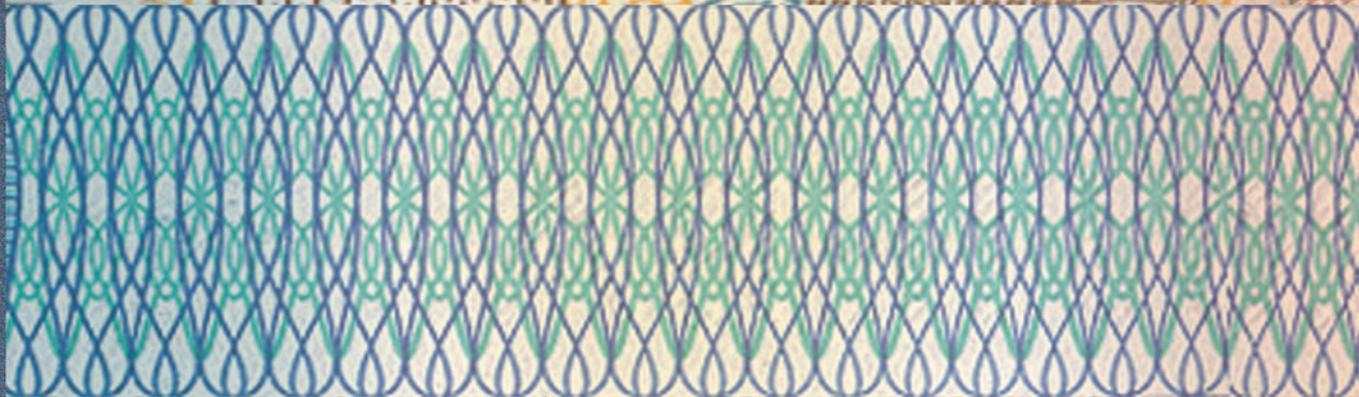


# Economic Review

2/2008



BULGARIAN  
NATIONAL  
BANK



# Economic Review

2/2008



BULGARIAN  
NATIONAL  
BANK

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 2/2008* was presented to the BNB Governing Council at its 3 July 2008 meeting. It employs statistical data published up to 27 June 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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Elements of the 1999 issue banknote with a nominal value of 20 levs are used in cover design.

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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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By the end of the first quarter of 2008 international financial markets relatively stabilized. Data published about real GDP growth in the USA and euro area for the first quarter of 2008 were better than market participants' estimates but outlooks for economic activity until year-end have not improved. The continuous commodity price rise prompted a global increase in inflation rates and inflationary expectations. According to market expectations the major task of the leading central banks until year-end will be to curb inflation rather than to enforce measures against moderated growth.

Foreign capital inflow in Bulgaria remained high in early 2008. The balance of payments financial account surplus (preliminary data) exceeded EUR 3 billion and foreign direct investment totaled EUR 1.2 billion in the first four months of 2008. By the end of June 2008 BNB international reserves reached EUR 13.2 billion and the international reserves to average monthly imports of goods and services ratio improved to 6.0.

Real GDP growth in the first quarter of 2008 reached 7 per cent, with net exports contributing positively to growth and investment in fixed assets going up by 15 per cent in real terms. Monetary aggregates increased at high rates impacted by the strong economic activity and foreign capital inflow. Interest rates on time deposits denominated in national currency and euro continued increasing, consistent with enhanced demand for resources by banks for financing their lending activities. Banks' lending activity remained high irrespective of the slower growth in claims on the non-government sector. The increased deposit rates and higher cost of money market funds in Bulgaria and the euro area reflected on lending rates. This trend is most clearly pronounced in lending rates on lev-denominated corporate loans; in April and May an increase was also reported in lending rates on household loans.

Over the second half of 2008 economic growth is expected to remain at a level of over 6 per cent on an annual basis. Long-term investment interest in Bulgaria will help maintain foreign direct investment inflow high and despite uncertainty in international financial markets domestic economic agents are not expected to experience difficulties with the access to external financing. Given the strong imports of investment goods and continuously increasing prices of raw materials, the balance of payments current account deficit to GDP ratio is anticipated to match the previous year's level and to be financed mainly by foreign direct investment inflow.

Growth of Bulgaria's international reserves will allow to maintain broad money growth of approximately 30 per cent on an annual basis. Lending will remain strong and it is expected to moderate to about 40 per cent on an annual basis by the close of 2008. The rising cost of borrowed funds is likely to further put upward pressure on lending rates, although the enhanced banking competition will be a repressing factor. The ECB decision taken in early July to raise the interest rate on its main refinancing operations by 25 basis points to 4.25 per cent will also add to the expected increase in lending rates in Bulgaria.

Since mid-2007 global inflation tended to increase progressively, reflecting price rises in energy and foods. In May the inflation rate in Bulgaria reached 14 per cent, with food prices growing by 25 per cent and thus contributing by 6.6 percentage points to overall inflation. Higher catering prices contributed by 2.15 percentage points and increased prices of fuels and transportation services, consistent with international crude oil price dynamics, contributed by 2.3 per cent to overall inflation. The annual rate of price growth is expected to slow down in the second half of 2008 and to reach 8 per cent at the close of the year. These estimates are based on the anticipated significant growth in agricultural produce and stronger supply of foods in the second half of the year (in case of favourable weather conditions for the harvest) and the assumption of an average crude oil price of about USD 130 per barrel.

# 1. External Environment

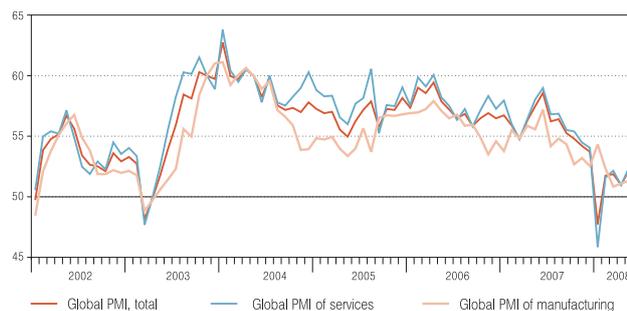
In spite of stabilization in international financial markets at the end of the first quarter of the year the risk of global economic slowdown was sustained. The continuous commodity price rise prompted a global increase in inflation rates and inflationary expectations. This forced the ECB to raise repo interest rate by 25 basis points in early July. The bulk of market expectations suggest that the ECB and US Federal Reserve System will raise their reference rates within one-year horizon.

## Current Business Situation

Accelerated inflation stemming from food and fuel price rises encompassed all countries in the world. In May global inflation was 4.9 per cent on an annual basis and reached its highest value since 1995. Fuel and food prices are expected to remain the major factors determining the global inflation rate in the second half of 2008 level, with prices of input resources for production of goods and services increasing significantly.

Indicators about economic activity trends continued to worsen. Global trends moderated further, growing by 6 per cent on an annual basis (against 7.1 per cent on average in 2007). These indicators reflected the expectations of a slowdown in global economic growth in the second half of 2008.

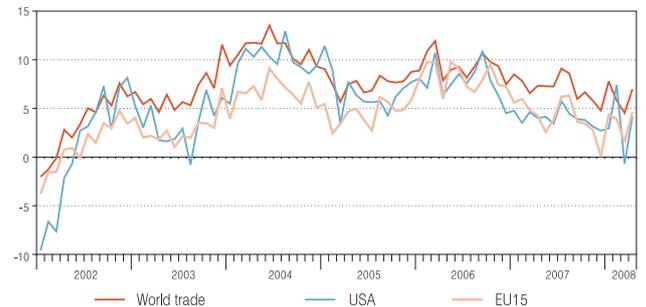
### Global PMI



Sources: NTC Research, JP Morgan.

### World Trade

(annual rate of volume growth, %)



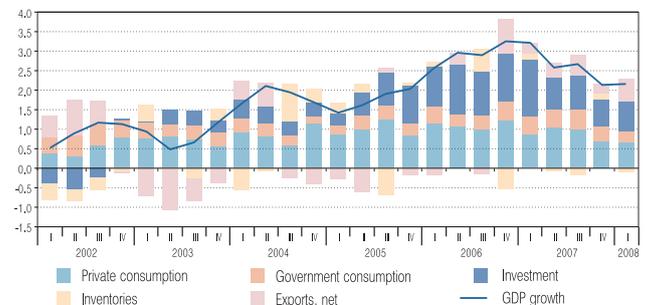
Source: CPB Netherlands Bureau for Economic Policy Analysis.

According to market expectations the major task of the leading central banks in the following quarters will be to curb inflation rather than to enforce measures against moderated growth. Concurrently, the negative effects of the US sub-prime mortgage crisis faded very slowly and this entailed direct intervention by the US Federal Reserve System and ECB to maintain interbank market liquidity.

### Euro Area

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

(%)



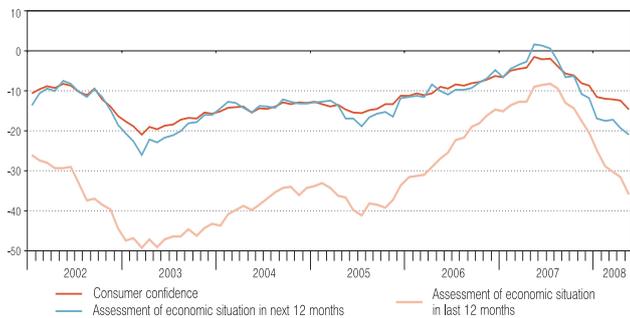
Source: Eurostat.

During the first quarter of 2008 euro area real growth accelerated by 0.8 per cent on the previous quarter, reflecting largely the impact of sea-

sonal factors, one of them being the higher activity in construction in Germany. The financial market turmoil had asymmetric negative effect on economic activity resulting in an increased dispersion of growth rates in individual countries. Spain, Ireland, Portugal, Greece and Finland where investment activity significantly subdued, particularly in construction, experienced a stronger negative effect of the crisis. Germany, where the construction's contribution to GDP growth appeared to be unexpectedly high, was on the other extreme, reflecting the favourable conditions for earlier launch of preliminary planned investment projects.

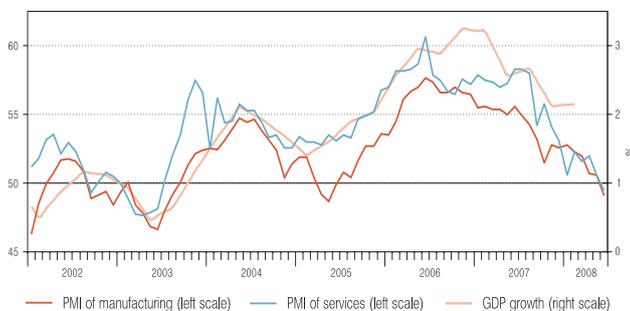
Deepening global financial crisis continued to affect negatively consumer and investment sentiments in recent months. Declining leading euro area indicators signal an expected slowdown in domestic demand and correspondingly in economic growth until the end of 2008. By May 2008 the EC consumer confidence and business climate indices reached their lowest values in the last three years. Based on preliminary June data the business sector and industry PMI fell below 50, a level indicating an economic activity slowdown.

### Euro Area Consumer Confidence Indices



Source: Eurostat.

### PMI and Euro Area GDP Growth



Sources: NTC Research.

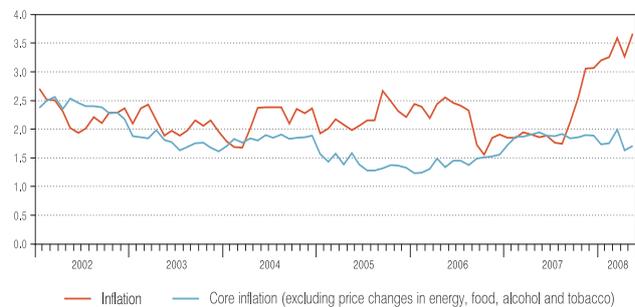
The negative impact of the financial crisis, which continued in the second quarter of 2008, is ex-

pected to result in a hampered access of corporations and consumers to funding and an increase in interest rates. To this end, the impact on individual economies will remain asymmetric, with economies with higher corporate and household indebtedness being most seriously affected.

HICP inflation was steadily rising in early 2008 and it was estimated to reach 4 per cent *per annum* in June 2008. Higher inflation reflected mostly price increases in fuels, transportation services and food. Concurrently, the inflation rate excluding price changes in energy, food, alcohol and tobacco remained stable at end-May: at 1.7 per cent on an annual basis.

### Euro Area Inflation Rate

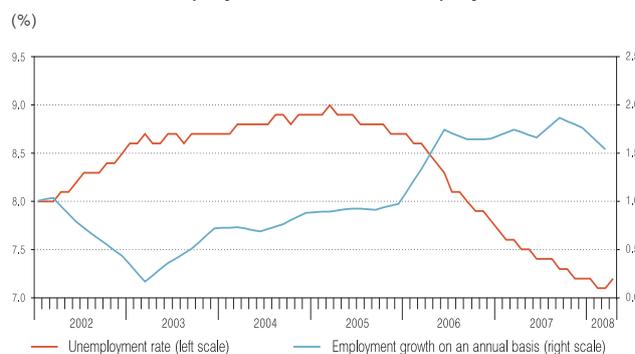
(percentage change on same period of previous year)



Source: Eurostat.

HICP inflation is expected to stay at over 3 per cent until the end of 2008. Its dynamics will continue to be impacted by oil and food price developments. In medium-term prospective unit labour costs may decline, as firms are expected to respond to the outlooks for economic activity slowdown by reducing the number of employees. As a result the upward pressure on wages will subside. However, in the short run the risks to inflation remained on the upside, reflecting possible second-round effects on the total price level and further oil and commodity price rises.

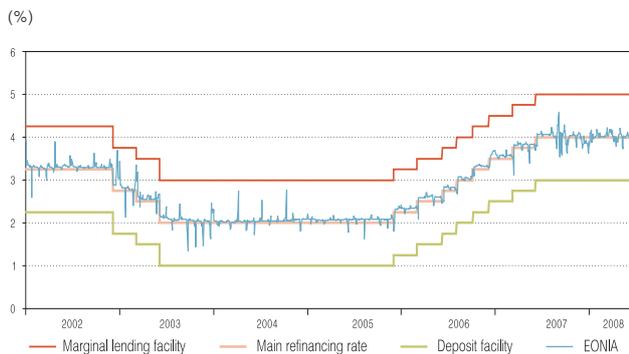
### Euro Area Unemployment Rate and Employment Growth



Source: Eurostat.

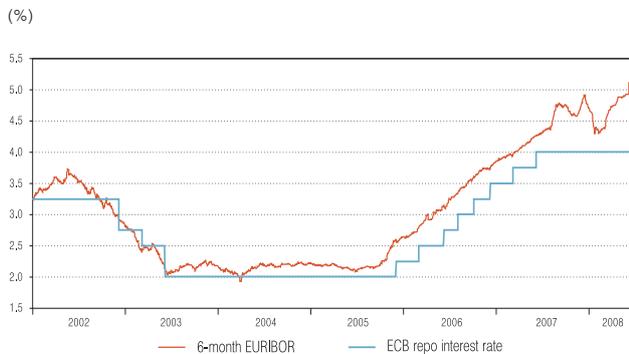
At its meetings in April, May and June 2008, the Governing Council of the ECB decided to leave the repo interest rate at 4 per cent. In the beginning of the review period the prevailing expectations were for an interest rate decrease over the year but following the June Governing Council's meeting the consensus shifted toward an increase. The inflation rise in the euro area to record highs in May and serious threats of second-round effects in the economy were the major reason behind the ECB enhanced anti-inflationary rhetoric. At its meeting on 3 July 2008 the Governing Council of the ECB raised the repo interest rate by 25 basis points.

### Euro Area Interest Rates



Source: Bloomberg.

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



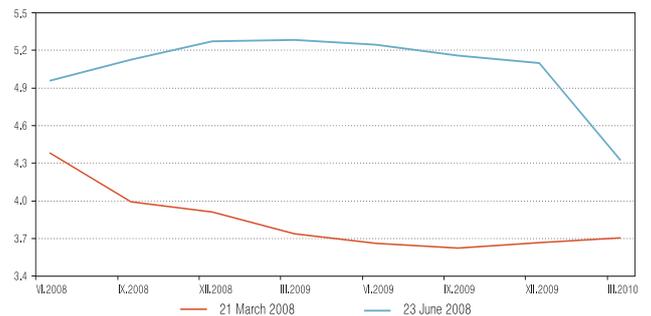
Source: Bloomberg.

### Forward Rates Based on the Fixed Swap Yield on Overnight Interest Rate (OIS)



Source: Bloomberg.

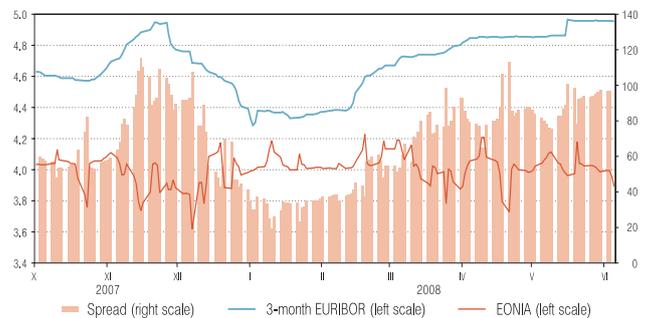
### Yield of 3-month EURIBOR Futures



Source: Bloomberg.

