

# Economic Review

1/2008



BULGARIAN  
NATIONAL  
BANK





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

The *Economic Review*, issue 1/2008 was presented to the BNB Governing Council at its 3 April 2008 meeting. It employs statistical data published up to 18 March 2008.

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

The *Economic Review* is available at the BNB website, *Periodical Publications* sub-menu. Please address notes, comments and suggestions to the BNB Economic Research and Projections Directorate at 1000 Sofia, 1, Knyaz Alexander I Square, or to [econreview@bnbank.org](mailto:econreview@bnbank.org).

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## Abbreviations

BIR	Base interest rate
BOP	balance of payments
BTC	Bulgarian Telecommunications Company
b. p.	basis points
CEFTA	Central European Free Trade Association
CIF	Cost, insurance, freight
CIS	Commonwealth of Independent States
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
HICP	Harmonized Index of Consumer Prices
HRW	hard red wheat
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
PMI	Purchasing Managers' Index
p. p.	percentage points
PPP	Purchasing Power Parity
WB	World Bank
WTI	West Texas Intermediate

# Summary

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Adverse developments in the US sub-prime mortgage crisis led to increased uncertainty on global financial markets which had a negative effect on economic agents' assessments of the ongoing business situation, prompting expectations of some slowing in global economic growth.

In Bulgaria, business assessments of the current economic situation and expectations for the coming months remained positive in early 2008. Consumer confidence slightly improved compared with the second half of 2007, including assessments of the overall economic development and financial performance of households in the following twelve months.

In 2007 growth in real GDP remained high at 6.2 per cent, with real growth in gross fixed capital formation reaching 21.7 per cent (14.7 per cent in 2006) and its contribution to growth exceeding significantly private consumption contribution. In 2007 exports started accelerating, thus supporting net export contribution to growth. Over the third quarter the extremely unfavourable weather conditions led to a decline in the agricultural sector of 44.1 per cent in real terms. This affected negatively GDP growth during the third quarter, with real GDP increasing by 4.9 per cent on the corresponding quarter of the previous year. In the fourth quarter the upward trend rebounded and real GDP grew by 6.9 per cent.

External financing sources and high investment activity of firms include bank credit, foreign direct investment and external loans. At the end of 2007 bank claims on non-financial corporations rose by 70.2 per cent on an annual basis and foreign direct investment reached EUR 6.1 billion (21.1 per cent of GDP). Capital goods imports contributed most significantly to the high growth rate of overall imports and to trade balance deficit growth. Over the second half of 2007 imports of some food commodities increased due to shortages in domestic supply as a result of the drop in agricultural output.

Foreign direct investment covered the current and capital account deficits by 104.8 per cent. The balance of payments financial account surplus amounted to EUR 10.1 billion in 2007, and BNB gross international reserves rose by EUR 2.9 billion (excluding valuation adjustments). The *international reserves to average monthly imports of goods and services* ratio improved to 5.9 as of December 2007 (5.1 at the end of 2006).

Declines in the physical volume of agricultural output over 2007 and significant external demand due to poor crops in neighbour countries pushed up food prices in Bulgaria. Over 2007 HICP inflation accelerated on 2006 to 11.6 per cent at the end of the year, with foods (5.1 percentage points) and public catering (2.0 percentage points) contributing most significantly to this. Annual growth rates of food and public catering prices posted a sizable increase in the second half of 2007.

In the first half of 2008 economic growth is projected to remain at a level of above 6 per cent on an annual basis. Long-term investor interest will be sustained. Due to the significant imports of capital goods, no declines in the balance of payments trade deficit are expected, and the *current account deficit to GDP* ratio will retain its 2007 level. Foreign direct investment will cover current and capital account deficits. International reserve growth will support broad money growth at around 30 per cent on an annual basis. Credit activity will remain high despite the slowing credit growth rates. The annual growth rate of prices will be high, reflecting primarily the low base of the first half of 2007. The inflation level will start to decline in the second half of 2008.

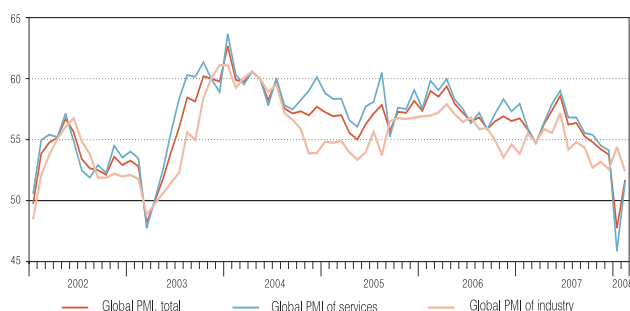
# 1. External Environment

The crisis in the US sub-prime mortgage market and global risk revaluation are expected to affect negatively global economic growth in the first half of 2008. Prevailing market expectations show that the US Federal Reserve System will further cut the federal funds interest rate, while the ECB is likely to leave the repo rate unchanged.

## Current Business Situation

The US sub-prime mortgage crisis continued to deepen despite the joint efforts of the government and the Federal Reserve System to limit the effect on other financial market segments and on the real growth. Business expectations, as reflected in global economic indicators of economic activity, continued to worsen. World trade growth rates further moderated to reach 5.1 per cent annually in the fourth quarter (7.2 per cent on average between January and September).

### Global PMI

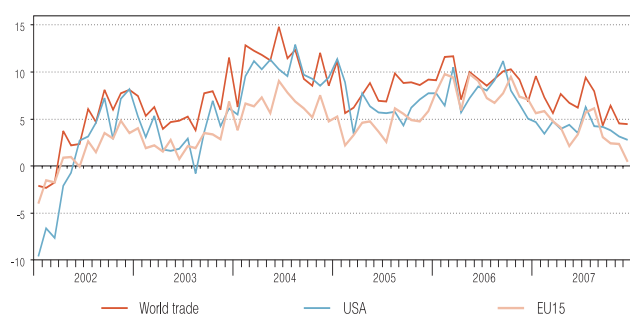


Sources: NTC Research, JP Morgan.

Fuel and food price developments are projected to remain one of the driving factors for inflation over the first half of 2008.

### World Trade

(annual rate of volume growth, %)

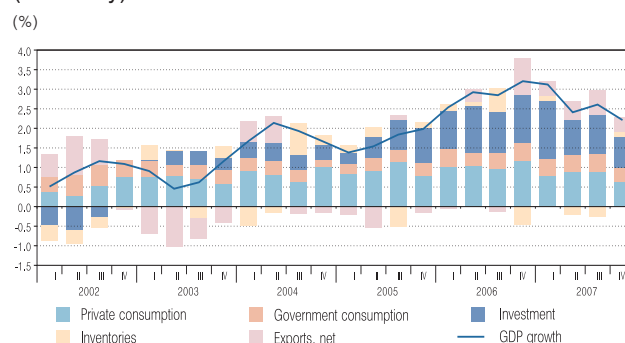


Source: CPB Netherlands Bureau for Economic Policy Analysis.

## Euro Area

In the last quarter of 2007 euro area economic growth decreased from 0.8 per cent to 0.4 per cent on a quarterly basis. Lower growth in GDP resulted from both external demand weakening and lower growth rates in investment and consumption. The underperformance of construction continued to adversely affect growth in some euro area countries, such as Germany and Spain.

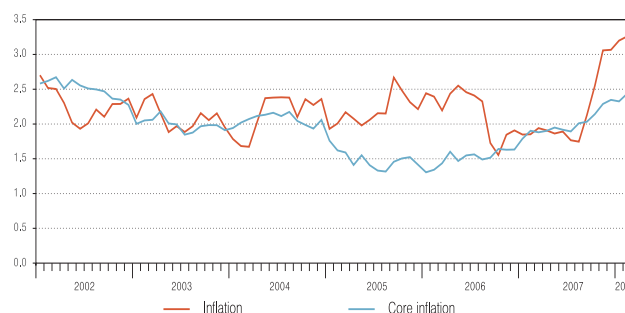
### Contribution to Euro Area Growth by GDP Component (Quarterly)



Source: Eurostat.

### Euro Area Inflation Rate

(percentage change on same period of previous year)



Note: Euro area core inflation excludes changes in energy and unprocessed goods prices.

Source: Eurostat.



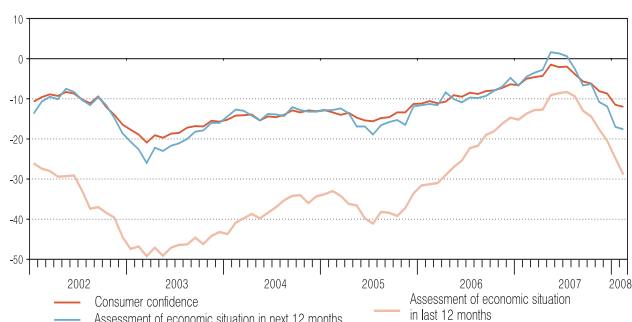
The deepening global financial crisis had a significant impact on consumer and investment sentiment over the last months. Declines in leading euro area indicators continued in the beginning of 2008, indicating deceleration in economic activity. In January 2008 the EC consumer confidence and business climate indicators fell to the lowest values in the last two years and services and industry PMI approached a level which is typical of the outset of economic activity slowdown. Declines in demand of key trade partners (the United Kingdom and the USA) would adversely affect euro area exports.

#### Euro Area Unemployment Rate and Employment Growth



HICP inflation rose gradually during the last months to reach 3.3 per cent annually in February 2008: the highest level of euro area inflation in the last 15 years. Higher inflation resulted from price increases in oil, food commodity and other raw materials. Core inflation remained stable at 1.9 per cent annually.

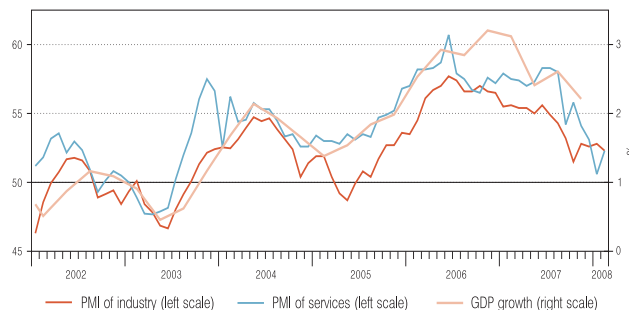
#### Euro Area Consumer Confidence Indices



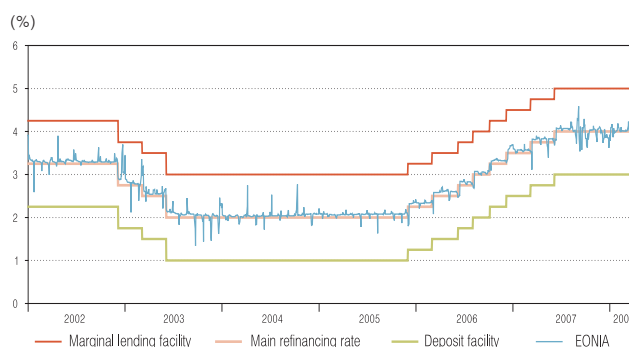
HICP inflation is expected to remain at considerably above 2 per cent over the first half of 2008. Its dynamics will continue to reflect oil and food price developments. Wage renegotiations are under way in some euro area countries. Main trade unions in Germany demanded a significant rise in

wages (by 8 per cent in *IG Metal* and *Ver.di*). An approved increase in wages which would exceed the rate of labour productivity (quite possible amid European economy slowdown) would push inflationary pressure of unit labour costs.

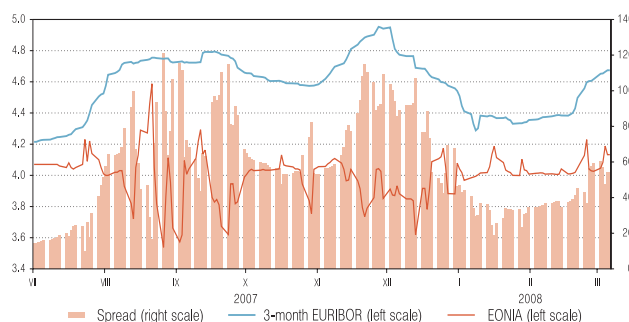
#### PMI and Euro Area GDP Growth



#### Euro Area Interest Rates



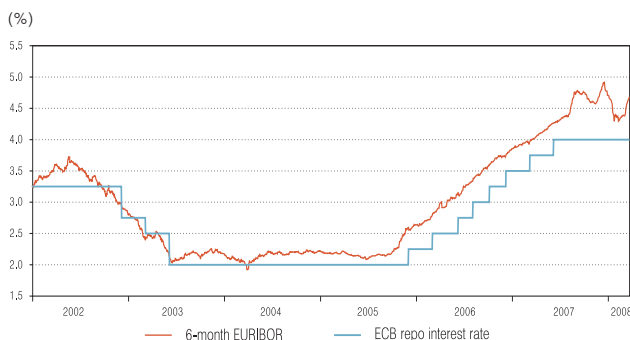
#### Liquidity Premium (the spread between 3-month EURIBOR and EONIA)



ECB estimates show upside risks to price stability over the medium term and downward prospects for growth, reflecting high uncertainty around US financial crisis effects. The ECB Governing Council, at its January, February and March meetings, decided to leave the repo rate unchanged at 4.00 per cent. Though the ECB announced that the period of a rising repo rate in the euro area was over, it pointed to the increas-

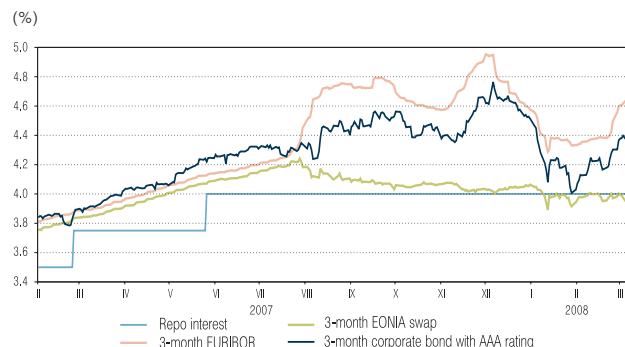
ing risk to price stability. At the same time, according to market expectations, a period of a declining reference rate is projected for the second half of the year.

#### ECB Main Refinancing Rate and Six-month EURIBOR



Euro area money market situation started to stabilize gradually, with three-month interbank deposit rates falling by some 30 basis points from the beginning of 2008 to the end of February. In the first half of March money market tensions re-

#### Euro Area Short-term Interest Rates



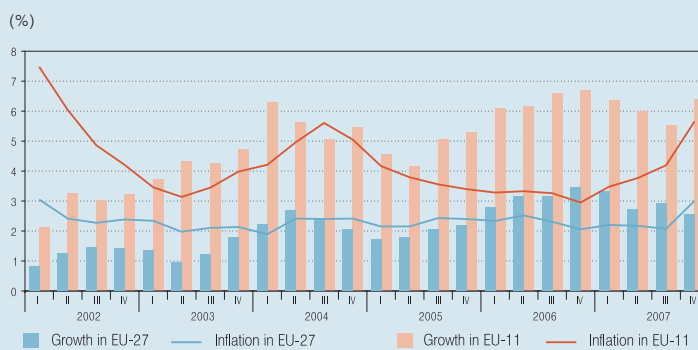
sumed and the spread between the three-month EURIBOR and the overnight deposit rate (EONIA) increased to 60 basis points. This indicates that markets continue to include credit risk premium (see the box *Effects of the US Credit Crisis on Euro Area Money Market*). The uncertainty around future monetary policy of the ECB and the existing credit risk premium suggest that the three-month EURIBOR will fluctuate within a wide range of 4.00 to 4.70 per cent.

#### EU-11\*

In the second half of 2007 growth moderated in all EU-11 countries. Food and fuel price rises contributed most significantly to increasing average monthly inflation in the new Member States. In the fourth quarter it reached 5.6 per cent on an annual basis.

\* EU-11 includes newly acceded EU countries, excluding Slovenia. As from 1 January 2007 Slovenia became a full-fledged member of the European Monetary Union.

#### Growth and Inflation in EU-27 and EU-11



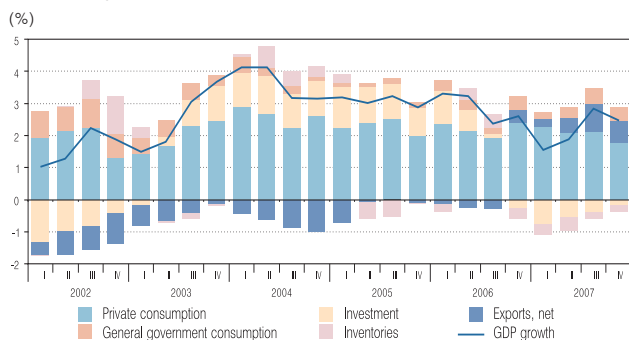
#### Effects of the US Credit Crisis on Euro Area Money Market

In the fourth quarter of 2007 the US sub-prime mortgage crisis spread over the euro area. Non-confidence increased among interbank market participants, followed by declines in liquidity volumes and unusual rises in money market interest rates on deposits with maturity of over one month. Over the review period the spread between the three-month EURIBOR and the ECB reference interest rate increased and remained high, reaching a maximum of 75 basis points. This value is a credit risk premium on the European interbank market and resulted mainly from the uncertainty around investment of key European financial institutions into financial instruments backed by US sub-prime mortgage loans. With respect to the increased non-confidence and banks' aversion to exchange liquidity, the ECB intervened very actively on the money market. In addition to the regular one-week open market operations, the ECB conducted a number of additional liquidity absorbing operations, as well as long-term 90-day refinancing operations aiming at regulating liquidity conditions. As a result, the overnight rate and the three-month interest rate approached a level close to the ECB repo rate at 4 per cent. Following the active interventions, by the end of the year tensions decreased on the money market which reflected on gradual decreases in interest rates on interbank market deposits with various maturity: from overnight to several weeks. Though the ECB operations continued in January, February and March, the situation in the three-month money market segment did not stabilize. In our opinion, the reason may be found in the continuing process of accumulating further losses by the European banks due to the negative market revaluation of exposures to risky mortgage-backed securities.

