countries, excluding China and India, reporting a substantial fall in output. In 2009 China produced 13.5 per cent more steel compared with 2008. The prevailing expectations about metal prices point to price rises in the first half of 2010, but al lower rates than those observed in 2009.

In the fourth quarter of 2009 the food price index picked up 5.5 per cent on a quarterly basis. Beverages and vegetable oils had a major contribution to this by some 12 per cent and 7 per cent respectively. The rise in the prices of cereals was negligible (1.2 per cent), with prices of wheat and rice falling by some 7 per cent and 2 per cent respectively and the price of maize growing by around 13 per cent. According to the US Department of Agriculture and the International Grains Council, global wheat yields during the 2009/2010 season are expected to drop by approximately 1.2–1.7 per cent: an upward revision of about 1 percentage point compared with September 2009

#### Copper



#### Wheat



— USD

projections. Wheat inventories are expected to grow by some 17 per cent during the season (an improvement by almost 5 percentage points compared with the previous projections).

Expectations about food prices point to increases within the range of about 4 per cent to 8 per cent on a quarterly basis over the first half of 2010. Factors related both to global demand as a result of the gradual recovery in world economy and to global supply in view of diminishing land under crop in some regions will impact prices.

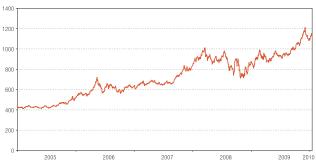
#### Gold

Over the fourth quarter of 2009 the average gold price (one-month futures) went up to USD 1100.6 *per* troy ounce (14.5 per cent on a quarterly basis). A weaker rise was reported in euro (11 per cent) due to the appreciation in the European currency.

Over the period the gold price reflected the dynamics of the US dollar to the euro exchange rate and, more generally, investors' inflation expectations. The correlation between gold and the USD/EUR exchange rate went up, while the correlation between gold and commodity prices went down to comparatively low and even negative levels.

#### Spot Price of Gold

(USD per troy ounce)



Source: The London Bullion Market Association.

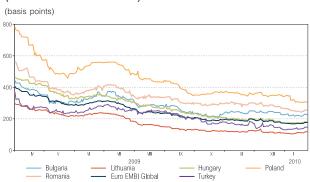
The most noticeable appreciation was registered in November following the effective sale of 200 tons of physical gold to India by the IMF. Consequently, other, smaller central banks also purchased gold from the 403 tons earmarked for sale. These purchases were part of the programmes for diversification of certain countries' foreign exchange reserves; nevertheless, they had a significant effect on the market price.

The signals about Federal Reserve and ECB monetary policy will be a key indicator of the behaviour of gold investors in 2010. The bulk of exposures in gold are financed at a low borrowing interest rate in US dollars and a putative change in the interest on federal funds in the United States will have a direct effect on the costs of maintaining these positions.

## Bulgarian External Debt Dynamics on International Financial Markets

During the fourth quarter of 2009 the spread of the yield on the Central and East European countries' government debt continued to contract slowly and steadily. The JP Morgan Euro EMBI Global index declined by 11 basis points, while the fluctuations of the index were within a narrow range of 173 to 209 basis points and at the end of the quarter it reached the level of 170 basis points.

## Government Securities Yield Spreads (Euro EMBI Global index)



Source: JP Morgan.

The major factors behind the downward dynamics were the lower risk aversion on the part of investors and growing expectations of a recovery in the world economy.

Over the review period perceptions about the Central and Eastern Europe reported improvements compared to the third quarter of 2009. This was related to the implementation in certain countries of programmes financed by the IMF and the EU, as well as to the stabilisation of public finance. Investment perceptions were also affected by the projections that were revised towards a lower decline in some of the economies in the region.

Bulgaria's government debt spreads, measured by the JP Morgan index, exhibited a general downward market trend throughout the period, reporting an 8 basis point decline to 224 basis points.

## 2. Financial Flows, Money and Credit

Capital inflows to Bulgaria were lower compared to previous years due to the global economic crisis. The current account deficit also contracted, and the external position of Bulgaria was adjusted smoothly and in line with our expectations. According to preliminary balance of payments data for the January to November 2009 period, the overall deficit on the current and capital accounts amounted to EUR 2.1 billion (compared to EUR 7.4 billion in the same period of 2008), with foreign direct investment covering 125 per cent of the deficit. Over the same period a surplus of EUR 2.2 billion was reported on the balance of payments financial account, and the total balance of payments recorded a deficit of EUR 655.1 million.4

The Issue Department balance sheet figure came to BGN 25.27 billion (EUR 12.92 billion) by end-December 2009, with the increase in assets in 2009 reaching BGN 0.4 billion (EUR 0.21 bil-

## Financial Flows and External Position

Sustainability The external position of Bulgaria's economy remained stable. The capital inflows to Bulgaria were positive, and

Between January and November 2009 the balance of payments financial account recorded a surplus of EUR 2245.4 million mainly due to: 1) attracted net foreign direct investment worth EUR 2522.4 million; 2) an increase of EUR 353.3 million in other sectors' net credit obligations; and

#### Cash Flows Which Prompted Significant Changes in **Gross International Reserves**

(million EUR)

		, ,
External flows	2009	IV quarter 2009
Total for the period Purchases and sales of euro at tills banks, incl. bank's purchases bank's sales Flows on accounts of banks, the MF, etc.	-265 -1 282 -35 -1 247 112 527 -113 774 1018	394 174 -7 181 24 263 -24 082 220
Minimum required reserves Government and other depositors*	159 859	213 7

<sup>\*</sup> A total of SDR 610.9 million (FUR 665.7 million) received on 28 August and 9 September 2009 have been included in the government and other depositors item.

Source: BNB

foreign direct investment for the January - November 2009 period financed 103 per cent of the current account deficit. The contraction in the balance of payments current account deficit to 9.1 per cent of GDP (down from 24.8 per cent in the corresponding period of 2008) was smooth and in line with expectations. We expect these developments to continue in the first half of 2010. Over the same period the positive growth of exports in goods and services will continue to be the key factor behind the further decrease in the current and capital account deficit on an annual basis.

lion). The average monthly coverage of imported goods and services by BNB international reserves reached 7.8 months as of November 2009 against 6.0 months a year earlier.5

3) an increase of EUR 205.1 million in the net financial obligations of the general government sector.

BNB international reserves increased by EUR 205.7 million in 2009, marking an increase of more than EUR 1 billion in the second half of the

Bulgaria in the IMF voted in favour of the resolution, expressing the joint position of the government and the central bank. Pursuant to this decision, on 28 August 2009 Bulgaria received SDR 474.6 million (around EUR 517 million) and on 9 September 2009 another SDR 136.3 million (EUR 148.7 million). These SDRs are included in Bulgaria's international reserves, but in line with the reporting methodology applied are not recorded in the balance of payments

<sup>5</sup> The average value of imports of goods and services for the last 12 months and BNB reserves by the end of November were used in the calculation of this indicator.

<sup>&</sup>lt;sup>4</sup> At its meeting on 2 April 2009, the G20 Heads of State or Government decided on the allocation of SRDs to the amount of USD 250 billion (around EUR 186.7 billion as of the date of the decision) to all IMF member countries as a measure designed to address the effects of the global financial and economic crisis. This entitles each IMF member country to acquire SDRs of up to 75 per cent of its quota in the IMF. Pursuant to this decision of 7 August 2009, taken with a majority of 85 per cent of the votes of IMF member countries, the IMF Board of Governors approved a resolution on the total allocation of SDRs. The Governor of the Bulgarian National Bank in his capacity of a Governor for

year which offset the decrease from early 2009 driven by the reduction in the minimum required reserves maintained with the BNB. The increase in international reserves in the second half of 2009 reflected, on the one hand, the general SDR allocation made by the IMF to its members in proportion to their existing quotas to the amount of EUR 665.7 million and on the other hand, the positive overall balance of payments of EUR 512.4 million for the September – November 2009 period.

The dynamics of the balance of payments in the first half of 2010 will largely depend on euro area and global economic developments. Reflecting on the analysis of existing economic factors and trends, our baseline scenario foresees sustained positive net capital inflows to Bulgaria mainly in the form of foreign direct investment. These expectations reflect the sustainability of the economy and the banking system, as well as the balanced budget fiscal policy pursued by the government.

The sustainability of Bulgaria's external position is based on the structure of financial and capital inflows. The capital flows were mainly in the form of foreign direct investment. As a result of this structure, Bulgaria's external position is characterised by low risk of potential speculative capital withdrawal. The share of portfolio investment in Bulgaria's gross international liabilities stood at 3 per cent by the end of September 2009. The short-term external debt has been falling since early 2009, posting a decrease of EUR 379 million over the January - November period, and its share in Bulgaria's gross external debt fell to 34.4 per cent as of November 2009 compared to 35.5 per cent as of December 2008. International reserves covered a 101.5 per cent of the short-term external debt by November 2009.

Foreign direct investment in Bulgaria came to EUR 2630.3 million between January and November 2009. Over the same period of 2008 data on foreign direct investment were revised upwards several times and currently amount to EUR 6049.8 million. For the first eleven months of 2009 foreign direct investment provided coverage of 103 per cent of the current account deficit (against 79 per cent in the corresponding period of 2008) and

125 per cent of the current and capital account deficit (against 81 per cent in 2008).8

By November 2009 net foreign direct investment accounted for 9 per cent of the annual GDP for the last four quarters. In the first two quarters of 2010 the net inflows of foreign direct investment as a percentage of GDP are expected to remain close to that level.

Direct investments attracted in the first eleven months of 2009 were mostly in the form of *equity*: EUR 1912 million (72.7 per cent of the total inflow). Between January and November non-residents' investment in real estate came to EUR 489.8 million (EUR 1277.6 million in the corresponding period of 2008). Regardless of the decrease in 2009, receipts from acquisition of real estate in Bulgaria by non-residents were higher than the average observed in the years prior to 2006.

Between January and November 2009 EUR 430.9 million were attracted in the form of other capital (16.4 per cent of total inflow). Preliminary estimates of reinvested earnings were for EUR 287.4 million over the review period or EUR 212.9 million less than in the corresponding period of 2008.

By end-2008 real estate operations and business services (22.8 per cent), manufacturing (18 per cent), financial intermediation (17.5 per cent), and trade and repairs (14.3 per cent) occupied the largest shares in the structure of cumulative foreign direct investment by industry. These industries retained to a large extent their key position in the structure of foreign direct investment between January and September 2009. In the structure of investment, the annual change points to an increase in the share of financial intermediation (39.9 per cent) and transport and communications (10.7 per cent) and a decrease in the share of real estate and business services (18.5 per cent) and manufacturing (10.2).

The composition of FDI by country in the January to November 2009 period suggests that foreign direct investment attracted from the Netherlands (32.9 per cent of total foreign direct investment), Germany (11.9 per cent), and Austria (9.4 per cent) had the largest shares.

 $<sup>^{\</sup>rm 6}$  For further details on BNB policy in early 2009 see  $\it Economic$   $\it Review,$  1/2009.

<sup>&</sup>lt;sup>7</sup> According to preliminary data.

<sup>&</sup>lt;sup>8</sup> Practice shows that original data on foreign direct investment are usually revised upwards, which may result in an increase in the current account deficit

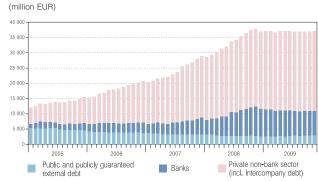
Over the same period Bulgaria's gross external debt increased by EUR 18.1 million. Net repayment of borrowed funds amounted to EUR 5.9 million (revaluations and the net change in trade and revolving loans excluded). Over the eleven months of 2009 loans and deposits of EUR 5569.3 million were received, and principal payments of EUR 5575.2 million serviced. As a result, by end-November 2009 Bulgaria's gross external debt reached EUR 37 billion or 110.4 per cent of the reported GDP for the last four quarters.

In the first eleven months of 2009 general government external debt increased by EUR 226.2 million mainly due to a loan received by the World Bank in June. The total amount of public and publicly guaranteed external debt increased by EUR 181.2 million and came to 11.2 per cent of Bulgaria's total external debt.

Private non-guaranteed external debt declined by EUR 163 million between January and November 2009, with deposits by non-residents (EUR 833.8 million) and long-term loans repaid by local banks (EUR 560.1 million) contributing most significantly. Banks' short-term loans increased by EUR 487.7 million. Banks' debt to parent banks incurred in connection with their activity in Bulgaria occupied a large share in banks' external debt (76.5 per cent as of September 2009). The reduced minimum required reserves allowed banks to cut the amount of their gross external debt by EUR 1.56 billion between December 2008 and November 2009 and this led to a decrease in that share to 17.4 per cent as of November 2009. While the banking system reduced its external liabilities, the external liabilities of the non-bank sector increased over the review period, although to a lesser extent compared to 2008.