### Liquidity Premium

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



Source: Bloomberg.

Euro area money market remained tense and interest rate term premiums within 3 and 6 month horizons were sustained. Despite the increased liquidity provided by the ECB to commercial banks within these horizons, the premium was retained, indicating concerns about banking system stability rather than lack of funds. Spreads over the expected repo interest rates in 3, 6 and 12-month maturity segments are expected to continue varying between 50 and 75 basis points.

## EU-9\*

In the first quarter of 2008 growth moderated in EU-9 countries to approximately 5.8 per cent on an annual basis, Slovakia's economy posting the highest growth. Food and fuel prices contributed most significantly to inflation growth in non-euro area, with average monthly inflation reaching 7 per cent on an annual basis.

\* EU-9 includes the countries which acceded the EU in 2004, excluding Slovenia, Malta and Cyprus. As from 1 January 2007 Slovenia and as from 1 January 2008 Malta and Cyprus became full-fledged members of the European Monetary Union.

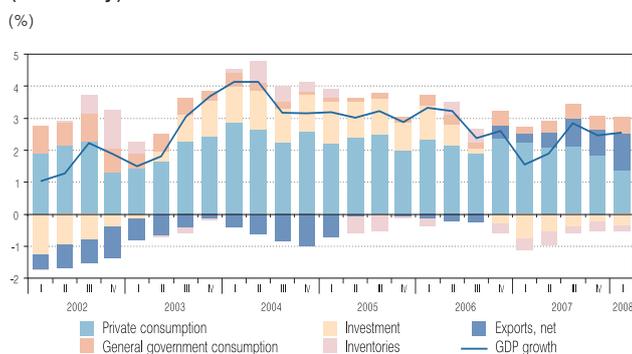
## Growth and Inflation in EU-27 and EU-9



Sources: Eurostat, own calculations.

## USA

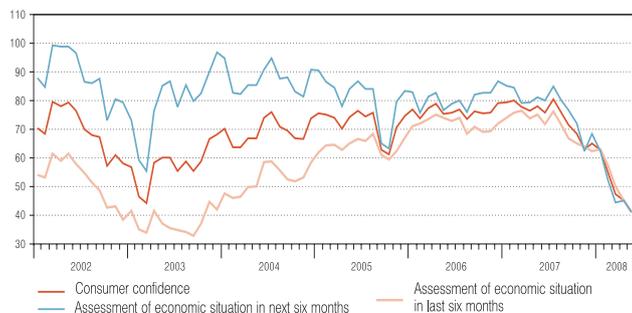
### Contribution to US Growth by GDP Component (Quarterly)



Source: Bureau of Economic Analysis.

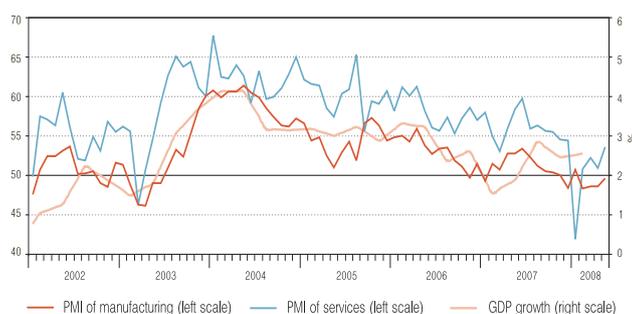
### US Consumer Confidence Indices

(2000 = 100)



Source: The Conference Board.

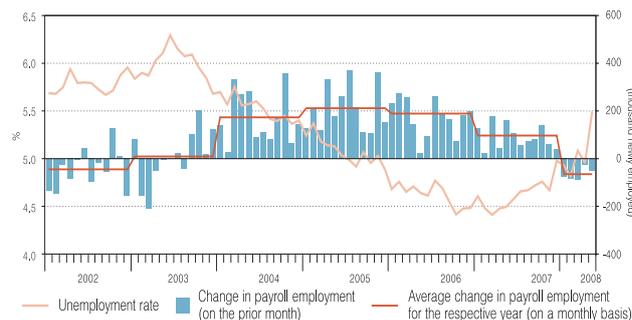
### US PMI of Industry and Services and GDP Growth



Source: Institute for Supply Management.

In the first quarter of 2008 the economic growth in the USA retained its rate of 2.5 per cent on an annual basis. Net exports and government consumption contributed most significantly to this effect and downturn in private consumption growth and the decrease in housing investments were sustained.

### US Unemployment Rate and Changes in Payroll Employment



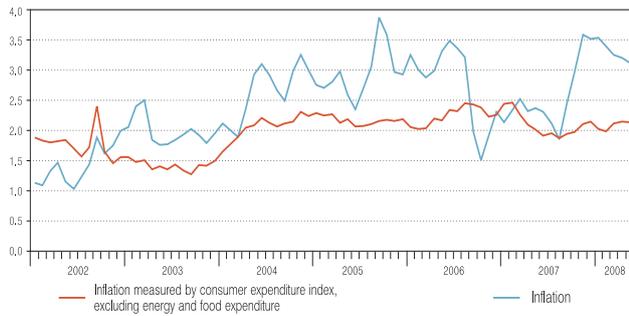
Source: Bureau of Labour Statistics.

Labour market employment gradually declined resulting in an increasing unemployment to 5.5 per cent at the end of May. Employment outlook for the following quarters seem unfavourable, implying risks to household income and consumption. The sizable number of unsold houses is expected to put downward pressure on prices and to repress investment activity in the sector. Tightened standards in extending bank loans and unfavourable conditions for direct financing of capital markets continued to create prerequisites for slower investment demand in other sectors. Net exports are likely to continue contributing positively to US economic growth – a result of the depreciated US dollar and comparatively better state of the business cycle of major trading partners.

The approved package of fiscal incentives, including government expenditure of about 1 per cent of GDP, will be distributed in the second and to a lesser extent in the third quarter of 2008. Based on particular assessments the positive effect of this package on economic growth will account for 0.1 per cent in the second and 0.4 per cent in the third quarter of 2008.

### US Inflation Rate

(percentage change on same period of previous year)



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

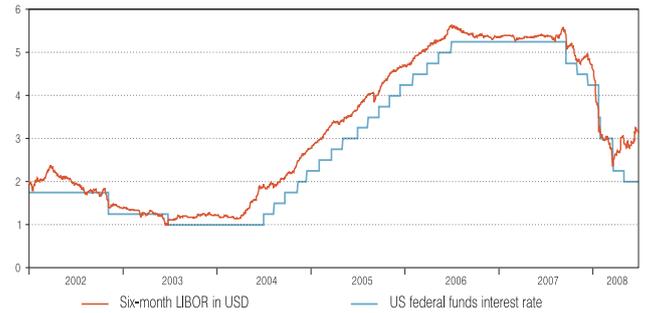
Inflation measured by personal consumer expenditure deflator decreased to 3.1 per cent on an annual basis in May 2008 against 3.5 per cent in January. Higher fuel and food prices contributed most significantly to inflation. Over the same period inflation index excluding energy and food expenditure posted a slight increase: from 2 per cent to 2.1 per cent. Market inflationary expectations in the long run remained on the upside. The pressure on prices by labour expenditure subsided and the downward trend is likely to sustain in the future given the labour market developments.

A key factor for the US Federal Reserve System monetary policy is to curb the increasing inflationary expectations. Otherwise, opportunities to sustain the current level of short-term interest rates will remain significantly limited.

The US Federal Reserve System continued to decrease the cost of short-term monetary resources, cutting the interest rate on the federal funds to 2 per cent by the end of April. After the US Federal Reserve Board meeting held at the end of June it was stated that inflation is expected to moderate until year-end, providing signals to market participants that no change in the reference interest rate is projected until the end of the third quarter. Based on end-June market expectations interest rates on federal funds are more likely to be raised in the fourth quarter.

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

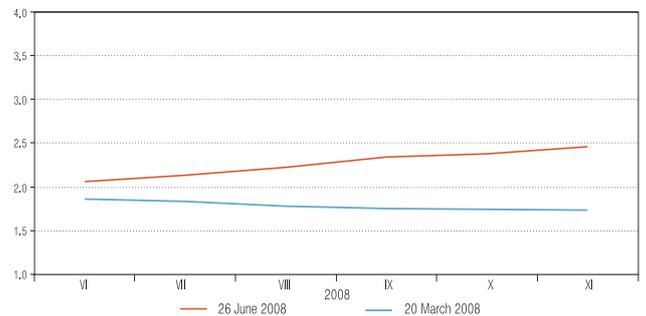
(%)



Source: Bloomberg.

### Implied Federal Funds Futures Interest Rate

(%)



Source: Bloomberg.

The significant money market uncertainty about the banking sector state continued to dominate and accumulated credit risk premium measured by the difference between yields of three-month and six-month LIBOR deposits and expected interest rate on US federal funds in the second quarter of 2008 ranged between 70 and 100 basis points and is expected to retain within this range until the end of the year.

### The USD/EUR Rate

In the second quarter of 2008 the USD/EUR rate fluctuated between 1.5381 and 1.5992. The trade was highly volatile without a clearly pronounced trend due to frequent dramatic changes in the exchange rate movement. Overall, over the review quarter the US dollar appreciated in contrast to the reported depreciation in the previous six quarters.

## USD/EUR Exchange Rate

(USD per EUR 1)



Source: ECB.

The official statement following the April summit of finance ministers of G-8 in Washington marked a new stage in coordination between US and euro area monetary authorities and increasing consensus that further depreciation of the US dollar will adversely affect both parties' interests. This strong signal was intended to warn financial markets of a possible coordinated intervention in favour of the US dollar.

Changing expectations about the future monetary policies of the US Federal Reserve System

and the ECB had a strong effect on exchange rate movements. The ECB raised the repo interest rate in early July resulting in an increase in the interest rate differential but anti-inflationary rhetoric followed by the US Federal Reserve System did not allow further US dollar depreciation.

The incoming macroeconomic information on the USA and euro area had a divergent effect on the market. The speculative EUR/USD positions reflected fluctuations, with short positions slightly dominating in favour of the US dollar.

In the third quarter of 2008 market expectations are for a broad range of USD/EUR exchange rate fluctuations. Short-term market expectations about the monetary policies pursued by the US Federal Reserve System and the ECB are in support of the single European currency, but the bulk of projected moderate increase in the interest rate differential has been already incorporated in the exchange rate value of the US dollar. The signs of improvement in the US dollar positions *vis-à-vis* the euro in the second quarter may be sustained in the third quarter if the US Federal Reserve System continues to implement anti-inflationary rhetoric.

## The Balkan Region

During the first quarter of 2008 macroeconomic data indicated comparatively high growth rates in the Balkan countries. Romania posted an 8.2 per cent annual growth. Consumption and investments, increasing by 33.2% and 15.6 per cent on annual basis respectively, contributed most significantly to this growth. In most countries of the region the rates of industrial output remained strong over the first four months of 2008 compared with the corresponding period of 2007. Inflation accelerated, consistent with food and fuel price rises. The highest inflation rate was reported in Macedonia: it went up from 2.3 per cent on average in 2007 to 9.6 per cent on an average annual basis between January and May 2008.

Strong growth rates are expected to be sustained in the second and third quarters of 2008. Despite the worsened international situation the enhanced internal demand and favourable agricultural forecasts will support economic growth in the region.

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

	2006	2007					2008	
	Total	I	II	III	IV	Total	I	II*
Growth (on the corresponding period of previous year, %)								
Bulgaria	6.3	5.5	7.3	4.9	6.9	6.2	7.0	
Greece	4.2	4.4	4.1	3.8	3.6	4.0	3.6	
Macedonia	4.0	6.3	3.9	4.4	5.1	5.0	5.2	
Romania	7.9	6.1	5.7	5.7	6.6	6.0	8.2	
Turkey	6.9	7.6	4.0	3.4	3.4	4.5	6.6	
Croatia	4.8	7.0	6.6	5.1	3.7	5.6	4.3	
Serbia	5.7	8.2	7.6	7.5	6.9	7.5	8.2	
Inflation (averaged for the period, %)								
Bulgaria	7.4	5.3	4.7	9.0	11.2	7.6	12.4	13.7
Greece	3.3	2.9	2.6	2.8	3.6	3.0	4.3	4.7
Macedonia	3.2	0.7	1.1	2.4	4.9	2.3	9.5	9.8
Romania	6.6	3.9	3.9	5.1	6.8	4.9	8.0	8.6
Turkey	9.6	10.3	9.5	7.1	8.2	8.8	8.8	10.2
Croatia	3.2	1.6	2.1	2.9	4.9	2.9	5.9	6.0
Serbia	11.8	4.8	3.3	6.6	10.8	6.4	13.4	15.7

\* May and June inflation data.

Sources: Statistical institutes and central banks of respective countries.

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

### Crude Oil

Over the second quarter oil prices exhibited a significant increase and the expected traditional seasonal decline did not materialize. The average quarterly Brent price reached USD 122 *per barrel*, up 26 per cent on the average price in the first quarter. Concurrently, fluctuations in price movements enhanced significantly and doubled compared with several previous quarters.

Despite the slowdown in the US economy and moderate economic growth in Europe global demand for fuels remained strong. OECD inventories stayed at low levels and demand of Asian economies was high, consistent with sustainable growth in these economies. In recent months China's demand increased, stemming from the accumulated inventories before the Summer Olympic Games in Beijing.

Latest International Energy Agency forecasts point to an increase in global oil demand by 1 per cent in 2008. Concurrently, OECD distillate inventories (including diesel oil) declined by 6.7 per cent on March 2007. Oil demand from China and Middle East is expected to rise by 4.9 per cent offsetting the lower US demand.

Recently no significant changes have occurred in supply. OPEC countries left the quotas unchanged and no meeting has been scheduled until September. The expectations of a stagnated supply were underpinned by the poor performance of oil-producing countries outside OPEC whose output, rather than increasing, declined. In Russia and Mexico oil supply (on an annual basis) decreased most substantially.

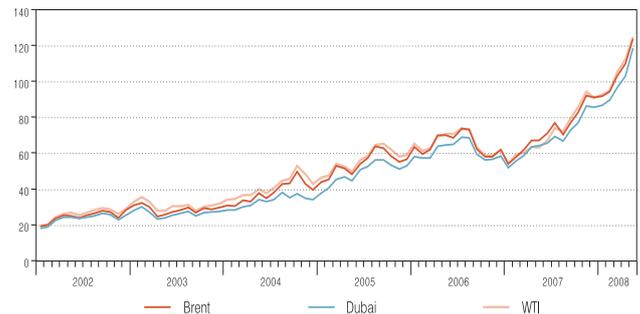
Geopolitical tensions contributed to the increased price fluctuations in various countries worldwide, *e.g.* Middle East, Nigeria and Libya.

Over the third quarter oil prices are likely to stay high and based on market expectations the average price will range between USD 120–150 *per barrel*. The seasonal increase in consumption of fuels in the USA and the Summer Olympic Games in Beijing are the factors that will put upward pressure on oil prices. The season of hurricanes in the USA starts in July which may prompt a series of shocks in oil supply. OPEC policy, and particularly the Saudi Arabia's initiatives for oil price

stabilization, may put a downward pressure on oil prices.

### Crude Oil Prices

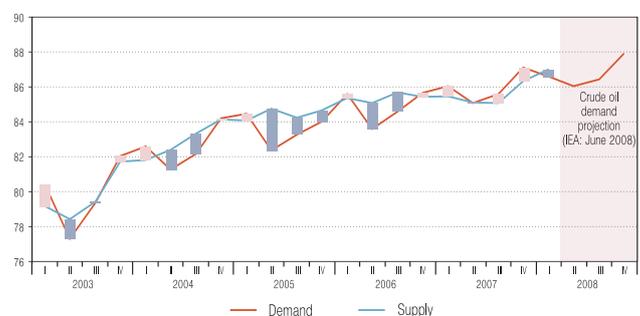
(USD *per barrel*)



Source: World Bank.

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

(million barrels *per day*)



Source: IEA.

### Major Raw Material and Commodity Prices

Over the second quarter of 2008 metal prices went up by 4.7 per cent on the previous period. Copper prices posted an increase, reflecting disturbed supply and also lower aluminum inventories due to increased energy prices. Prices of other non-ferrous metals tended to decline, consistent with the global demand decrease, inventories growth and expectations of enhanced supply. On a year earlier basis zinc and nickel prices halved in May. Lead prices fell by 40 per cent compared with the peak in October 2007. Steel prices continued to increase. In the course of annual iron ore price negotiations to which Chinese steel producers are a major party, it was agreed on a 65 per cent price increase for supplies from Brazil and 96 per cent from Australia. Non-ferrous metal prices are expected to decline and steel prices to increase in the third quarter.