## USA

Over the last quarter of 2007 the economic growth rate in the USA significantly slowed down. Major factors behind this include the continuing decrease in housing investment, slowing rates of private consumption and the negative contribution of inventories. In 2007 GDP growth came to 2.2 per cent, a fall on the average annual rate of 3 per cent between 2003 and 2006.

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

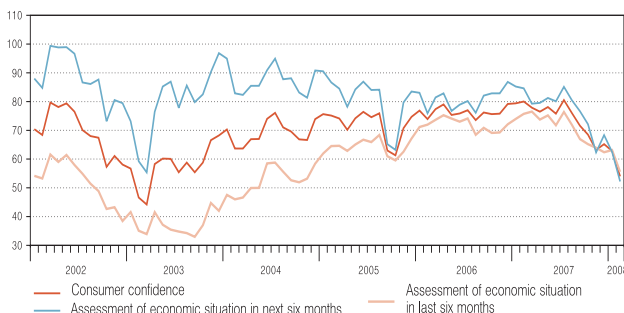


Source: Bureau of Economic Analysis.

Early 2008 data recorded further worsening in economic indicators, with risk of recession increasing. Consumer confidence fell to the lowest values in the last several years, reflecting unfavourable trends in the labour market and negative effects on disposable income resulting from the high oil price. Industry and services indices decreased to levels typical of a recession. Unemployment in the labour market rose to 5 per cent at the end of 2007 and in early 2008 employment declined for the first time in the last four years which pose risks to household income and consumption. At the property market, the high level of unsold houses is expected to push prices down and depress investment activity in this industry. Tightened standards in extending bank loans and unfavourable terms of direct financing through capital markets created conditions for decelerating investment consumption as a whole. Net exports are likely to continue contributing positively to the US economy growth supported by the US dollar depreciation and comparatively better cyclical position in major US trade partners. Risks to the economic situation in the USA are concentrated in the first half of 2008. In the second half of the year the approved package of budget incentives (government expenditure at around 1 per cent of GDP) is expected to contribute to the temporary improvement in the US economic situation.

## US Consumer Confidence Indices

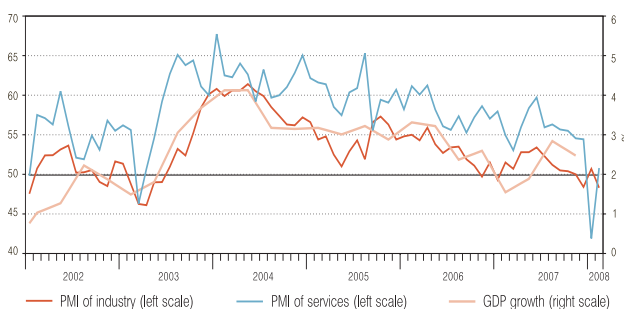
(2000 = 100)



Source: The Conference Board.

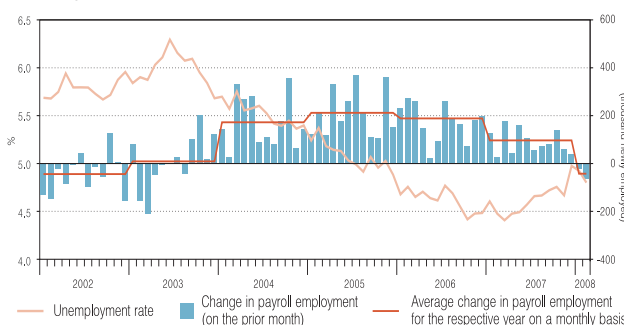
Inflation measured by the personal consumption expenditure price index rose to 3.5 per cent on an annual basis in December 2007, from 2.5 per cent three months earlier. The accelerated growth rate of overall price indices reflected the significant oil and food price rises. Core inflation slightly rose from 1.9 per cent to 2.2 per cent over the same period, with recent values slightly higher than the level consistent with price stability. In the long-term horizon market expectations of inflation remained stable. The pressure on prices decreased in terms of unit labour costs, with this trend likely to be sustained given the labour market developments. Keeping inflation expectations under control remain a key factor for the future Federal Reserve System policy since their possi-

## US PMI of Industry and Services and GDP Growth



Source: Institute for Supply Management.

## US Unemployment Rate and Changes in Payroll Employment

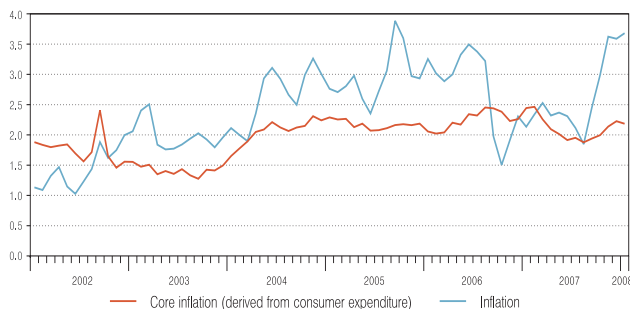


Source: Bureau of Labor Statistics.

ble increase would seriously limit the possibility of interest rate cuts.

### US Inflation Rate

(percentage change on same period of previous year)



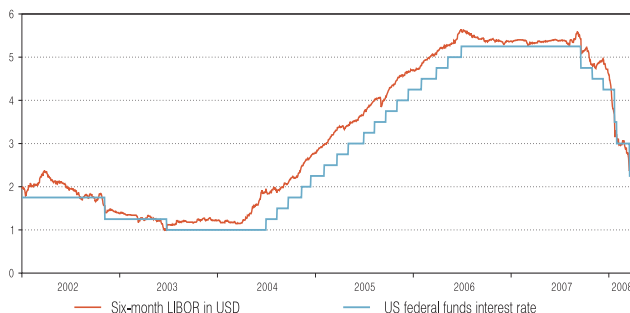
**Note:** The US core inflation is measured by consumer expenditure index excluding energy and food expenditure.

Sources: Bureau of Labor Statistics, Bureau of Economic Analysis.

The Federal Reserve System continued to decrease interest rates on short-term deposits on the money market. Since early 2008 the US Federal Open Market Committee (FOMC) initiated three consecutive cuts of the federal funds rate from 4.25 per cent at the end of 2007 to 3 per cent at the end of January and 2.25 per cent in the middle of March. Currently, market participants expect further cuts in interest rates by the Federal Reserve System at least until the middle of 2008.

### US Federal Funds Rate and Six-month LIBOR in US Dollars

(%)



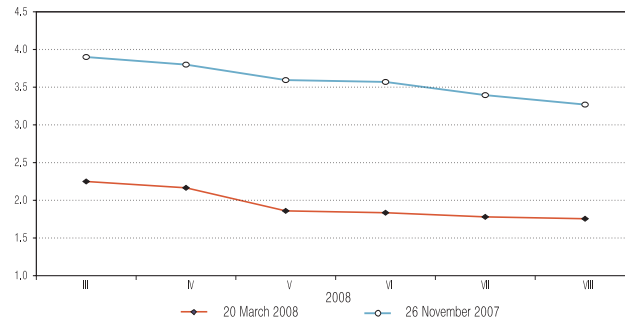
Source: Bloomberg.

Despite the actions taken by the Federal Reserve System, recent months saw a robust increase in corporate debt credit spreads and a downward trend in stock indices. Worsened market conditions are seen largely in expectations of lower future corporate profits due to the slowdown in business cycle. Another factor contributing to risk aversion was associated with large losses recorded by financial institutions with investments on the US mortgage market. Money markets were the only exception from the overall negative trend: a partial recovery of credit risk premium on time interbank deposits and commercial securities yield

was observed since December. This may result from the eased access to short-term liquidity in US dollars for most market participants after the new programme of term deposit auctions was introduced by the Federal Reserve System in December.

### Implied Federal Funds Futures Interest Rate

(%)



Source: Bloomberg.

High uncertainty around the future monetary policy of the Federal Reserve System, as well as limited liquidity on interbank markets and accumulated credit risk premiums suggest a broad range of fluctuation of the three-month LIBOR in US dollars between 2.30 per cent and 3.00 per cent until the end of the first quarter of 2008.

### The USD/EUR Rate

In early 2008 the USD/EUR rate fluctuated between 1.46 and 1.47 on average. The expected level of the interest rate differential between the euro and the US dollar was the driving factor for exchange rate developments. The significant decrease in federal funds rate by the Federal Reserve System affected adversely the US dollar value. The ECB also signaled about unusually high uncertainty around the financial crisis effects on real economy, expressing serious concerns about the risks to price stability.

### USD/EUR Exchange Rate

(USD per EUR 1)



Source: ECB.



The upcoming macroeconomic information on the USA showed mostly negative trends in the US economy, though their effect on the US dollar was limited. The dramatic decline in interest rate levels and the approved package of budget incentives inspired optimism over the economic outlook. Meanwhile, high financial market volatility and risk aversion set limits to the potential of appreciation of high income currencies, including the euro. Over the review period net long EUR/USD specu-

lative positions were reduced significantly which was a sign of a change in market expectations in favour of the US dollar.

Over the second quarter of 2008 foreign exchange market volatility is expected to remain high, with the USD/EUR rate further fluctuating within a wide range. Short-term market expectations of the Federal Reserve System and ECB monetary policy support the single European currency.

## The Balkan Region

In the fourth quarter of 2007 economic activity declined in the Balkan countries. Industrial output rates moderated in the second half of the year. Inflation in the Balkan region countries continued to accelerate, with world food and fuel prices contributing most significantly to this.

Expectations are for moderation in economic growth over the first half of 2008, reflecting lower external demand and worsened global situation.

### Real Growth and Inflation in Balkan Countries (Quarterly)

	2006					2007				
	I	II	III	IV	Total	I	II	III	IV	Total
<b>Growth (on the previous year, %)</b>										
Bulgaria	4.8	6.9	7.1	6.2	6.3	5.5	7.3	4.9	6.9	6.2
Greece	4.0	4.1	4.3	4.3	4.2	4.3	4.1	3.8	4.0	4.0
Macedonia	2.9	4.3	4.9	3.6	4.0	6.8	4.3	4.2	5.2	5.1
Romania	7.0	7.9	8.4	7.9	7.9	6.1	5.7	5.7	6.6	6.0
Turkey	5.9	9.7	6.3	5.7	6.9	8.2	4.2	3.3	3.4	4.5
Croatia	6.0	3.6	4.7	4.8	4.8	7.0	6.6	5.1		
Serbia	7.0	6.2	5.1	4.8	5.7	8.2	7.6	7.5	6.9	7.5
<b>Inflation (averaged for the period, %)</b>										
Bulgaria	8.7	8.6	6.7	5.7	7.4	5.3	4.7	9.0	11.2	7.6
Greece	3.2	3.4	3.5	3.2	3.3	2.9	2.6	2.8	3.6	3.0
Macedonia	2.7	3.4	3.6	3.1	3.2	0.7	1.1	2.4	4.9	2.3
Romania	8.7	7.2	5.9	4.8	6.6	3.9	3.9	5.1	6.8	4.9
Turkey	8.1	9.6	10.8	9.8	9.6	10.3	9.5	7.1	8.2	8.8
Croatia	3.5	3.8	3.2	2.2	3.2	1.6	2.1	2.9	4.9	2.9
Serbia	14.6	14.2	11.4	7.1	11.8	4.8	3.3	6.6	10.8	6.4

Sources: Statistical institutes and central banks of respective countries.

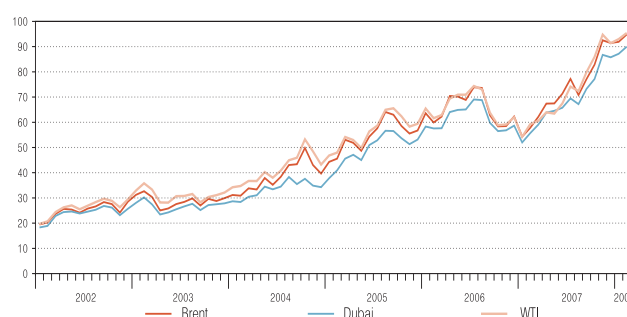
## International Prices of Crude Oil, Major Raw Materials, and Gold

### Crude Oil

In the fourth quarter of 2007 the average monthly Brent price rose by 18.5 per cent on the previous quarter to USD 89 *per barrel*. Market uncertainty remained the main factor for oil price developments over the first quarter of 2008. Market expectations were volatile in assessing the effects of the expected slowdown in leading economies and projections that growth in the Asian region is unlikely to moderate significantly, with demand remaining high. The major factors behind oil price dynamics over the review period

### Crude Oil Prices

(USD *per barrel*)



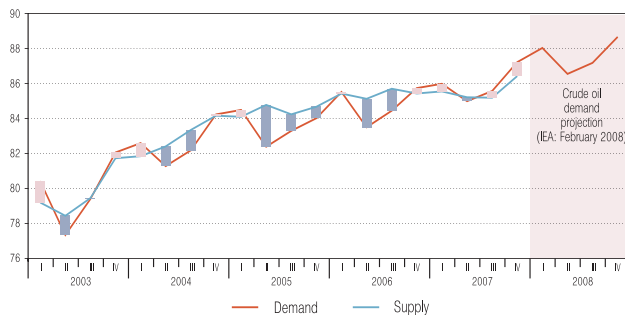
Source: World Bank.

were again the reduced supply by OPEC countries and instability in Nigeria. OPEC inventories continued to decrease.

In March 2008 crude oil appreciated to USD 110 *per barrel*. Market uncertainty around supply increased markedly due to the OPEC decision to leave unchanged the current level of supply and the high risk of a partial supply disruption in Iraq, Nigeria and Venezuela.

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

(million barrels *per day*)



Source: IEA.

In the first half of 2008 the average monthly Brent price is expected to fluctuate within the range of USD 90–110 *per barrel*. The OPEC policy of leaving unchanged supply on the market and stable demand from the Asian region will maintain high oil prices. In the second quarter lower growth rates in demand are possible as a result of the slowdown in world economic growth and lower seasonal demand by the refineries.

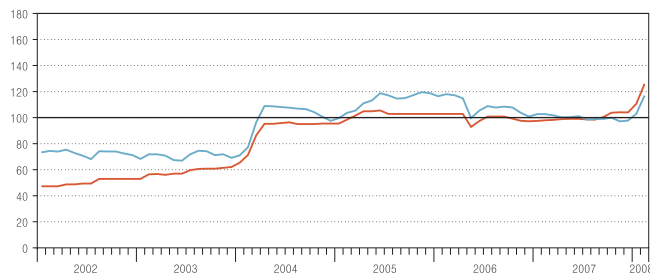
#### Major Raw Material and Commodity Prices

In the fourth quarter of 2007 metal prices went down by 3.9 per cent on the previous period. For the second consecutive quarter the main factor behind price falls was the expected decline in demand resulting from moderation in world economic growth. Simultaneously, most metal inventories increased. In January prices of most metals slightly picked up due to disruptions to output of some large suppliers and declines in commodity inventories. A view has increasingly prevailed that moderation in global economic growth will not affect significantly large infrastructure projects, and metal demand will remain stable in 2008. Steel price rises in early 2008 reflected the 25

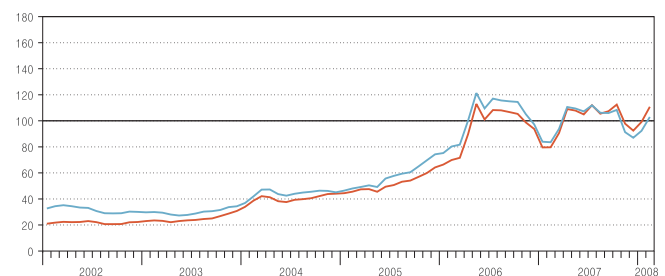
#### Price Indices of Major Commodities and Commodity Groups

(2007 = 100)

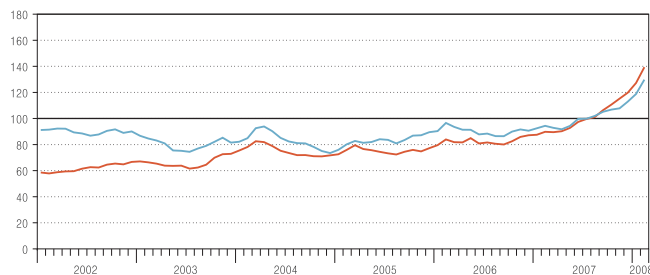
##### Steel



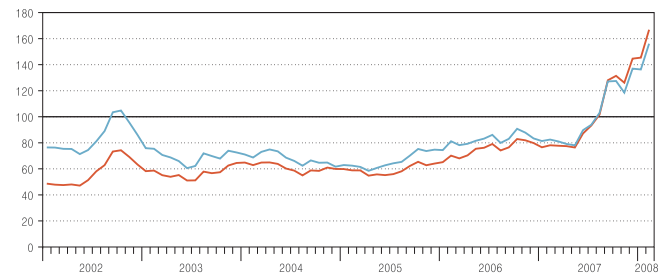
##### Copper



##### Food



##### Wheat



— USD

— EUR

Sources: World Bank, BNB.

per cent duty on steel exports from China and the iron-ore appreciation of 65 per cent. Metal prices are expected to increase over the coming two quarters.