In the first eleven months of 2009 intercompany loans increased by EUR 773 million and their share in total debt rose to 42 per cent. This development points to a long-term interest of foreign owners of local companies in Bulgaria's economy. Intercompany loans received between January and November 2009 were EUR 2.5 billion<sup>9</sup> and the share of loans related to direct investment rose to 42.1 per cent of Bulgaria's external debt.

#### Gross External Debt



Source: BNB.

The service of gross external debt in January – November 2009 reached EUR 6.2 billion compared to EUR 6 billion in the corresponding period of the prior year. The largest share in newly declared loans for the January – November 2009 period was occupied by intercompany loans (44.4 per cent) and banking sector loans (24.4 per cent).

The average weighted interest rates on new loans declared over the same period suggest that the cost of external borrowed funds decreased on an annual basis: in euro by 2.2 percentage points to 3 per cent and in US dollars by 0.5 percentage point to 5.7 per cent respectively. The differential between interest rates on long-term loans to corporations, extended by local banks and interest rates on external long-term loans remained unchanged. The interest rate differential on euro-denominated loans was 5.6 percentage points and that on US dollar-denominated loans – 1.4 percentage points.

By September 2009 there was no notable change in the structure of private non-bank external debt by industry. The largest share in the external debt of other sectors was occupied by electricity, gas and water (20.7 per cent), followed by real estate operations, lessors activities and business services (18.7 per cent) and financial intermediation (14.2 per cent). The largest share in intercompany loans was occupied by financial intermediation (21.1 per cent) and real estate operations, lessors activities and business services (17.7 per cent).

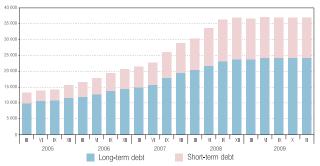
In the maturity structure of gross external debt, short-term external debt trended downwards, reaching EUR 379 million, and its share fell to 34.4 per cent. Between January and November 2009 this development was underpinned by the decrease in non-residents' deposits with local

<sup>&</sup>lt;sup>9</sup> Based on the previous revisions, it may be expected that the registered volume of intercompany loans will increase in the future.

banks of EUR 840 million and in *other sectors*' trade credits of EUR 132.5 million.

### Dynamics of Long-term and Short-term Gross External Debt

(million EUR)



Source: BNB

As regards gross external debt currency structure, the euro retained its leading position: 87 per cent by September 2009. It occupied the largest share (92.7 per cent) in intercompany loans and the smallest share in the *general government sector* (74 per cent).

Between January and November 2009 Bulgaria's gross foreign assets fell by EUR 11.7 million. Foreign assets of local banks decreased by EUR 279.8 million and non-financial sector deposits abroad picked up by EUR 61.1 million. As a result of Bulgaria's gross foreign assets and gross external debt dynamics, the net external debt remained almost unchanged: EUR 19.4 billion by the end of November 2009, or 57.8 per cent of the projected GDP for 2009.

The strong interdependence between the capital flows on the balance of payments financial account and the current account balance was retained in 2009. Between January and November 2009 the total current and capital account deficit contracted to EUR 2102.1 million against EUR 7433.5 million in the corresponding period of the prior year consistent with the lower foreign capital inflows. As a result of these developments in the main components of the balance of payments, foreign investment inflows covered the total current account deficit. By November 2009 current and capital account deficit (on an annual basis) accounted for 9.1 per cent of projected GDP for 2009 and a year earlier this deficit represented 24.8 per cent of the annual GDP.

The trade balance recorded the most significant improvement, with trade deficit falling by EUR 4229.3 million and coming to EUR 3727 million for the first eleven months of 2009. Over the same

period nominal imports and exports decreased by 34.6 per cent and 24.3 per cent respectively on an annual basis. The fast decline in imports pertained to reduced investment and production activity and hence, to lower demand for investment goods, commodities, materials and energy resources. The demand for consumer goods also contracted, but the share of this group was the smallest (17.3 per cent for 2008) compared to those of investment goods (27.4 per cent) and raw materials and supplies (33.5 per cent). Accordingly, it contributed less to the reduction in total imports. In the second half of 2009 some positive trends were recorded in imports dynamics - the negative annual growth rate gradually improved to a positive growth of 3.8 per cent in November. Our expectations point to an increase in exports on an annual basis and to a further decrease in imports in the first half of 2010.

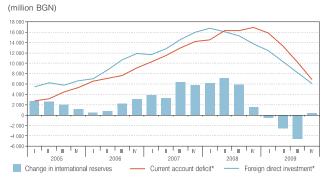
Between January and November 2009 the balance on services, the capital account and the balance on income improved by EUR 529.2 million, EUR 414 million and EUR 199.6 million respectively on the corresponding period of 2008.

The balance on services recorded a surplus of EUR 1367.4 million over the January – November 2009 period against EUR 838.1 million in the corresponding period of the prior year. The improvement was mostly attributable to lower costs for external services rather than to higher receipts.

For the January – November 2009 period the income deficit was EUR 657.6 million and improved by EUR 414 million on the corresponding period of 2008.

Net current transfers for the first eleven months of 2009 amounted to EUR 461.5 million: down EUR 40.6 million on an annual basis mainly due to lower EU funds inflow. Transfers received from the EU exceeded payments on Bulgaria's contribution to the Community budget by EUR 21.1 million and contributed to the positive net transfers of EUR 114.2 million to the general government. The receipts from private current transfers fell by EUR 153.5 million on an annual basis. Transfers abroad also declined by EUR 125 million. As a result, net transfers to the private sector decreased by EUR 28.5 million on an annual basis. As usual, cash transfers between residents and non-residents (EUR 278.6 million over the review period) had the largest share in net transfers.

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



\* Data as of November 2009.

Source: BNB.

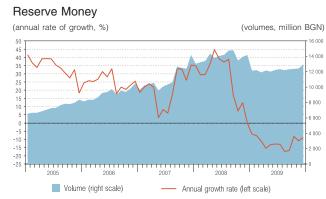
The improvement in capital transfers was entirely attributable to the EU funds inflow. Net capital transfers from the EU to the *general government* sector came to EUR 454 million: up EUR 203.6 million on an annual basis.

The uncertainty surrounding the economic recovery of the euro area and the world in the first half of 2010 remained high. On the basis of current developments analysis the current and capital account deficit is expected to remain between 4 and 7 per cent of GDP on an annual basis in the first half of 2010, and FDI inflows are expected to offset it completely.

#### **Monetary Aggregates**

The annual broad money growth slightly accelerated, although it remained relatively low, reflecting the economic activity slowdown and lower lending growth rates. Interest rates on time deposits remained at the levels reached in early 2009.

In the fourth guarter of 2009 reserve money sustained its negative annual growth, but the annual decrease contracted to -8.7 per cent against -16.6 per cent in the third quarter. This trend reflectied the fading of the base effect related to the higher rate of minimum required reserves until November 2008. By the end of December, banks' deposits with the BNB were 2.2 per cent less compared to the corresponding month of the previous year, or down by 25.8 per cent by end-September. Concurrently, currency in circulation continued to decrease on an annual basis, reaching 12.3 per cent by end-December. This development in currency in circulation was mostly attributable to lower employment, higher wage rises and lower inflation. The lower demand for cash reflected also the effect of interest rates on time deposits providing incentives for the economic agents to save in the form of bank deposits. In the first months of 2010 the annual rate of decline in currency in circulation is expected to gradually moderate, while banks' deposits with the BNB are expected to increase on an annual basis.



Source: BNB.

#### Bank Deposits with the BNB

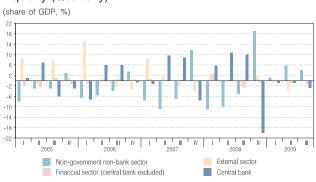


Source: BNB.

#### Currency in Circulation

Redistribution of liquidity between the main economic sectors reflecting government activities in the third quarter of 2009 was relatively lower compared to the previous quarter. The main net beneficiary of financial resources from the consolidated budget (4 per cent of the GDP for the review quarter) was the non-bank non-government sector owing to the excess of budget expenditure over income. Liquidity provided to this sector was funded by a decrease in government and other budgetary organisations' deposits with the BNB of BGN 496.7 million. Furthermore, the budget withdrew liquidity from the central bank and the financial sector (excluding the BNB) mainly in the form of corporate tax and interest income to the amount of 1.2 per cent of GDP. In the third quarter the budget had a neutral impact on external sector liquidity, and the positive net financing by the EU budget (BGN 90 million) was offset by the outflow of resources for servicing external loans.

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

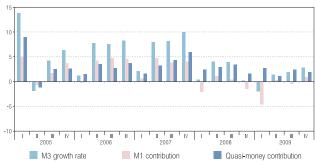


Sources: MF, BNB

The annual growth of broad money remained low, although showing signs of acceleration in the fourth quarter and reaching 4.3 per cent by end-December. In the first half of 2010 annual broad money growth is expected to increase slightly in line with the gradual economic activity slowdown.

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

(percentage points)

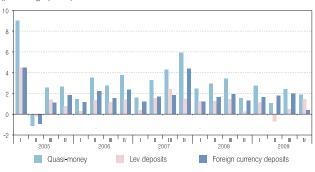


Source: BNB.

M1 monetary aggregate posted an annual decline of 8.8 per cent by end-December. This was driven by the developments in currency outside banks and the decline in overnight deposits which went down by 7 per cent compared to December 2008. By end-December overnight deposits of non-financial corporations in domestic and foreign currency decreased by 22.8 per cent and 13.1 per cent respectively on an annual basis, while overnight deposits of households in levs went down 6.4 per cent and those denominated in foreign currency declined by 25.4 per cent. The decline in overnight deposits was largely attributable to moderate bank lending, ongoing repayment of obligations and shifts from overnight to time deposits.

## Contribution of Quasi-money and Their Components to M3 Growth (Quarterly)

(percentage points)



Source: BNB.

The annual growth rate of quasi-money came to 14.5 per cent by end-December. Deposits with agreed maturity of up to two years still contributed the most to the quasi-money growth, with household deposits in levs going up by 29.9 per cent on an annual basis by the end of December and those in foreign currency by 22.9 per cent respectively. Non-financial corporations' lev denominated deposits with agreed maturity of up to

two years decreased by 10.5 per cent on an annual basis and the annual growth of deposits in foreign currencies reached 10.9 per cent.

Interbank money market rates posted a decrease relative to the values reported in the third guarter of 2009. The average interest rate on transactions concluded on the interbank money market went down from 1.58 per cent in September to 0.64 per cent in December. Following a similar trend, LEONIA decreased from 1.46 per cent in September to 0.39 per cent in December, with the spread vis-à-vis interest rates on interbank overnight deposits in the euro area falling from 110 basis points in September to 4 basis points in December. In January 2010 LEONIA came to 0.24 per cent and the spread vis-à-vis EONIA to -10 basis points respectively. The spread corresponded to the average levels of the autumn of 2007 when the first signs of the global financial crisis appeared.

#### LEONIA/EONIA



Trade Volume and Interbank Money Market Interest Rates



The average daily volume of transactions in interbank money market between October and December 2009 contracted to BGN 258.5 million, down from BGN 297.4 million in the third quarter of the year. In addition to money market transactions, banks also used foreign currency trading with the BNB as a liquidity management tool and

realized net foreign currency sales of EUR 416.8 million for the October – December period.

## Currency Sales or Purchases between Banks and the BNB (on a monthly basis)



## Interest Rates on New Time Deposits (average weighted by maturity)

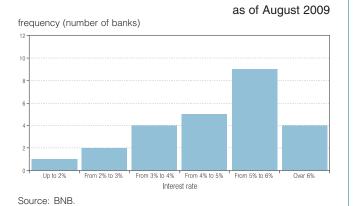


Source: BNB.

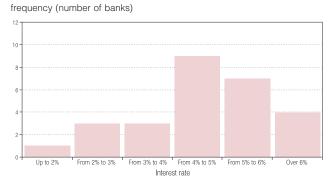
Interest rates on new time deposits remained at early 2009 levels. By December the average interest rate on time deposits denominated in levs reached 7.18 per cent and the average interest rate on time deposits denominated in euro came to 5.43 per cent. In the following months interest rates on time deposits are expected to gradually decline. These expectations are supported by the gradual stabilization in international financial markets, high banking system liquidity (the liquidity ratio was 21.9 per cent in December) and lower lending activity resulting in a weaker demand for resources for financing credit operations.