In April and May wheat price went down by approximately 23 per cent on the previous quarter, reflecting the expected very good harvest in

major wheat-producing countries. Wheat yields are expected to grow by 8.5 per cent. Over the same period food prices fell by about 4 per cent. Further downward adjustment in food prices was impeded by corn price rise due to heavy floods in the USA, the largest corn producer, providing 38

per cent of the world output. Expectations point to a decline in food prices over the third quarter, consistent with favourable weather conditions, higher yields and a possible lift of constraints on imports and exports of major exporting countries.

## Global Inflation

Since the last 2007 quarter global inflation started accelerating and by May 2008 it reached 4.9 per cent on an annual basis. This was the most significant rise in global inflation since 1995 with the price hikes in raw materials and particularly food and energy being the major factors behind this increase.

### Crude oil

The crude oil price rise pertained mostly to the strong demand. In recent years the demand from China and India increased significantly, as well as from Middle East oil-producing countries. In some countries as India, Iran and Indonesia governments encourage demand by subsidizing fuel prices.

On the other hand, the continued period of relatively low crude oil prices (between 1986 and 2001 the average price was USD 18.7 *per barrel*) reduced investments in improving the efficiency of existing equipment, as well as the exploration and development of new oil deposits. The process of development and commissioning into operation of a new deposit is a long process and based on IEA data to date it lags behind the expected increase in demand over the following five years. Current investment projects, intended mostly to develop new and hardly accessible reserves, require sizable financial resources and the costs additionally increase due to high metal prices. Investment expenditure also impact crude oil prices.

Impeded supply growth reflects also the lack of strategies for increasing the extraction in some of major producing countries. For example, crude oil extraction in Russia exhibited a decline, reflecting the maximum capacity loading of existing equipment. In some countries, such as Iran and Iraq, investments in this sector are limited due to geopolitical instability in the region.

Other important factors behind the crude oil price rise are speculative hedge fund transactions which have progressively increased in recent years. However, there is no conclusive evidence of a speculative impact on prices. Such speculative transactions are intended to purchase futures several months prior to maturity and to sell them immediately before the maturity to customers who need physical supply of crude oil. Speculators cannot afford themselves to retain the futures until maturity as crude oil storage and transportation requires costly equipment. Hedge funds are key players in the market of immediate supplies but not in long-term transactions.

A conclusion can be drawn that crude oil price rise was a result of structural changes in the global economy, and it is inevitable and irreversible. Market developments reflect mostly the assessments of insufficient supply which is unable to meet the increasing demand.

### Food

Food price rises in the second half of 2007 and early 2008 reflect the imbalances between demand and supply ascribable to a number of factors. Increasing demand from emerging economies, particularly China and India, is associated with income growth in these countries and the changes in nutritional habits. Another factor having a persistent effect on supply is reduced arable land as a result of a 3-decade-long food price deceleration. The effect of short-term factors (*e.g.* unfavourable weather conditions in the last two years) on food market have been recently taken into account, since these factors prompted significant falls in supply, decreases in global inventories and introduction of constraints on food exports in many countries. Most of food-producing countries could significantly improve the quality and volume of yields, particularly those from the Commonwealth of Independent States. Russia, Kazakhstan and Ukraine could potentially increase their yields by 45 per cent, 60 per cent and 70 per cent respectively. According to the Food and Agriculture Organization of the United Nations (FAO) data yields of devel-

Global Inflation Rate



Source: World Bank.

oping countries halved that of developed ones. Higher prices of energy resources which pushed up transportation costs, and correspondingly the price of artificial fertilizers also affected food prices.

As a result of the technical progress over the last decade biofuels have been widely used, encouraged by ecological standards on the one hand, and by higher prices of traditional energy resources, on the other hand. Biofuels of first generation are divided into several groups: vegetable oils, biodiesel, bioalcohols, biogas, solid biofuels, syngas. These fuels are made of products used also for food production which makes fuel prices and traditional food products directly interdependent. This is a factor making speculative commodity exchange transactions attractive at a moment when fuel prices are increasing. However, biofuels of new generations whose production is based on plant and organism biomass unused for food are likely to get the upper hand over in the future. Thus, the direct interdependence between both prices will be interrupted.

By mid-2008 prices of some foods decreased driven by favourable weather forecasts. However a dramatic price falls should not be expected, since they will be limited by the velocity of accumulating new inventories, high transportation costs and the cost of means of production (fertilizers).

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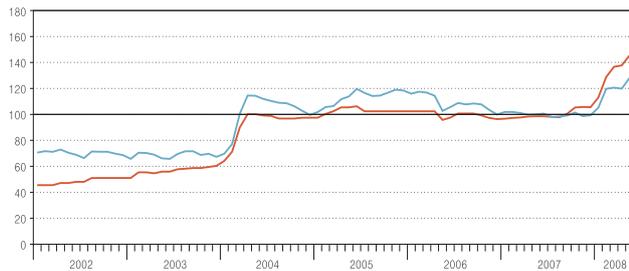
OECD/FAO, OECD-FAO Agricultural Outlook 2008-2017, 2008

USDA Economic Research Service, Global Agricultural Supply and Demand: Factors Contributing to the Recent Increase in Food Commodity Prices, 2008.

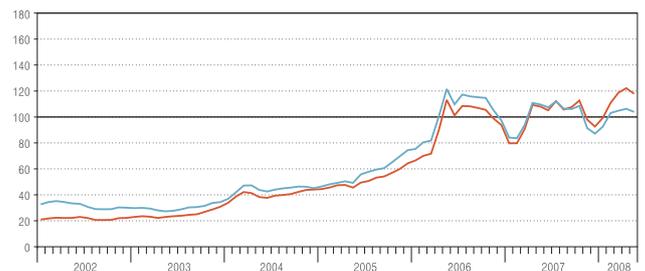
## Price Indices of Major Commodities and Commodity Groups

(2007 = 100)

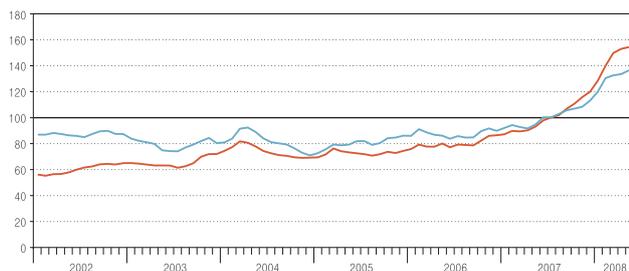
### Steel



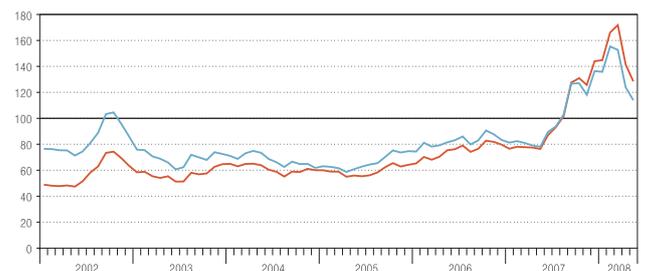
### Copper



### Food



### Wheat



— USD

— EUR

Sources: World Bank, BNB.

## Gold

Over the first quarter of 2008 gold price (one-month futures) varied within a narrower interval between USD 850 and USD 950 *per troy ounce*. The average price went down by 3 per cent to USD 898 *per troy ounce* against USD 925 *per troy ounce* in the previous quarter. The EUR/USD exchange rate and to a large extent the oil price were the two most important factors impacting price dynamics.

In terms of demand gold price dynamics was most significantly affected by investment demand which usually accounts for 80 per cent of global demand.

Based on GFMS consultant company demand for physical gold in the first quarter declined by 16 per cent compared with the same period in 2007 and amounted to 701 tons (an increase by 20 per cent in terms of US dollars to USD 20.9 billion). The major reason behind the fall in demand for physical gold reflects a 50 per cent decline in demand in India, where the use of gold for jewellery production accounts for a quarter of global gold consumption which was not offset by the increased China's demand for gold (15 per cent) in the first quarter.

### Spot Price of Gold

(USD *per troy ounce*)



Source: The London Bullion Market Association.

## Bulgarian External Debt Dynamics on International Financial Markets

In the second quarter of 2008 the yield spread of the emerging markets' government debt in Europe, measured by JP Morgan Euro EMBI Global index ranged within 86 and 110 basis points. In the beginning of the review period risk premium on government securities tended to decrease consistent with assessments suggesting that the peak of the financial crisis was probably over. This trend was sustained until end-May and then spreads indicated a new increase and actually restored their levels from the beginning of the period. The widened spreads reflected enhanced inflationary expectations and a possible increase in interest rates in the future.

Price dynamics of Bulgaria's debt followed the general market trend with the correlation with the Euro EMBI Global index remaining very high. Between April and May the spread narrowed by approximately 30 basis points (to 78 basis points for the period) and in June it widened again to a level of over 100 basis points.

Spreads on government debts are expected to remain volatile in the second half of 2008. The volatility of risk appetite and outlooks for global interest rate levels will be the major factors impacting debt dynamics.

### 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

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

(million EUR)

	Jan-June 2008	Jan-June 2007	2007, total
<b>Total for the period</b>	<b>1 445</b>	<b>508</b>	<b>2545</b>
<b>Purchases and sales of euro</b>	<b>1 227</b>	<b>1 182</b>	<b>2 398</b>
at tills	-4	-22	-60
banks	1 231	1 204	2 458
<b>Flows on accounts of banks, the MF, etc.</b>	<b>218</b>	<b>-674</b>	<b>147</b>
Minimum required reserves	103	-64	827
Government and other depositors	115	-610	-679

Source: BNB.

Foreign capital inflow in Bulgaria remained strong between January and April 2008. Stable macroeconomic environment in Bulgaria and the prospects of Bulgaria's sustainable growth as an EU member state helped maintain the long-lasting interest of foreign investors in Bulgarian economy. Based on preliminary data foreign direct invest-

### Financial Flows and External Position Sustainability

Foreign direct investment inflow is expected to remain strong in the second and third quarters of 2008 and the trend toward private sector's foreign borrowing to be sustained. Despite the uncertainty on international financial markets, there are no signs of limited access of local economic agents to foreign financial resources. The current account deficit as a share of GDP is projected to stabilize in the third quarter of 2008.

The flow of foreign capital in Bulgaria stayed high from early 2008, with balance of payments financial account surplus of EUR 3040.3 million for the January – June 2008 period reflecting mainly foreign direct investment worth EUR 1228.2 million, a decline by EUR 999.1 million in deposits of domestic banks abroad and an increase by EUR 992.3 million in net external obligations of the private non-bank sector.

Economic agents' expectations of high returns at relatively low risk are among major factors maintaining the long-lasting investor interest in Bulgaria's economy. Domestic investments (excluding change in inventories) retained their dy-

namics strong in the first quarter of 2008 with gross capital formation contributing to economic growth by 4.3 percentage points. Since foreign direct investments and long-term debt resources are among major flows financing investment activity in Bulgaria, entrepreneurs' positive expectations give grounds to anticipate that capital inflow in Bulgaria will remain strong over the forecast horizon.

ment covered 98 per cent of the total balance of payments current and capital account deficits on an annual basis<sup>1</sup>. The balance on the balance of payments current and capital accounts went down by EUR 142.9 million between January and April 2008, reflecting mainly the increased trade balance deficit by EUR 453.6 million. The balance of payments total balance between January and April 2008 reported a surplus of EUR 1009.6 million, and consequently BNB reserves increased by an equivalent amount (excluding changes due to valuation adjustments). The *international reserves to average monthly imports of goods and services* ratio improved to 5.9 by April 2008 against 5.2 a year earlier.

The Issue Department balance sheet figure reached BGN 25,883.6 million (EUR 13,234.1 million) by end-June 2008: up by BGN 7172 million (EUR 3667 million) on June 2007.

ynamics strong in the first quarter of 2008 with gross capital formation contributing to economic growth by 4.3 percentage points. Since foreign direct investments and long-term debt resources are among major flows financing investment activity in Bulgaria, entrepreneurs' positive expectations give grounds to anticipate that capital inflow in Bulgaria will remain strong over the forecast horizon.

<sup>1</sup> Accumulating the flows in the last 12 months. Current account and capital account balances reflect the net borrowing of Bulgaria's economy from the rest of world, and therefore the analysis is based on the total balance on the balance of payments current and capital accounts.

Bulgaria's international current transfers and financial transactions in the first four months of 2008 did not point to direct negative effects of the enhanced uncertainty in international financial markets. The access of economic agents to financial resources was not limited by the global reassessment of risk which led to the increase in liquidity and credit risk premia. Normally functioning credit markets continued to provide the long-term investment resource necessary for the Bulgarian economy. The share of potentially speculative flows in Bulgaria's financial resource was small: portfolio investment comprised 4.5 per cent of the country's total liabilities according to the international investment position by end-2007.

According to preliminary data,<sup>2</sup> foreign direct investment in Bulgaria came to EUR 1228.2 million between January and April 2008. According to the current statistical information foreign direct investment for the first four months of 2007 came to EUR 1437.5 million. Data on this flow have been revised several times following their initial publication in June 2007. A comparison between the January – April 2008 data with initially reported data for the January – April 2007 period (which have been revised several times after their initial publication in June) points to an increase in foreign direct investment by 6.4 per cent. As there are no reasons to consider that the direction of subsequent revisions will change we expect that the reported inflow will be revised upwards as a result of additional information and of data revision over the current year.

The long-lasting interest of foreign investors in Bulgarian economy was confirmed by the fact that 58 per cent of the inflow (EUR 709.9 million) was in the form of share capital. There were no receipts from privatization transactions in the review period. The interest in acquiring real property in Bulgaria, both for industrial or commercial purposes and recreation property and other residential property, remained relatively high (inflow of EUR 471.2 million).

In the first four months the *other capital* item within the framework of foreign direct investment reached EUR 361.9 million: up by EUR 160.9 million on the corresponding period of 2007. Inter-company loans extended by local companies' foreign owners are reported under this item; with initial data probably underestimating the actual

amount of funds provided. Data on *reinvested earnings* show an increase of EUR 46.8 million on an annual basis coming to EUR 156.5 million between January and April 2008. Currently available information reports only reinvested earnings of banks for 2008 and 2007. We expect that the amount of funds reported under this item would be revised upwards as a result of additional information received by foreign owners of local companies from the non-financial sector.

By end-2007 *real estate operations and business services* (19.4 per cent), *financial intermediation* (18.6 per cent), *manufacturing* (17.8 per cent) and *transport and communications* (17.8 per cent) occupied the largest share in the structure of cumulative foreign direct investment by industry. As regards the flow in the first quarter of 2008 these sectors retain their position; with the shares of industries that attracted sizable amounts of funds being as follows: real estates, lessors activities and business services (38.4 per cent), financial intermediation (28.7 per cent) and construction (13.1 per cent). Funds used for the acquisition of industrial, logistic and commercial buildings, as well as for direct investment in companies conducting intermediation and lessors activities and other business services fall within real estate funds. Hence, these funds contributed to the strengthening of local companies' industrial and commercial capacity. It should be noted that when additional information is received from non-financial sector enterprises the revision of data on foreign direct investment will not only affect the total amount of inflows but also their allocation which does not allow for explicit conclusions at this stage.

Attracting a considerable amount of foreign capital over the recent years and the related innovation and improved efficiency of domestic production are among the key factors behind the steadily high economic growth. Financial intermediation and construction sectors developed rapidly with their added value recording the highest real growth rates between 2006 and 2007; the real growth in these two sectors in the first quarter of 2008 being respectively 38.4 per cent and 13.6 per cent. As regards improved labour productivity in Bulgarian economy since the start of 2008, finance and insurance (2.6 percentage points), manufacturing industry (0.8 percentage point) and transport and communication (0.6 percentage point) had the largest contribution.

<sup>2</sup> Data are subject to regular revisions.

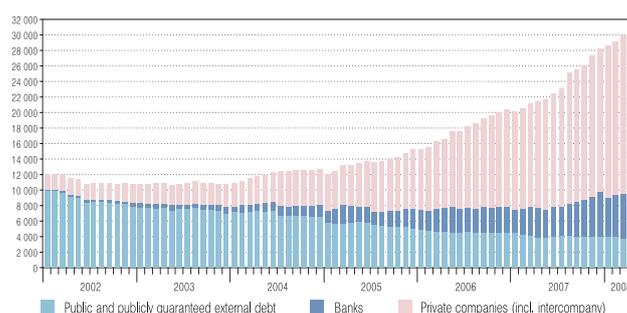
The structure of foreign direct investment by country in the first quarter of 2008 shows that the biggest shares were attracted by Belgium and Luxembourg (12.4 per cent), the United Kingdom (11.8 per cent), and Austria (11 per cent).

Data on gross external debt dynamics since the year's start support the thesis that Bulgarian economy has not suffered the direct adverse effects of global financial uncertainty, and that the local economic agents still have a normal access to foreign financial resources. The newly received external loans exceeded the service of obligations and the net inflow of borrowed funds on the balance of payment current account remained positive. As a result Bulgaria's gross external debt increased by EUR 2.6 billion in the first four months of 2008, reaching EUR 30.7 billion by the end of April 2008.