Over the fourth quarter of 2007 wheat prices went up by 34 per cent on the previous quarter and again contributed most significantly to food price increases. Wheat prices are likely to remain high due to lower output in Australia, Canada, EU-27, Turkey and Ukraine and constraints imposed by major exporting countries: Argentina, Russia and Ukraine. In the last months of 2007 corn and sunflower oil prices increased further,<sup>1</sup> reflecting the increased demand for bio-fuel.

## Gold

In the fourth quarter of 2007 volatility in gold price, measured in euro and US dollars, increased significantly. Over the same period the spot price rose by 8.8 per cent to EUR 571.2 and USD 844.5 per troy ounce.

Driving factors behind gold appreciation involve the continuing depreciation of the US dollar against the euro and higher petroleum prices which caused investor shifts toward gold due to its role as a safe haven asset. In November strong fluctuations on stock exchange markets led to increased gold price volatility. Over the same period the traditional strong dependence of the gold price on the oil price decreased at the expense of its growing dependence on stock indices. This may be explained by institutional investors' ambition to realize profits from gold exposure used to cover losses from stock indices declines.

### Spot Price of Gold

(USD per troy ounce)



Source: The London Bullion Market Association.

<sup>1</sup> In January 2008 corn prices rose by 24 per cent and sunflower oil prices by 137 per cent on an annual basis.

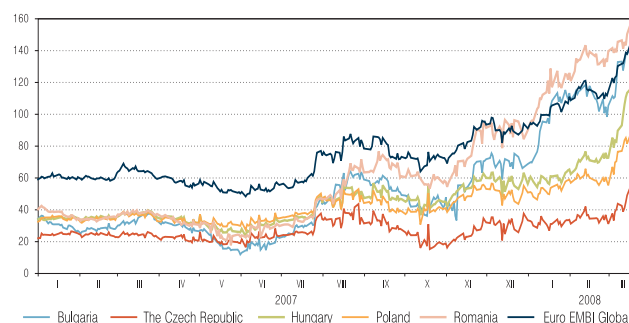
December saw adjustments in the USD/EUR rate in favour of the US dollar which exerted a temporary downward pressure on the gold price.

## Bulgarian External Debt Dynamics on International Financial Markets

In the last quarter of 2007 the yield spread of the emerging markets' government debt in Europe increased significantly, with the *JP Morgan Euro EMBI Global* index fluctuating within a broad range (64–98 basis points), reaching 91 basis points at the end of the year. The increase in risk premium on government debts of these economies continued in early 2008 due to global risk aversion caused by the credit crisis of the global financial system. Market developments affected newly acceded EU Member States, including Bulgaria and Romania, with significant risk premium increases observed also in Lithuania, Croatia and Estonia.

At the end of 2007 the yield spread of the Bulgarian government debt came to 69 basis points and continued rising in early 2008 to reach 118 basis points in February. Debt price dynamics followed the general market trend, with the correlation with the *Euro EMBI Global* index reaching 0.96. In 2007 Bulgaria's fiscal position was stable, and government budget reported a surplus of 3.8 per cent of GDP. In terms of the Bulgarian external debt, markets ignored fundamental factors and reflected mainly the risk appetite associated with the overall attitude to the relevant market segment.

### Government Debt Yield Spreads in Bulgaria, Romania, Poland, the Czech Republic and Hungary (*Euro EMBI Global* index)



Source: JP Morgan.

## 2. Financial Flows, Money and Credit

In 2007 foreign direct investment flows into Bulgaria picked up by EUR 147.9 million on 2006, reaching 21.1 per cent of GDP. Stable macroeconomic environment in Bulgaria, the prospects of sustainable EU growth and the relatively high returns on investments determined the long-lasting interest of foreign investors in Bulgarian economy. Foreign direct investment entirely covered the total balance of payments current and capital account deficits,<sup>2</sup> the coverage coming to 104 per cent according to preliminary data for 2007.

The balance of payments total balance for 2007 is positive, amounting to EUR 3163.7 million. As a result, BNB reserves increased by 2908.5 million (excluding changes due to valuation adjustments). The *international reserves to average monthly imports of goods and services* ratio improved to 5.9 by December 2007 against 5.1 a year earlier.

The Issue Department balance sheet figure reached BGN 22,797.6 million (EUR 11,656.2 million) by end-February 2008: up by BGN 6104.6 million (EUR 3121.2 million) on February 2007.

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

(million EUR)

	Fourth quarter 2007	2007, total	2006, total
Total for the period	57	2545	1360
Purchases and sales of euro	-89	2 410	1720
1) at tills	-31	-60	-26
2) banks	-59	2 458	1 746
purchases by banks	23499	54 467	12 962
sales to banks	23558	52 008	11 216
Flows on accounts of banks, the MF, etc.	146	135	-361
incl. minimum required reserves	131	827	524
Government and other depositors	15	-691	-884

Source: BNB.

### Financial Flows and External Position Sustainability

The long-lasting interest of foreign investors in Bulgaria will boost foreign direct investment flow in the first half of 2008 as well. Despite rising uncertainty on international financial markets, no limits to the access of local economic agents to foreign financial resources are expected.

The flow of foreign capital into Bulgaria stayed high, with balance of payments financial account surplus of EUR 10.1 billion for 2007 reflecting mainly foreign direct investment (EUR 6108.8 mil-

lion), growing net external obligations of the private non-bank sector (EUR 2700.8 million) and rising non-resident deposits with local banks (EUR 2028.5 million).

Investment activity became the most significant component of domestic demand in 2007. The contribution of gross capital formation to economic growth during the year exceeded significantly that of consumer demand. In 2008 the long-lasting investor interest in Bulgarian economy will be

<sup>2</sup> According to the balance of payments methodology, the inflow of financial resources from the EU, which are expected to grow dramatically during the following periods, are classified as current or capital transfers depending on their specific use. Since the sum of the current and capital accounts' balances reflects the net borrowings of Bulgarian economy from the rest of the world, the analysis is based on the total balance of the current and capital accounts.



driven by the positive assessments of Bulgaria's sustainable growth and expectations of high returns. Therefore, the stable flow of capital into Bulgaria is envisaged to be sustained in the first half of 2008.

The inflow of capital during the last months of 2007 was not affected by the volatility and uncertainty on international financial markets since mid-2007; thus, we expect a minimum effect over the forecast horizon as well. Globally, tightening conditions of money market financing resulted mainly in higher liquidity and credit risk premia rather than in limited volumes. Therefore, credit markets continued to function normally and long-term investor decisions inducing capital inflows remained unchanged. The share of speculative external flows into Bulgaria was small: in September 2007 portfolio investment comprised 5 per cent of the country's total liabilities according to the international investment position.

Data on foreign direct investment support the assumption that the investment inflow is driven by long-term interests rather than by speculative intentions. Preliminary information for 2007 shows growth of EUR 147.9 million on the previous year,<sup>3</sup> with investments of EUR 1.7 billion made only in the fourth quarter. This trend was sustained in January 2008 as well: the EUR 242 million investments almost doubled those of the same month of 2007. In 2007 over half of incoming foreign direct investment (59 per cent) were used for acquiring new property in Bulgaria, with receipts from privatization accounting for EUR 86.5 million.

Within the framework of foreign direct investment, the *other capital* item reached EUR 2121.9 million: up by EUR 172.3 million on 2006. Inter-company loans extended by local companies' foreign owners are reported under this item; the amount of these receipts and their increase are indicative of the intensive development of the foreign-owned companies in Bulgaria. Preliminary assessments of the profits reinvested during the year come to EUR 388.6 million and the amount of funds reported under this item will probably be revised upwards as a result of additional information received from firms.

By 2006 *manufacturing* occupied the major share (24 per cent) in the structure of cumulative

foreign direct investment by industry. By end-2006 the sizable inflow of resources into the dynamic real estate and financial intermediation sectors<sup>4</sup> increased their shares in foreign direct investment to 16.3 per cent and 16.1 per cent respectively. In 2007 these industries continued to attract investment from abroad: according to preliminary data, EUR 2.15 billion were directed to *real estate operations, lessors activities and business services*, EUR 1.9 billion to *financial intermediation* and EUR 0.7 billion to *construction*.<sup>5</sup> Revenues from sales of real estate to non-residents, which are part of the first sector and are reported as equity came to EUR 1.7 billion in 2007. Since a big portion of real estate funds was invested in construction and acquisition of industrial, logistic and commercial buildings, and in companies acting as intermediaries or lessors, they directly contributed to strengthening the industrial and commercial capacity of local enterprises.<sup>6</sup>

The structure of foreign direct investment by country in 2007 shows that the biggest shares were attracted by Belgium and Luxemburg (12.8 per cent), the United Kingdom (11.9 per cent), the Netherlands (9.6 per cent) and Austria (10.1 per cent).

The continuous flow of borrowed funds to the balance of payments financial account resulted in an increase of gross external debt to EUR 27 billion by end-2007: up by EUR 6.9 billion on December 2006. In 2007 public and publicly guaranteed debt went down by EUR 455.6 million to 15 per cent of totals debt as a result of obligations repaid to the IMF and the World Bank. Private non-guaranteed external debt rose by EUR 7384.6 million over the period, boosted mostly by attracted intercompany loans (up by EUR 3194 million).<sup>7</sup> Loans extended directly by a

<sup>4</sup> The average annual value added real growth in the *Financial intermediation* sector over the 2002 to 2006 period came to 32.3 per cent; in 2007 it was 34.3 per cent. The corresponding growth in the *Construction* sector comprised 8.3 per cent and 16.9 per cent. With releasing the 2007 GDP data (and the revised 2006 data) on 17 March 2008, the NSI presented for the first time information according to which the value added real growth of real estate and business services was 11.8 per cent for 2006 and 3 per cent for 2007.

<sup>5</sup> Data on foreign direct investment in the non-financial sector are compiled currently on a corporation sample basis. They are subject to regular revisions after more comprehensive information is collected and submitted by the NSI. Since the revision will reflect not only in the total amount of inflows but also in the distribution of investment by sector, presently the conclusions about sectoral distribution of capital resource inflows cannot be considered unequivocal.

<sup>6</sup> Unlike investment directed at purchasing houses.

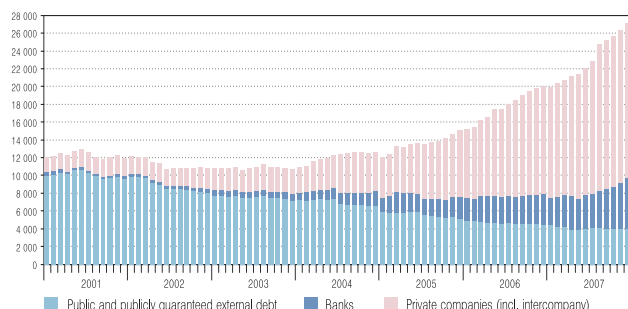
<sup>7</sup> An intercompany loan received in August 2007 for the acquisition of a telecommunication company had a significant contribution to this dynamics.

<sup>3</sup> Preliminary data subject to revision.

foreign investor reflected a long-lasting interest in the local corporation's development, displaying foreign owners' positive expectations.

### Gross External Debt

(million EUR)



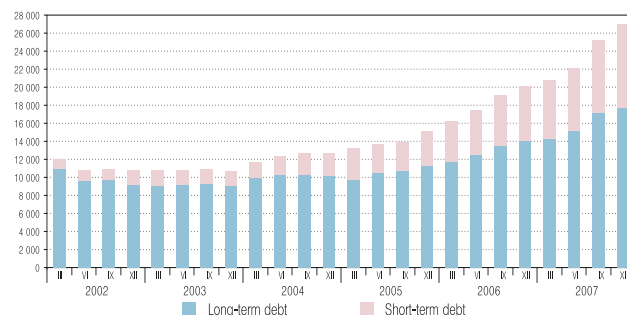
Source: BNB.

Foreign economic agents' confidence in Bulgarian economy is reflected in the dynamics of borrowed funds both for the private non-bank sector (up by EUR 2080.8 million in 2007) and for the local banks whose external obligations for the year grew by EUR 2280.5 million. The last year saw no notable changes in the structure of private non-bank external debt by industry. *Real estate operations, lessors activities and business services* occupied the largest share in intercompany loans (32 per cent) and in the external debt of *other sectors* (29 per cent), with *other business services* exerting major influence. With regard to intercompany loans, *transport and communications* ranked second (16.8 per cent), while in *other sectors* they were followed by *trade* (14.9 per cent) and *electricity, gas and water supply* (14 per cent). The bulk of these debt resources were used for expanding industrial capacity and adapting enterprises to EU requirements. Over the September to December 2007 period banks' external debt went up by almost EUR 1.6 billion owing predominantly to non-resident deposits affected mainly by local banks' operations with their foreign owners. The major factors behind these flows were the increased rate of minimum required reserves maintained by banks with the BNB from 8 per cent to 12 per cent as of 1 September 2007 and the high credit growth. In 2007 gross external debt service rose to EUR 5.4 billion (40 per cent of the receipts from commodity exports) against EUR 4.3 billion in 2006 (35.6 per cent of exports).

The trend towards a gradual increase in the share of the euro in the gross external debt currency structure was preserved. By end-2007, 85 per cent of Bulgaria's gross external debt was

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

(million EUR)



Source: BNB.

denominated in euro; as a result, the risks associated with exchange rate fluctuations were reduced significantly. Bank and intercompany loans occupied bigger shares (91.7 per cent and 90.7 per cent respectively), followed by the private non-bank sector (80.5 per cent).

By the close of the year the gross external debt maturity structure indicated an increase in the short-term loans to 34.4 per cent of total debt, with deposits attracted by local banks contributing most to this. By December 2007 short-term external debt came to EUR 9.3 billion, posting an increase of EUR 3.2 billion on end-2006 due to the rise in non-residents' deposits with local banks and the newly extended short-term loans to the private non-bank sector.

Bulgaria's gross external assets grew by EUR 2.96 billion during 2007, prompted mainly by the EUR 3 billion increase in BNB international reserves, while banks' foreign assets dropped by EUR 200.8 million. Net external debt went up by EUR 3.96 billion and the *debt to GDP* ratio reached 34.4 per cent in 2007, reflecting gross external debt and gross external assets dynamics.

Financial resource inflow determined to a great extent the balance of payments current account. The current and capital account deficits over 2007 comprised EUR 5.9 billion against EUR 4.3 billion in the prior year. Deficit growth was mainly due to the EUR 1.8 billion worsening in the trade balance to EUR 7.4 billion. Growing commodity trade deficit stemmed from brisk investment and consumer demand, coupled with major industrial capacity restructuring.<sup>8</sup> The balance of *services* and *income* improved on 2006 by EUR 185 million and EUR 214 million respectively. In 2007 net current

<sup>8</sup> For a detailed analysis of exports and imports see Section Three, *Economic Activity*.

transfers decreased by EUR 334 million on an annual basis.

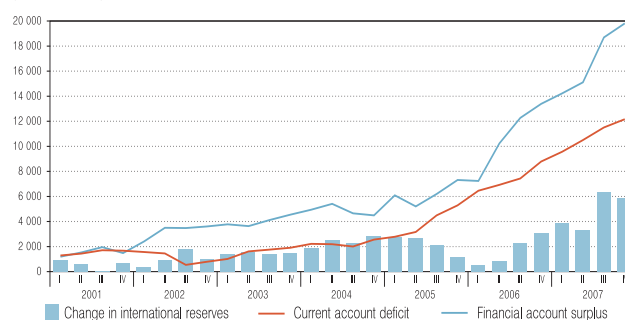
The balance of *services* in 2007 totaled EUR 1111.8 million, with exports of tourist services making the major contribution. *Tourism and travel* revenue picked up by 10.9 per cent. The higher capacity of the tourism sector and Bulgaria's EU membership were the main factors behind the increased revenues from non-residents in this industry. *Other services* exports retained their upward trend (10.2 per cent), due mainly to *computer-related and information services and other business services (legal, accounting and managerial)*. Within services imports, travel of residents abroad and payments on transportation services posted the largest growth (EUR 160.9 million and EUR 142.9 million respectively). Payments executed within the second category (amounting to EUR 1.2 billion) were related to the higher commodity imports during the year. The downward trend in the imports of *other services* (-5.3 per cent) was sustained, prompted mainly by the lesser payments on *other business services (architectural, engineering, consulting) and construction services*.