As regards the distribution of interest rates on household deposits with maturity of up to one month by bank, the number of banks offering rates within the 4 to 5 per cent band increased at the expense of those offering rates within the 5 and 6 per cent and 3 and 4 per cent bands respectively. In December the average interest rate level decreased compared to the level observed in August 2009, thus the level of dispersion was sustained.

## Distribution of Interest Rates on Household Lev Deposits with Maturity of up to One Month



#### as of December 2009



#### **Credit Aggregates**

The downward trend in credit growth was sustained due to weaker demand and the tightening of banks' credit standards. The reduction in interest rates in the interbank money market in the euro area and in Bulgaria has not yet passed through to lending interest rates.

Uncertain macroeconomic environment continued to adversely affect lending by reducing credit demand and acting as a factor for tightening banks' lending policies. As a result of the moderate credit demand and banks' tightened lending standards, the rate of credit growth slowed down further and by end-December the annual growth of claims on the non-government sector fell to 3.8 per cent.

In the fourth quarter of 2009 claims on the non-government sector increased by BGN 432.3 million against an increase of BGN 1102.4 million reported in the same period of 2008. The increase of claims on the non-government sector in the fourth quarter of 2009 reflected mainly the net repurchase of loans by banks which amounted to BGN 390.9 million (net) over the review period.

#### Claims on Non-government Sector



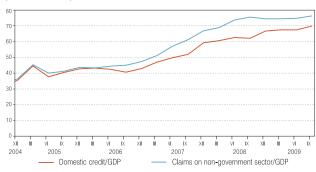
Source: BNB.

The growth rate of claims on the non-government sector is expected to moderately accelerate in the first two quarters of 2010, although staying close to its current level.

The positive lending growth and the decline in GDP influenced the dynamics of the *claims on the non-government sector to GDP* ratio. By the end of September 2009 this ratio reached 76.3 per cent against 74.7 per cent in June 2009.

#### Domestic Credit

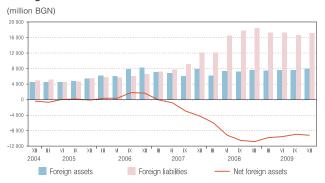
(share of GDP, %)



Source: BNB

In the fourth quarter of 2009 banks' funds attracted from non-residents increased by BGN 587.3 million and their foreign assets grew by BGN 368.6 million.

#### Foreign Assets and Liabilities of Banks



Source: BNB.

Tightened lending policy and weaker credit demand continued to curb growth in claims on non-financial corporations. In the fourth quarter of 2009 claims on non-financial corporations rose by BGN 96.2 million compared to BGN 408.1 million in the same period of 2008. The annual growth rate of these claims moderated further, reaching 2.2 per cent by the end of December.

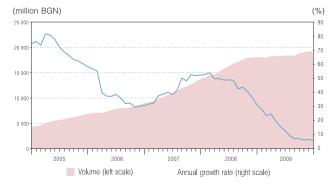
#### Claims on Non-financial Corporations



Source: BNB.

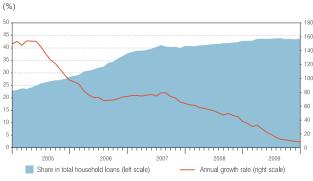
Lending to households was also relatively weak. This trend was underpinned by the tightening of banks' lending policy and the weaker demand for loans reflecting higher uncertainty related to employment and income developments. In the fourth quarter of 2009 claims on households went up by BGN 272 million compared to an increase of BGN 505.7 million in the corresponding period of 2008. Their annual growth rate moderated further, reaching 5.8 per cent by the end of December. The annual growth rate of loans for house purchase slowed down to 8.4 per cent by the end of the fourth quarter.

#### Claims on Households



Source: BNB.

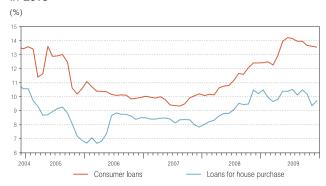
#### Loans for House Purchase



Source: BNB.

During the last months of 2009 a gradual reduction in interest rates on consumer loans was observed. As regards loans for house purchase and loans to corporations, no distinct trend can be discerned. The fall in the cost of financing in the interbank money market in the euro area and in Bulgaria has not yet spilled over to the cost of deposits and hence, has not resulted in a sensible reduction in lending rates in Bulgaria.

### Interest Rates on Newly Extended Household Loans in Levs



Source: BNB

## Interest Rates on Newly Extended Long-term Loans in Levs and Euro

(%)

12
10
8
6
4
2
2004 2005 2006 2007 2008 2009

Long-term loans to corporations in levs
Long-term loans to corporations in euro

Source: BNB.

There is a high degree of uncertainty surrounding the developments in interest rates in the following months. A possible gradual decrease in deposit rates is likely to help lower the cost of borrowed funds.

#### Changes in Major Balance Sheet Items of Banks (Quarterly)

(million BGN)

		2008					
	Ш	III	IV	1	II	III	IV
Claims on non-financial corporations	3190.4	2047.4	408.1	166.1	41.5	363.9	96.2
Deposits of non-financial corporations	297.5	62.5	23.1	-1182.6	-33.1	139.0	-337.2
Claims on households	1634.8	1306.7	505.7	167.7	136.8	471.0	272.0
Deposits of households	954.3	1204.4	122.7	411.6	153.2	517.7	1300.7
Foreign assets	1099.2	-8.9	361.6	-199.2	181.7	17.6	368.6
Foreign liabilities	4304.6	1361.5	680.6	-1260.7	-28.2	-616.8	587.3
Claims on the general government sector	-34.0	21.6	3.8	4.0	-101.6	-72.1	60.7
Deposits of the general government sector	322.8	-31.0	-188.7	-220.6	8.8	-213.5	-537.3
Claims on central government	-34.1	22.1	-17.6	7.3	-115.4	-67.8	38.4
Liabilities to central government	145.2	-36.8	199.3	-356.4	-4.2	-83.2	-329.9

Source: BNB.

#### Claims on Non-government Sector (Quarterly)

(%)

		Annual growth rate							re
		2008			2	December	December		
	Ш	III	IV	1	П	III	IV	2008	2009
Claims on non-government sector, incl.:		46.6	31.6	24.0	11.2	5.2	3.8		
on non-financial corporations	53.3	48.8	31.4	23.2	9.4	3.2	2.2	61.7	60.7
on households and NPISHs	49.0	43.7	31.3	24.7	13.0	7.3	5.8	36.4	37.1
on financial corporations	64.7	28.6	44.2	38.8	35.7	37.1	16.8	1.9	2.2

Source: BNB.

## 3. Economic Activity

Over the first nine months of 2009 real GDP declined by 4.7 per cent on an annual basis. Labour market conditions worsened and unemployment reached 9.1 per cent at the end of 2009.

In the first half of 2010 the economic activity decline is expected to slow down on the account of improved export opportunities. It is expected that growth recovery will begin to affect the labour market favourably only towards the end of the year.

In the first nine months of 2009 real GDP fell by 4.7 per cent on the same period of the previous year. Domestic demand, especially for investment goods, had a negative contribution to GDP dynamics, while net exports of goods and services recorded a high positive contribution of 11.6 percentage points to the change in GDP.

The physical import volume retained its decline rate above 20 per cent in the three quarters of the year. The pace of decline in exports gradually decelerated from 17.4 per cent in the first quarter of 2009 to 6.7 per cent in the third quarter (on an annual basis). Between July and September 2009 exports of goods and services, reflecting also a seasonal factor, exceeded the imports in nominal terms for the first time in the last five years.

The global macroeconomic uncertainty, dramatic declines in external and domestic demand, as well as more conservative bank credit policy and lower foreign investment inflows led to a change in fixed capital investment dynamics. While this component had a major contribution to value added growth over the recent years, it decreased on an annual basis by 23.2 per cent in real terms in the first nine months of 2009 and by 36.5 per cent in the third quarter of the year.

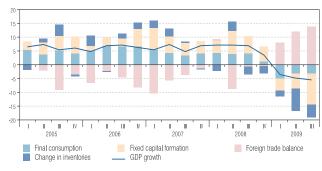
The decrease in nominal expenditure on acquisition of fixed assets between July and September was around 30 per cent annually, covering almost all economic sectors with the exception of the predominantly state owned sectors. In addition to the industry and trade whose investments have declined since the beginning of the year, the third quarter saw a large deceleration in *real estate operations, lessors activities and business services*.

In response to the decreased demand, firms reduced their stocks of materials, goods for resale and finished goods. As a result, the physical change in inventories had a large negative contribution of 7.4 percentage points to the change in real GDP in the first nine months.

Over the same period final consumption fell by 4.4 per cent in real terms compared with the same period of 2008, its contribution to GDP growth turning negative at 3.7 percentage points. Although current household income retained its positive growth, household consumer expenditure fell by 5.7 per cent in real terms which may be ascribed to the uncertainty about future incomes and postponement of durables purchases. The increasing unemployment also affected consumption declines. Government expenditure had no sizable effect on GDP dynamics, its contribution coming to 0.3 percentage points in the first nine months.

### Contribution to GDP Growth by Component of Final Consumption (Quarterly)

(%, percentage points on the corresponding period of previous year)



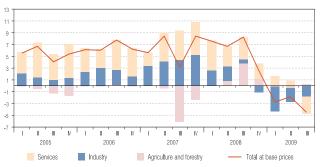
Source: NSI.

Gross value added in industry between January and September 2009 fell on an annual basis by 3.2 per cent in real terms. In the first half of the year value added decreased by 2.3 per cent on

an annual basis, reflecting mainly the negative contribution of manufacturing (-2.1 percentage points). In the third quarter the decline deepened further to reach 4.6 per cent as a result of the real drop in value added in services and construction which had negative contributions of 3 and 0.8 percentage points respectively.

#### Value Added Growth and Contribution by Sector

(%, percentage points on the corresponding period of previous year)



Source: NSI

The annual decline rate of real GDP is expected to slow down in the first half of 2010. The foreign trade balance contribution will remain positive. In line with the external environment improvement and world trade revival, Bulgarian enterprises' exports are expected to begin rising and to have a major contribution to the industrial recovery. High uncertainty of the global economic environment will continue to push down investment goods demand by enterprises. Consumer demand is anticipated to contract further on an annual basis due to lower employment and retention of wages at the level attained at the end of 2009. The decline rate in household consumption will continue to gradually slow down on an annual basis on account of the retention of small positive growth in disposable income and the lower base effect in the first half of 2009.

#### GDP by Component of Final Consumption (Real Rate)

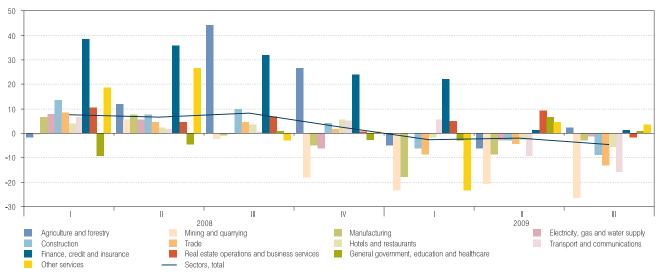
(%, on corresponding period of previous year)

		2007				20	800	2009			
	1	II	Ш	IV	1	II	III	IV	- 1	Ш	III
Consumption, incl.	6.0	5.0	4.2	4.5	4.7	4.8	5.4	1.4	-5.4	-3.7	-4.2
Household consumption	7.8	6.1	5.1	2.7	6.5	5.4	6.5	1.5	-6.3	-5.6	-5.3
Final government consumption expenditure	-1.2	-1.0	2.3	8.5	-2.9	4.1	-0.3	4.6	-2.1	-0.4	0.4
Collective consumption	-2.7	0.7	-2.5	13.3	-5.8	0.3	0.9	-1.5	1.2	8.1	1.4
Gross fixed capital formation	35.9	24.7	19.7	14.0	15.5	28.6	22.3	15.8	-14.1	-16.3	-36.5
Exports of goods and non-factor services	3.7	5.3	5.4	6.0	9.2	5.1	3.8	-6.0	-17.4	-15.8	-6.7
Imports of goods and non-factor services	14.7	11.1	9.3	5.7	5.8	13.7	4.2	-3.2	-21.1	-24.3	-23.4
Real GDP growth	5.5	7.3	4.9	6.9	7.0	7.1	6.8	3.5	-3.5	-4.9	-5.4

Sources: NSI, BNB.