Between January and April 2008 public and publicly guaranteed debt declined by EUR 304 million (mainly due to an advance repayment to the World Bank in March 2008), coming to 12.2 per cent of Bulgaria's total debt. Private non-guaranteed external debt rose by EUR 2905 million over the period, boosted mostly by attracted intercompany loans (up EUR 1159.2 million), as well as by the increase in *other sector* liabilities (up EUR 1036.9 million). The share of intercompany loans in total gross external debt went up to 35 per cent as of April 2008 (from 34.1 per cent as of December 2007), reflecting favourable expectations and intentions of local companies' foreign owners in the long run. In the first four months of 2008 banks' gross external debt picked up by EUR 737.7 million, the most sizable increase being that of deposits (EUR 330 million) and long-term loans (EUR 259.5 million). Most of local banks' external debt (over 70 per cent) is to foreign-owned banks, which reflects the strategy of the latter aimed at broadening their scope of activities in Bulgaria.

## Gross External Debt

(million EUR)

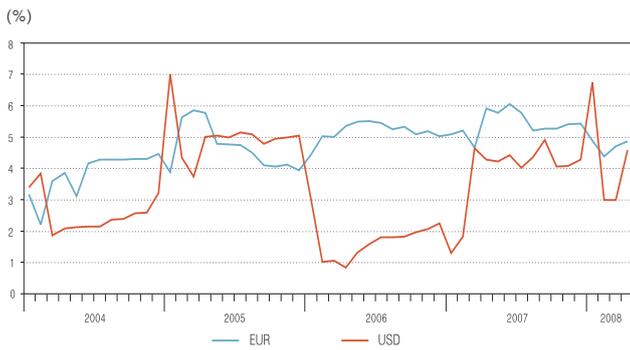


Source: BNB.

Gross external debt service came to EUR 2.2 billion between January and April 2008 (44.2 per cent of receipts from commodity imports over this period) against EUR 2.1 billion in the corresponding period of the prior year (53.4 per cent of exports). Over the review period borrowings and deposits were EUR 3.5 billion, with *banks* and *other sectors* having the largest contribution of EUR 1.7 billion and EUR 1.2 billion respectively (up by EUR 739.7 million as compared to the corresponding period of 2007).

According to the available data on the weighted average of interest rates on new loans reported between January and April 2008 there were no sharp deviations from the levels prevailing in the corresponding period of 2007, with divergent dynamics determined by the currency denomination of loans. In the first four months of 2008 the weighted average of interest rates on new loans was 5.1 per cent, an increase of 0.4 percentage point on the corresponding period of 2007. As regards new loans denominated in US dollars the interest rates fell to 3.6 per cent, a decrease of 0.3 percentage point on an annual basis. Hence, since 94 per cent of new loans over the first four months of the review year were denominated in euro, there was only a slight increase in the price of the newly attracted external resources from local non-bank corporations. The increase in the weighted average of interest rates was mainly ascribable to newly extended short-term loans. Over the review period interest rates on long-term loans in euro fell by 1 percentage point on an annual basis, with the interest rate differential between long-term loans, extended by local banks, remaining in favour of the external resource, i.e. interest rates on long-term loans in euro and US dollars were lower by 3.3 percentage points and 3.8 percentage points respectively.

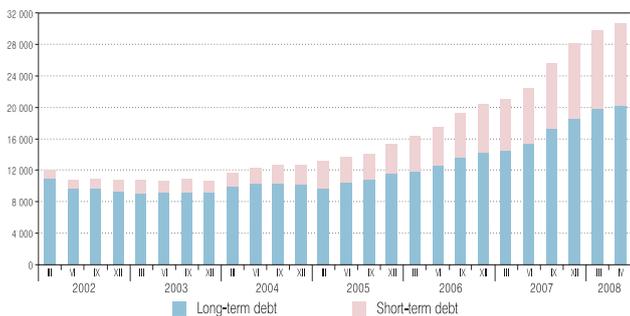
### Weighted Average Interest Rates on Newly Received External Long-term Loans to Non-bank Sector Corporations



Note: Sharp interest rate volatility reflects specific company loan contractual conditions and is typical of US dollar denominated loans due to their small volumes.  
Source: BNB.

The first months of 2008 saw no notable changes in the structure of private non-bank external debt by industry. *Real estate operations, lessors activities and business services* retained their relatively large share (30.2 per cent) in intercompany loans and in the external debt of other sectors (28.2 per cent), with most of these funds going to companies providing legal, accounting, audit and other business services, rather than to the real estate market. With regard to intercompany loans, *transport and communications* ranked second (26.3 per cent), while in *other sectors* they were followed by *trade* (14.4 per cent) and *electricity, gas and water supply* (13.8 per cent). The increase of these debt resources reflects enhanced integration of local companies into the single European market and the easier access to external financing.

### Long- and Short-term Gross External Debt Dynamics (million EUR)



Source: BNB.

Gross external debt maturity structure remained relatively steady since the year's start, with short-term loans comprising 34.2 per cent of total debt by April 2008 (33.9 per cent by end-2007). The increase in short-term debt of EUR 977.2 million

in the first four months of 2008 was evenly distributed between banks and other sectors. Over the first quarter of 2008 the euro continued to occupy the largest share (some 84.8 per cent) in the gross external debt currency structure, albeit recording a decrease of 0.8 percentage point on end-2007. The euro occupied the largest share (90.7 per cent) in intercompany loans, followed by that in banks (89.4 per cent) and in the *General government* sector (68.6 per cent).

The inflow of financial resources into Bulgaria determined to a great extent the balance of payments current account. The current and capital account deficits between January and April 2008 comprised EUR 2.23 billion against EUR 2.09 billion in the corresponding period of the prior year. Deficit deterioration was mainly due to the trade balance, with trade deficit coming to EUR 2.55 billion (an increase of EUR 453.6 million). Growing commodity trade deficit was associated with the strong appreciation of Brent crude oil prices coupled with high investment demand in Bulgaria, both pushing up import payments.<sup>3</sup> Net current transfers, capital transfers and income balances improved in nominal terms by EUR 248.2 million, EUR 163.5 million and EUR 4.2 million respectively, as compared to the corresponding period of 2007. The balance on services decreased by EUR 105.2 million on an annual basis.

Net current and capital transfers reported for the January – April 2008 period were EUR 536.5 million. The improvement was prompted by the EU funds inflow which marked a sizable increase since March 2008. Their volume significantly exceeded the amount of Bulgaria's contribution to the EU budget and contributed to the realisation of the *General government* net transfers of EUR 397.4 million. Over the review period inflows from private non-current transfers picked up by EUR 18.4 million on an annual basis, while transfers abroad went up by EUR 28.9 million. As a result, net transfers to the *General government* sector decreased by EUR 10.6 million.

The income balance for the first four months of 2008 was negative (EUR 36.5 million). However, it improved by EUR 4.2 million on the corresponding period of 2007 mainly due to the increase in compensations to employees (up EUR 75.9 million). Between January and April 2008 income

<sup>3</sup> For a detailed discussion of exports and imports dynamics, see the *Economic Activity* section in this issue.

payments on foreign direct investment saw an annual increase of EUR 67.1 million and totaled EUR 358.6 million.

The balance on services in the first four months of 2008 was negative, comprising EUR 181.3 million, with higher payments on travel of residents abroad (up EUR 108.2 million) and on transportation services (up EUR 104.3 million) contributing most significantly to its annual deterioration. Over the period under review improvements were recorded under all items of the earnings from exported services balance, the most sizable one being that of transport expenditure (EUR 51.8 million on an annual basis), followed by tourist services (EUR 40.8 million) and other business services (EUR 31 million). Our expectations for the development of international trade in services point to an interruption of the negative trend in the net flows which started in the beginning of the year and to a gradual improvement of the balance over the forecast horizon. The latter was due to the higher capacity of the services sector, both in tourism and other business areas.

Taking into account the available macroeconomic data (on the current and financial flows on the balance of payments, the external debt, and investment activity and Bulgaria's international as-

sets) and the key factors outlined in our underlying expectations, we may conclude that Bulgaria's external position remained steady. Its current state reflects the intensive restructuring of the economy and enhanced integration in the Single European Market.

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

(million EUR)



Source: BNB.

Capital inflow is anticipated to stay high in the second and third quarters of 2008, prompted by the prevailing long-lasting interest of foreign investors in Bulgarian economy. During the projected horizon current account deficit as a share of GDP is expected to remain compatible with the recently reported data.

## Monetary Aggregates

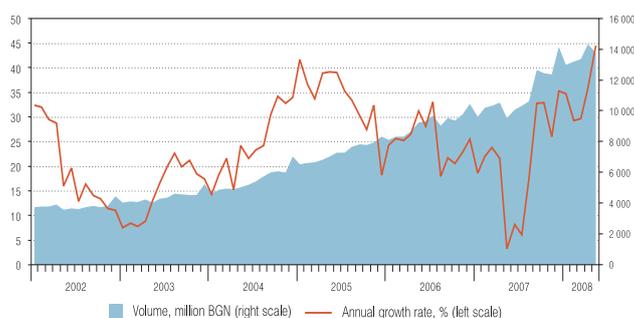
**Monetary aggregates went on reporting high growth rates, underpinned by strong economic activity and foreign capital inflows. Interest rates on time deposits denominated in levs and in euro continued to rise in line with banks' increased needs for funds to finance lending.**

Reserve money annual growth accelerated from 35.4 per cent by end-2007 to 44.6 per cent in May 2008, prompted mostly by bank reserves' dynamics. Within this period the annual bank reserves growth came to 106.7 per cent from 60.9 per cent, accelerating dramatically in May as a result of a base effect (releasing additional minimum required reserves in May 2007). Currency in circulation, which as a result of growing domestic demand and rising income and price levels posted an annual increase of 18.7 per cent by the end of May 2008, also added to the fast monetary base growth. In the next two quarters of the present year currency in 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 September 2007).

#### Reserve Money

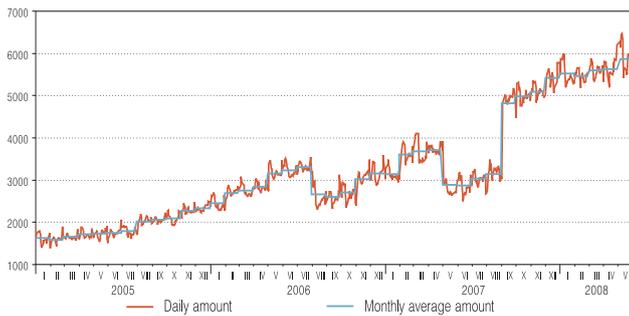
(volume and annual growth rate)



Source: BNB.

## Bank Deposits with the BNB

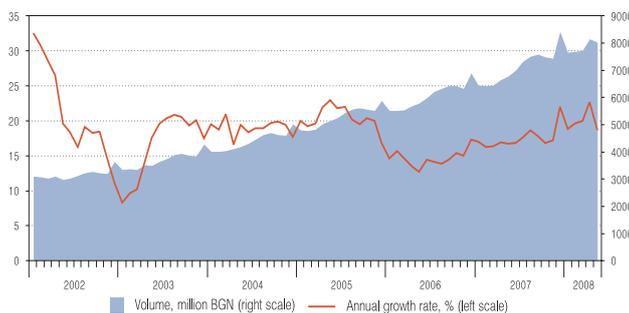
(million BGN)



Source: BNB.

## Currency in Circulation

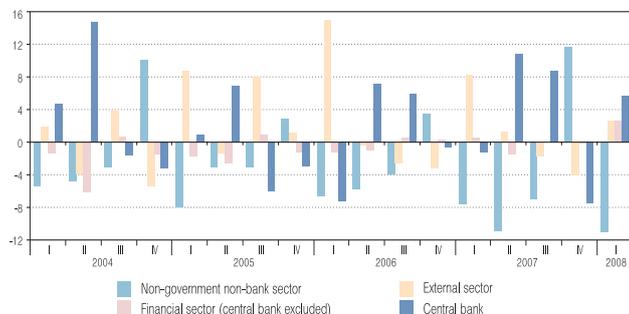
(volume and annual growth rate)



Source: BNB.

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

(share of GDP, %)



Sources: MF, BNB.

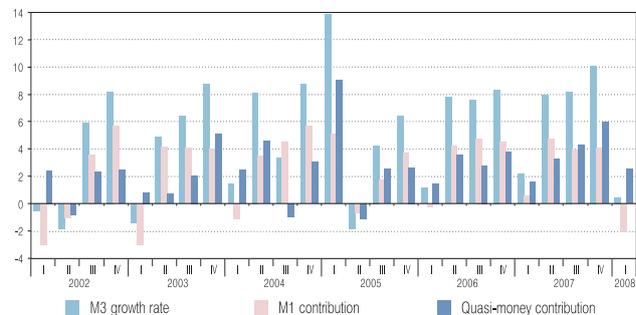
In the first quarter of 2008 a great amount of liquidity was withdrawn from the non-government non-bank sector in favour of the budget due to the good tax revenue implementation. Meanwhile, during the first quarter of 2008 there was an outflow of liquidity from the government sector to the external sector in January, reflecting the annual interest payments on global bonds, and in March, when the advance payment on the debt to the World Bank amounting to BGN 500 million was made. Net financial flows from the EU budget to the government sector were positive; with funds received from the overall European budget

amounting to BGN 597.3 million and the contribution made in favour of the EU totalling BGN 228.9 million.

In the first quarter of the review period the M3 monetary aggregate rose by 0.4 per cent on December 2007, reporting an annual increase of 29 per cent in March and 27.3 per cent in May 2008. The high broad money growth rate was mainly attributable to the increase in employment and wages, the considerable foreign capital flow and the sustainable high 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.

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

(percentage points)



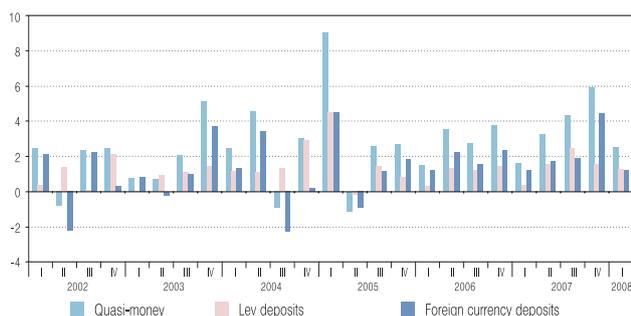
Source: BNB.

M1 rose by 20.7 per cent on an annual basis by the close of May 2008, with overnight deposits growing by 22.2 per cent annually. By the end of May overnight deposits of non-financial corporations in levs and foreign currency increased by 10 per cent and 42.9 per cent respectively as compared to the same period of the prior year, while overnight deposits of households denominated in levs by 23.7 per cent and those denominated in foreign currency by 14.6 per cent.

By the close of May quasi-money posted a 33.7 per cent rise on an annual basis and the trend towards accelerated growth of the foreign currency component was sustained. Household deposits in levs with agreed maturity of up to two years rose by 19.4 per cent on an annual basis and those in foreign currencies by 35.5 per cent. The annual growth rate of non-financial corporations' lev denominated deposits with agreed maturity of up to two years reached 60.7 per cent and that of deposits in foreign currencies came to 44.1 per cent.

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

(percentage points)



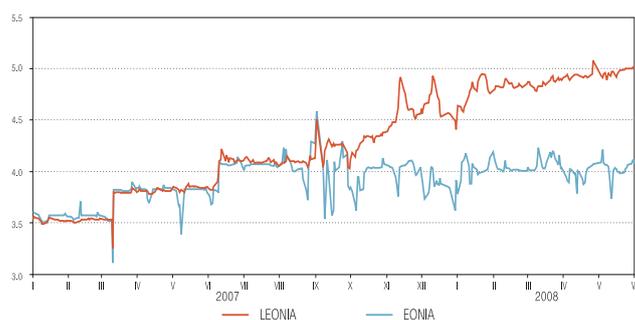
Source: BNB.

Interest rates on the interbank money market sustained their upward trend, prompted by the enhanced demand for lev resources from individual banks. The LEONIA index went up from an average of 4.68 per cent in December 2007 to 5.05 per cent in June 2008, in tandem with the widening of the spread *vis-à-vis* the interest rate on interbank overnight deposits in the euro area. The average interest rate on transactions concluded on the interbank money market followed a similar trend picking up from 4.74 per cent in December 2007 to 5.06 in June 2006. Since the summer of 2007 a differentiation in the interest rates on interbank market in levs and euro is observed, suggesting certain fragmentation of the two currencies' market.

Interbank money market trade featured high liquidity, with the daily average amount of transactions over the January – June 2008 period reaching BGN 443.3 million, from BGN 293.8 million for the same period of 2007 (in March 2008 traded volumes on repo transactions marked a sizable increase, mainly due to the selection of government securities primary dealers in March, based on the banks' share in the secondary government securities market, part of which are repo transactions). Apart from the money market, banks actively used currency trade with the BNB as a liquidity management instrument. The currency trade volumes between banks and the BNB remained high, without net purchases in foreign currency by the BNB.