The *income* balance was negative (EUR 311.1 million) in 2007. However, it reported an improvement on 2006. *Compensations to employees* had the major contribution (up by 20 per cent). Income payments on foreign direct investment totaled EUR 1.2 billion for 2007: down by EUR 90 million on the previous year. They are expected to stay high, impacting negatively the *income* balance.

In 2007 *net current transfers* amounted to EUR 336.3 million against EUR 669.9 million in

## Dynamics of Current Account, Financial Account and International Reserves (on an Annual Basis)

(million EUR)



Source: BNB.

2006. The lower net income resulted predominantly from Bulgaria's contribution to the EU budget, with payments on current transfers to the EU coming to EUR 304.3 million in 2007. As a result, total payments on current transfers of the *general government* sector rose by EUR 332.7 million on 2006, while receipts went up by EUR 115.2 million on an annual basis. Private current transfers to Bulgaria diminished by EUR 51.7 million on 2006, while those to foreign countries by EUR 64.4 million, probably owing to employment and income growth. We expect net current transfers to improve during the first half of 2008, underpinned by increased inflows of EU funds.

Data on financial account and international reserve dynamics show no significant change in Bulgaria's external position: it remained stable and matched the brisk economic development and restructuring. Capital inflow is anticipated to stay high in the first half of 2008, prompted by the prevailing long-lasting interest of foreign investors in Bulgarian economy. During this period current account deficit as a share of GDP is projected to remain compatible with the 2007 level.

## Monetary Aggregates

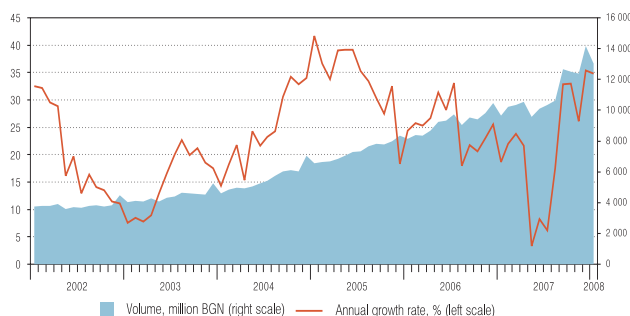
Monetary aggregates went on reporting high growth rates, underpinned by strong economic activity and foreign capital inflows. In the first two quarters of 2008 growth rates of currency in circulation are expected to be relatively stable, while those of bank reserves will accelerate dramatically by mid-year, reflecting a base effect. The annual increase in broad money will stay high at about 30 per cent.

Reserve money reported annual growth of 35.4 per cent by end-2007 and 34.9 per cent in January 2008, prompted mostly by high bank reserves growth. Following the increase in the rate of minimum required reserves at the start of September 2007, annual bank reserves growth accelerated notably to 60.9 per cent by December 2007 and

66.8 per cent in January 2008. Currency in circulation dynamics also added to the fast monetary base growth. Increased employment, salaries and prices pushed the annual growth rate of currency in circulation from 17.8 per cent by end-September 2007 to 18.9 per cent in January 2008. In the first two quarters of the present year currency in

## Reserve Money

(volume and annual growth rate)

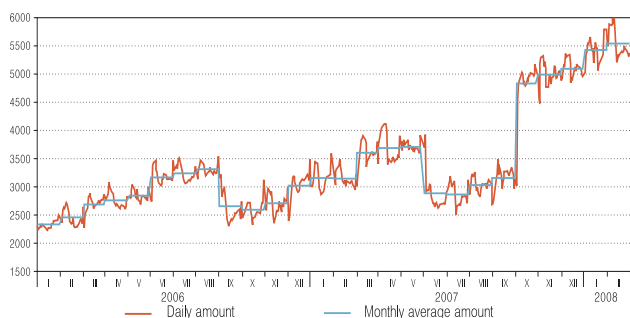


Source: BNB.

circulation is expected to maintain a relatively stable growth rate, while bank reserves will report significant annual growth by the middle of the year, reflecting a base effect (releasing additional minimum required reserves in May 2007).

## Commercial Bank Deposits with the BNB

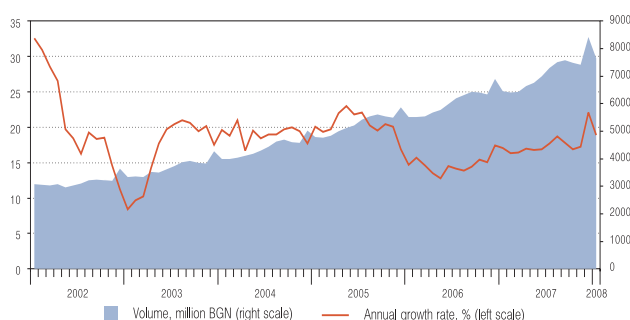
(million BGN)



Source: BNB.

## Currency in Circulation

(volume and annual growth rate)



Source: BNB.

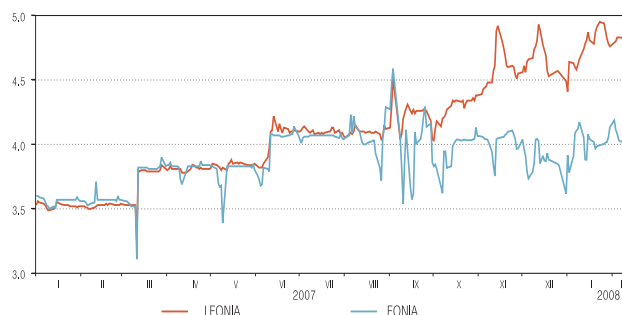
Robust demand for lev resources by individual banks was the driver of interbank money market interest rate rises observed during the last few months. The LEONIA index went up from 4.24 per cent in September 2007 to 4.75 per cent in January 2008, in tandem with the widening of the spread *vis-à-vis* the interest rate on overnight de-

posits on the euro area interbank money market. During the same period the annual interest rate on overnight transactions concluded on the interbank money market rose from 4.23 per cent to 4.75 per cent. Since the close of 2007 a trend towards growing transaction volumes has been observed. Apart from the money market, banks actively used currency trade with the BNB as a liquidity management instrument.

In the last quarter of 2007 the sizable redistribution of liquidity from the budget to other economic sectors led to demand for currency in circulation. The positive net financial flows from the non-government non-bank sector, typical of the year-end, were notably stronger compared with previous years. In December 2007 they reflected the dramatic rise of capital expenditure, as well as of operational expenditure and social payments. Concurrently, the external sector was a consolidated budget liquidity source mainly due to the EU grants at the year-end. Over the fourth quarter of 2007 net financial flows from the national budget to the EU budget comprised BGN 487.3 million, and BGN 577 million over the year. The outflow of liquidity from the budget to the non-

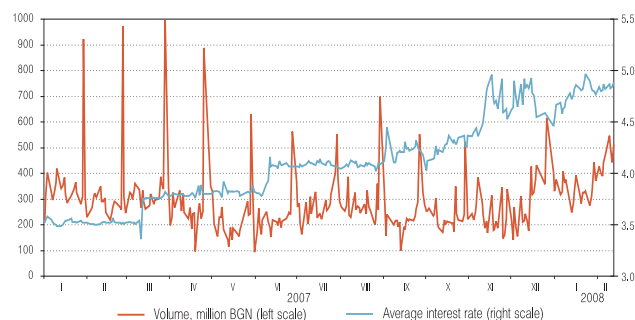
## LEONIA/EONIA

(%)



Source: BNB.

## Trade Volume and Interbank Money Market Interest Rates



Source: BNB.

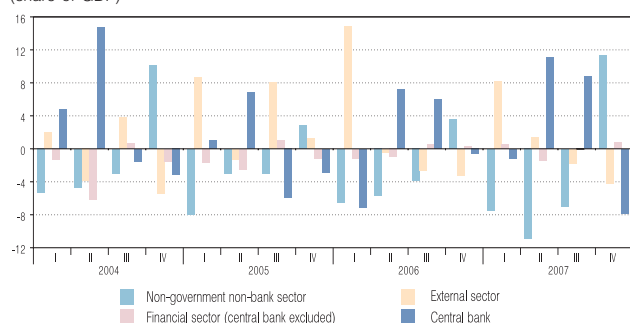


government non-bank sector exceeded significantly that of financial resources from the external sector; as a result, the government deposit dropped by BGN 1.2 billion on the end of September, reaching BGN 6446.8 million.

In the first two quarters of 2008 we expect considerable liquidity provision to the budget by the non-government sector (bank and non-bank) in line with the forecasts about good tax performance. There were larger outflows of resources

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

(share of GDP)



Sources: MF, BNB.

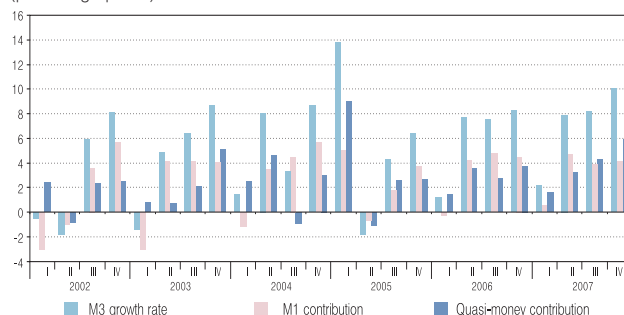
from the government to the external sector in mid-January, reflecting the annual interest payments on global bonds (BGN 228 million), and in March, when the advance payment on the debt to the World Bank amounting to BGN 500 million was made. During the first two quarters of 2008 no sizable privatisation revenue is foreseen<sup>9</sup>, and net financial flows from the EU budget will be positive. Given all these factors, we could expect fairly high growth in the government deposit with the BNB by the end of June 2008.

The M3 monetary aggregate picked up by 10 per cent within the fourth quarter of 2007, and its annual growth rate accelerated from 29.1 per cent in September to 31.2 per cent by end-December 2007. An annual increase of 30.9 per cent was reported in January 2008. The high broad money growth rate is related to the strong economic activity, notable foreign capital flows and banks' credit activity. Driven by these factors, it will remain high in the following two quarters as well; its value is anticipated to stay put at about 30 per cent.

<sup>9</sup> According to information of the Privatisation Agency, three significant transactions will be executed in 2008: the sales of the Navigation Maritime Bulgare, the Bobov Dol Thermoelectric Power Plant and the Vazov Mechanical Engineering Plants; however, receipts from these sales are expected in the second half of 2008.

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

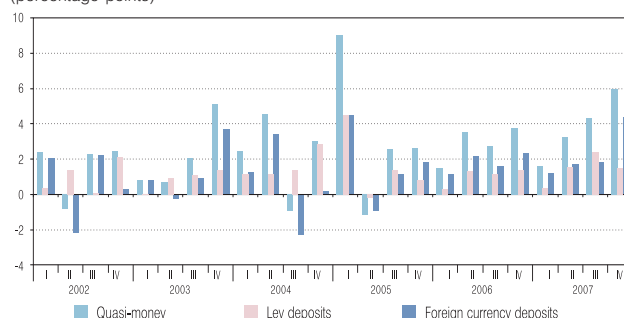
(percentage points)



Source: BNB.

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

(percentage points)



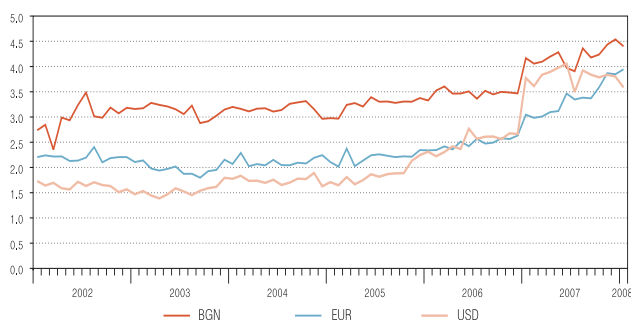
Source: BNB.

M1 rose by 24.6 per cent on an annual basis by the close of January 2008, with overnight deposits growing by 28.6 per cent annually. Overnight deposits of non-financial corporations in levs and foreign currency increased by 20.9 per cent and 41.7 per cent respectively, while those of households by 29.7 per cent and 34.1 per cent.

By end-January quasi-money posted annual growth of 37.2 per cent in line with the trend towards higher growth rates of foreign currency deposits. Household lev deposits with agreed maturity of up to two years went up by 25.2 per cent on an annual basis against 21.4 per cent by end-September 2007, while those in foreign currency rose from 24.4 per cent in September 2007 to 33.5 per cent by the close of January 2008. Non-financial corporations' deposits in levs with agreed maturity of up to two years went up annually from 13.8 per cent in September 2007 to 56.6 per cent by the close of January 2008, while those in foreign currency rose from 27.3 per cent to 58.9 per cent.

## Interest Rates on Time Deposits

(%)



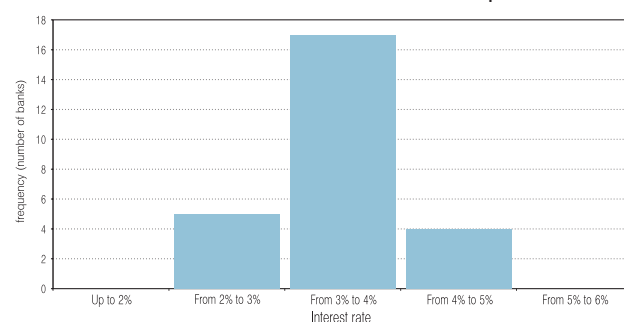
Source: BNB.

During the fourth quarter of 2007 average interest rates on lev time deposits rose by 26 basis points to 4.4 per cent on the prior quarter, while euro time deposits registered growth of 40 basis points to 3.8 per cent. In December the interest rate on lev time deposits reached 4.54 per cent: a peak since the currency board launch. In January a slight drop to 4.40 per cent in interest rates on lev deposits was reported, while euro deposits continued to rise, reaching 3.95 per cent. The rise of interest rates on deposits stemmed from banks' increased needs for funds to finance lending and from growing interest rates on the interbank money market in the euro area and in Bulgaria.

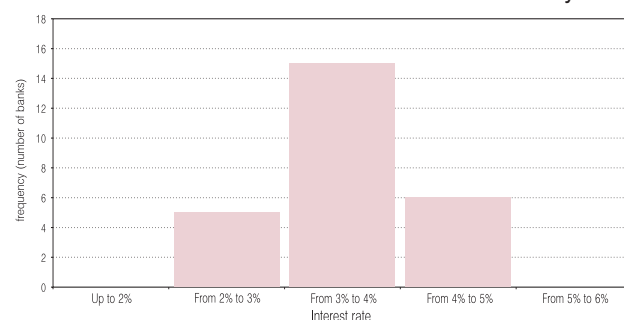
When comparing the distribution of interest rates on one-month household lev deposits among banks in January 2008 with that in September 2007, an increase in the number of banks offering interest rates within the 4–5 per cent interval is

## Interest Rate Distribution of Household One-month Lev Deposits

as of September 2007



as of January 2008



Source: BNB.

seen; this corresponds to the trend towards gradual growth in interest rates on deposits. The difference between the highest and the lowest interest rates in January came to 2.57 percentage points against 2.66 per cent in September. Interest rate dispersion among banks remained almost unchanged on the third quarter of 2007, although declining dramatically on the first six months of the same year.

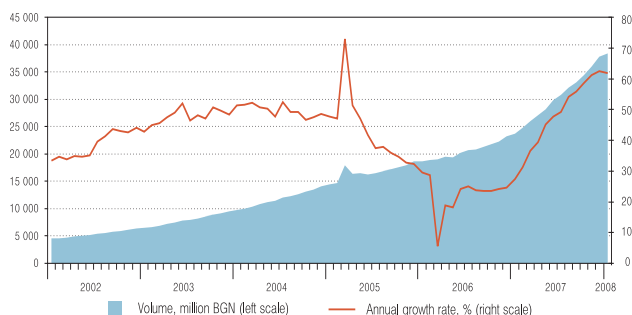
## Credit Aggregates

Lending will stay high in the coming months as well. The annual growth of claims on the non-government sector is expected to start slowing down gradually, impacted by the high base. No notable changes in interest rates on loans are anticipated.

In 2007 claims on the non-government sector went up by BGN 14,527.1 million (by BGN 4593.4 million over the same period of the prior year), while their annual growth rate accelerated from 24.6 per cent in 2006 to 62.5 per cent by the close of 2007. Buoyant lending reflected favourable macroeconomic environment and strong demand for loans by corporations and households; it

also resulted from the removed requirement for additional minimum reserves as of the year's start. Enhanced credit activity showed in a continuing trend towards deepening financial intermediation. The *claims on non-government sector to GDP* ratio reached 66.8 per cent by December 2007, posting an increase of 19.5 percentage points on the end of the previous year.

## Claims on Non-government Sector

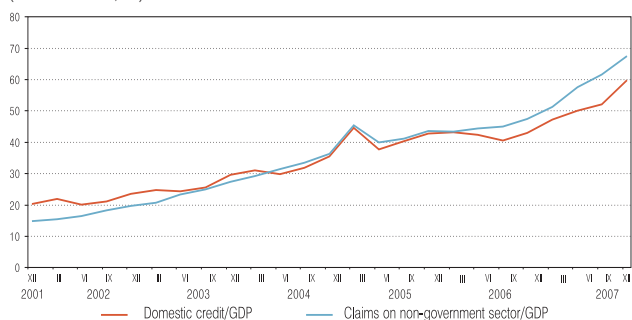


Source: BNB.