#### Value Added Dynamics by Economic Activity

(%, on corresponding quarter of previous year)



Sources: NSI.

#### Household Behaviour

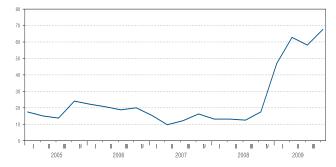
Consumer demand declines over the first half of 2009 continued in the third quarter as well. In real terms, household consumption posted a decrease of 5.7 per cent on an annual basis between January and September. Households continued to refrain from purchases of non-food and durable goods, while at the same time maintaining and even increasing the levels of expenditure on essential commodities, such as food, medicines, toiletries, and housing costs. The household budgets survey and retail trade data show that these trends were sustained in the last quarter of 2009 as well.

Household incomes continued to record positive growth. The average increase in the real wage bill was 6 per cent in the first nine months, reflecting the 9 per cent real wage growth. Concurrently, unfavourable trends in the labour market 10 deepened. Employment declines intensified in 2009 to reach 3.7 per cent on an annual basis over the third quarter. Skilled workers prevailed in the structure of lay-offs, followed by operators of facilities, machines and transportation vehicles. The least-skilled workers had also a significant contribution. This structure corresponds to the decline in production of industry, construction and transportation. Service workers and analytical specialists were less affected.

The labour force survey data show that the unemployment level in the third quarter of 2009 remained comparatively low at 6.7 per cent. This indicator does not take into account the substantial increase in the number of discouraged workers. According to the Employment Agency data, unemployment was 8 per cent at the end of September 2009. At the end of the year the number of unemployed registered in the labour offices reached 338,000 or 9.1 per cent, which matched the end 2006 level.

#### Unemployment Expectations (Quarterly)

(balance of opinions)



Source: NSI - Consumer Survey.

The worsened labour market conditions led to increased uncertainty among households about employment and future income. NSI consumer survey data show that consumer confidence remained subdued and expectations of upward unemployment dynamics increased. Against this background, households postponed purchases of durables and increased the savings rate. Similar behaviour was recorded by household budget survey data which show a clearly pronounced upward trend in savings from 7 per cent of total income in October 2008 to 12 per cent in November 2009. Concurrently, growth in net household claims on banks over the year confirms the increased propensity to save.

Tightened credit conditions and higher deposit and lending interest rates compared with the period from 2005 to the outset of the world crisis (see Section 2) were also factors fostering savings and discouraging consumption.

#### Households Confidence Indicator

(balance of opinions)



Source: NSI - Consumer Survey

**Economic Activity** 

<sup>&</sup>lt;sup>10</sup> For a detailed analysis, see the box entitled *The economic crisis and its impact on potential output level and dynamics*.

<sup>&</sup>lt;sup>11</sup> The NSI labour force survey and Employment Agency statistics on registered unemployed in the labour offices have different definitions of 'unemployed'. Due to the difference, part of the persons reported by the NSI labour force survey as discouraged may have been registered as unemployed in the labour offices.

<sup>&</sup>lt;sup>12</sup> Savings are measured comparing the difference between the total income and the total household expenditure to the total income. The indicators are based on 12-month moving average.

Consumption dynamics in the first half of 2010 will be driven by the conditions and prospects in the labour market where unemployment will further increase. Over the same period income growth will continue to slow down which along with the

increased number of unemployed will impinge negatively on consumer demand. These unfavourable processes in the labour market will limit household expenses, and consumption is expected to continue declining, albeit at lower rates.

#### Employment and Income Dynamics (Quarterly)

(% on corresponding period of previous year, unless otherwise indicated)

		20	800		2009			
	- 1	II	III	IV	l	II	III	IV
Employed	4.8	3.4	3.0	2.1	-0.3	-1.8	-3.7	
Real wage	8.2	10.5	7.3	10.5	9.6	8.1	8.9	
Wage fund	14.1	14.8	10.6	13.2	9.0	5.5	3.5	
Unemployment at the end of the period, % of the labour force	6.8	6.0	5.8	6.3	6.9	7.3	8.0	9.1

Sources: NSI - SNA, Employment Agency.

#### Consumer Demand Dynamics (Quarterly)

(percentage growth in real terms on corresponding period of previous year)

	2008				2009					
	1	II	III	IV	1	П	III	X – XI		
Consumer spending per household member	6.7	1.8	1.7	-0.7	0.1	-0.1	2.6	-0.7		
Retail sales	11.2	7.8	4.4	-1.7	-9.4	-14.6	-16.0	н. д.		
Income from retail trade	7.8	5.3	2.2	-1.2	-5.6	-10.1	-9.1	-9.4		
incl.										
Food, drink, tobacco	4.6	0.0	2.4	4.6	3.3	2.5	2.4	1.5		
Automobile fuels and lubricants	3.4	4.0	0.8	-5.9	-8.3	-13.3	-3.8	-1.5		
Pharmaceutical and medical goods, cosmetics and toiletries	11.8	7.8	5.0	5.6	1.4	-1.1	-1.0	-0.7		
Textile, clothing, footwear and leather	22.9	13.1	2.3	0.1	-5.0	-8.4	-13.4	-14.0		
Household goods and home appliances	10.2	5.8	1.3	-1.7	-8.1	-16.9	-19.4	-19.2		
Computers and communication equipment	13.2	12.2	3.8	-4.5	-15.0	-17.6	-20.6	-23.8		
Trade in automobiles and repairs	22.6	13.5	10.5	-4.6	-31.1	-38.1	-46.9	-44.5		

Source: NSI - Household Budgets and Domestic Trade Survey.

#### Government Finance and Consumption

According to Ministry of Finance data, the budget deficit on a cash basis was BGN 529.5 million at the end of the year (0.8 per cent of projected GDP for 2009). Based on estimates of the 2009–2012 Convergence Programme updated in January 2010, the consolidated budget deficit on an accrual basis (under ESA95 methodology) came to 1.9 per cent of GDP.

In the first nine months of 2009 consolidated budget balance came to BGN -549.0 million. Over the last quarter the government succeeded in reversing the upward trend in monthly deficit accumulation, and small surpluses were reported in October and November along with a deficit of BGN 31.3 million in December. The MF data show that Bulgaria's budget deficit in 2009 was BGN 529.5 million in line with the approved government amendments to the SBL for 2009. The improvement of the budget balance over the last quarter was mainly due to the reduced expenditure and,

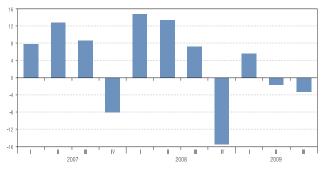
to a lesser extent, to slower rate of decline in tax revenue following the measures for boosting tax compliance.

The reduced expenditure over the last months was associated with postponement of payment obligations undertaken in 2009 which are likely to be paid in the first quarter of 2010. For example, payments to suppliers and construction companies, to the National Healthcare Fund, one-off Christmas pension bonuses and a portion of national payments to agricultural subsidies were de-

layed.<sup>13</sup> Accumulated arrears to the non-government sector could have an adverse impact on the concerned firms. At the same time, postponed payments on contract obligations imply higher adjustment of the 2009 budget deficit on a cash and accrual basis (under ESA95 methodology) with the accrual deficit coming to 1.9 per cent of GDP according to estimates of the updated Convergence Programme of the Republic of Bulgaria.<sup>14</sup>

#### Primary Balance (Quarterly)

(share of GDP for the quarter, %)

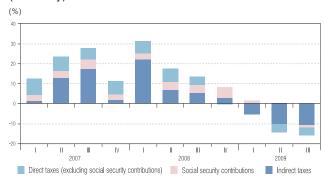


Sources: MF, BNB

The annual decline in consolidated budget revenue and grants was 11.2 per cent by the end of the third quarter and 8.4 per cent by the end of December. Tax revenue dynamics was driven primarily by the slowdown in economic activity. 15 The decline in indirect taxes (16.4 per cent between January and September), reflecting the significant drop in VAT income (22.6 per cent) and excise (2.8 per cent, notwithstanding the increase in main excise rates in early 2009), deepened in the review period. The different dynamics of excise revenues as compered to VAT revenues could be explained by the delayed and comparatively rigid reaction of excise goods to contracted income and consumption. Over the last months the decline rate of indirect taxes slowed down from 16.4 per cent in September to 11.6 per cent in December, reflecting mainly base effects and to some extent effects from measures to strengthen customs control and prevent VAT fraud.

The decline of the growth rate of wages, which have been practically frozen at their end-2008 levels affected negatively on the receipts from social security contributions and personal income tax. While slightly positive in the first two quarters of 2009, their contribution to tax revenue dynamics turned negative between July and September. Over the same period profit taxes continued declining by around 20 per cent on an annual basis.

#### Contribution of Major Tax Groups Growth to Tax Revenue Growth under the Consolidated Fiscal Programme (Quarterly)



Sources: MF, BNB.

Social and health insurance payments had a major contribution to budget expenditure growth in the first nine months of the year (by 20.1 per cent on the same period of the previous year). Their growth was driven by higher pension expenditure (up 24 per cent on the first nine months of 2008). The economic cycle effect on the budget expenditure side was mostly seen in unemployment benefits which rose by 242.5 per cent in the first nine months of 2009 (from BGN 68.7 million as of 30 September 2008 to BGN 166.6 million over the same period of 2009). 16 However, their contribution to overall expenditure growth still remains close to zero. Between January and December the annual growth rate of social expenses (including scholarships) slowed down to 13.5 per cent, from 22.4 per cent in September, due to reduced and postponed December bonuses to the pensions and other social benefits.

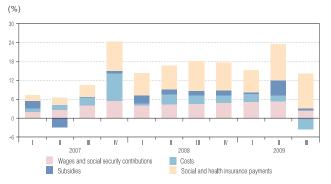
Economic Activity 30

<sup>&</sup>lt;sup>13</sup> According to the Agricultural State Fund Report of 21 December 2009, 30 per cent of all direct payments and 70 per cent of the additional national payments for agricultural land and animals are expected to be made in early 2010.

<sup>&</sup>lt;sup>14</sup> See the Convergence Programme (2009–2012) published on the Ministry of Finance website and on the European Commission website.
<sup>15</sup> See the box entitled *The Economic Cycle and Budget Revenue*, Economic Review, 2009, issue 3, p. 33.

<sup>&</sup>lt;sup>16</sup> The growth reflects not only the increase in the number of unemployed but also the changes in the minimum and maximum amount of compensation and its higher amount (130 per cent) in the first half of the period of receiving the compensation.

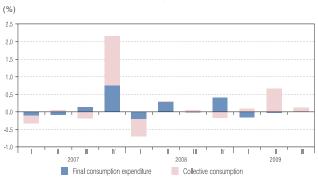
#### Contribution of the Growth in Major Groups of Current Non-interest Expenditure to Total Growth (Quarterly)



Sources: MF, BNB.

Expenditure restraint policy over the last months of the year covered mainly maintenance and capital expenses, for which there is a higher degree of discretion and possibility to postpone payments on external services. Between August and December 2009 maintenance and investment expenditure fell by 35.6 per cent and 56.4 per cent respectively as compered with the same period of 2008. The contraction in government's current non-interest expenditure will affect the government consumption contribution to GDP growth. While in the third quarter this contribution was slightly positive (collective consumption at 0.1 percentage points and final consumption at 0 percentage points), it will be broadly negative for the year at -1 percentage points of GDP.

#### Contribution of the Growth in Government Final Consumption Expenditure and Collective Consumption to Economic Growth (Quarterly)



Sources: NSI, BNB.

The expectations of the revenue side for the first months of 2010 are associated with the budgetary effects from the continuing negative GDP growth and higher unemployment, changes in tax and social security policies and European funds utilization. The negative cyclical impact on tax revenue in the first two quarters will be most pronounced in respect to corporate taxes but is yet

to be seen in the revenue from social security contributions and personal income tax. The decline in VAT revenue will be significantly lower than in 2009 despite the reduced time limits for VAT refunds since early 2010. In the first quarter of 2010 VAT revenue is expected to match its 2009 level.

Tax legislation amendments effective since the beginning of 2010 will have a positive net effect on the budget revenue at 0.1–0.2 per cent of GDP for the year. Major changes involve higher excise duties of cigarettes and electricity and a 2 percentage point decrease in pension contributions. The minimum self insurance income will be raised in 2010 and farmers will be subject to taxation under the Law on Income Tax for Individuals which will increase their tax burden.