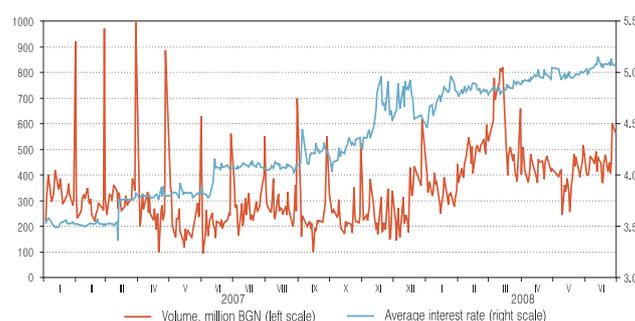
## LEONIA/EONIA

(%)



Source: BNB.

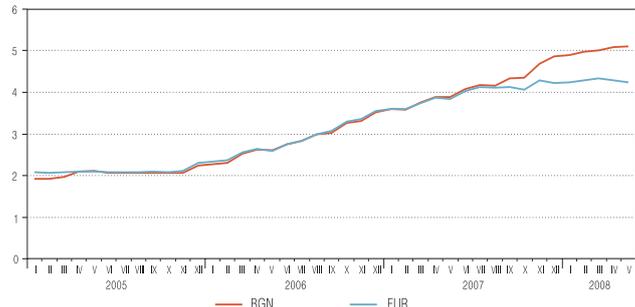
## Trade Volume and Interbank Money Market Interest Rates



Source: BNB.

## Interest Rates on Deposits in the Interbank Market

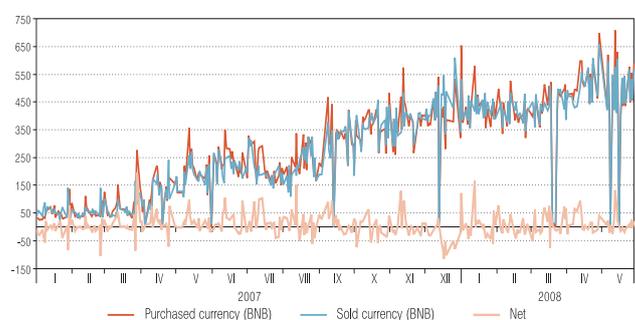
(%)



Source: BNB.

## Currency Sales or Purchases between Banks and the BNB

(million EUR)



Source: BNB.

## Interest Rates on Time Deposits



Source: BNB.

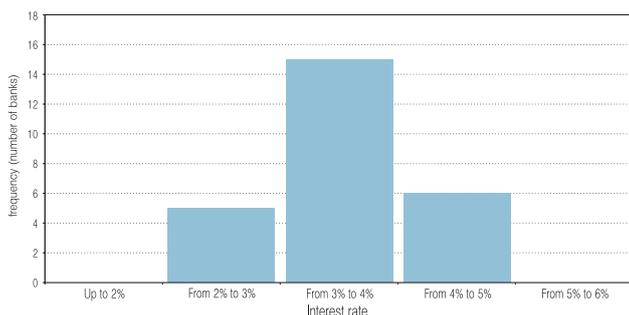
Since the year start interest rates on deposits denominated in levs and in euro continued to rise in line with banks' increased needs for funds to finance lending.<sup>4</sup> During the first quarter of 2008 average interest rates on lev time deposits rose by 24 basis points to 4.65 per cent, while euro time deposits registered growth of 16 basis points to 3.92 per cent. In April and May 2008 interest

rates on time deposits denominated in levs and euro picked up reaching respectively 5.19 per cent and 4.15 per cent in May. Meanwhile, over the recent months interest rates on time deposits in US dollars decreased, reflecting the US Federal Reserve System policy aimed at cutting interest rates on federal funds and the resulting trends on international financial markets affecting interest rates in US dollars.

As regards the distribution of interest rates on household deposits with maturity of up to one month by bank, the number of banks offering rates within the 5 to 6 per cent interval increased at the expense of those offering rates within the 2–4 per cent band. The difference between the highest and the lowest interest rates rose to 3.2 percentage points against 2.6 percentage points in January 2008. A certain increase in interest rate dispersion occurred as well.

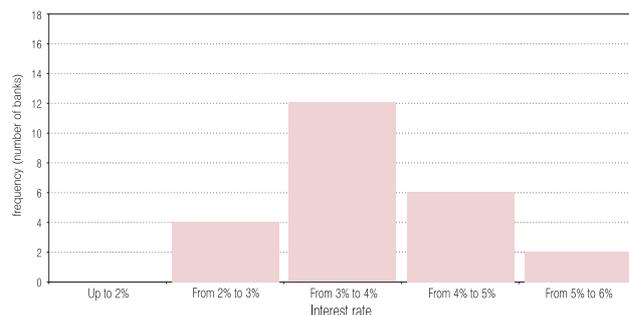
## Interest Rate Distribution of Household One-month Lev Deposits

as of January 2008



Source: BNB.

as of April 2008



## Credit Aggregates

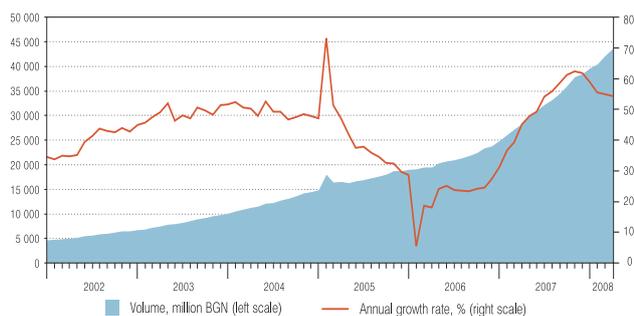
Lending remained robust despite the downward trend in the growth rate of claims on the non-government sector. Increases in deposit interest rates and cost of financing on money markets both in Bulgaria and the euro area spilled over into lending interest rates.

Between January and May lending remained high, with claims on the non-government sector rising by BGN 5742.7 million (up BGN 4942 million in the same period of 2007). Though the favourable macroeconomic environment and high demand for corporate and household loans created further conditions for strong credit growth, the annual rate of claims on the non-government sector began gradually to fall and reached 54.4

per cent in May, from 62.5 per cent at the end of the previous year. Slowing credit growth is associated with the high base and rises in interest rates on some types of loans. By the end of March the *claims on the non-government sector to GDP* ratio reached 68.7 per cent, up 1.9 percentage points on early 2008 and 17.6 percentage points on March 2007. Expectations are for the annual growth rate to continue slowing down in the coming months, its value reaching approximately 40 per cent at the end of 2008.

<sup>4</sup> According to the BNB lending survey, enterprises' credit demand remained robust.

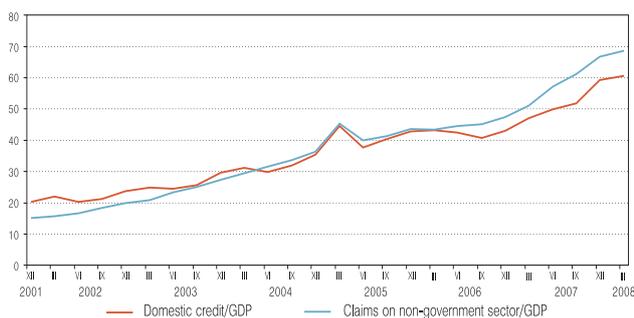
## Claims on Non-government Sector



Source: BNB.

## Domestic Credit

(share of GDP, %)

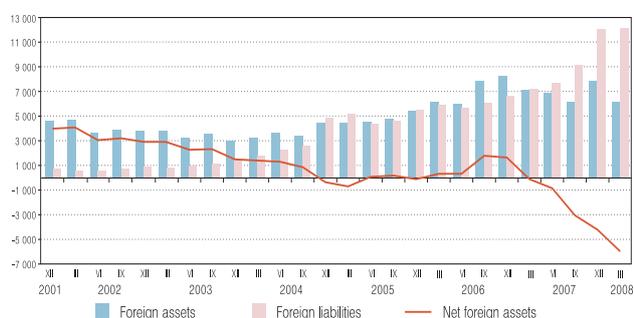


Source: BNB.

Over the review period a diversification in bank financing sources was observed. Net foreign asset decreases played an essential role in fueling credit activity. Between January and May banks' foreign assets dropped by BGN 2188.6 million, while funds attracted from non-residents rose by BGN 1316.3 million. As a result, net foreign assets declined by BGN 3504.9 million to BGN -7717 million. Among other financing sources, deposits of households and non-financial corporations increased by BGN 984.1 million.

## Foreign Assets and Liabilities of Banks

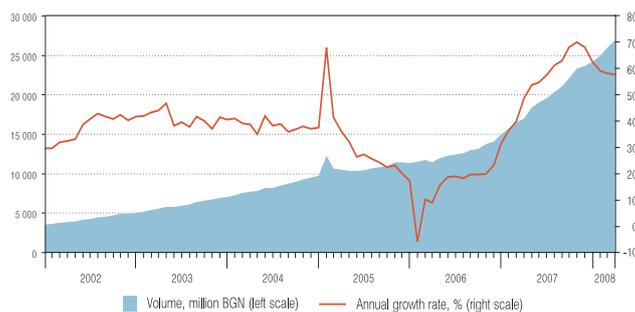
(million BGN)



Source: BNB.

Lending to non-financial corporations remained high, with buoyant production and investment activity further supporting strong demand for corporate loans. Between January and May 2008 claims on non-financial corporations rose by BGN 3553.5 million (up BGN 3331.9 million in the same period of 2007). Though remaining high, their annual growth fell from 70.2 per cent at the end of 2007 to 57.8 per cent in May 2008, reflecting the high base.

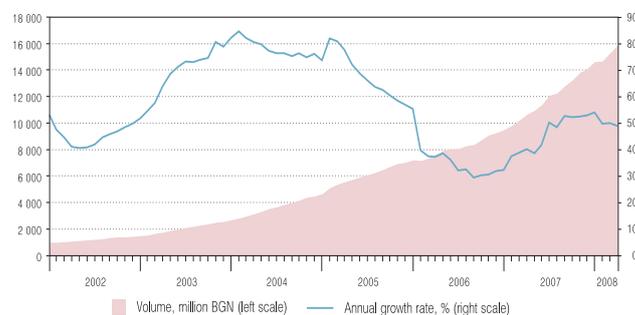
## Claims on Non-financial Corporations



Source: BNB.

Bank claims on households also reported high growth rates due to persistent favourable trends in employment and incomes. In the January to May period 2008 claims on households rose by BGN 2048.1 million (up BGN 1588.4 million in the same period of 2007). Their annual growth rate exhibited less pronounced downward trend: from 52.4 per cent at the end of 2007 to 48.9 per cent in May 2008. Residential mortgage loans continued rising at comparatively high rates, though their annual growth rate fell from 64 per cent at the end of 2007 to 55.2 per cent at the end of May 2008.

## Claims on Households



Source: BNB.

## Housing Loans



Source: BNB.

Increases in deposit interest rates and cost of financing on money markets both in Bulgaria and the euro area spilled over to some extent into lending interest rates. This affected most significantly lev-denominated corporate loans. April and May saw rises in interest rates on household loans. In the coming months the increasing cost of attracted funds is likely to exert further pressure on lending interest rates, although the increased competition within the banking system may reduce this effect. The ECB decision taken in early July to raise the interest rate on main refinancing operations by 25 basis points to 4.25 per cent will also contribute to the expected rise in lending interest rates.

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

(million BGN)

	2007				2008	
	I	II	III	IV	I	April – May
Claims on non-financial corporations	1995.2	2678.6	1938.1	3010.1	1670.7	1882.8
Deposits of non-financial corporations	-196.4	1123.9	1156.1	1678.3	-422.9	50.0
Claims on households	744.3	1141.8	1308.6	1543.9	867.7	1180.4
Deposits of households	550.0	908.1	1079.8	1734.7	811.9	545.2
Foreign assets	-1131.0	-236.5	-789.8	1764.5	-1681.4	-507.2
Foreign liabilities	627.5	510.4	1384.2	2955.8	63.5	1252.9
Claims on general government	-48.3	172.4	226.5	32.4	-103.6	-40.5
Deposits of general government	214.8	123.8	113.7	404.6	-200.3	443.8
Claims on central government	-51.1	154.7	201.7	-6.9	-106.2	-41.0
Liabilities to central government	-15.6	11.9	88.3	448.6	-310.1	338.2

Source: BNB.

## Claims on Non-government Sector (Quarterly)

	Annual growth rate, %					Structure as of 31 March 2008
	2007				2008	
	I	II	III	IV	I	
Claims on non-government sector, incl.:	36.6	47.8	55.9	62.5	55.5	
on non-financial corporations	36.4	53.9	61.2	70.2	59.2	62.0
on households and NPISHs	37.6	38.6	48.3	52.4	49.7	36.3
on financial corporations	26.0	46.0	43.9	33.3	56.3	1.8

Source: BNB.

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



Source: BNB.

## Interest Rates on Household Loans



Source: BNB.

# 3. Economic Activity

In the first quarter of 2008 the real GDP growth rate accelerated to 7 per cent on the corresponding quarter of 2007. Economic growth in 2008 is expected to remain steadily high driven largely by the sustained sizable increase in investment in fixed assets and improved contribution of net exports.

In the first quarter of 2008 real GDP growth reached 7 per cent as compared to the corresponding quarter of 2007. Major factors behind GDP dynamics were investment activity and higher exports growth rate than that of the imports of goods and services. Investment continued to play a key role in growth, with gross fixed capital formation accelerating by 15.5 per cent in real terms against the first quarter of 2007. For the first time in several years high GDP growth was supported by the positive contribution of foreign trade balance (0.5 percentage point for the review quarter). These developments were mainly due to the brisk increase in exports of goods (11.7 per cent in real terms on the first quarter of 2007), while imports of goods and services picked up in real terms close to those in the fourth quarter of 2007 (see the *Exports and Imports of Goods* section in this issue).

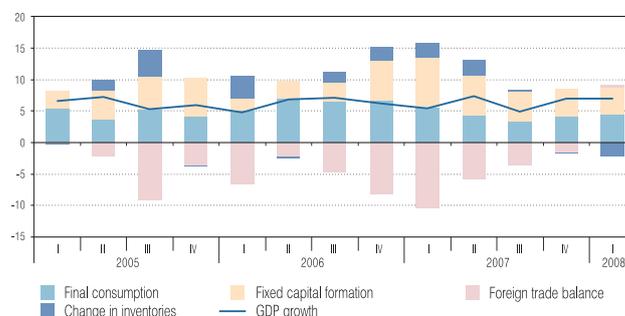
Over the review quarter final consumption growth accelerated slightly as compared to the second half of 2007 and reached 4.7 per cent. However, its components' dynamics was divergent, with government final consumption expenditure and collective consumption falling by 2.9 per cent and 5.8 per cent respectively, as a result of the government's conservative expenditure policy, while household consumption increased by 6.5 per cent. Against the background of the downward trend that emerged in 2007 household consumption changed markedly (2.7 per cent growth in the fourth quarter of 2007). Robust household consumption was largely due to the increased consumption of non-food goods (9.4 per cent against 4.8 per cent and 4.6 per cent rates in the third and fourth quarters of 2007 respectively) and to a lower degree to the growth in consumption of the *catering services*. These developments were broadly in line with the January data on indicators pointing to an improvement of consumer sentiment. However, April 2008 consumer expectations do not suggest retention of these growth rates (see the

*Household behaviour* section in this issue). Accordingly, in the coming quarters real growth in household consumption is likely to moderate.

Industry dynamics in the first quarter of 2008 differed significantly from that in 2007. The value added in agriculture fell by 1.6 per cent on the first quarter of 2007. The real growth rate of services remained robust (8.3 per cent), and that of industry slowed down but still at high levels (at around 7.7 per cent). Provided the climate conditions in 2008 are favourable, a significant increase in the value added in agriculture may be expected in the coming quarters, especially given the very low base from 2007.

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

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



Source: NSI.

Economic growth is expected to remain high over the following quarters, driven by investment and improved external trade contribution. Accelerated growth might be seen in the third quarter of 2008 when due to the poor harvest in 2007, the real rate of change was relatively low (4.9 per cent). Risks related to these expectations were associated with the external environment, where a significant slowdown of global growth and unfavourable changes in energy prices, as well as in the prices of other commodities of key importance to Bulgarian economy, may result in lower economic growth.