The strong demand for loans is anticipated to be a driver of the brisk lending during the next months as well. In January 2008 the high annual growth of claims on the non-government sector was sustained, albeit its slight slowdown to 61.8 per cent. The annual growth of claims on the non-government sector will start to gradually decrease, but its value is most likely to be retained above the 50 per cent level in the following two quarters as well.

## Domestic Credit

(share of GDP, %)



Source: BNB.

## Changes in Major Balance Sheet Items of Banks

(million BGN)

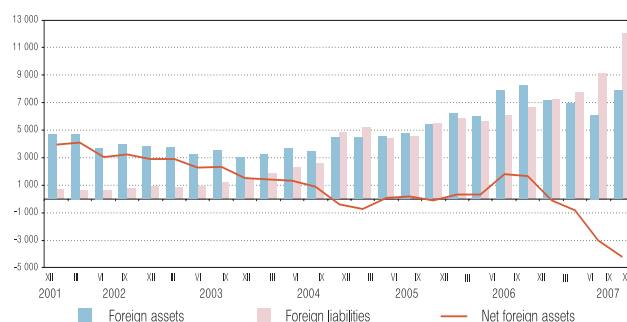
	2006	2007	2007				January 2008
			I	II	III	IV	
Claims on non-financial corporations	2273.7	9621.9	1995.2	2678.6	1938.1	3010.1	333.2
Deposits of non-financial corporations	3014.9	3762.0	-196.4	1123.9	1156.1	1678.3	-315.4
Claims on households	2116.7	4738.5	744.3	1141.8	1308.6	1543.9	299.9
Deposits of households	2855.9	4272.6	550.0	908.1	1079.8	1734.7	230.3
Foreign assets	2843.6	-392.7	-1131.0	-236.5	-789.8	1764.5	-1652.9
Foreign liabilities	1063.0	5477.9	627.5	510.4	1384.2	2955.8	-1509.7
Claims on general government	167.8	383.0	-48.3	172.4	226.5	32.4	-79.9
Deposits of general government	491.8	856.8	214.8	123.8	113.7	404.6	-213.6
Claims on central government	107.7	298.5	-51.1	154.7	201.7	-6.9	-76.3
Liabilities to central government	226.4	533.2	-15.6	11.9	88.3	448.6	-246.9

Source: BNB.

Parallel to the deposits of households and non-financial corporations, banks used funds attracted from non-residents to finance credit activity. Within the year deposits of households and non-financial corporations went up by BGN 8034.6 million, while banks' net foreign assets registered a drop of BGN 5870.5 million which resulted mainly from the significant rise in foreign liabilities (BGN 5477.9 million). In January 2008 banks' net foreign assets declined by BGN 143.2 million: foreign assets decreased to BGN 1652.9 million and borrowings from non-residents to BGN 1509.7 million.

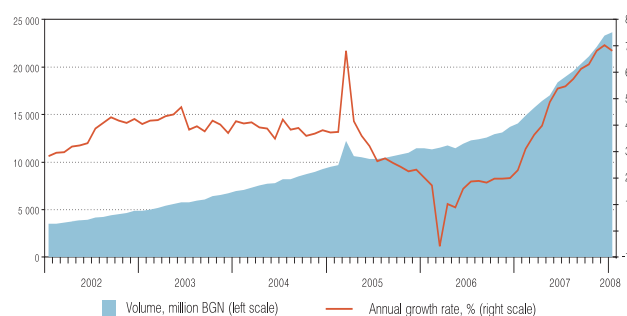
## Foreign Assets and Liabilities of Banks

(million BGN)



Source: BNB.

## Claims on Non-financial Corporations

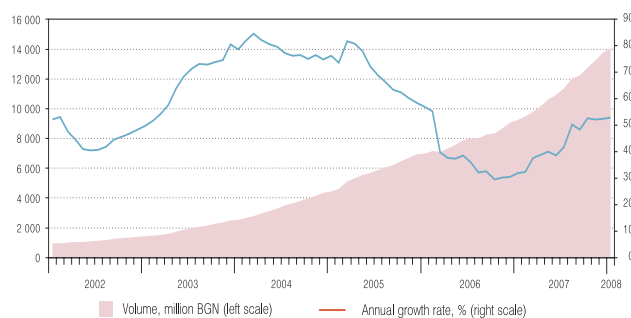


Source: BNB.

Non-financial corporations again had the most clearly pronounced credit activity, driven by strong production and investment. In 2007 claims on the non-financial corporations sector increased by BGN 9622.4 million (against BGN 2273.7 million an year earlier); during the fourth quarter a BGN 3008.8 million growth was reported (against BGN 1105.4 million in the respective period of the prior year). In 2007 the annual growth rate of the claims on non-financial corporations accelerated from 19.9 per cent to 70.2 per cent, while in the first month of the present year it slightly slowed down to 68.2 per cent.

The favourable trends in employment and incomes brought about a fast rise in household loans. In 2007 they picked up by BGN 4738.5 million against BGN 2116.7 million an year earlier. In the fourth quarter their increase came to BGN 1543.9 million against BGN 793.6 million over the same period of the previous year. The annual growth of loans to households went up from 30.6 per cent in 2006 to 52.4 per cent by end-December 2007. January saw an annual increase of 52.8 per cent. Housing loans remained the most dynamic segment of claims on households, although their annual growth diminished from 73.8 per cent in September to 64 per cent by the year-end.

#### Claims on Households



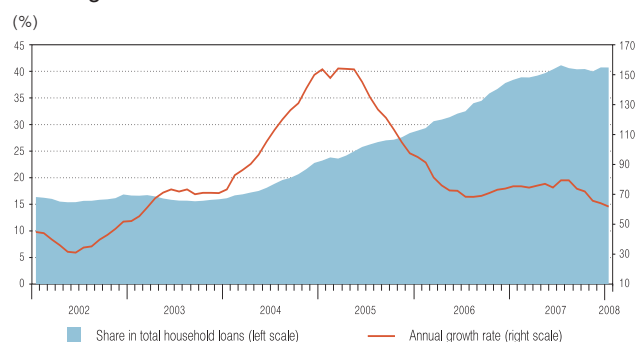
Source: BNB.

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

	Annual growth rate, %						Structure as of 31 Dec. 2007
	2006	2007	2007				
			I	II	III	IV	
Claims on non-government sector, incl.:	24.6	62.5	36.6	47.8	55.9	62.5	
on non-financial corporations	19.9	70.2	36.4	53.9	61.2	70.2	61.8
on households and NPISHs	30.6	52.4	37.6	38.6	48.3	52.4	36.5
on financial corporations	68.6	33.3	26.0	46.0	43.9	33.3	1.8

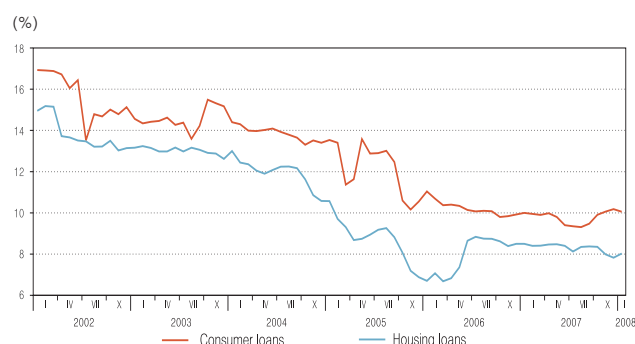
Source: BNB.

#### Housing Loans



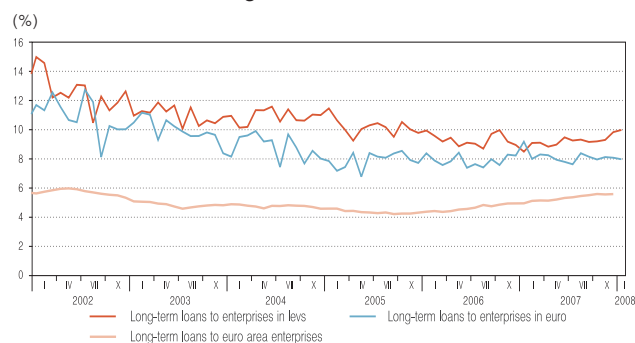
Source: BNB.

#### Interest Rates on Household Loans



Source: BNB.

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



Source: BNB.



In 2007 and the first month of 2008 interest rates on loans extended to corporations underwent no notable changes. During the first half of the previous year interest rates on consumer and housing loans also remained almost unchanged, thereafter being subject to divergent trends. In the third quarter interest rates on consumer loans declined and then came back to their levels at the year-start, while housing loans interest rates posted a drop in the fourth quarter. The weak response of interest rates on loans to the raised cost of financing for banks could be explained by

the strong competition on the bank market. Banks prefer to increase interest rates on loans that have already been extended, since the charges on advance repayments make loans refinancing unfavourable. (Since the presented interest rate statistics is on new business, data do not show the raised interest rates on loans that have already been extended.) Given the expected interruption in the upward trend of interest rates in the euro area, in the following months lending interest rates are unlikely to be changed dramatically.

### 3. Economic Activity

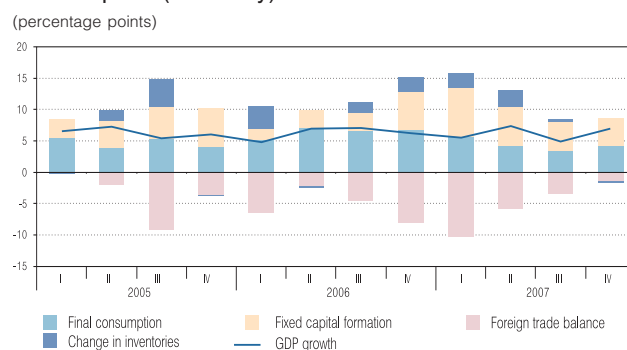
The favourable economic situation in Bulgaria was sustained. During the first two quarters of 2008 GDP growth is anticipated to exceed 6 per cent. The contribution of investments in fixed assets to GDP growth will be higher than that of consumption – a trend that emerged in 2007. Net exports contribution to growth is also expected to improve.

Real GDP growth in 2007 stayed relatively high (6.2 per cent), albeit the drop of value added in agriculture (by 29.8 per cent). During the first half of the year it was comparatively high (6.5 per cent) due to the favourable trends in industry and services. In the third quarter, as a result of the extremely adverse weather conditions, the sector of agriculture reported a 44.1 per cent decline in real terms, affecting negatively GDP growth for the third quarter by 6.2 percentage points. The sizable growth in industry and services could not offset the negative impact of agricultural output and between July and September real GDP picked up only by 4.9 per cent on the corresponding months of the previous year. Notwithstanding, real GDP growth for the second six months of 2007 amounted to 5.9 per cent on the respective period of the previous year owing to the high growth of 6.9 per cent attained during the fourth quarter. The contribution of agriculture was again negative, but it improved in comparison with the third quarter, while growth rates of industry and services remained high.

With respect to demand, gross fixed capital formation contributed most significantly (by 6.8 percentage points) to economic growth in 2007. The change in inventories posted negative growth in the third quarter: a direct outcome of the drop in the agricultural sector. However, its contribution to growth was positive over the year. Household consumption started to slow down in the second quarter, as reported in the surveys of household budgets and consumer sentiment (see *Economic Review*, 2007, issue 4). Real government consumption growth was close to zero during the first three quarters. As a result, there was a slowdown in final consumption growth. However, by end-2007 the sizable budget revenue overperformance

allowed the government to make extra expenditure, with total annual expenditure exceeding budgeted funds by BGN 1 billion (see the *Government Finance and Consumption* section of this issue). This supported real GDP growth in the fourth quarter when government consumption contribution comprised 2.2 percentage points of it.

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



Source: NSI.

Economic growth in 2008 is expected to remain steadily high at a level of above 6 per cent, attributable mainly to investments in fixed assets and larger net exports. The savings rate in the private sector is also expected to pick up. The major factors behind this will be the increase in disposable income stemming from tax legislation amendments in force as of early 2008 and rising employment. A risk of a lower economic growth may stem from slower-than-expected EU growth and a smaller increase in Bulgarian exports or from larger imports against the unfavourable dynamics of fuels and other major raw materials' international prices.

## Final Consumption Dynamics (Quarterly)

(on corresponding period of previous year, %)

	2006				2007			
	I	II	III	IV	I	II	III	IV
Consumption incl.	5.5	8	8.3	7.3	6	5	4.2	4.5
Household consumption	6.7	10.2	10.9	10.2	7.8	6.1	5.1	2.7
Final government consumption expenditure	8.2	4.9	0.3	-7.9	-1.2	-1	2.3	8.5
Collective consumption	-5.7	-4.6	-5.1	3.4	-2.7	0.7	-2.5	13.3
Gross fixed capital formation	8.5	11.6	12.8	22.1	35.9	24.7	19.7	14
Exports of goods and non-factor services	12.7	9.5	8.4	5	3.7	5.3	5.4	6
Imports of goods and non-factor services	18.6	10.3	14	14	14.7	11.1	9.3	5.7
<b>Real GDP growth</b>	<b>4.8</b>	<b>6.9</b>	<b>7.1</b>	<b>6.2</b>	<b>5.5</b>	<b>7.3</b>	<b>4.9</b>	<b>6.9</b>

Sources: NSI, BNB.

## Household Behaviour

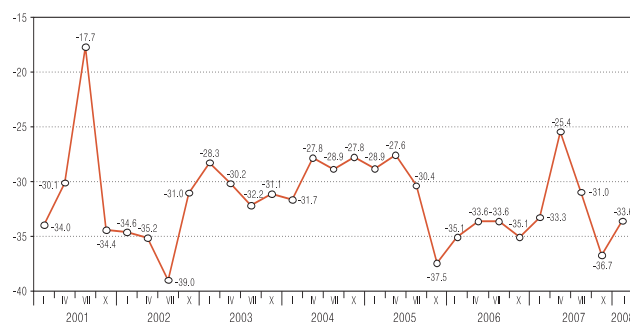
In 2007 data on consumer confidence surveys showed a change in consumer sentiment: from growing optimism in the first half of the year to notable worsening in the second half. From July pessimism in consumer assessments and expectations about the economic developments in Bulgaria at present, as well as in the following twelve months, started to rise. Final household consumption expenditure reported in national accounts during the second six months of 2007 confirmed consumer and household budget surveys data, indicating a weaker consumer demand growth during the period. Over the fourth quarter the household consumption growth rate slowed down to 2.7 per cent on the respective quarter of 2006, as a result mainly of weaker demand for foods.

According to household budget data, in the fourth quarter real household income maintained moderate growth rates (7.7 per cent) due to the higher increase in income from sources other than salary and from end-of-year budget transfers. Real household expenditure growth slowed down to 6.5 per cent on an annual basis. The third-quarter trend towards a weaker rise in food expenditure was sustained until the close of the year. Retail trade revenue and sales of *food, drinks and tobacco* continued picking up at slower rates (by 0.6 per cent) during the last three months of 2007. Preliminary data for January displayed a gradual recovery of demand for commodities in this group.

At the start of 2008 consumer sentiment became less pessimistic. The opinion balance went up by 3.2 points; expectations of consumers about the overall economic situation, unemployment and their financial state during the following

twelve months are better, while inflation expectations appear more moderate. Intentions of buying durables in the coming twelve months also show optimism.

### Household Confidence Indicator



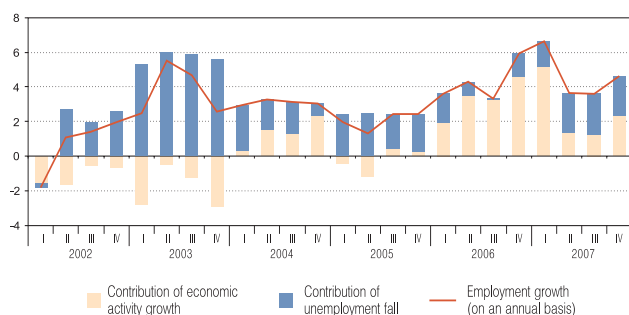
Source: NSI Consumer Survey.

Labour market developments affected positively consumer sentiment. The number of employees continued to grow in the fourth quarter of 2007<sup>10</sup> (by 1.6 per cent), while vacancy rate in the economy preserved its levels of previous quarters. An important source of rising employment remained the inclusion of economically inactive population in the labour force composition. Economic activity rate (the ratio between labour force and population aged fifteen and over) started to accelerate since 2006; it reached 53 per cent by end-2007, albeit still low compared with other EU countries. Unemployment declined to 6.1 per cent during the last quarter of 2007 (8.4 per cent in the fourth quarter of 2006) according to labour

<sup>10</sup> A Quarterly Survey on the Number of Employees, Time Worked, Wages and Salaries and Other Labour Costs.

### Sources of Employment Growth (Quarterly)

(%, percentage points on corresponding quarter of previous year)



Sources: NSI, BNB.

force survey data. Opening new job positions and raising salaries make labour supply more attractive and boost motivation for active labour market participation; however, employment growth rate is expected to continue slowing down.