In 2010 one of the major challenges to the government is the utilization of funds under EU programmes. By contrast with the previous three years when Bulgaria received advance payments under the structural and cohesion funds (EUR 634.9 million) and under the Rural Development Programme (EUR 193.8 million), from 2010 the EU budget funds will be channelled through interim payments (repaid by the EU within two months after they had been made by the national budget and had been certified). Given the government plans for a rapid absorption of these funds intended to facilitate economic recovery, a significant increase in the rate of paid to contracted funds may be expected in 2010. Possible delays in certifying these expenses could expand the time gap between the payment and EU refunding and worsen the budget balance in the first several months of the year.

In 2010 the EU funds payments, including cofinancing, will probably have stronger effects on government expenditure as compared with 2009. Government is expected to further adhere to a strict fiscal policy in respect to all outlays financed by the national budget. Based on the SBL parameters, wage expenses are expected to decrease in the first two quarters of 2010 due mainly to optimization of the number of employed. No pension indexation is projected for the first half of the year, and social expenses will rise by approximately 10 per cent. The policy toward a

<sup>&</sup>lt;sup>17</sup> There are also amendments made to the Law on Corporate Income Taxation (increased gambling tax), to the minimum insurance income for self-insuring persons (raised to BGN 420) and to the procedure for claiming back VAT.

significant reduction of capital and maintenance expenditure will continue in the first half of 2010. To this end, total government expenditure, including the EU budget contribution, is expected to remain below the level of the first half of 2009 despite the expected settlement of government

arrears and higher unemployment compensation. Given the drop in current non-interest government expenditure (social transfers excluded), the government consumption contribution to GDP growth is anticipated to be negative in the first two quarters of 2010 (-1 percentage point).

#### Behaviour of Firms and Competitiveness

Since the middle of 2009 export sales of industrial enterprises have begun to rise on a monthly basis, while recession in the services and construction sectors deepened further. Enterprises of all economic sectors reduced their expenditure with a view to minimize the negative effect of the crisis on their financial performance.

Following the significant drop in global trade by around 20 per cent by the end of 2008 and in early 2009, since the second quarter of 2009 external demand for industrial goods has started to recover gradually. Bulgaria's export oriented industries began to increase their export sales, with positive month-on-month export growth rates between April and November matching those of 2005–2007.

Coke and oil products along with metallurgy had a major contribution to export recovery. These sectors are sensitive to global economic cyclicity. Hence, they recorded fast declines at the end of 2008 when the global financial crisis turned to a global economic crisis. At the same time, industries producing essential commodities, such as food industry, are less sensitive to the economic cycle. Export sales of processed food and drink remained broadly resilient to the global external demand decline. Over the second half of 2009 industrial turnover of food, drink and tobacco in the world posted high annual growth (about 20 per cent).

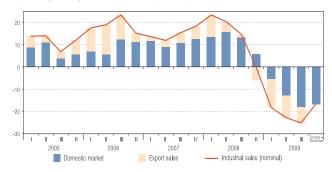
Some industries as *textile*, *clothing* and *footwear* and *machinery* continued to experience serious difficulties in selling their output abroad despite the gradual revival in the world economic situation. Problems in *textile*, *clothing* and *footwear* are not associated solely with the global economic crisis. Export sales of textile and clothing products contracted already in 2008 which is due to the competitive pressure of third countries.

So far, export sales of machines and equipment have also remained at very low levels. Low investment activity in the world restricted export possibilities of the enterprises in this sector. Upon recovering external demand for investment goods, these sectors are expected to resume their dynamic development.

Domestic industrial sales declined as a result of lower domestic demand in early 2010. Metallurgy and coke and oil output were most severely hit by the economic crisis. Nominal income in these sectors decreased due to lower prices and smaller physical volume of the turnover. Weaker economic activity was also associated with lower consumption of electricity and gas by enterprises. In this context, sales income in production and distribution of electricity, heating and gas between June and November fell by 15.7 per cent on an annual basis. The decreased construction activity also contributed to the drop in domestic industrial sales. Lower demand for construction materials affected negatively the sales in sectors producing rubber, plastics and other non-metal mineral products.

#### Growth Rate of Nominal Industry Turnover

(percentage change on same period of previous year)



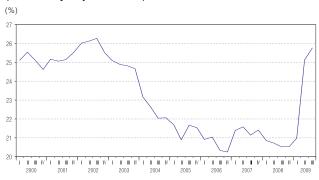
Sources: NSI, BNB.

Manufacturing enterprises reacted to weaker demand by improving their cost competitiveness.

The value added to gross output ratio in industry rose significantly from around 21 per cent in the last years to 25–26 per cent in the second and third quarters of 2009 matching the 2000–2003 values.

As a result of more stringent cost policy, manufacturing firms managed to cushion the negative effect of the crisis on value added which fell by 9.1 per cent on an annual basis in the first nine months of 2009. On a quarterly basis, the rate of decline of value added slowed down from 17.8 per cent in the first quarter to 2.9 per cent in the third quarter.

## Value Added to Gross Output in Manufacturing (seasonally adjusted data)



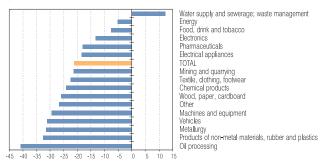
Sources: NSI, BNB.

Lower intermediate goods prices also contributed to cost competitiveness in manufacturing. The intermediate consumption deflator was negative, while gross output deflator remained at the average 2008 level. As a result, the value added deflator in manufacturing increased and nominal value added rose by 5.8 per cent.

To improve cost competitiveness, manufacturing enterprises reduced labour costs through cutting employment by 6.5 per cent and retaining compensation per employee in the first nine months at the previous year's levels. Sectors contributing most significantly to the decrease in employment are those which reported the largest contribution to the fall in industrial sales: textile and clothing, metallurgy, other non-metal mineral materials and machinery. Following these measures, labour productivity recovered its positive growth in the third quarter (5.3 per cent on an annual basis). The increased labour productivity and positive trends in industrial exports suggest that labour costs have already been adapted to the lower production activity in industry.

## Industrial Turnover Dynamics between January and November 2009

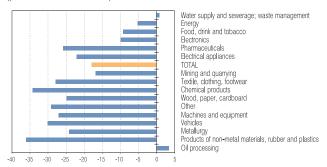
(per cent on an annual basis)



Source: NSI, short-term statistics of employment.

## Industrial Production Dynamics between January and November 2009

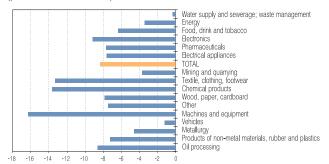
(per cent on an annual basis)



Source: NSI, short-term statistics of employment.

### Employment Dynamics in Industry between January and September 2009

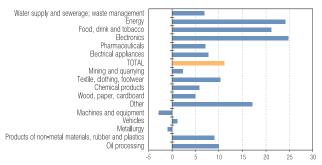
(per cent on an annual basis)



Source: NSI, short-term statistics of employment.

## Wage Dynamics in Industry between January and September 2009

(per cent on an annual basis)



Source: NSI, short-term statistics of employment.

Industrial managers' opinions matched the above trends in industry's development. Expectations and assessments of the current situation were gradually recovering, albeit remaining volatile in individual months.

Sectors oriented mainly to the domestic market reacted with a certain lag to the initial slowdown in economy. Similar to manufacturing, firms managed to limit the effect of lower demand by improving their cost competitiveness.

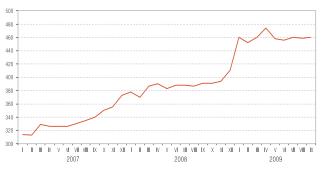
Moderation in construction activity lagged 2-3 quarters behind the dynamics of permits issued for construction of new buildings. Since the end of 2008 the decrease in the construction output index has deepened, with a 22 per cent drop on an annual basis registered in November 2009. In the first nine months value added in this sector fell by 6.2 per cent on an annual basis. The reduction in labour costs was achieved mainly through lower employment (-2.9 per cent annually between January and September). Most likely, comparatively low response of labour costs per employee is also due to undeclared labour income in the sector which decreased over the period but its fall was not reflected in the official statistics. After the initial strong worsening in labour productivity, this indicator partially recovered in the second and third quarters of 2009, remaining almost 1.5 per cent below the level of the previous year. Construction entrepreneurs' expectations and perceptions worsened over the year along with the increased difficulties in running their business amid the uncertain economic environment and financial problems. The shortterm outlook in this sector is not favourable and returning to positive growth will follow with a lag the increase in overall economic activity and revival in financial flows.

Lower consumer demand since the beginning of the year resulted in decreased retail trade volumes. Between March and November 2009 annual declines were 8 to 10 per cent on an annual basis. However, wholesale trade posted more significant declines in the second half of the year (-17 per cent on an annual basis in July – November 2009). Similar gaps were observed in 2006 and 2007, probably reflecting sector restructuring and emergence of retail chains trading

without the intermediation of wholesalers. The real annual growth of value added in trade turned negative at -8.7 per cent in the first nine months of 2009. Despite this unfavourable development, labour costs continued to rise due both to the increased number of employed (0.9 per cent) and wage growth (14.1 per cent).

#### Average Monthly Wage in Trade

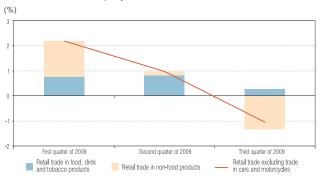
(BGN)



Source: NSI.

Labour cost dynamics in trade was partially due to comparatively low average wage in this sector. The low wage levels imply that the labour remuneration of a comparatively large portion of employed in this sector was close to the minimum wage which was raised by 9 per cent between January and September 2009. Monthly average wage dynamics in this sector reflect the overall minimum wage growth in Bulgaria. According to the monthly enterprise survey data, trade wages increased in January 2009 and then remained at comparatively constant levels until September 2009. In addition, individual trade sub-sectors registered divergent dynamics underlying divergent developments in labour demand. Retail trade in food products posted positive growth of 2.5 per cent on average between January and November 2009 along with employment increases. The remaining sub-sectors reported volume declines on an annual basis. Declines deepened further and over the second half of the year most sub-sectors contracted by 15-20 per cent on an annual basis. The number of employed in non-food retail trade fell by 3.7 per cent in the third quarter which is insufficient to preserve the previous year's level of labour productivity. Trends to reducing labour costs in these sub-sectors are likely to continue.

## Contribution to the Annual Growth in Retail Trade Employment



Source: NSI, short-term statistics of employment.

Managers' assessments of the current business situation continued to worsen throughout 2009, while expectations of sales have been rather optimistic since September 2009. In the coming quarters trade activity will further decrease, albeit at lower rates, following consumer demand dynamics.

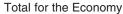
Transport and communications posted a significant decline in value added at -8.1 per cent on an annual basis in the nine month period and at 15.6 per cent in the third quarter on the same period of 2008. The significant fall in demand for transportation services was driven by both lower household consumption (-11.1 per cent in the first nine months according to SNA data) and slowing economic activity in the other industries. According to the supply and use tables for 2005, trade, oil processing, construction, metallurgy and other non-metal mineral materials generated around 30 per cent of demand for transport and communication services in intermediate consumption. These sectors registered a significant slowdown in 2009 which explains to a large extent the decrease in the volume of provided transport services. In addition, the transport and communications sector is characterized by comparatively strong intra-industry links. This suggests that the initial slowdown in demand led to an additional contraction of the activity in this industry. Transport and communication enterprises reacted to the reduced demand by cutting labour costs through lower employment (-4 per cent in the nine months of 2009) and wage restraints (-1.6 per cent in the third quarter of 2009). However, unit labour costs continued to increase in the first nine months of 2009: by 7.1 per cent in nominal terms and 3.8 per cent in real terms on an annual basis.

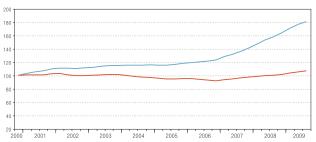
Firms' response to the global economic crisis involves an increase in cost efficiency by reducing intermediate consumption, staff reductions and wage growth restraints. As a result of these measures, labour productivity improved in the sectors which were the first to suffer from the economic crisis. In these industries, employment has adapted to the current levels of economic activity. Labour productivity in *trade and transport* which reported more pronounced slowdown in the second and third quarters declined. In these industries, employment and wages are likely to be adjusted downwards in the coming periods.