## Final Consumption Dynamics (Quarterly)

(on corresponding period of previous year, %)

	2006				2007				2008
	I	II	III	IV	I	II	III	IV	I
Consumption incl.	5.5	8.0	8.3	7.3	6.0	5.0	4.2	4.5	4.7
Household consumption	6.7	10.2	10.9	10.2	7.8	6.1	5.1	2.7	6.5
Final government consumption expenditure	8.2	4.9	0.3	-7.9	-1.2	-1.0	2.3	8.5	-2.9
Collective consumption	-5.7	-4.6	-5.1	3.4	-2.7	0.7	-2.5	13.3	-5.8
Gross fixed capital formation	8.5	11.6	12.8	22.1	35.9	24.7	19.7	14.0	15.5
Exports of goods and non-factor services	12.7	9.5	8.4	5.0	3.7	5.3	5.4	6.0	9.2
Imports of goods and non-factor services	18.6	10.3	14.0	14.0	14.7	11.1	9.3	5.7	5.8
<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>	<b>7.0</b>

Sources: NSI, BNB.

## Household Behaviour

The continuous increase in income coupled with relatively more optimistic consumer sentiment reported in early 2008 were the main factors behind the high rate of growth in consumption. A significant contribution was reported in non-foods (up 9.4 per cent on an annual basis) broadly in line with improved consumer expectations for purchase of durable goods in the following twelve months reported at the year's start. The annual growth rate of food consumption continued to moderate (3 per cent in the first quarter of 2008), a trend which emerged in mid-2007.

In the second half of 2007 the decrease in consumption of unincorporated goods mainly attributable to the poor harvest in the agricultural sector had a large negative contribution to consumer expenditure. From the start of 2008 this expenditure retained the levels from the first quarter of 2007. As a result of the expected recovery of production in the agricultural sector in 2008, this expenditure item will contribute to the recovery of consumption in the second half of 2008.

Based on data in the household budgets, real household expenditure increased by 4.8 per cent over the first four months of the review year. Annual growth rates moderated from 10.6 per cent in January to 0.5 per cent in April 2008. The slower growth in expenditure on food was confirmed by the data in the household budgets pointing to a 1.2 per cent increase in the first four months of 2008. Trade revenue and sales also maintained moderate growth in this group of goods. Current data show that the trend towards a weaker growth was sustained in the second quarter of the review year.

The first four months of 2008 saw high growth in expenditure on home furnishing and appliances, as well as on clothes and footwear. At the same time, compared to the 2006 and early 2007 dynamics, expenditure on *home furnishing and maintenance* increased at a lower pace. This trend is expected to be sustained over the following quarters supported by more pessimistic views of such household spending reported in April 2008.

According to the April 2008 NSI survey, consumer sentiment became more pessimistic as compared to January 2008. Households' financial and economic performance is expected to be at levels close to those from the second half of 2007 when high inflation resulted in a sharp decline in consumer confidence. Inflationary expectations remain high. An increase in inflationary expectations may also be observed in prior periods when current inflation was assessed as high but there was no actual impact of inflationary expectations over real inflation. Prospects for the level of unemployment remain favourable and in line with the current developments of this item.

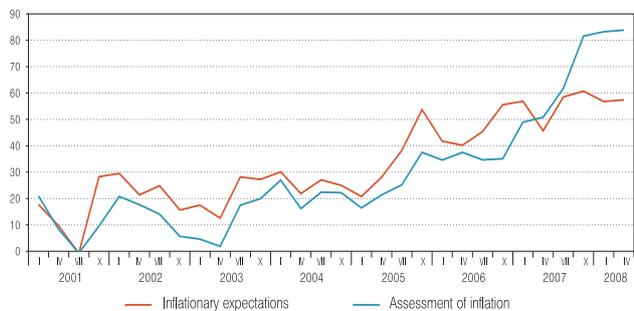
According to the labour force survey data, the number of employed increased by 4.9 per cent on an annual basis in the first quarter of 2008. The inclusion of economically inactive population in the labour market is an important factor for boosting employment given the relatively low level of unemployment reached in 2007 and in the first quarter of 2008 (6.9 per cent and 6.5 per cent respectively). On the one hand, such developments were prompted by the opening of new jobs which spurred the active participation of discouraged persons in the labour market and, on the other hand, by the wage rise that made labour more attractive to the economically

inactive population. In early 2008 private sector employment continued to rise in parallel with the decrease in the number of employed in the public sector. Maintaining a conservative employment and wage policy in the public sector was a key factor for limiting skilled labour shortages in the economy as a whole.

### Current Dynamics of Main Expenditure Aggregates



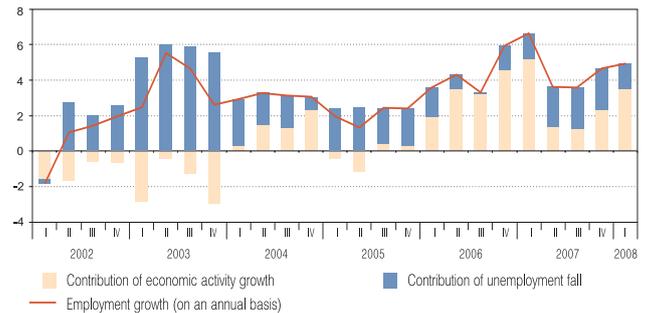
Source: NSI – Consumer Survey.



Source: NSI – Consumer Survey.

### Sources of Employment Growth (Quarterly)

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



Sources: NSI, BNB.

### Employment and Income Dynamics (Quarterly)

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

	2006				2007				2008
	I	II	III	IV	I	II	III	IV	I
Employed	2.4	3.6	2.2	2.9	4.9	3	2.1	1.6	3.3
Real wage	0.5	-0.4	2.1	5.5	11.8	14.2	11.6	10.8	10.7
Wage fund	2.5	2.8	4.1	8.2	17	17.2	13.7	12.1	14.1
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	6.8

Sources: NSI – Enterprise Survey, Employment Agency.

### Consumer Demand Dynamics (Quarterly)

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

	2006				2007				2008
	I	II	III	IV	I	II	III	IV	I
Consumer spending <i>per</i> household member	2.9	5.5	7.3	8.1	10.6	12.0	8.9	6.5	6.5
Retail sales	11.0	13.3	14.2	14.1	13.8	13.1	8.4	9.0	11.3
Income from retail trade	9.9	12.5	14.1	15.3	15.3	13.4	10.9	10.6	10.4
incl.:									
Food, drinks, tobacco	6.7	5.7	7.4	8.7	7.6	8.1	2.3	0.6	4.7
Pharmaceutical and medical goods, cosmetics and toiletries	11.9	15.4	12.1	10.3	7.8	6.0	10.2	9.0	12.2
Textile, clothing, footwear and leather	18.1	23.8	29.9	27.6	18.3	11.4	20.8	22.1	25.5
Household goods and home appliances	21.5	26.0	27.5	26.7	27.7	26.2	22.1	19.7	12.1

Source: NSI household budgets and domestic trade survey.

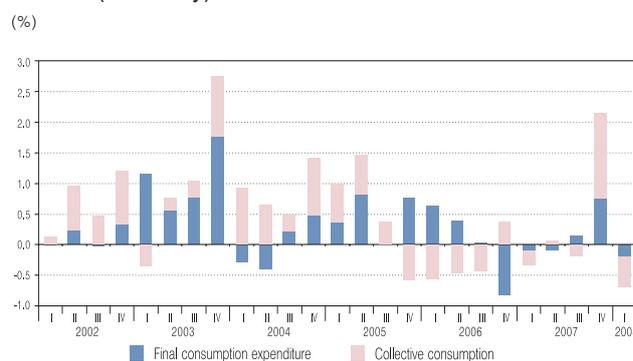
The consolidated fiscal programme balance for the first quarter of 2008 was positive and reached 2.7 per cent of the projected GDP for 2008. The government maintained a policy of gradual increase in public expenditure and the contribution of government consumption in real GDP growth over the review quarter was negative.

Over the review quarter the consolidated fiscal programme surplus came to BGN 1711.5 million or 2.7 per cent of projected GDP for 2008. The surplus increased by BGN 1167 million on the same quarter of 2007 largely attributable to higher revenue from indirect taxes from the year start (up 62.6 per cent) as compared to the first quarter of 2007 when the one-off effects of Bulgaria's accession to the EU resulted in a temporary slowdown in income from such taxes. Direct tax revenue also posted considerable growth, with corporate tax revenue going up by 28.6 per cent on an annual basis. Outlooks for a fall in income as a result of the introduction of a proportional income tax for individuals did not realise and in the first quarter of 2008 income increased by 15.3 per cent with revenues from labour tax going up by 19.5 per cent due to the strong growth in wages.

Over the period under review consolidated fiscal programme expenditure was 11.6 per cent higher than in the corresponding period of the previous year and represented 20 per cent of planned expenditure for 2008. Wages and pensions expenditure posted a more sizable increase of 19.7 per cent and 19.6 per cent respectively on an annual basis, reflecting the indexations made in the second half of 2007. Accordingly, social security payments contributed most significantly to current government expenditure. Subsidy payments were 50.3 per cent higher due to the Tobacco fund financing of advance payments for tobacco producers. The relatively strong growth in capital expenditure was sustained but in the first quarter of 2008 it slowed down to 20.5 per cent as compared to 39 per cent in the corresponding period of the prior year. The conservative budget expenditure policy maintained in the first quarter of 2008 against a background of rising prices and wages materialized in a fall in collective consumption of 5.8 per cent in real terms. Thus, the government managed to partially offset enhanced consumer and investment demand via anticyclical

tightening of fiscal policy. In the second quarter of 2008 budget revenues are expected to remain strong with a moderate government expenditure growth. As a result, consolidated fiscal programme surplus will probably amount to over 5.5 per cent of the projected GDP for the year under review by mid-2008. (According to preliminary data, it was around 4.2 per cent of GDP as of April 2008). Government final consumption contribution is expected to be close to zero but most probably it will remain negative. A relatively stronger increase in expenditure is expected in the third quarter stemming from the planned pension and wage indexations but still the surplus will stay significantly above the projected level of 3 per cent.

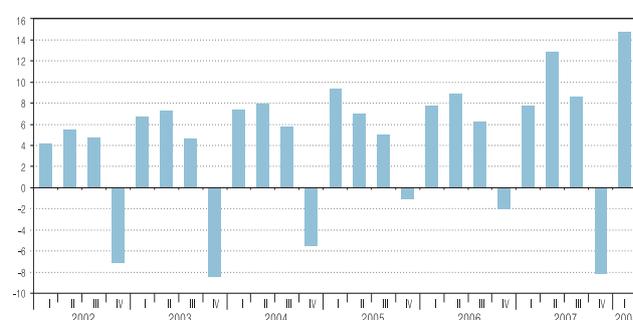
### Contribution of Government Final Consumption Expenditure and Collective Consumption to Economic Growth (Quarterly)



Sources: NSI, BNB.

### Primary Balance (Quarterly)

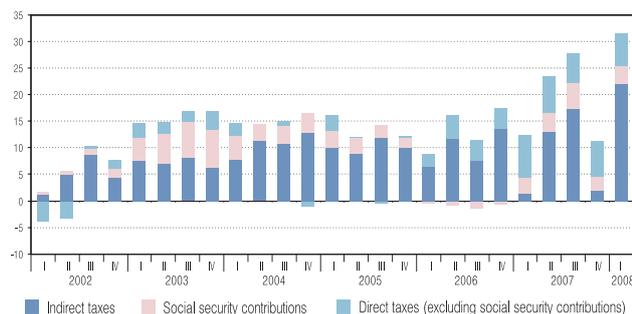
(share of GDP for the quarter, %)



Sources: MF, BNB.

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

(percentage points)



Sources: MF, BNB.

## Behaviour of Firms and Competitiveness

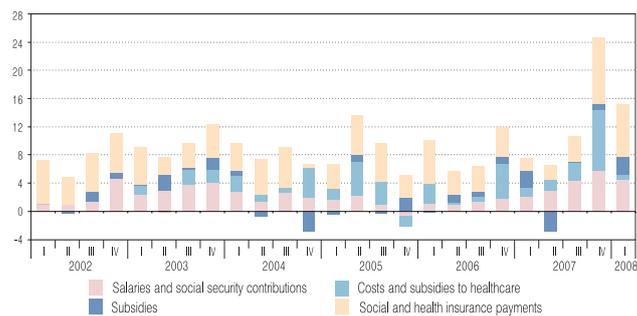
Economic developments remained relatively favourable. Bulgarian economy sustained its competitive position.

Economic developments have been favourable since early 2008. Positive assessments of the current situation and optimistic expectations of economic managers are supported by industry and services dynamic development.

During the first quarter of 2008 value added picked up by 7.6 per cent in real terms, with services contributing most by 5.07 percentage points. The greatest share in the increase of services was reported by the *financial intermediation* sector: a 38.4 per cent real growth and a 2.8 percentage point contribution to the rise in the value added in economy. The sector's dynamics was determined by high profit rates, access to external financing, brisk competition and the potential for developing and strengthening financial intermediation in Bulgaria. The *transport and communications* and *trade* sectors also registered high rates of real growth: 6.6 per cent and 8.5 per cent respectively and managers' expectations are optimistic.

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

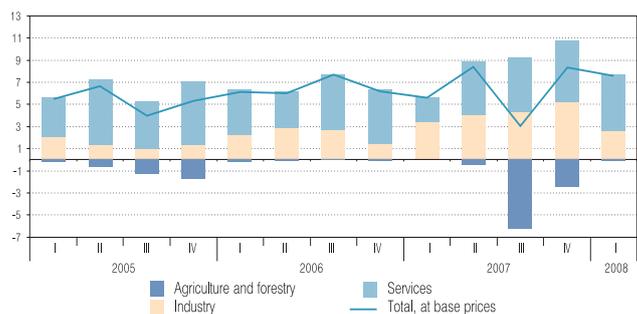
(percentage points)



Sources: MF, BNB.

### Value Added Growth and Contribution by Sector

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



Source: NSI.

Industry contributed to value added growth by 2.6 percentage points, including the 1.2 percentage point contribution of manufacturing.

According to the monthly survey of industrial enterprises, during the first four months of 2008 the industrial growth index went up by 5.1 per cent. A real decline in output on an annual basis was registered in March, with a considerable negative contribution reported by *tobacco products, textile* and *clothing*. A trend towards a gradual fall in the high growth of *textile* and *clothing* occurred in 2007. In 2008 the output index negative growth in these sectors was accompanied by a continuing decrease in the number of employed and an accelerating rise in wages. Obviously, some of the firms found it difficult to retain their positions under the conditions of external and internal competition and higher energy and labour costs.

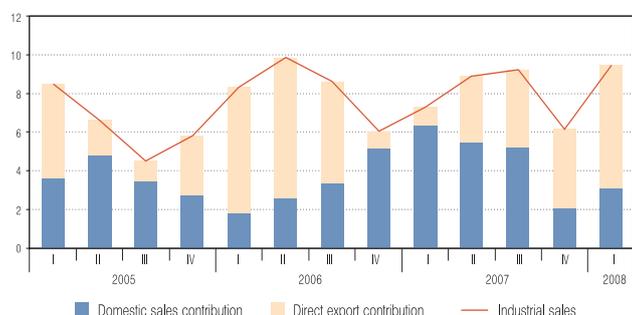
Data as of April 2008 show a sustainable trend to restructuring of manufacturing with a view to gradual reorientation from low value added and productivity industries to higher-technology ones. Production of machines and equipment continued accelerating: it went up by some 28 per cent on average over the first four months of the current year.

Following the restructuring of companies dealing with *smelting and casting*, investments made in 2007 and the ensuing slowdown in the production process, output volumes recovered their positive growth. The trend to a sustained positive growth is expected to continue, especially in non-ferrous metallurgy, where sales growth in the first quarter of 2008 came to 40.6 per cent.

The trends showing in the output index by industry affected industrial export sales by sector. Industrial export sales of textile and clothing dropped by 7.5 per cent and 20 per cent respectively; they reported a 1.7 percentage points total negative contribution to export growth. Concurrently, metallurgy and production of machines added 8 percentage points to industrial export growth.

### Industrial Sales Growth

(% on corresponding quarter of previous year)



Sources: NSI, BNB.

Industrial enterprises loaded additionally the existing industrial facilities in order to meet the needs of higher production capacity in a short time. According to business situation survey data, by April 2008 enterprises' capacity utilization accounted for 75.7 per cent. At the same time, current production capacity is considered by over 85 per cent of managers to be sufficient for meeting the expected demand in the short run.

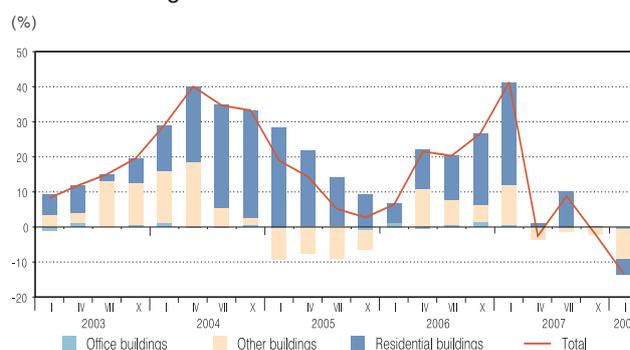
In early 2008 construction activity continued to accelerate. The sector's value added rose by 13.6 per cent on an annual basis, contributing by almost 1 percentage point to total value added in

the economy. Moreover, construction prompted the overall increase in economic activity, additionally boosting demand in sectors producing construction materials: *manufacture of other non-metal mineral products* and *metallurgy and manufacture of metal products*, as well as in industries producing equipment goods and furniture. Expansion in the sector was also related to buoyant investment – the share of construction in total expenditure on fixed assets in the economy came to 8 per cent for 2007 and the beginning of 2008.