### Employment and Income Dynamics (Quarterly)

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

	2006				2007			
	I	II	III	IV	I	II	III	IV
Employed	2.4	3.6	2.2	2.9	4.9	3.0	2.1	1.6
Real salary	0.5	-0.4	2.1	5.5	11.8	14.2	11.6	10.8
Wage fund	2.5	2.8	4.1	8.2	17.0	17.2	13.7	12.1
Unemployment at the end of the period, % of the labour force	10.8	9.2	8.4	9.1	8.9	7.4	6.8	6.9

Sources: NSI – System of National Accounts, Employment Agency.

### Consumer Demand Dynamics (Quarterly)

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

	2006				2007			
	I	II	III	IV	I	II	III	IV
Consumer spending <i>per</i> household member	2.9	5.5	7.3	8.1	10.6	12.0	8.9	6.5
Retail sales	11.0	13.3	14.2	14.1	13.8	13.1	8.4	9.0
Income from retail trade incl.	9.9	12.5	14.1	15.3	15.3	13.4	10.9	10.6
Food, drinks, tobacco	6.7	5.7	7.4	8.7	7.6	8.1	2.3	0.6
Pharmaceutical and medical goods, cosmetics and toiletries	11.9	15.4	12.1	10.3	7.8	6.0	10.2	9.0
Textile, clothing, footwear and leather	18.1	23.8	29.9	27.6	18.3	11.4	20.8	22.1
Household goods and home appliances	21.5	26.0	27.5	26.7	27.7	26.2	22.1	19.7

Source: NSI: household budgets and domestic trade survey.

## Government Finance and Consumption

In 2007 consolidated budget balance reached 3.8 per cent of GDP. Following the year-end approval for making extra expenditure, overall expenditures during the year exceeded the budgeted spend by BGN 1 billion. Despite the four-quarter acceleration of government consumption growth, its contribution to GDP growth during the year came to 0.5 percentage points.

The surplus on the 2007 consolidated fiscal programme came to BGN 2121.5 million (3.8 per cent of GDP); during the last quarter overall expenditure (excluding EU budget contribution) exceeded that of the same period of the prior year by 32.2 per cent, while its total amount for 2007 was higher by BGN 1 billion compared with the 2007

budgeted expenditure.<sup>11</sup> Making extra expenditure approved by the parliament became possible due to the dramatic budget revenue overperformance during the year. The bulk of this expenditure went

<sup>11</sup> In the Report under the 2007 State Budget Law, total expenditure (including EU budget contribution) comes to BGN 20,941 million.

on the completion and maintenance of infrastructure projects, with some BGN 174.5 million spent on replenishment of government reserves with fuels. Correspondingly, during the last quarter government capital expenditure picked up by 59.2 per cent on the same period of the previous year, while the annual current expenditure growth rate was more moderate (23.3 per cent). Social security payments contributed most significantly to current government expenditure (by 9.4 percentage points) as a result of the 10 per cent indexation of pensions in October 2007 and the additional funds for Christmas bonus to pensions (some BGN 230 million). Thus, government actions during the last quarter of 2007 affected overall investment and disposable income of households and boosted notably government consumption growth in the fourth quarter, although its contribution to GDP growth over the year came to 0.5 percentage points. We expect the contribution of government consumption to be close to zero during the first two quarters of 2008.

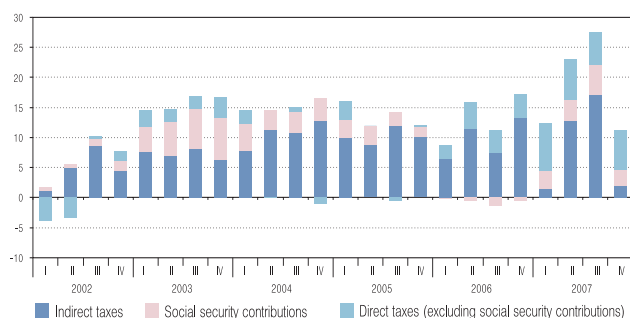
## Behaviour of Firms and Competitiveness

Industry and services grew at high rates. The recovery of export growth continued.

The NSI business survey data suggest that in early 2008 economic situation in Bulgaria remained relatively favourable. *Industry* and *services* continued to grow at high rates and expectations about industry, construction and services were optimistic.

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

(percentage points)

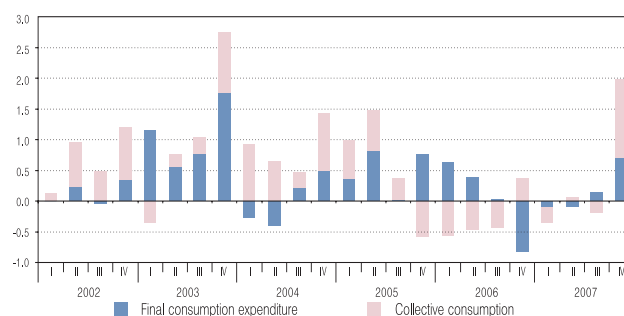


Sources: MF, BNB.

The stable economic environment, high profit rates and companies' efforts to improve the qual-

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

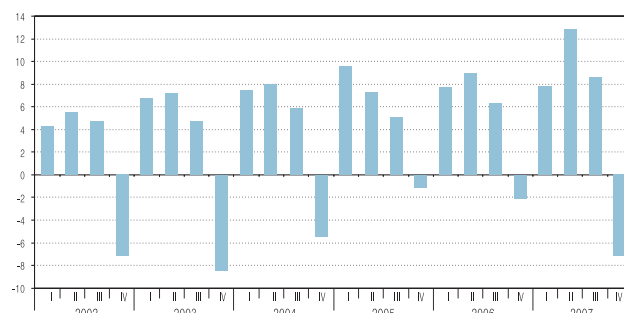
(%)



Sources: NSI, BNB.

### Primary Balance (Quarterly)

(share of GDP for the quarter, %)

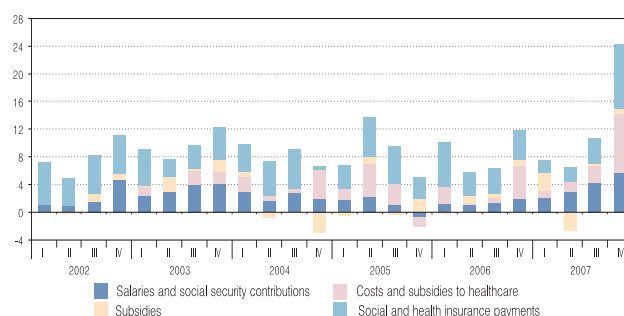


Sources: MF, BNB.

ity of output consistent with EU standards are important factors determining the upward trend in investment activity in recent years. In 2007 as a whole expenditure on acquisition of fixed assets rose by 42 per cent on 2006 and their composition remained unchanged in 2006 and 2007, with manufacturing accounting for the largest share followed by trade and transportation.

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

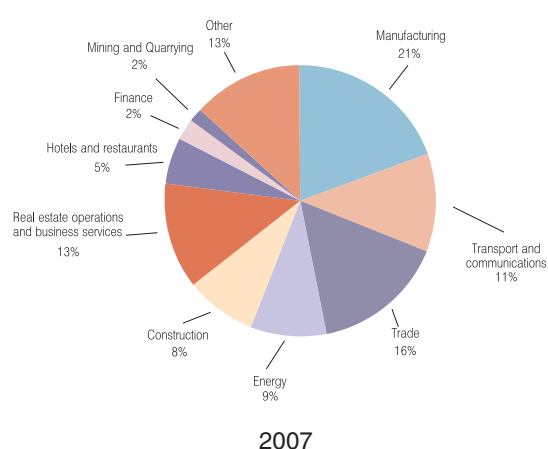
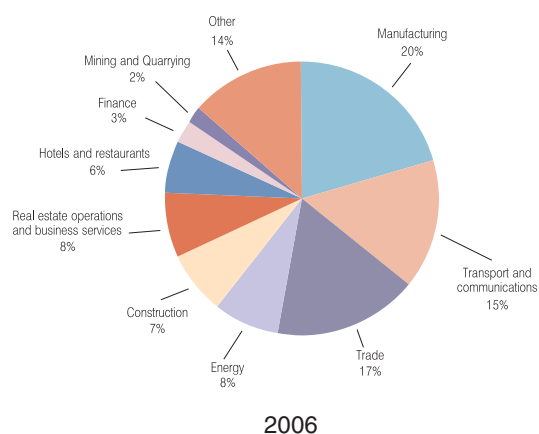
(percentage points)



Sources: MF, BNB.



## Structure of Expenditure on Acquiring Fixed Assets by Economic Activity



Source: NSI.

Services remained the main driver of value added growth in the economy. In 2007 services grew by 7.5 per cent on an annual basis, contributing by 4.5 percentage points to the total increase in gross value added. *Financial intermediation* sector indicated the highest increase (43.5 per cent) in the fourth quarter and the total annual growth accounted for 34.3 per cent. Foreign direct investments in financial intermediation went up by more than EUR 1 billion in 2007 which allowed to maintain high lending activity and to deepen the financial intermediation in Bulgaria.

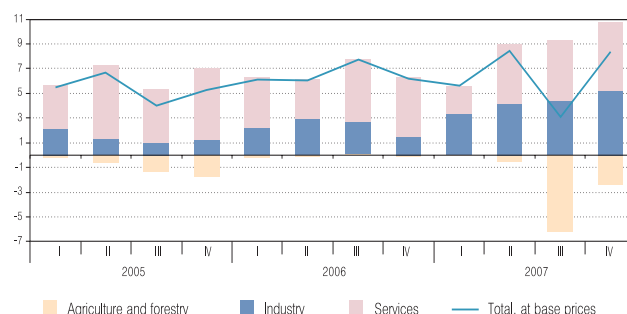
In 2007 the share of *real estate operations and business services group* in total expenditure on acquisition of fixed assets went up, consistent with dramatically increased foreign direct investments in this sector, a result of the growing demand for real estates in Bulgaria and more intensive development of business services in recent years.

Growth in gross value added in industry over 2007 reached 14 per cent, including manufactur-

ing which exhibited an increase by 15.4 per cent and construction by 16.9 per cent. The contribution of manufacturing to total economic gross value added was 2.6 percentage points and that of construction 1.1 percentage points.

## Value Added Growth and Contribution by Sector

(%, percentage points on corresponding quarter of previous year)

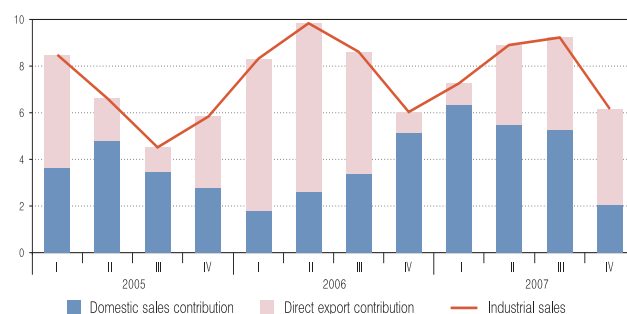


Source: NSI.

In 2007 industrial sales growth accounted for 7.9 per cent, driven by an increase by 9.1 per cent in domestic market sales and 6.6 per cent in exports. Industries producing durable consumer goods (an increase by 23.1 per cent in 2007) and capital goods (by 12.7 per cent) developed dynamically, with sales increasing at high rates both in domestic and external markets.

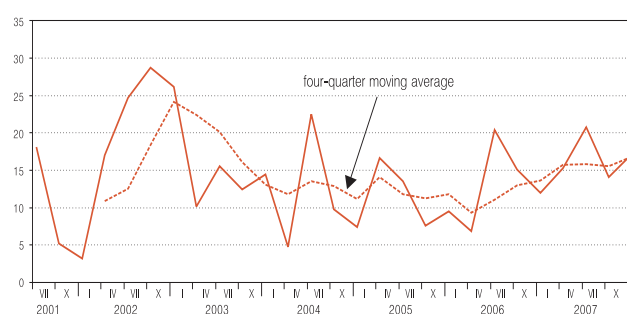
## Industrial Sales Growth

(% on corresponding quarter of previous year)



Sources: NSI, BNB.

## Export Expectations

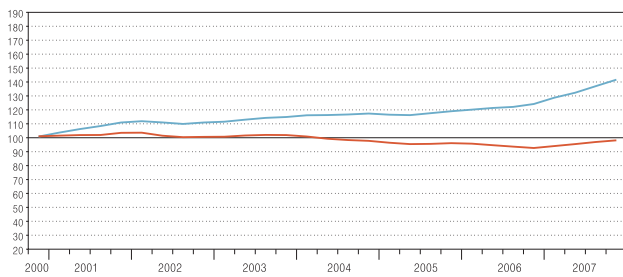


Sources: NSI, BNB.

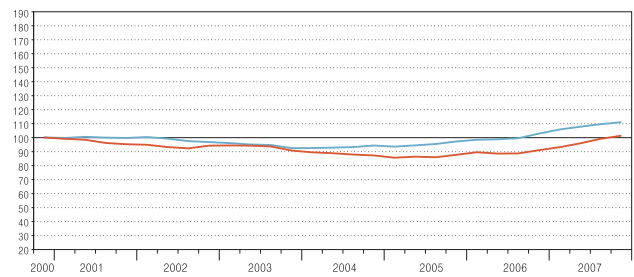
## Unit Labour Cost (Quarterly)

(2000 = 100)

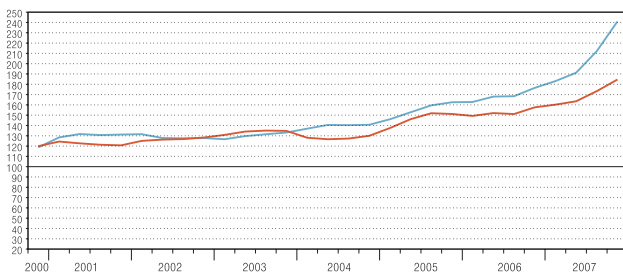
### Total for the Economy



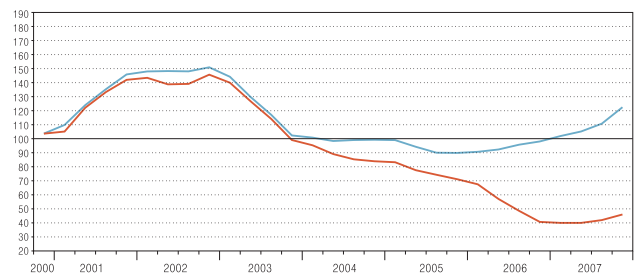
### Manufacturing



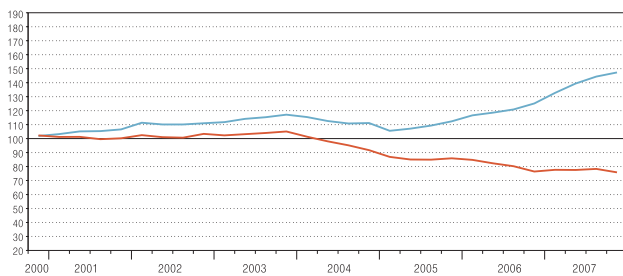
### Agricultural Sector



### Mining and Quarrying



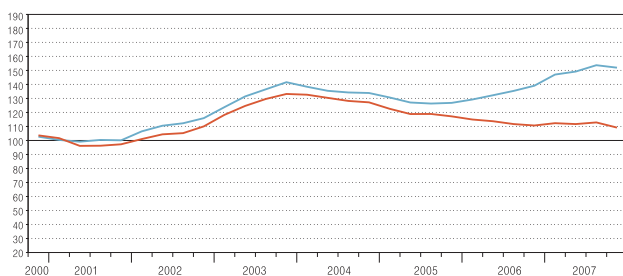
### Construction



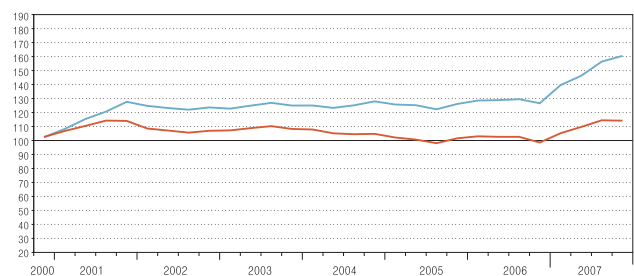
### Electricity, Gas and Water Supply



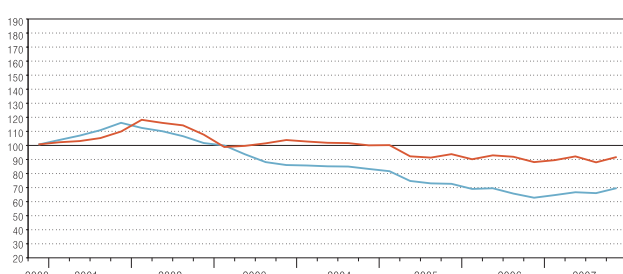
### Trade



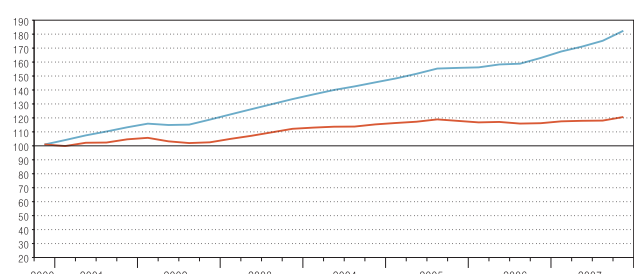
### Transport and Communications



### Financial Intermediation



### Other Sectors



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

**Note:** 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.

Production of food and drinks increased by 10.3 per cent in 2007 and contributed to the total growth in industrial sales by 1.6 percentage points. Domestic market sales went up by 8.4 per cent in 2007 and export sales by 16.6 per cent. The decline in the agricultural sector, shifting part of production facilities of margarine and sunflower oil outside the country and high prices had an adverse effect on the output of vegetable and animal oils and fats which went down by 10.2 per cent in 2007. However, given its low share in total industrial sales the negative contribution to growth was insignificant (0.12 percentage points).