Due to sustained positive wage dynamics amid a reduction in economic activity, economy-wide unit labour costs for the first nine months of 2009 rose by 11.7 per cent in nominal terms and by 4.9 per cent in real terms. By sector, trade and agriculture had the largest positive contributions. It is important to note the ambiguous nature of unit labour costs in the agricultural sector, resulting from the significant share of self-employed. In the coming periods trade firms will cut their unit labour costs mainly through reducing employment. Manufacturing contributed most significantly to limiting real unit labour cost growth. Developments in manufacturing unit labour costs had a direct effect on the external competitiveness since this industry is strongly correlated with external demand. Unit labour cost reaction was sufficiently strong to support the competitive positions of enterprises. Unfavourable trends in trade are associated with the reduced domestic demand and restructuring and have no direct effect on Bulgaria's external competitive position.

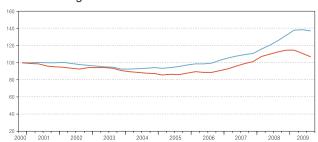
## Unit Labour Cost (Quarterly)

(2000 = 100)

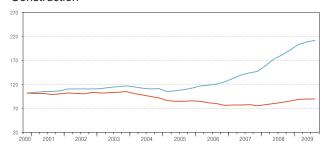




### Manufacturing



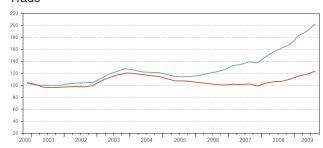
#### Construction



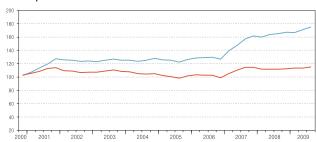
## Electricity, Gas and Water Supply



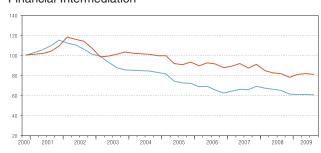
### Trade



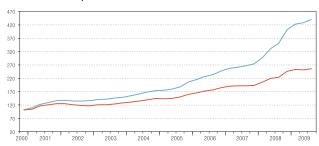
## Transport and Communications



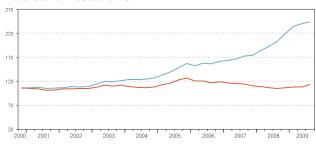
# Financial Intermediation



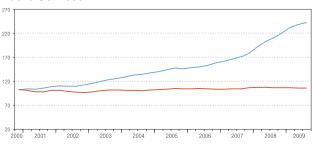
### Real Estate Operations



# Hotels and Restaurants



### **Public Services**



Four-quarter moving average (nominal)Four-quarter moving average (real)

Note: The methodology of computing unit labour costs has been changed and complies with ECB methodology. Nominal unit labour costs are computed as a ratio of compensation per employee and labour productivity (real value) per employee. Real unit labour costs are computed using the same formula but labour productivity per employee is based on nominal value added.

Sources: NSI, BNB.

# **Exports and Imports of Goods**

In the first and second quarters of 2010 exports are expected to register positive growth given the outlook of improving global environment and recovery in Bulgaria's major trade partner – the European Union. Negative import rates are expected to be sustained and to gradually slow down due to domestic demand revival. Trade deficit will continue to improve.

Due to the ongoing economic crisis worldwide and in EU countries, Bulgaria's major trade partner, a dramatic slowdown in foreign trade flows to Bulgaria was registered in the first nine months of 2009. Export growth was negative at -26.6 per cent on the first ten months of 2008, and imports indicated a 35.5 per cent decrease. In November imports continued to decline (by 26.4 per cent), while exports went up 3.8 per cent on an annual basis. Exports to non-EU countries increased by 7.9 per cent and to EU Member States by 1.5 per cent<sup>19</sup>.

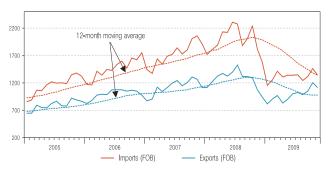
In the first and second quarters of 2010 exports are expected to post positive growth rates due to anticipated improvement in global environment and the economic recovery worldwide and especially in Bulgaria's major trade partner, the EU countries.

Imports are expected to retain the negative growth rates which will gradually start improving due to weaker slowdown in domestic investment and consumer demand and the expected positive increase in international prices.

Over the January to October 2009 period investment goods and energy resources contributed most strongly (by -20.8 and -13.1 percentage points respectively) to the trade deficit decrease (by EUR 3.71 billion). Imports of both groups went down, with the overall decline exceeding that of exports. The most pronounced drop in the imports and exports of both groups was recorded by machines, vehicles and appliances, spare parts and fuel and natural gas due to the synchronised decline in output and investment activity in Bulgaria and in the EU, Bulgaria's major trade partner.

### Dynamics of Exports and Imports

(million EUR)



Source: BNB.

Between January and October 2009 all groups, excluding animal and vegetable products, food, drinks and tobacco, contributed to the negative growth of exports, with the dynamics of base metals (-9.7 percentage points), mineral products and fuels (-6.8 percentage points), machines, transportation vehicles and appliances (-2.8 percentage points) and textile, clothing and footwear (-2.1 percentage points) contributing most to this.

Between January and October 2009 base metal export revenues amounted to EUR 1734.4 million, down 44.1 per cent on the corresponding period of 2008. The group's major negative contribution to the total export dynamics was registered by copper (-4.5 percentage points) and iron and steel (-3.3 percentage points) due to lower international prices and weaker external demand. External demand is expected to recover and international base metal prices to increase which will result in positive export growth.

#### **Exports of Base Metals**

(million EUR)



Source: BNB

 $<sup>^{\</sup>rm 18}$  The analysis presented in this section is based on data about nominal exports and imports in euro.

<sup>&</sup>lt;sup>19</sup> The November data on exports to EU Member States by sector have not been published yet but preliminary data on exports to non-EU countries suggest that the unprocessed (crude) materials (excluding fuels) group posted the largest growth accounting for 201 per cent.

Revenue from exports of mineral products and fuels went down EUR 1015.3 million (42.3 per cent). Negative values were reported under all major items in the group, with fuels contributing most significantly to these developments (-6.4 percentage points) owing to lower prices and external demand contraction. Due to the strong procyclical dynamics of mineral product and fuel exports, our expectations for the first two quarters of 2010 are for a recovery due to the improved international environment.

# Exports of Mineral Products and Fuels

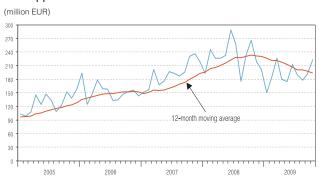
(million EUR)



Source: BNB.

Receipts from exports of machines, transportation vehicles and appliances went down EUR 430.5 million (18.4 per cent). *Nuclear reactors, boilers, machines, appliances and machinery* (-1.9 percentage points) and *ships* (-0.3 percentage points) sub-groups had a major negative contribution. Over the projection horizon a recovery in this group is expected, albeit moderately, due to the anticipated slow recovery of production activity in the EU Member States, Bulgaria's major trade partner.

# Exports of Machines, Transportation Vehicles and Appliances

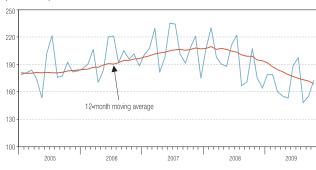


Source: BNB.

Between January and October 2009 revenue from textile exports decreased by EUR 302 million (15.2 per cent) compared with the same period of 2008, with the decrease in clothing exports (a contribution of -1.0 percentage points) having the strongest impact. Despite the improved international environment, the downward trend is expected to be sustained over the projection period due to the ongoing restructuring in the industry driven by the pressure of strong competition in this sector.

### Exports of Textile, Clothing and Footwear

(million EUR)

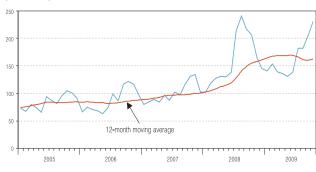


Source: BNB.

The group of animal and vegetable products, food, drink and tobacco is the only group reporting a positive contribution to overall exports between January and October 2009. The revenue rose by EUR 13.7 million (0.8 per cent), with tobacco (0.3 percentage points) and sugar (0.1 percentage points) and vegetables (0.1 percentage points) contributing most significantly due to good harvest and strong competitive positions. This trend is expected to continue over the projected horizon, with the risks on the downside owing to the uncertain agricultural harvest.

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

(million EUR)



Source: BNB

# Contribution of Commodity Groups to Trade Growth, January – October 2009

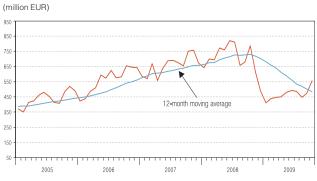
	Е	xports	Im	ports
	growth, %	contribution, p.p.	growth, %	contribution, p.p.
Consumer goods Raw materials Investment goods Energy resources Growth, total	-5.3 -30.8 -25.8 -43.9	3 -13.9 5 -4.1 9 -7.4	-19.4 -35.9 -39.2 -42.7 <b>-35.5</b>	-3.2 -12.2 -10.6 -9.6

Source: BNB.

Imports (CIF) reached EUR 13,885.2 million in the January to October 2009 period: a nominal decrease of EUR 7638 million (35.5 per cent) on the respective period of the prior year. In the structure of imports by use, raw materials registered the highest negative contribution (-12.2 percentage points), followed by investment goods (-10.6 percentage points) and mineral products and fuels (-9.6 percentage points) due to lower production and investment activity in Bulgaria.

In the first ten months of 2009 payments on imported raw materials came to EUR 4685.8 million, down 35.9 per cent. All items in this group with the exception of tobacco reported declines, with *iron and steel* (-3.7 percentage points) and *ores* (-1.3 percentage points) having the major negative contributions due to lower prices and output contraction.

### Imports of Raw Materials



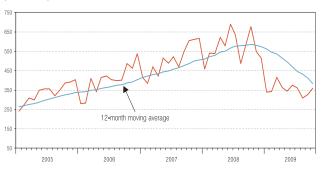
Source: BNB.

Investment good imports fell by 39.2 per cent between January and October 2009; these products ranked second in imports (after raw materials) with a share of 26 per cent. Their value reached EUR 3534.7 million. All items in this group exhibited negative growth, with *transportation vehicles* (-4.1 percentage points), followed by *machines and equipment* (-3.3 percentage points) having the largest negative contribution due to weaker investment activity in Bulgaria. In the first and second

quarters of 2010 the downward trend observed in *raw materials* and *investments goods* is expected to be sustained but slightly moderating due to the lower investment and consumer demand contraction and the rise in the prices of raw materials over the projection period of 2010.

### Imports of Investment Goods

(million EUR)

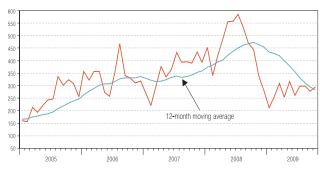


Source: BNB.

Between January and October 2009 payments on imported mineral products and fuels came to EUR 2774.9 million, down 42.7 per cent. All items reported negative growth, with fuels (-8.7 percentage points) and natural gas (-7.9 percentage points) registering major negative contributions. Nominal growth rates of mineral products and fuels are expected to continue declining in the first nine months of 2009, albeit at a lower pace, reflecting the slower decline in domestic demand and higher oil prices.

# Imports of Energy Resources

(million EUR)



Source: BNB.

Between January and October 2009 imports of consumer goods went down EUR 687.9 million (19.4 per cent) on the same period of the prior year, with their value reaching EUR 2858.4 million. All items in this group excluding food, drink and tobacco products and medicines and cosmetics reported negative growth. Automobiles and furniture had the most significant negative contributions (-1.5 and -1.0 percentage points respec-

tively) which matched our expectations of declines in demand for durables and postponement of such purchases. The downward trend in consumer good imports is expected to be sustained in the projection horizon, although more moderately as a result of the lower contraction in final consumer demand.

### Imports of Consumer Goods

(million EUR)



Source: BNB

According to preliminary data, between January and October 2009 Bulgaria's exports to other EU Member States dropped by 20.1 per cent, and exports to non-EU countries decreased by 36.2 per cent. Goods imported from the Community went down by 31 per cent, while those from third countries by 39.9 per cent.

In the context of the plunge in global trade and economic activity downturn observed in Bulgaria's major partner-countries, the market share of Bulgarian goods in total imports of EU Member States reached 0.55 per cent in the January to October 2009 period (on an annual basis) against 0.59 per cent a year earlier. This market share is expected to increase over the projection horizon.