The upsurge in prices and output, and optimistic expectations about the future were the factors behind wage rises in the sector. According to NSI business surveys, over one third of the contractors identified the shortage of free work force as an obstacle to business development. At the same time, vacancy rate was relatively low, 0.5 per cent, suggesting that the firms in the sector have no serious difficulties in recruiting the necessary work force. Dynamic growth of employment in the sector exerted no serious pressure on labour market. On the one hand, medium-sized wages in construction were relatively lower than those in sectors that are a potential source of labour resources for the sector, e.g. industry. On the other hand, there was a good correspondence between the skills of unemployed and discouraged and those employed in construction, which favoured the incorporation of unemployed and discouraged in employment.

Our expectations about the sector's future development are optimistic, which is evidenced both by the opinions on the economic situation and investments in the sector. However, the rate of issuing construction permits has been slowing down since the start of the current year; provided this turns into a trend during the following months, the sector may report a weaker activity in the future.

### Annual Growth of Permits Issued for Construction of New Buildings



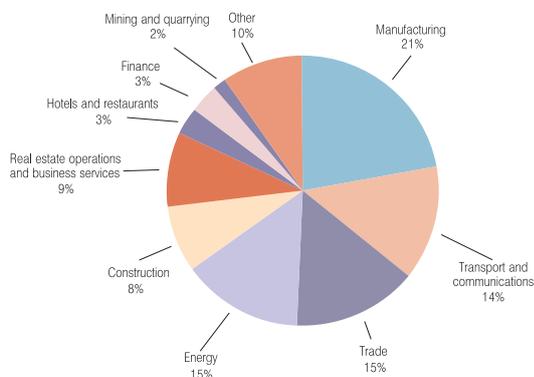
Source: NSI.

Real property market is directly related to construction and the overall development of economic activity in Bulgaria. The factors behind price rises are enhanced demand, prompted by higher incomes, improved access to financing and low interest rates. Demand is also underpinned by investment inflows; the bulk of them are business investments. Further rises in property sales prices will be determined by these factors' dynamics.

Rising purchases of houses underpin, on the one hand, the demand for home furnishings. On the other hand, increased expenditure on servicing housing loans has a restricting effect on household consumption of goods and services in the medium run.

Favourable economic environment and expectations about future economic development boosted investments in additional production facilities. During the first quarter of 2008 nominal expenditure on acquiring fixed assets went up by almost 30 per cent on an annual basis. Manufacturing retained its prevailing share (21 per cent) in investments. The share of investments in *electricity, gas and water, transport and communications* and *trade* increased in line with the continuing dynamic development of these sectors.

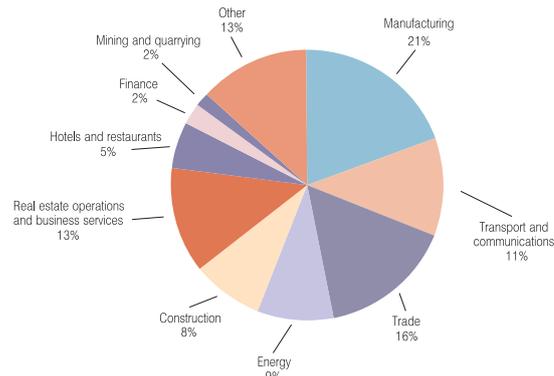
Structure of Expenditure on Acquiring Fixed Assets by Economic Activity in the First Quarter of 2008



Source: NSI.

Preserving and improving economic competitiveness under the conditions of integration into the Single European Market is of crucial importance for maintaining nominal and real convergence. The opportunities of export activity to grow in the future are directly related to firms' competitive position in Bulgaria.

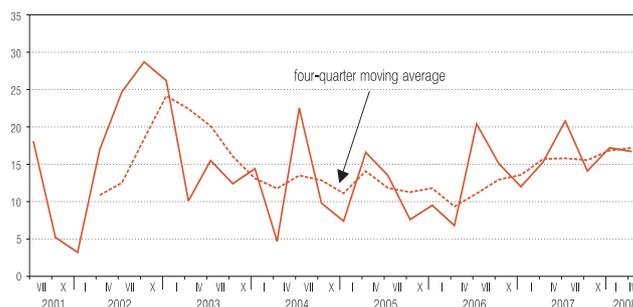
Structure of Expenditure on Acquiring Fixed Assets by Economic Activity in 2007



Source: NSI.

Optimistic expectations and export sales sustainable growth, coupled with enhanced investment activity, show the higher export potential of the economy. The change in the export structure towards goods produced in higher-technology industries also supports this trend. Data on export distribution by region indicate no worsening of export activity directed to countries outside the EU.

#### Export Expectations



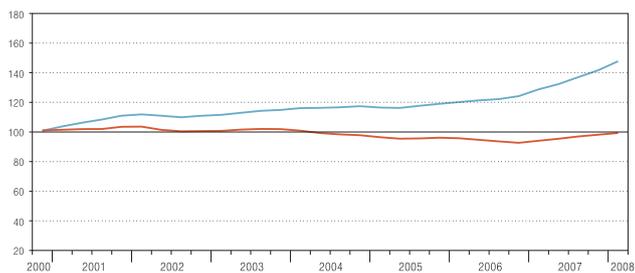
Source: NSI.

During 2007 and the first quarter of 2008 compensation *per* employee in nominal terms picked up by 18 per cent and 19.3 per cent respectively on an annual basis. Part of the reported increase resulted from the rises in the minimum wage in 2007 and 2008, as well as from the improved reporting owing to the 10 per cent single income tax rate introduced at the year start. According to the enterprise survey, higher wage rises are observed in the dynamically developing sectors that, at the same time, have difficulties in filling their vacancies: *financial intermediation, transport and communications, and industry*. The *operation in real property and business services* sector also registered sizable wage rises owing to expanding activities. Vacancy rate was preserved at the previous year's relatively low levels, which indicates improved labour market elasticity.

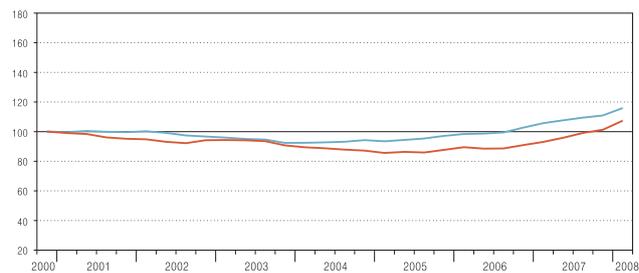
## Unit Labour Cost (Quarterly)

(2000 = 100)

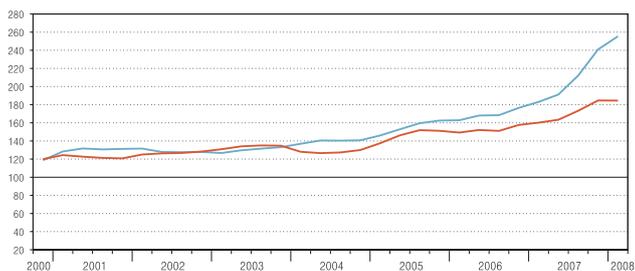
### Total for the Economy



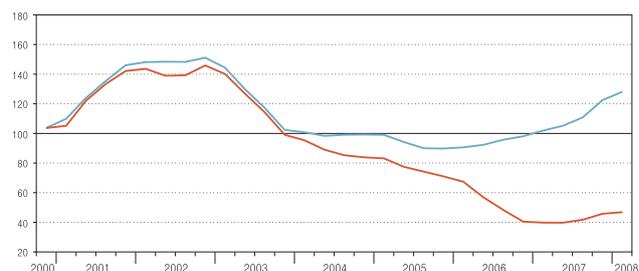
### Manufacturing



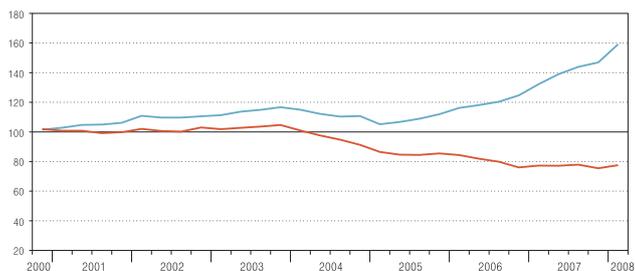
### Agricultural Sector



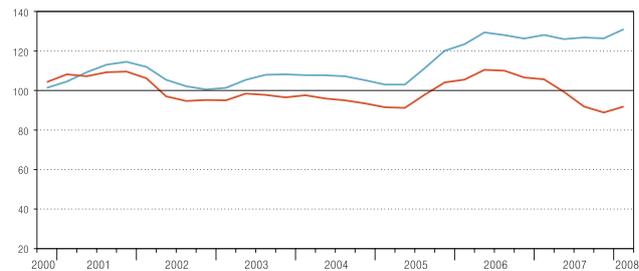
### Mining and Quarrying



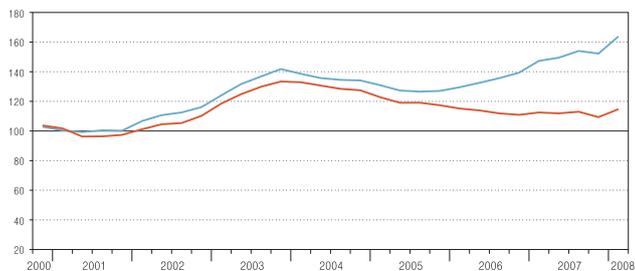
### Construction



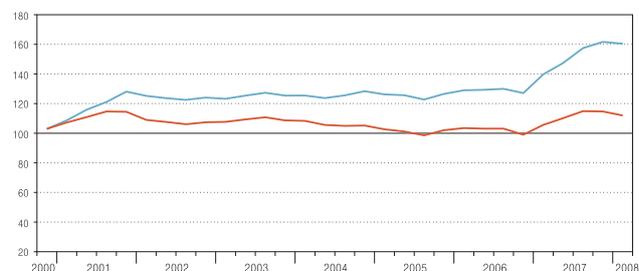
### Electricity, Gas and Water Supply



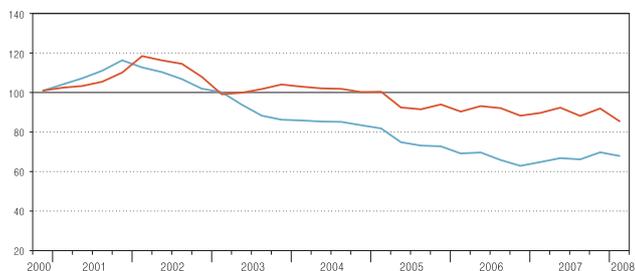
### Trade



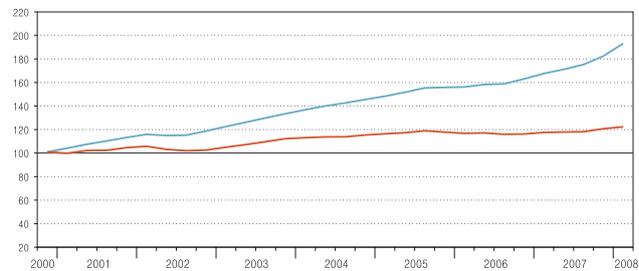
### Transport and Communications



### 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.

During the first quarter of 2008 fast rising wages prompted an increase in unit labour costs coming to 16.8 per cent in nominal terms and 4.7 per cent in real terms. Nominal unit labour costs of services (excluding *transport and communications* and *financial intermediation*), construction and extracting industry posted an increase of over 20 per cent over the January to March period. Owing to the upward trend in this sector's prices, real unit labour costs grew at more moderate rates. The *government, education* and *healthcare* sectors contributed considerably to the increase in unit labour costs of services due to indexation of wages in the public sector in 2007. Nominal unit labour costs in industry also go up faster than at the year start. Accelerating economic growth allows higher labour costs to be accompanied by growing profits despite the trend towards income redistribution in favour of the employed and reduction in the profit and mixed income rate in value added.

Appreciation of energy resources and other materials in 2007 and early 2008 had a stronger negative effect on profits and prices of final out-

## Exports and Imports of Goods

**Exports are expected to maintain high growth rates in nominal terms in the next quarters of 2008, with imports retaining relatively sustained growth. Trade deficit will continue to rise nominally on an annual basis due mainly to the negative effect of the changed trade conditions.**

Despite uncertainty on international markets and deteriorated prospects for the world economy, exports picked up by 26 per cent for the first quarter of 2008 on an annual basis (compared with the 9 per cent increase for the first quarter of 2007), while imports grew by 22 per cent (20 per cent for the respective period of 2007). Positive trends in export developments in terms of value are expected to be sustained in the forecast horizon. Major reasons behind these expectations are related to preserved domestic output competitive positions on international markets resulting from sustained labour productivity growth in manufacturing, robust investment activity and rising share of Bulgarian exports in EU countries' total imports. Since tension on international financial markets stayed high, this posed risks of lower export growth due to the putative negative impact of external demand. Imports of goods are anticipated to preserve their steady dynamics in the

put in manufacturing compared with wage rises. Owing to the lower labour costs in the cost of production in industrial enterprises (some 10 per cent in 2007 compared with 21 per cent in services) and the weaker distribution of professional organisations (according to 2005 data only 20 per cent of the employed in economics were members of professional organisations) the pressure of raised wages on prices and profits was weaker.

Employment growth since 2003 has been accompanied by labour productivity growth and expanding economic growth potential. The sizable reserve of unemployed (the average unemployment level was 11.2 per cent over the 2003 to 2006 period) contributed to a lower rate of the rises in real wages, which went up by less than 4 per cent on average on an annual basis. Due to the gradual attainment of relatively low unemployment levels, in 2007 real wages started to rise. The increase in employment, related to enhancing economic activity of the population as well resulted from better labour market conditions, including wage rises.

second and third quarters of 2008, underpinned mainly by strong investment activity, stable domestic demand and dependence of some export-oriented industries on imported raw materials.

Regarding international prices of commodities and raw materials over the forecast horizon, the comparatively high food and crude oil prices in the first quarter of 2008 are expected to be sustained, and ferrous metals are anticipated to continue increasing. Taking into account the structure of foreign trade flows and the assumptions about international raw material prices, we anticipate a negative change in trade conditions which will have a major contribution to the increase in Bulgaria's foreign trade deficit.

According to national accounts data, during the first quarter of 2008 net exports had a positive contribution of 0.5 percentage points to economic growth, due mainly to rising exports (9.2 per cent)

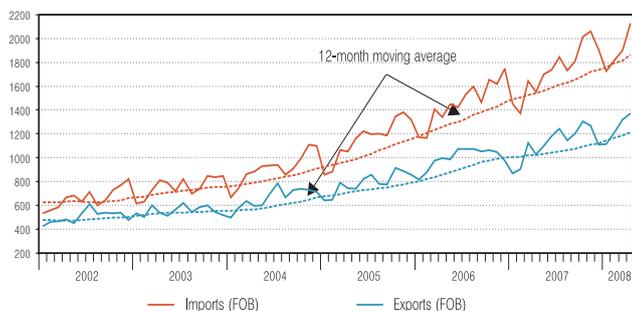
and an increase in imports (5.8 per cent) which is close to the 2007 fourth quarter level; in both cases there was a base effect. In the second and third quarters of 2008 we expect a high real export growth and slightly accelerating imports of goods and factor services. The contribution of foreign trade balance to GDP total growth against the background of the projected export and import dynamics in the forecast horizon will deteriorate and will become negative compared with the level reported during the first quarter of 2008.

Over the January to March 2008 period energy resources and investment goods contributed mostly (by EUR 221 million) to trade deficit growth in terms of value (by 12 percentage points and 7.8 percentage points respectively). In the first category, oil product imports rose reflecting both high international price of petrol and growing physical volumes. In the second category, imports of transportation vehicles went up considerably as a result of enhanced investment activity in Bulgaria. The dynamics of foreign trade in raw materials, which reported a negative contribution, added to the deficit decrease, with non-ferrous metals, whose exports picked up by 45.4 per cent on an annual basis, playing the major role.

According to preliminary data, from January to March 2008 goods exports in euro reached EUR 3643.9: a nominal growth of EUR 744.8 million, or 25.7 per cent on the corresponding period of the previous year. Imports (FOB) comprised EUR 5439.9 million for the three months and the nominal increase came to EUR 965.8 million or 21.6 per cent compared with the same months of 2007. Exports retained their upward trend in April as well, reporting a 33.6 per cent growth rate on an annual basis. The annual contribution of imports was 37.2 per cent.