Industrial export sales growth accelerated over the year, posting an increase by 9 per cent in the fourth quarter on the corresponding period of the previous year and retaining their contribution to industrial sales growth (4.1 percentage points). In 2007 export sales rose by 6.6 per cent in real terms. The *production of electrical, optical and other equipment* increasing by 27.9 per cent in 2007 contributed most significantly to the growth of industrial export sales (by 2.2 percentage points) along with *production of machines and equipment (electrical and optical equipment excluded)* that increased by 15.1 per cent. The

downward trend in the contribution of textile and clothing production started in early year was sustained in the fourth quarter (a contribution of 0.05 percentage points). This dynamics of sales confirms the restructuring of exports towards high-tech goods with larger value added. Consequently, this will probably contribute to the higher rates of real export growth in the future.

According to the business situation survey, in March 2008 firms' capacity utilization accounted for 75 per cent. As a result of extended production capacities and improved quality of output due to high investment activity in industry, producer competitive positions improved further.

The nominal unit labour costs increased in all economic sectors with the exception of *financial intermediation* and *electricity, gas and water supply*. The faster wage growth compared with productivity was stronger pronounced in *services* and *construction*. Labour productivity in manufacturing grew significantly since early 2007 which allowed for cost competitiveness to be sustained. Concurrently, prospects to increase labour productivity in industry in the future remained good given the strong investment in additional production capacities.

## Exports and Imports of Goods

**Nominal export growth is expected to continue accelerating in the first half of 2008 and import dynamics to match that of end-2007.**

Trends in export developments in terms of value are expected to be sustained along with the existing risks in the first half of 2008. On the one hand, sustainable growth in labour productivity in industry, the strong investment activity and the increasing share of Bulgarian exports in total EU member states exports indicate an improvement in domestic output competitive positions in international markets. On the other hand, international financial market turmoil may further intensify which will lead to a decline in external demand and consequently this will adversely affect Bulgaria's exports. As global financial turmoil will hardly have a significant impact on consumer demand of Bulgaria's main trading partners, our assessment suggests accelerated exports in the first half of 2008. Imports of goods are expected to retain their steady dynamics, consistent with strong investment activity, stable domestic demand and

dependence on some export-oriented industries on imported raw materials.

Regarding international prices of commodities and raw materials over the forecast horizon, comparatively high food and crude oil prices at the beginning of the fourth quarter of 2007 are expected to be sustained, while metal prices are anticipated to moderately increase. Taking into account the structure of foreign trade flows and assumptions for international commodity and raw material prices, trade conditions may deteriorate which will contribute to the increase in Bulgaria's foreign trade deficit.

In the first half of 2008 growth in real exports is expected to accelerate and the sustainable growth in imports and non-factor services to be sustained. In the first half of 2008 the negative contribution of foreign trade balance to total GDP

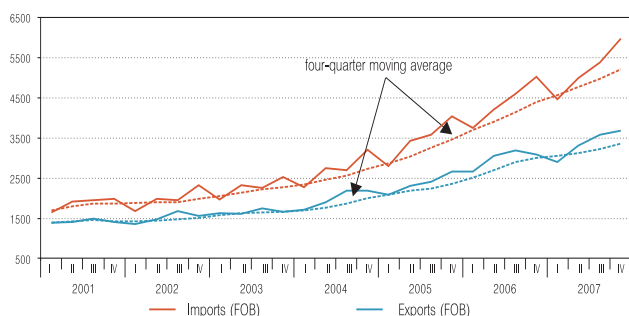
growth is expected to decrease compared with 2007 given the forecasts about export and import dynamics.

Capital goods (up by 12.1 percentage points) and raw materials (up by 9.5 percentage points) contributed most significantly to the trade deficit which grew by EUR 1794.7 million in 2007. Within the group of capital goods, imports of *machines, equipment and appliances* exhibited a significant increase reflecting the strong investment activity in Bulgaria. Exports of non-ferrous metals went down by 3.6 per cent on an annual basis and also contributed to the increased trade deficit.

Based on preliminary data, exports of goods denominated in euro totaled EUR 13,473.5 million in 2007, with the nominal increase on 2006 amounting to EUR 1461.5 million, or 12.2 per cent. Imports (FOB) reached EUR 20,830.5 million in 2007, up by EUR 3256.3 million in nominal terms or 18.5 per cent compared with 2006. Exports retained their upward trend in January, exhibiting a 28.1 per cent growth rate on an annual basis. The annual growth rate of imports in January was 17.7 per cent.

#### Dynamics of Exports and Imports (Quarterly)

(million EUR)



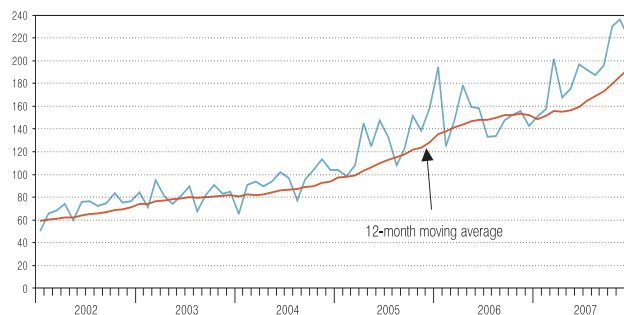
Source: BNB.

In 2007 all commodity groups had a favourable effect on import growth, reflecting mainly the increase in *machines, vehicles and appliances* (4.0 percentage points), chemicals, plastics and rubber (2.5 percentage points) and *base metals and their products* (1.3 percentage points). Export revenues in 2007 from the first category amounted to EUR 2311.4 million, up by 26.5 per cent on the corresponding period of 2006. Within this group, *nuclear reactors, machines and appliances*, and *electrical machines and appliances*, growing by 2.3 percentage points and 1.6 percentage points respectively, contributed most substantially to total export dynamics, while *sea and river transport* and *aeronautics and astronautics* preserved their

negative contribution to total export growth accounting for -0.5 percentage points and -0.4 percentage points respectively. In the first half of 2008 exports of *machines, vehicles and appliances* are expected to retain their upward trend and to outstrip total export growth.

#### Exports of Machines, Transportation Vehicles and Appliances

(million EUR)

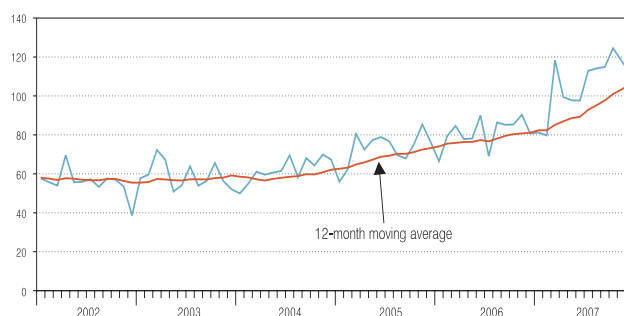


Source: BNB.

Earnings from exported chemicals, plastics and rubber reached EUR 1270.3 million in 2007, an increase by 30.5 per cent on the previous year. Positive developments were reported under all items in the group, with pharmaceuticals and inorganic products contributing most significantly to these developments: by 0.8 percentage points and 0.5 percentage points respectively. The upward dynamics of earnings from exported chemicals are expected to be sustained over the forecast horizon, consistent with the stable competitive positions of this industry in international markets.

#### Exports of Chemical Products, Plastics and Rubber

(million EUR)



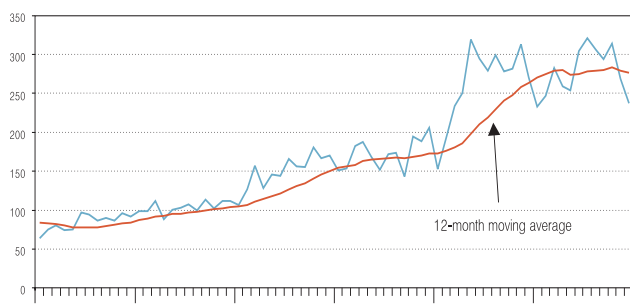
Source: BNB.

Earnings from exports of base metals and their products went up by EUR 156.2 million, reflecting both the positive effect of higher lead and aluminum prices in international markets and the stable production and export activity in ferrous metallurgy. *Cast iron, iron and steel*, and *lead and*

*lead products* contributed most significantly to total growth (by 1.1 percentage points and 0.5 percentage points respectively), while exports of *copper and its products* had a negative contribution (by -1.5 percentage points). The positive trends in exports of base metals started in early 2008 are expected to be sustained.

#### Exports of Base Metals and Base Metal Products

(million EUR)

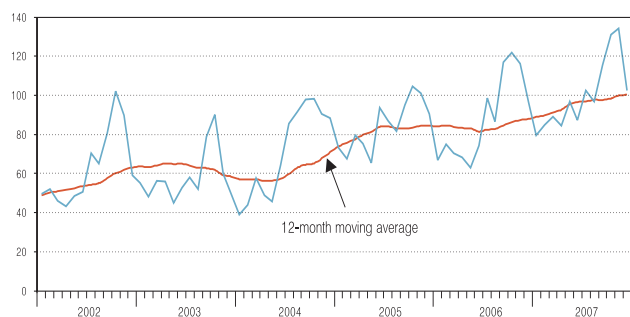


Source: BNB.

Earnings from exported *food, drinks and tobacco* reached EUR 1204.5 million in 2007. The positive developments reflect mainly the contribution of *meat* (by 0.3 percentage points), *milk and dairy products* (by 0.2 percentage points) and *soft drinks and alcohol drinks* (by 0.2 percentage points), while exports of cereals had a negative

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

(million EUR)



Source: BNB.

#### Contribution of Commodity Groups to Trade Growth, 2007

	Exports		Imports	
	growth,%	contribution, p.p.	growth,%	contribution, p.p.
Consumer goods	10.2	2.5	31.1	4.6
Raw materials	11.0	5.0	18.0	6.6
Investment goods	24.3	3.5	24.9	6.5
Energy resources	7.3	1.1	5.7	1.3
Other			-100.0	-0.6
<b>Growth, total</b>	<b>12.2</b>		<b>18.4</b>	

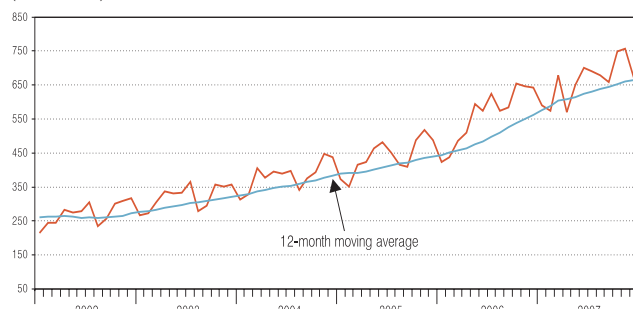
Source: BNB.

contribution (by -0.6 percentage points). Expectations are for retention of positive trends in the first half of 2008, provided that an increasing number of producers meet the EU standards and are provided with free access to the common European market.

Imports (CIF) reached EUR 21,877 million in 2007, increasing by EUR 3397.8 million (18.4 per cent) on 2006. Within the structure of imports by use, growth in *raw materials* (by 6.6 percentage points) and *capital goods* (by 6.5 percentage points) accounted for the largest contribution to overall growth.

#### Imports of Raw Materials

(million EUR)



Source: BNB.

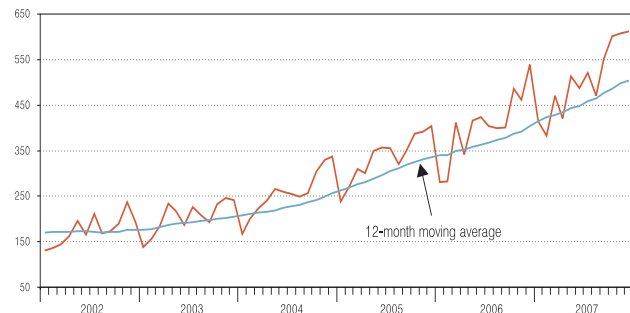
Imported raw materials in 2007 totalled EUR 7966.4 million, an increase by EUR 1217.6 million on 2006. Within this group, *cast iron, iron and steel, plastics and rubber* and *ores* contributed most substantially to total growth: by 1.5 percentage points, 0.9 percentage points and 0.8 percentage points respectively. Imports of capital goods retained its sustainable growth in 2007, with this group of products ranking second in imports by volume with a share of 27.7 per cent. The value of capital goods reached EUR 6051.2 million, with *machines, equipment and appliances* contributing most significantly to total growth: by 2.7 percentage points. The upward trend in imports of raw materials and capital goods is expected to retain, consistent with the stable production activity in metallurgy and the strong investment demand in Bulgaria.

Payments on imported energy resources totalled EUR 4272.7 million in 2007 exhibiting a positive change of EUR 231.2 million on 2006. This reflects mainly the increase in fuels (by 1.1 percentage points) and crude oil and natural gas (by 0.6 percentage points). The expectations for the first half of 2008 are for a rise in



## Imports of Investment Goods

(million EUR)



Source: BNB.

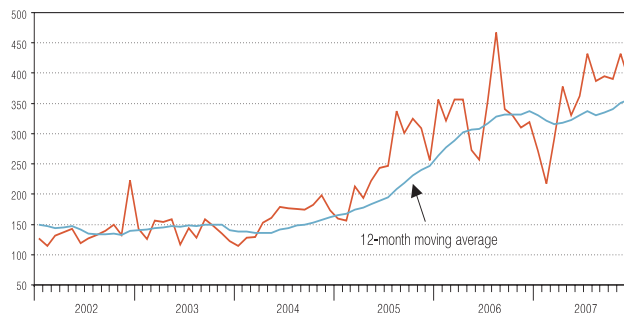
imported crude oil, a result of the sustainable production activity in the *oil refining industry*. Assumptions for international oil prices include an increasing price effect (on an annual basis) which will push up import payments.

In 2007 imports of consumer goods went up by EUR 850.1 million on 2006, with their value coming to EUR 3586.6 million. Within this group, *food, drinks and tobacco* and *furniture and home equipment* had the major contribution to import growth: by 1.7 percentage points and 1.4 percentage points respectively. Imports of automobiles again posted a fall with a contribution of -0.4 percentage points to total imports. Expectations for the first half of 2008 are for retention of steady growth rates in imports, consistent with the stable domestic demand.

According to preliminary data, Bulgaria's exports to other EU member states in 2007 grew by 12.1 per cent, while exports to countries outside the EU by 12.3 per cent. The imported goods from the EU rose by 20.2 per cent and those from third countries by 16.5 per cent. As a whole, ex-

## Imports of Energy Resources

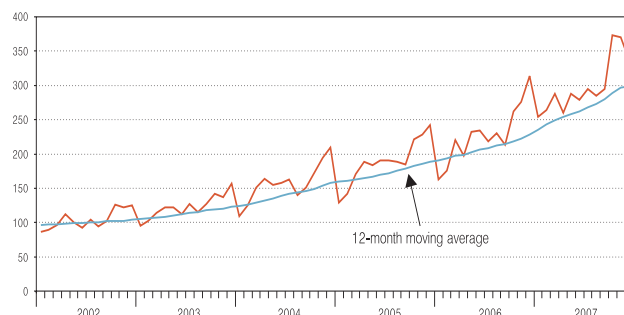
(million EUR)



Source: BNB.

## Imports of Consumer Goods

(million EUR)



Source: BNB.

ports to all export destinations posted an increase, with the first 15 EU member states contributing most substantially to total export dynamics. Consequently, the market share of Bulgarian goods in total imports of the EU came to 0.57 per cent (on an annual basis) by November 2007 against 0.54 per cent a year earlier. No significant changes in the geographical structure of Bulgaria's foreign trade are expected in the forecast horizon and the share of trade within the EU will continue to gradually grow.

## 4. Inflation

The significant rise in food and fuel prices in the second half of 2007 will impact annual inflation in early 2008 and it is expected to stay relatively high. In addition to the base effect, inflation will be also impacted by changes in the excise duty of tobacco products.