# The Economic Crisis and Its Impact on Potential Output Level and Dynamics

The global economic crisis affected Bulgaria in mid-2008 mainly in terms of weaker exports and limited external capital inflows. The negative impact of this process is substantial, fades slowly and causes secondary effects on the entire economy. This raises the issue of the economic crisis influence on potential GDP at present and on the economic growth prospects in the longer term.

The analysis focuses on the short- and medium-term potential ouput of Bulgarian economy, since in case all else is equal, the long-term potential economic growth should not be affected by the business cycle. The indicators that, according to the economic growth theory, determine output dynamics - labour resources, capital and total factor productivity (TFP) - are examined. The TFP is an aggregation of the factors that are not directly observed and therefore it is measured as a residual between the output growth and the weighted labour and capital growth. The TFP is considered to be a measure of the technological development in economy; however, the way its measure has been constructed makes its dynamics subject to the influence of other factors as well, including the quality of human capital and production capacity utilisation.

Potential output level continued to grow during the period of the crisis due to the preserved positive capital growth, although the potential GDP growth rate is expected to slow down substantially and to stay lower during the coming years

(some 3 per cent compared with 5 per cent prior to the crisis). The estimates of the potential output level and dynamics should be considered as tentative since the final results depend on the validity of the assumptions, the approach used and the time period considered.

### Capital

Fixed capital formation was of crucial importance for the high economic growth in 2007 and 2008, both as a component of final use and as a production factor. The high capital formation rate in the economy prior to the crisis was attributable mainly to the good financial performance of enterprises, the positive expectations about the economic development and the deepening financial intermediation.

### Fixed Capital Investment (Four-quarter Moving Average) (billion BGN at 2005 prices)



Note: The consumption of fixed capital has been deflated by the gross fixed capital formation deflator.

Sources: NSI, Eurostat, BNB.

(continued)

#### (continued)

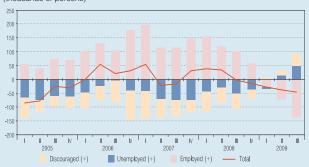
Over 2009, as a result of the crisis, investment in fixed capital continued contracting: its decline came to 37 per cent on an annual basis in the third quarter of 2009 and 24 per cent for the nine months. Hence, net capital formation remained positive, although slowing down dramatically, and brought about a moderation in the growth of capital in the economy. The expected investment growth rates after the crisis are considerably lower than those observed in 2007 and 2008 owing to projections about a more cautious investment policy of companies accompanied by a more moderate financial expansion. The increase in potential output will be limited by the lower growth of productive capital in the economy.

### **Labour Resources**

Potential employment depends on demographic factors with a long-term effect, such as the size of working age population, as well as on factors like the labour force participation rate and natural/structural unemployment rate which can be affected in the short- and the medium-term by the business cycle and the economic policy.

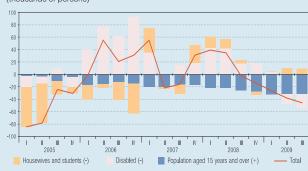
### Contribution to Labour Force Growth by Labour Market Status

(thousands of persons)



# Contribution to Labour Force Growth by Population Structure

(thousands of persons)



Source: NSI

Source: NSI.

The favourable labour market dynamics trend observed since 2002 reversed in 2009, with the employment decline accelerating over the year. It was accompanied by a rise in the number of the unemployed and discouraged and a net decline in the labour force.\* This reflected the adverse demographic trend of population ageing, apparent through the diminishing inflow of young people, coming of working age, and the overall decline in population. Part of the losses in labour force was due to an exit from the labour market of people who have reached or are approaching retirement age.

In the short and medium term and under favourable conditions, the available labour force may ensure employment growth by rates close to those registered in the recent several years. There are, however, a number of risks to the opposite. They are related to the probability of the economic recovery being led by sectors other than the ones that determined the upward output dynamics before the crisis, as well as to the imperfect interindustry mobility of workers due also to their educational level. Workers with vocational and primary education prevailed in the structure of lay-offs in 2009. During the last few years the unemployed with professional qualification could easily find jobs and unemployment duration in this group was relatively small. This suggests that if labour demand recovers, the probability for these people to find new jobs fast is comparatively high. And *vice versa*, it will be more difficult for people with primary education to find new jobs. Besides the insufficient qualifications, the negative risks to the activity rate and the employment of the population stem from constraints in geographic\*\* and interindustry mobility. The possible realisation of the negative risks will prompt a decline in potential output as a result of the increase in the structural and natural unemployment rate and/or the persistence of a higher structural and natural unemployment rate.

In a longer-term perspective, the trend towards population ageing will preserve its negative impact; hence, labour resources will not be able to grow extensively, but only at the expense of the higher activity of discouraged persons, students, people of advanced age and homemakers.

(continued)

<sup>\*</sup> For the purposes of the analysis, the labour force is defined as the sum of the employed, unemployed and discouraged.

<sup>\*\*</sup> The coefficient of variation in the unemployment level by region (municipality) is an indicator of the labour force geographic mismatch. The indicator dynamics shows that unemployment growth since early 2009 was not accompanied by a substantial rise in dispersion by region. Therefore, no deepening in geographic mismatch between demand and supply by region has been observed. The reason for this might be the fact that the economic downturn is relatively evenly distributed by region. The geographic mismatch in the future will depend on the speed at which individual regions recover from the crisis and on labour force mobility.

# **Total Factor Productivity**

In the past few years the Bulgarian economy grew extensively, with the contribution of labour and capital playing a dominant role compared with the total factor productivity. In addition, the TFP dynamics was also affected by the increasing rate of production capacity utilisation. The net effect of the economic crisis on the contribution of total factor productivity to potential GDP dynamics cannot be quantified in advance since there are channels of impact that push up potential output, as well as channels that push it down by reducing the effectiveness of available production capital and labour resources. In the short run, the balance of these factors is most likely negative rather than positive.

When demand is strongly contracted, enterprises reduce production capacity utilisation, close certain operations or close their activities. Production capacity utilisation has been falling since the start of the crisis. The degree of economic sectors' restructuring as a result of the crisis will determine how lasting these developments are. Provided the sectoral growth profile is preserved, utilisation of available production capacities is likely to recover fast. Otherwise, the indicator may stay under the pre-crisis levels for a longer period.

Human capital is also an important component of TFP. All else being equal, the easier and the faster the transition from unemployment to employment, the lower the loss of human capital. As expected, the short-term unemployed have a major contribution to unemployment growth, since the main factor behind higher unemployment is the lay-offs because of the crisis rather than difficulties in recruiting staff. At the same time, the contribution of unemployment lasting over six months, coupled with the faster rise in the number of the discouraged, is increasing. This dynamics poses risks of deterioration in the quality of the respective people' skills.

As a whole, restructuring of the economy as a result of the crisis, on the one hand, will favour the TFP dynamics through strengthening viable enterprises, although it may lead to lower effectiveness of labour and capital made redundant as a result of the crisis. There are risks to the possibilities of introducing new technologies due to the uncertainty concerning foreign direct investment flows and companies' innovation policies.

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-20

 $^{\star}$  Calculated as the balance of opinions on companies' overcapacity, multiplied by -1.

2003 2004 2005

2006 2007

Overcapacity evaluation\* (right scale)

2008

Sources: NSI - Business Survey in Industry.

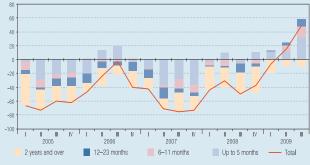
Capacity utilisation (left scale)

2001 2002

# Change in Number of Unemployed by Unemployment Length

(thousands of persons on an annual basis)

1999 2000



Source: NSI.

### Long-term Prospects for Potential Output Growth

The analysis so far indicates a negative balance of the risks to potential output growth rates in the medium term owing to adverse demographic processes and moderating investment activity that would reduce the effect of the possible, albeit uncertain, recovery and improvement of total factor productivity. This calls for a fast and competent intervention of labour market and education policies through providing conditions for maintaining or improving the qualifications of the people who have been laid off.

In the long run the economic growth should not be impacted by the present crisis. The fiscal policy is not procyclical and does not lead to indebtedness of the public sector. Moreover, there are no policies that distort market mechanisms. On the other hand, weaker economic activity will stimulate the administration to make more efforts for carrying out structural reforms and utilise EU funds. The economic policy should focus on the negative risks to potential output dynamics, related to population ageing, and on providing favourable conditions for private investment with a view to boosting productivity.

Economic Activity 42

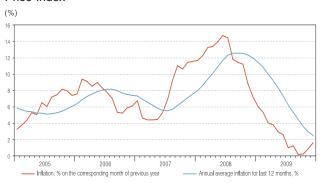
# 4. Inflation

Inflation is expected to slightly increase in the first half of 2010 impacted by the upward dynamics of food and fuel prices and the increased prices of tobacco products.

The significant downturn in the global economic activity led to a dramatic decline in the prices of major commodities towards the end of 2008 and was the main factor behind the decline in global inflation in 2009. This trend found also reflection in the dynamics of inflation in Bulgaria, directly through the prices of food and energy products which cover about one-third of the consumer basket, and indirectly through the significantly reduced pressure on other prices due to lower expenditure on intermediate consumption commodities. Base effects associated with high food and fuel prices in the first half of 2008 and decreases in some administratively controlled prices in 2009 also contributed to the rapidly lowered inflation which reached levels close to zero at the end of the third and in the beginning of the fourth quarter of 2009.

Over the reporting year international prices of some commodities displayed a clearly pronounced upward dynamics, this trend being typical of metals and oil. By the close of the year the oil price rose by 70 per cent on December 2008 (see *International prices of crude oil, major raw materials, and gold* section). The increased contribution of fuels played a key role in the annual inflation rise from close to zero by the end of the third quarter to 1.6 per cent in December. The average annual inflation in 2009 accounted for 2.5 per cent (12 per cent in 2008 against 2007).

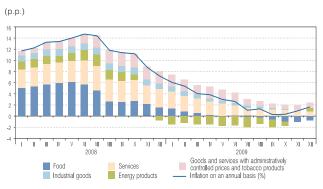
# Inflation According to the Harmonised Consumer Price Index



Source: NSI.

Increased prices of services (0.9 percentage points) and tobacco (0.7 percentage points) contributed most substantially to the inflation accumulated in 2009. Services prices (excluding administratively controlled prices) increased by 3 percent compared with December 2008, indicating a decrease by 9 percentage points on end-2008 and the lowest rise after 2002. Tobacco prices went up by 24 per cent due to the increased excise duty. Food prices posted a 3 per cent decline and non-food prices (excluding fuels) remained unchanged from December 2008.

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



\* This structure corresponds to the Eurostat classification; tobacco products and goods and services with administratively controlled prices are presented separately.

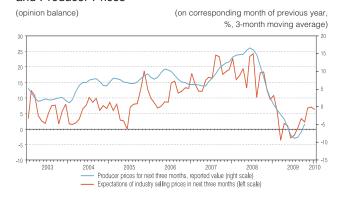
Sources: NSI, BNB.

<sup>&</sup>lt;sup>20</sup> The oil price is computed in euro.

Over the first half of 2010 the annual inflation is expected to slightly increase compared with its current level of 1.6 per cent and to range within 1.5 per cent and 2.5 per cent. These developments will reflect primarily food price dynamics (by smaller fall in the annual rate of change of food prices) and the higher contribution of fuels in early 2010. The increase in tobacco prices will also push up inflation to some extent, with this effect expected to be stronger pronounced in the beginning of the second quarter after the expiry of the grace period of sales at the 2009 prices. Inflation developments in non-food and service prices are forecasted to remain moderate. The average overall inflation will continue its downward trend in the first half of 2010 and it is expected to fall under 2 per cent.

Dynamics of producer prices on the domestic market by December and business situation survey data until January 2010 support the expectations for the annual inflation rate. Currently, they indicate no signs of accelerated inflationary dynamics with the exception of some commodity groups the prices of which depend most strongly on international commodity prices.

# Expectations in the Industrial Sector Selling Prices and Producer Prices



Sources: NSI, BNB.

Over the last months of 2009 and in early 2010 managers' expectations in the industrial sector about selling prices started gradually shifting in a positive direction but the opinion balance remained at a relatively low level which approached the average ones for the 2002–2004 period. Producer prices on the domestic market followed similar pattern to that of expectations, reflecting primarily the increased metal and crude oil prices in international markets.

Expectations for the change in retail trade selling prices have a relatively high correlation with the reported overall inflation. Currently, the expectations of the firms in the sector for retaining the prices at their current levels prevail, which suggests that no conditions for increasing retail trade inflation are in place.