Measured by the Harmonized Index of Consumer Prices (HICP), inflation accelerated compared with the previous year and by the end of 2007 reached 11.6 per cent. Acceleration of overall inflationary dynamics was attributable to the largest extent to dramatically increased prices of food and catering (contributing to accumulated inflation by 5.1 percentage points and 2 percentage points respectively). The annual growth rate of the prices of these goods and services accelerated dramatically in the second half of the year exceeding significantly previous years' levels. Compared with 2006, a larger contribution was also reported in services (catering excluded), fuels and non-foods. Administratively set prices contributed by 1.1 percentage points to accumulated inflation. Prices of tobacco products, which were excluded from administratively controlled prices in early 2007, went down by 6.3 per cent and contributed by -0.3 percentage points to the inflation reported by year-end. The average annual inflation in 2007 accounted for 7.6 per cent.

Inflation accumulated between January and February 2008 reached 2.6 per cent. Food, services and administratively set prices contributed most significantly to this effect, respectively by 0.98, 0.83 and 0.40 percentage points. Annual inflation rose from 11.7 per cent in January to 12.2 per cent in February due mainly to the accelerated rate of change in prices of unprocessed food and energy products. In the first two months of 2008 the inflation rate excluding food, energy, administratively set prices and tobacco retained its December 2007 level at 10 per cent.

Over the past year food prices exhibited the highest annual average growth rate in the

HICP Inflation Accumulated since Year's Start and Contribution to It (Eurostat Classification)

	2006	2007	2007	2008
	January – December		January – February	
Inflation (%)	6.1	11.6	2.0	2.6
Contribution, percentage points				
Food	1.38	5.06	0.82	0.98
Processed food	1.27	4.11	0.37	0.31
Unprocessed food	0.11	0.94	0.45	0.67
Services	1.41	3.36	0.73	0.83
Catering services	0.61	1.96	0.30	0.29
Energy products	-0.12	1.23	-0.03	0.31
Transportation fuels	-0.18	1.17	-0.04	0.25
Non-energy industrial goods	0.50	1.12	0.10	0.08
Administratively set prices	0.66	1.06	0.38	0.40
Tobacco products	2.25	-0.26	-0.01	0.00

\*This structure corresponds to the Eurostat classification used to present in a comparable manner the major components of HICP for euro area and EU countries. These components include: *processed food* (incl. *alcohol and tobacco products*), *unprocessed food* (meat; fish and seafood; fruits; vegetables), *energy products* (electricity; solid, liquid and gaseous fuels for households; heating; fuels and lubricants for personal transportation vehicles), *non-energy industrial goods and services* (incl. *catering services*). With the purpose of distinguishing the effects of goods and services with administratively set prices and goods whose prices largely depend on changes in excise rates (tobacco products), their prices are excluded from the major HICP groups under Eurostat.

Sources: NSI, BNB.

Annual Average HICP-inflation and Contribution to It (Eurostat Classification)

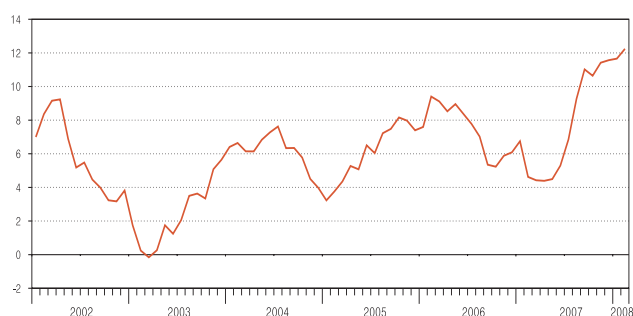
	2006	2007
Inflation (%)	7.4	7.6
Contribution, percentage points		
Food	1.50	3.13
Processed food	1.00	2.53
Unprocessed food	0.50	0.60
Services	1.84	2.31
Catering services	0.63	1.20
Non-energy industrial goods	0.30	0.74
Energy products	0.49	0.42
Transportation fuels	0.43	0.38
Administratively set prices	1.17	0.98
Tobacco products	2.13	-0.02

Sources: NSI, BNB.

last 10 years: 13.1 per cent. Processed food prices went up by 17.7 per cent on average against 2006, and unprocessed food prices by 6.3 per cent. The second half of the year saw a significant acceleration of annual inflation in food prices, a result of dramatically decreased agricultural output due to unfavourable weather conditions in Bulgaria and the hike in prices of agricultural produce (see the *Economic Activity* section). The dramatic rise in international prices of agricultural products (mostly cereal and oil-bearing crops) caused by the poor harvest in major producing countries and strong global demand for these crops is another factor directly impacting food prices. By the end of 2007 international market prices of sunflower oils went up by 104 per cent and wheat by 91 per cent on December 2006.

### Harmonized Index of Consumer Prices

(inflation on corresponding month of previous year, %)



Source: NSI.

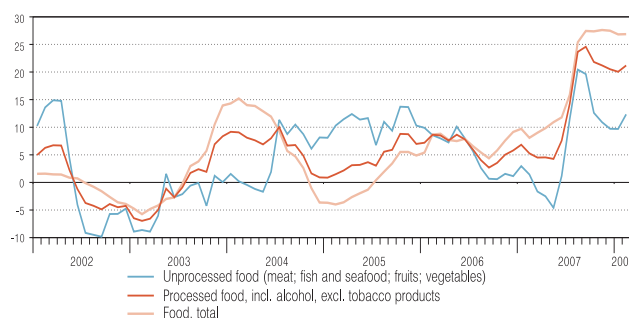
Given the significant share of expenditure on agricultural raw materials in gross output of food industry, the increase in prices of agricultural products had a strong effect on this industry's production costs.

The strong consumer demand (domestic and external) allowed for higher production costs to be transferred to end-use consumer prices of food. With Bulgaria's accession to the EU in 2007, external demand from neighbouring member states (Romania and Greece) increased, reflecting both the lower prices in Bulgaria and decreased output (particularly in Romania) due to unfavourable weather conditions. Increasing household income in Bulgaria also added to the shift of high agricultural prices to retail prices<sup>12</sup>.

<sup>12</sup> The increase in prices of transportation fuels by 18 per cent at end-2007 had an indirect effect on food prices and other consumer goods and services due to increased firms' transportation costs.

### Harmonized Price Indices of Food

(inflation on corresponding month of previous year, %)

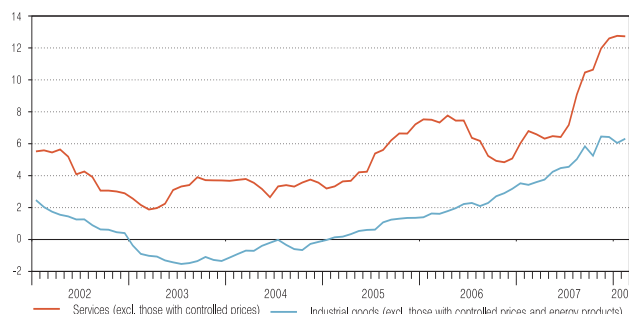


Sources: NSI, BNB.

The price of vegetable oil posted the strongest growth within the group of foods, increasing at end-2007 by 78 per cent on 2006. This reflects a decline by 58.7 per cent of sunflower harvest compared with 2006 and an increase in international vegetable oil prices. A specific internal factor contributing to the significant sunflower oil price rise was the unregulated agreement of prices between the producers in the sector established by the Commission for Protection of Competition.

### Harmonized Price Indices of Industrial Goods and Services

(inflation on corresponding month of previous year, %)



Sources: NSI, BNB.

In the beginning of the fourth quarter of 2007 the rate in total food price inflation started gradually moderating compared with the corresponding period of 2006. This trend was retained also in early 2008. In the fourth quarter of 2007 the slower growth rate in food prices was mostly impacted by unprocessed foods (particularly *vegetables* and *meat and meat products*), while in the first two months of 2008 processed foods contributed most substantially to this effect. Based on the data on retail trade revenue, the slower growth of consumer expenditure on food in the second half of 2007 suggests that food price

risers led to a decline in consumer demand and exerted downward pressure on prices. The annual growth rate in producer prices of food and drinks also slowed down in the last months of 2007 which is indicative of moderated pressure on production costs. Annual sunflower oil price inflation, reflecting to a large extent the ascending dynamics of international prices, continued to accelerate in early 2008. Between January and February sunflower oil price went up by 7.6 per cent against last December and in February this price was 91.3 per cent higher than that in February 2007.

In 2008 domestic consumer demand is expected to grow more moderately compared with 2007, and this along with weaker external demand is expected to exert a lower pressure on food inflation. Given the high base effect of the end of the previous year (as in other consumer goods and services) the annual rate of change of food prices will remain high in the first half of 2008. The risk to the outlook is associated with the continued upward trend in international prices of agricultural products and food and possible second-round effects of higher transportation services at the end of 2007 and early 2008.

The annual average rate of change in services prices (administratively set prices excluded) reached 8.4 per cent in 2007. As in food prices, the inflation rate in services dramatically accelerated in the second half of 2007 to reach 10.3 per cent on average against 6.4 per cent in the first half of 2007. Strong increases in catering services prices, which followed food price dynamics, had the strongest effect on inflation in services. The contribution of catering services to overall annual average inflation in services over the past year accounted for 4.5 percentage points. By the end of 2007 accumulated inflation in catering services over the year reached 20 per cent and in food 20.5 per cent. Similar inflationary dynamics in both groups was reported in 2006 and 2005<sup>13</sup>. By the end of 2007 the inflationary dynamics in the services group was most seriously impacted by transportation services due to petroleum price rises in the last months of the year.

In 2007 services prices (catering and transportation services excluded) also exhibited an accel-

erated annual growth rate. The annual average change in prices of these services reached 6.5 per cent (against 5.0 per cent in 2006 and 3.7 per cent in 2005). At the same time, the contribution of these services to annual average inflation in 2007 rose to 0.84 percentage points from 0.65 percentage points in 2006 and 0.49 percentage points in 2005. The inflation in services within this group reflected the consumer demand associated with the increasing disposable income of households, consistent with increased employment and higher labour income. The inflationary factors associated with supply in this group involved the increased transportation costs and higher wage expenditures.

In early 2008 the annual inflation rate in services almost matched that in December (12.7 per cent). Similar to the end of 2007, the major factors determining inflation in services remained transportation services and catering. Between January and February 2008 services prices (catering and transportation services excluded) posted a slower average annual growth compared with the last quarter of 2007. The slower price growth in the sectors with comparatively strong competition such as telephone services, insurance and accommodation services contributed most significantly to this effect. Concurrently, in other sectors with strong demand and weaker competition, such as supply of services for households, annual inflation remained high and in some services the accelerated rate of growth was sustained. In early 2008 the annual growth rate in rents significantly accelerated in Bulgaria (from 4.4 per cent on average in the last quarter of 2007 to 7.6 per cent), probably reflecting higher housing prices in 2007, the strong demand, limited supply and a possible indexation to the inflation rate in 2007.

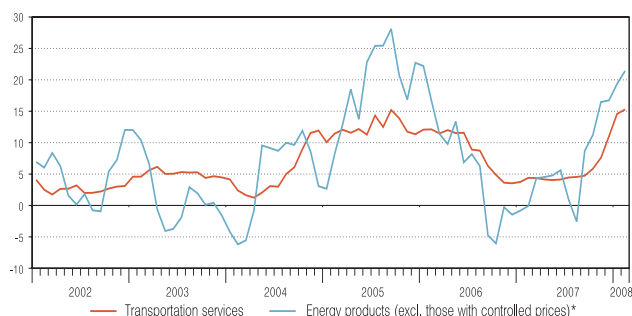
In the first half of 2008 transportation services may have a stronger effect on overall services inflation than on catering price dynamics. Given the high base, overall inflation in services will remain comparatively high. Accelerated inflation in the group of services may be prompted by food prices, energy prices, higher wages in the services sector and enhanced demand for particular services.

In 2007 the group of non-energy industrial goods displayed the lowest inflation rate in the consumer basket. The prices of these goods went up by 4.7 per cent on average on 2006 reflecting

<sup>13</sup> By the end of 2006 accumulated inflation in food and catering was 5.8 and 6.8 per cent respectively. In 2005 inflation in food reached 7 per cent and in catering 7.2 per cent.

## Harmonized Price Indices of Energy Products and Transportation Services

(inflation on corresponding month of previous year, %)



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

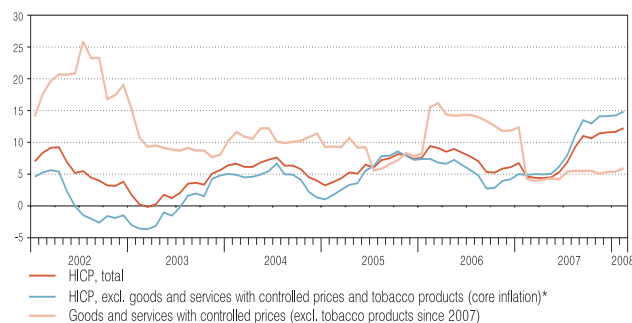
Sources: NSI, BNB.

primarily the contributions of *home furnishings, maintenance and repair* (by 1.3 percentage points), vehicles, including *spare parts* (by 1.1 percentage points), *clothing* (by 0.9 percentage points) and *footwear* (by 0.8 percentage points). Major factors determining the price dynamics of non-foods over the year were the strong domestic demand, consistent with higher real income and strong consumer confidence related to positive expectations for future income and favourable labour market development. The increased lending to households also favoured consumer demand. The potential for price increases in industrial goods is limited by the opportunity to satisfy domestic demand by imports and by relatively higher price level compared with the average one for this group of goods in EU, and thus no pressure for catching up the EU price level exists.

In the fourth quarter of 2007 and in early 2008 the growth rate in the prices of home furnishings, maintenance and repair started to slow down. Within the non-food group, inflation of clothing, footwear and spare parts remained comparatively high on an annual basis. The inflation of clothing and footwear prices reflected the sustained strong consumer demand for these goods, which is evidenced by the high growth rate of income from retail trade in textile, clothing, footwear and leather articles. In the first two months of 2008 the annual rate of inflation for the entire group of industrial goods also matched the level of end-2007 (6.2 per cent – 6.3 per cent). The moderate growth of household consumption in early 2008 is expected to help stabilize and gradually slow down the inflationary dynamics of industrial goods.

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

(inflation on corresponding month of previous year, %)



\* Since tobacco product prices depend on administratively set excise rates, they are excluded from the group of goods and services with non-controlled prices (core inflation) despite the liberalization of the tobacco market since early 2007.

Sources: NSI, BNB.

In 2007 prices of energy products (transportation fuels and fuels for household consumption) were characterized by significant volatility, reflecting the dynamics of international crude oil prices. The annual average inflation of these goods reached 5.7 per cent and accumulated inflation since the beginning of the year 16.7 per cent.

By the end of the third quarter of 2007 the annual rate of change in fuel prices accelerated significantly. This trend was sustained until the end of 2007 and early 2008, consistent with the base effect and significantly increased price of crude oil in international markets. In the first two months of 2008 transportation fuel prices increased by 3.2 per cent on average (4.7 per cent in petrol and 3.3 per cent in diesel oil). The increase in fuel prices reflected higher excise rates since the start of the year and the January price rise in crude oil (taking into account the change in the USD/EUR exchange rate) in international markets. Since the preliminary estimates pointed to an increase in fuels by 3–4 per cent resulting only from the new excise rates, it may be supposed that firms distributing fuels kept the rate of profit lower which allowed for end prices not to reflect the entire effect of the new excise rates and higher oil prices.

The volatility of oil prices prompts uncertainty in the forecast about fuel prices in the first half of 2008, and the annual inflation rate is likely to be sustained. Risk to the outlook is associated with the upward trend in crude oil prices in international markets.

In 2007 the annual average inflation of administratively set prices of goods and services reached



5.4 per cent. Major adjustments in these prices over the year included price rises in electricity, water supply and sewerage services, automobile vignette charges and the urban public transport. Since the start of this year administratively set prices have contributed by 0.4 percentage points to total accumulated inflation over the period (2.6 per cent). The major pro-inflationary groups in administrative prices in the first two months of the year include pharmaceuticals and hospital services (appreciating automatically by 22.2 per cent due to an increase in minimum wage) and urban transportation services (an average increase by 9.4 per cent for the country due to increasing prices of transportation fuels). The other administrative prices which were raised since early 2008 include medicals purchased by doctor's prescription under the positive list of the National Healthcare Fund (by 9.2 per cent) and fixed telephone conversations (by 2.6 per cent). These adjustments have not changed the trend toward stabilization of the general dynamics in adminis-

tratively set prices. As no adjustments in other administrative prices have been preliminary announced until mid-2008, the forecast is for retaining the trend of inflation stabilization. A new hike in prices of transportation fuels may affect public transport services.

By the end of the year, tobacco product prices liberalized in early 2007 went down by 6.3 per cent on average compared with 2006. Given the rise in excise of these products in 2008 prices are expected to increase by 15 per cent (which will also reflect on prices of imported tobacco included in consumer basket in 2008). The effect of the new excise rates is likely to be strongest in March or April as old deliveries of these products are still available in the stores, and therefore prices of most cigarettes remain unchanged in the first two months of the year. As a result of the base effect, the increase in the contribution of tobacco products (by approximately 0.7–0.8 percentage points) will be a factor for maintaining a comparatively high annual inflation rate.



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