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

	2008 (December 2007 = 100)		2009 (December 2008 = 100)		<b>2009</b> (2008 = 100)	
Inflation (%)	7.2		1.6		2.5	
	Inflation rate by group, %	Contribution, p.p.	Inflation rate by group, %	Contribution, p.p.	Inflation rate by group, %	Contribution, p.p.
Food	5.8	1.46	-3.0	-0.73	-0.5	-0.09
Processed food	5.2	0.82	-2.6	-0.39	-1.5	-0.22
Unprocessed food	6.8	0.65	-3.6	-0.33	1.3	0.13
Services	11.8	3.41	2.9	0.88	6.3	1.85
Catering services	14.9	1.58	4.4	0.52	8.8	0.98
Transport services	16.0	0.81	-1.2	-0.06	3.3	0.19
Telecommunication services	-1.2	-0.05	-1.0	-0.04	-1.1	-0.04
Other services	12.0	1.07	4.9	0.46	8.1	0.73
Energy products	-9.4	-0.80	6.4	0.49	-13.3	-1.15
Transport fuels	-13.0	-1.01	8.2	0.54	-15.4	-1.27
Industrial goods	5.4	0.95	0.0	-0.01	2.6	0.44
Goods and services with administratively controlled prices	10.2	1.65	2.0	0.31	4.7	0.77
Tobacco products	15.1	0.52	23.9	0.69	23.4	0.68

Sources: BNB, NSI.

# Expectations in Retail Trade Selling Prices and Reported Inflation

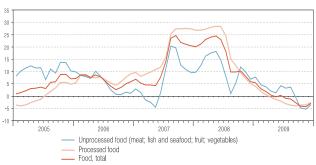
Sources: NSI, BNB

### **Food Prices**

The significant fall in international food prices observed from the end of 2008 until the third quarter of 2009 and high farming yields in Bulgaria in 2008 contributed to lowering food prices. In 2009 this trend was sustained, with prices decreasing by 3 per cent by the end of the year. Food prices contributed most significantly to the decrease in the overall average annual inflation.

#### Harmonized Price Indices of Food

(inflation on corresponding month of previous year, %)

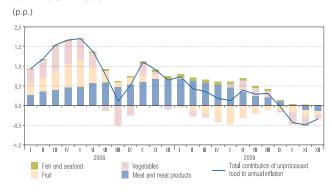


Sources: NSI, BNB.

# Contribution of Major Groups of Processed Food to Annual Inflation

Sources: NSI, BNB.

# Contribution of Major Groups of Unprocessed Food to Annual Inflation



Sources: NSI, BNB.

By December 2009 prices of major foods as flour, white bread, vegetable oil, cheese and chicken meat were close to their mid-2007 price levels prior to the observed strong upward pressure on prices in the same year as a result of the poor farming yields in Bulgaria and worldwide. From the end of 2009 the annual rate of food price fall started to gradually slow down, tending to continue this movement in the first half of 2010.

The started increase in international food prices will also affect food prices in Bulgaria. End-use prices will depend on a number of additional factors the effect of which cannot be exactly evaluated (producer prices in food industry, prices of imported foods directly included in the consumer basket and the price policy implemented by retail and wholesale trade firms).

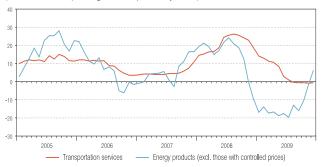
Irrespective of still existing uncertainty about price developments by group of food products, it may be expected that the started price increase in sunflower oil will exert some inflationary pressure. Since international meet and cereals prices did not indicate a significant rise by the end of 2009, inflationary processes in these groups will probably remain moderate. The relatively high weight of these groups will determine a general moderate dynamics of food prices in the first half of 2010. Stabilisation of wholesale prices of major food commodities in the first half of January also supports such expectations.

# **Energy Product Prices**

The clearly pronounced upward trend in oil prices over 2009 and the USD/EUR exchange rate movements had a direct effect on energy product prices in Bulgaria. The accumulated increase in prices of transportation fuels in 2009 was 8 per cent. The petrol price posted an 11 per cent increase, while the diesel price went down by 1 per cent. The divergent dynamics reflects the base effect of 2008 when the stronger demand for diesel pushed up its price. The difference in fuel prices was also observed in other European countries.

# Harmonized Price Indices of Energy Products and Transport Services

(inflation on corresponding month of previous year, %)



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

Sources: NSI, BNB.

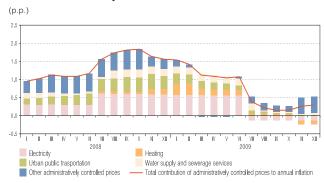
The significant drop in annual fuel prices observed as an end-2008 trend started to gradually slow down in the fourth quarter of 2009 and by the end of the year fuel prices posted an increase on an annual basis. Given this dynamics, fuels contributed most significantly to the increase in overall inflation.

The expectations for oil prices to range within USD 70-90 *per* barrel in the first half of 2010 (up 40 per cent compared with the same period of 2009) will result in an increase in the contribution of fuels to the inflation rate. Price dynamics in the same period of 2009 will probably determine a stronger contribution to inflation in the first quarter and a weaker one in the second quarter.

# Administratively Controlled Prices and Tobacco Product Prices

In 2009 inflation in administratively controlled prices significantly decreased compared with 10.2 per cent in December 2008 and by the end of the year it reached 2 per cent. The decline in international energy prices was the major factor behind the lowering of electricity prices for households, the lower inflation pressure on urban public transport and the decreased prices of heating. These groups had the largest contribution to the lower inflation in administratively controlled prices over the year.

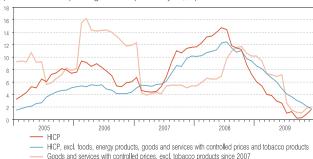
# Contribution of Major Groups of Goods and Services with Administratively Controlled Prices to Annual Inflation



Sources: NSI, BNB.

# Harmonized Indices of Goods and Services with Controlled and Non-controlled Prices

(inflation on corresponding month of previous year, %)



**Note:** Given the relation between tobacco product prices and administratively set excise rates, tobacco products are excluded from the group of goods and services with non-controlled prices despite the liberalization of the tobacco market in early 2007.

Sources: NSI, BNB.

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In the first half of 2010 inflation in administratively controlled prices is expected to be around 2 per cent. The forecast takes into account the expected increase in water supply services, heating and administrative fees for issuance of personal identity documents. There is some uncertainty as to any possible increases in the other groups of administratively controlled prices as medicines, urban transport, social services and

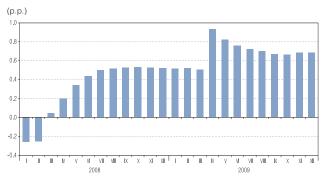
Inflation

<sup>&</sup>lt;sup>21</sup> Changes in oil prices in a particular quarter are entirely transmitted to the end prices within the same quarter, with the elasticity ratio of prices (excluding excise and VAT) varying between 0.5 and 0.7 per cent

property and refuse levies. In case such increases materialise, prices of medicines and public transport would have stronger effect on inflation due to their higher weight in the consumer basket.

The new rise in the excise duty on cigarettes in 2009 pushed up their prices by 24 per cent by the end of the year and cigarettes contributed most significantly to the accumulated inflation at the end of the year (0.7 p.p).

#### Contribution of Tobacco Products to Annual Inflation



Sources: NSI, BNB.

The new excise duty adjustment in 2010, exceeding by 20 per cent the minimum EU levels, will prompt a further increase in cigarettes prices by about 25–30 per cent. This is expected to increase the contribution of cigarettes to the annual inflation by approximately 0.2 percentage points in the beginning of the second quarter (as in 2009) after the expiry of the grace period for the sale at prior year prices.

### **Industrial Goods Prices**

In 2009 the annual inflation rate in non-foods (excluding fuels) significantly slowed down and by the end of the year the prices of these goods retained their December 2008 level.

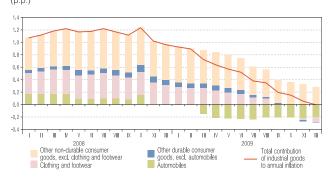
Harmonized Price Indices of Industrial Goods Excluding Energy Products and Those with Administratively Controlled Prices

(inflation on corresponding month of previous year, %)



Sources: NSI, BNB.

### Contribution of Major Groups of Non-foods (Excluding Energy Products and Goods with Administratively Controlled Prices) to Annual Inflation



Sources: NSI, BNB.

Prices of clothing, footwear and cars contributed most significantly to the lower inflation – groups with relatively higher weight in the consumer basket and a reported fall at end-year by 0.2 per cent, 5 per cent and 7 per cent.

Several major factors impacted non-food prices: changes in prices of raw materials imported for production (expenditure on intermediate consumption), prices of directly imported consumer goods and price policy of trade firms. Over the first three quarters of 2009 the deflator of foods and services posted a progressive decrease on an annual basis to reach -15 per cent in the third quarter. This fall is consistent with the downward dynamics of domestic market producer price index of intermediate consumption products. In addition to import prices, reduced domestic demand, in particular for durable goods (see the Economic Activity Section) also exerted downward pressure on non-food inflation.

Data from the business survey by end-2009 and early 2010 in retail trade showed moderate assessments of business conditions in the sector in the following 6 months. The expectations of the firms for retaining prices at their current levels in the following three months prevail, which suggests that currently there are no signs of increasing inflation pressure in retail trade. This assessment is also confirmed by the fact that the opinion balance of managers in the sector on the change of selling prices reached the lowest level in the last ten years.

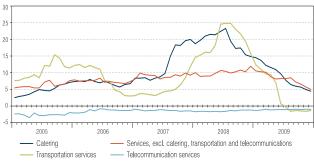
### **Services Prices**

In 2009 inflation in services was characterised by a clearly pronounced downward trend posting a decrease from approximately 12 per cent by the end 2008 to 2.9 per cent in December 2009.

Catering and transportation services contributed most significantly to this dynamics as the prices of these two groups exhibited accelerated growth in 2008 prompted by the strong food and fuel price rise. By the end of 2009 accumulated inflation in catering declined by 10 percentage points from December 2008 and reached 4.4 per cent and in transportation services by 17 percentage points and it was negative (-1.2 per cent). Inflation in services (excluding catering and transportation) also displayed a sustained downward trend reflecting the lower pressure on prices by various costs (fuel costs, etc.).

# Harmonised Price Indices of Services (excluding those with controlled prices)

(inflation on corresponding month of previous year, %)



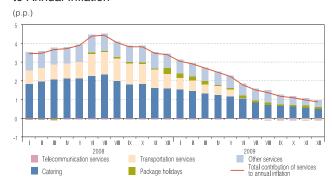
Sources: NSI, BNB.

Catering prices (with a weight of 11 per cent in the consumer basket) and the prices of three services groups (transport insurance, holiday services and rents increasing by 20 per cent, 7.3 per cent and 7 per cent respectively) had the strongest contribution to the overall inflation by the end of 2009.

The increase in transport insurance is much higher than the services group average one (excluding services with administratively controlled prices) and reflects the effect of some specific factors. Despite the slowdown, the annual inflation rate in the bulk of other services remained positive at a low level. Similar dynamics was observed in other European countries, with the average accumulated inflation in services (including also administratively controlled prices) in the EU reaching 2 per cent by the end of 2009, while the annual inflation rate of the same group of services in Bulgaria was 3.4 per cent. The general trend

toward a slower inflation decline in services compared with the other groups included in consumer basket is likely to reflect some specificity of this particular services group (as stronger downward rigidity, higher labour expenditure share, etc.) rather than country differences. The only exceptions were Estonia and Latvia, which reported a deflation of about 2 per cent in services by end-2009 and overall negative inflation due to dramatically contracted economic activity.

### Contribution of Major Groups of Services (Excluding Those with Administratively Controlled Prices) to Annual Inflation

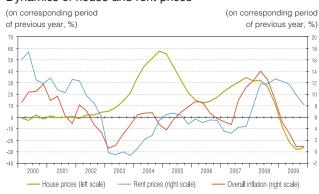


Sources: NSI, BNB.

Reduced house demand due to tightened lending conditions by banks and lower foreign investments in the real estate sector led to a decrease in house prices in 2009 by 21 per cent compared with 2008. By the end of 2009 house prices almost matched those in early 2007. Inflation in rent prices also exhibited a downward trend but remained positive by the end of the year (7 per cent). Rent price dynamics followed with a lag the pattern of overall inflation by which most of rents are indexed.

Services price dynamics is expected to remain moderate in the first half of 2010 and the annual inflation to vary around its current level.

#### Dynamics of house and rent prices



Sources: NSI, BNB.