### Dynamics of Exports and Imports

(million EUR)

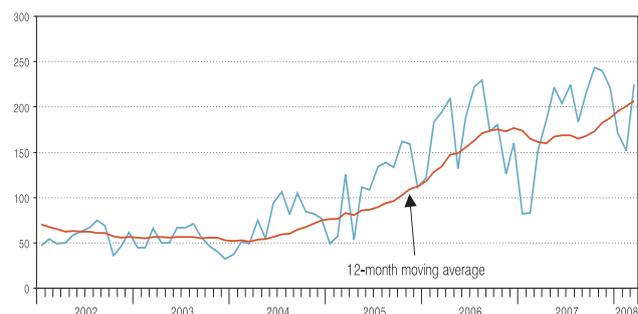


Source: BNB.

Between January and March 2008 all groups excluding *textile, leather, clothing, footwear and other consumer goods* affected positively export growth, with the dynamics of *mineral products and fuels, base metals and their products, and machines, transportation vehicles and appliances* contributing most by 7.9 percentage points, 6.7 percentage points and 4.9 percentage points respectively. Receipts from exports in the first category amounted to EUR 547.73 million during the January to March period of 2008: up by 72.6 per cent on the corresponding period of the prior year. This resulted from the higher exports of oil products (up by 15.5 per cent on January – March 2007) and higher oil price (the average price in euro went up by 56.4 per cent over the review period of 2008). The group's major positive contribution to the total export dynamics was registered by *mineral fuels, mineral oils and distilled products* (7.2 percentage points) and *ores* (0.7 percentage point). Mineral products and fuels exports are expected to show an upward dynamics and a rising positive contribution to Bulgaria's total exports. Higher international petrol price (on an annual basis) is anticipated to have a major contribution to the increase in receipts from exports of energy resources. The physical growth of oil products' exports, as well as the retained trend of the last few months indicating rising receipts from electric energy exports, also supported positive expectations.

### Exports of Mineral Products and Fuels

(million EUR)



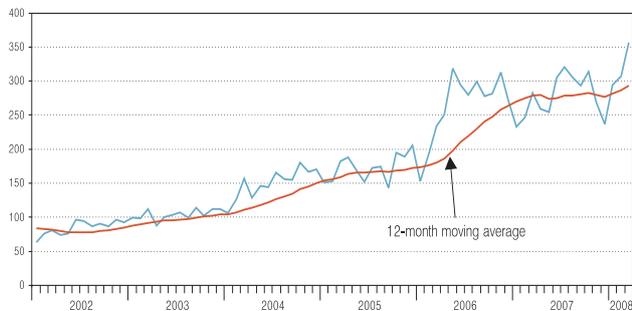
Source: BNB.

Receipts from exports of base metals and base metal products went up by EUR 195.6 million, affected favourably by higher copper, lead and aluminium prices on international markets, as well as by stable production and export activity in ferrous metallurgy. *Copper and copper products* and *cast iron, iron and steel* had a major contribution to total growth (6.2 percentage points and 0.4

percentage points respectively), while *zinc and zinc products* had a negative contribution (-0.7 percentage point). Regarding exports of *base metals*, high investment activity and improving competitiveness of this industry are expected to retain their early-year positive trends.

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

(million EUR)

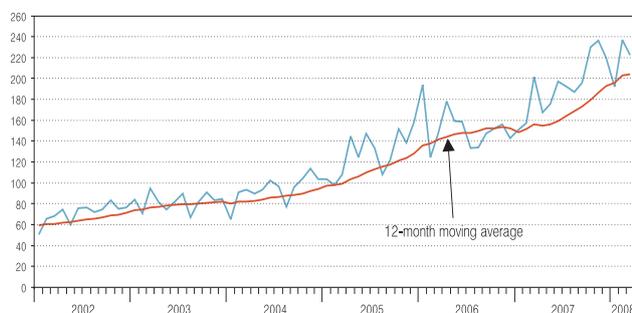


Source: BNB.

Receipts from exports of machines, transportation vehicles and appliances went up by EUR 141.5 million, mainly as a result of growing receipts from exports of nuclear reactors, boilers and parts (a 1.9 percentage point contribution to total growth) and of electrical machines and appliances (a 1.9 percentage point contribution), while *sea and river transport and aeronautic and transportation vehicles and railway appliances* contributed negatively by -0.5 percentage point and -0.2 percentage point respectively. In the second and third quarters of 2008 exports of *machines, transportation vehicles and appliances* are anticipated to retain their upward trend and to report faster dynamics than that of total exports as a result of industry reorientation towards higher value added products.

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

(million EUR)

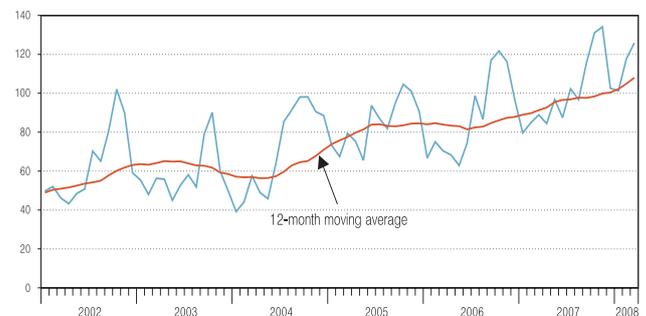


Source: BNB.

Receipts from exports of *food, drink and tobacco products* reached EUR 344.8 million for the first three months of 2008. These positive developments were underpinned mainly by *oil seeds and fruit* (0.9 percentage point), *cereals* (0.6 percentage point) and *milk and dairy products* (0.5 percentage point), while exports of *vegetables* had a negative contribution (-0.1 percentage point). Positive trends are expected to continue during the second and third quarters of 2008. Prospects are based on present information about anticipated good yields in agriculture and expectation will materialise provided that an increasing number of producers meet the EU standards and have a free access to the single European market.

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

(million EUR)

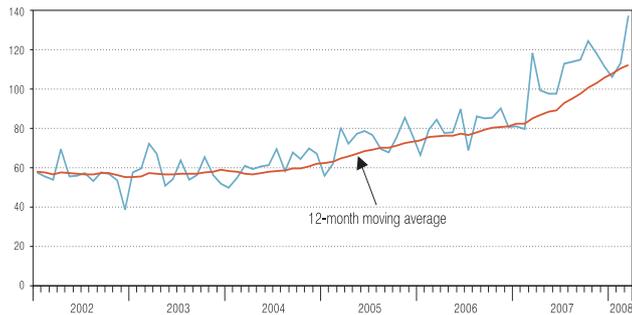


Source: BNB.

Receipts from exports of *chemical products, plastics and rubber* reached EUR 357 million from January to March 2008, growing by 27.9 per cent on the corresponding period of the previous year. Positive developments for the period were reported by all positions of the group excluding *photographic and cinematographic products*, with *pharmaceuticals* and *fertilizers* having the strongest effect (contributing by 0.9 percentage point and 0.6 percentage point respectively). We expect the upward dynamics of receipts from exports of chemical products to be sustained in the forecast period owing to their good competitive positions on international markets.

### Exports of Chemical Products, Plastics and Rubber

(million EUR)



Source: BNB.

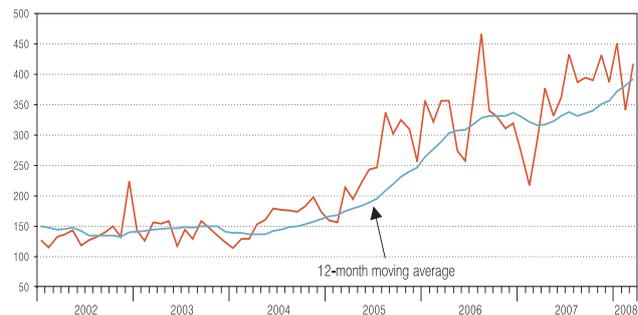
The group of *textile, clothing and footwear* was the only one with a negative contribution of its exports to total export growth in the first three months of 2008 (-0.1 percentage point), while all other groups reported positive developments over the period. Realised receipts from exports of textile were less by EUR 2.9 million (0.5 per cent) compared with the January to March 2007 period, with the decrease in clothing exports (a contribution of -0.3 percentage point) having the strongest impact. At this stage, based on present information, only assumptions can be made of the reasons for the observed decline and its duration: the demand for Bulgarian clothing may have decreased due to the competitive supply of Indian and Chinese goods, although structural problems in the textile sector are also possible.

Imports (CIF) reached EUR 5715.8 million in the January to March 2008 period; a nominal increase of EUR 1018.4 million (21.7 per cent) on the respective period of the prior year. In the structure of imports by use mineral products and fuels registered the highest positive growth (9.1 percentage points), followed by investment goods (5.6 percentage points) and raw materials (4.1 percentage points).

Payments on imports of mineral products and fuels in the first three months of 2008 came to EUR 1208.5 million, with crude oil and natural gas having a major contribution (8.2 percentage points). Crude oil imports are expected to increase during the second and third quarters of 2008 as a result of sustained production activity in the *oil processing* sector. Assumptions about international oil prices presuppose a rising price effect (on an annual basis), which will push up payments on imports.

### Imports of Energy Resources

(million EUR)



Source: BNB.

### Contribution of Commodity Groups to Trade Growth, January – March 2008

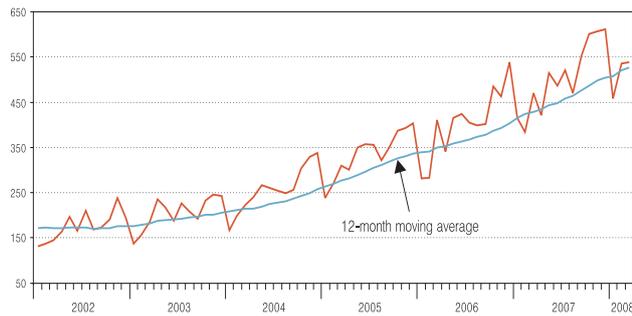
	Exports		Imports	
	growth, %	contribution, p.p.	growth, %	contribution, p.p.
Consumer goods	12.6	3.3	16.6	2.8
Raw materials	23.0	11.0	10.5	4.1
Investment goods	25.4	4.2	20.7	5.6
Energy resources	75.3	7.2	54.8	9.1
<b>Growth, total</b>	<b>25.7</b>		<b>21.7</b>	

Source: BNB.

Investment goods imports preserved their sustained developments in the first three months of 2008; they were the second largest group of imports with a share of 26.8 per cent. Their value reached EUR 1530.7 million, with *transportation vehicles* contributing most to total growth by 1.5 percentage points. The total value of imported raw materials comprised EUR 2036.5 million during the first three months of 2008: up by EUR 194 million on the corresponding period of 2007. In this group *ores, cast iron, iron and steel, and food feedstocks* had the largest contribution to total growth (1.2 percentage points, 0.9 percentage point and 0.9 percentage point respectively). The upward trend in imports of investment goods and raw materials is anticipated to be sustained during the second and third quarters of 2008 owing to high domestic investment demand and stable production activity in industry (metallurgy and chemical industry).

### Imports of Investment Goods

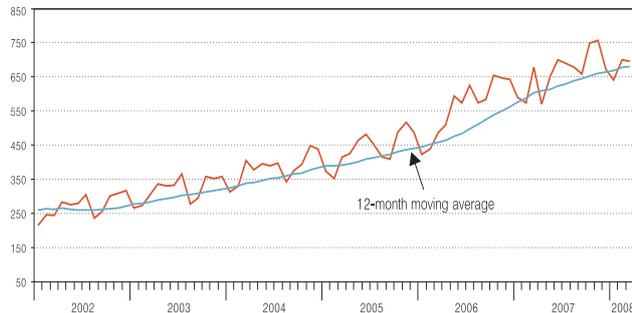
(million EUR)



Source: BNB.

### Imports of Raw Materials

(million EUR)

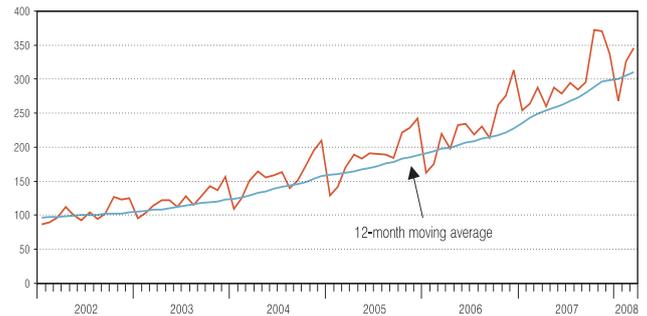


Source: BNB.

Imports of consumer goods picked up during the first quarter of 2008 by EUR 133.7 million on the same period of the prior year, with their value reaching EUR 940 million. *Food, drink and tobacco products* and *automobiles* had a main contribution to total imports (by 1.3 percentage points and 0.5 percentage point respectively). Probably the bigger imports of agricultural products resulted from poorer harvest. Expectations over the forecast horizon are for preserved sustainable growth rates of consumer goods imports prompted by stable domestic demand.

### Imports of Consumer Goods

(million EUR)



Source: BNB.

According to preliminary data, during the first three months of 2008 Bulgarian exports, directed to the other EU member states, went up by 20.8 per cent, while those directed to countries outside the Community reported a 35 per cent increase. Goods imported from the Community picked up by 12.9 per cent, while those from third countries by 32 per cent. The market share of Bulgarian goods in total imports of Community member states rose to 0.58 per cent by March 2008 (on an annual basis) against 0.55 per cent a year earlier. Over the forecast horizon no significant changes in Bulgarian foreign trade geographic structure are expected, since the process of gradual intracommunity trade growth will continue.

# 4. Inflation

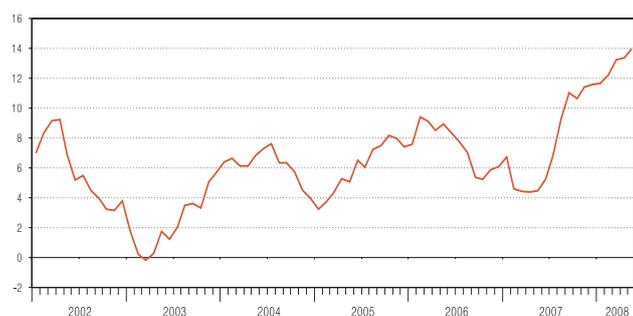
Under weather conditions favourable for the harvest and crude oil average price of some USD 130 per barrel, during the second half of 2008 inflation is expected to start slowing down on an annual basis and to reach about 8 per cent by the year end.

The trend to accelerating inflation under the influence of food and fuel appreciation that occurred in Bulgaria during the second half of 2007, continued during the first half of the current year as well.<sup>1</sup> In May food prices went up by 25 per cent on an annual basis with a 6 percentage point contribution to total inflation, which reached 14 per cent during the same month. Price rises in catering with a 2.15 percentage point contribution to inflation were attributable to a great extent to food prices. Fuel and transportation services price rises, underpinned by crude oil international price dynamics, added 2.3 percentage points to overall inflation.

Globally, income rises in developing economies and biofuel production from cereals put upward pressures on food prices due to growing demand. In 2007 an important factor behind food appreciation was also the insufficient supply as a result of adverse weather in major producer countries (e.g. Australia and China). In Bulgaria unfavourable weather in 2007 caused an additional local shock to food supply showing in a drop of agricultural produce by almost 44.1% in the third quarter of the year, while the annual decline came to 29.7%.

## Harmonized Index of Consumer Prices

(inflation on corresponding month of previous year, %)



Source: NSI.

## HICP Inflation Accumulated and Contribution to It (Eurostat Classification)

	December – May		May 2007 – May 2008
	2007	2008	
<b>Inflation (%)</b>	<b>3.0</b>	<b>5.2</b>	<b>14.0</b>
<b>Contribution, percentage points</b>			
<b>Food</b>	<b>0.66</b>	<b>1.54</b>	<b>6.00</b>
Processed food	0.57	0.72	4.30
Unprocessed food	0.09	0.82	1.70
Fruit	0.28	0.70	0.71
Vegetables	-0.08	-0.02	0.48
<b>Services</b>	<b>0.91</b>	<b>1.38</b>	<b>3.89</b>
Catering services	0.46	0.63	2.15
Transportation services	0.10	0.40	0.88
Services excluding catering and transportation services	0.35	0.36	0.86
<b>Energy products</b>	<b>0.78</b>	<b>0.96</b>	<b>1.44</b>
Transportation fuels	0.78	0.89	1.32
<b>Administratively set prices</b>	<b>0.57</b>	<b>0.65</b>	<b>1.16</b>
<b>Industrial Goods</b>	<b>0.31</b>	<b>0.33</b>	<b>1.15</b>
<b>Tobacco products</b>	<b>-0.25</b>	<b>0.34</b>	<b>0.34</b>

\* 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; fruit; 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.

Food price inflation during the first quarter of 2008 stayed high due both to a base effect and indirect effects impacting food prices with a lag. The decline in supply continued impacting prices. On the other hand, owing to the structure of food production costs (a great part of end-use products in agriculture are based on its own produce, while in food industry the share of intermediate consumption in total output is also high), food price rises in the second half of 2007 dramatically pushed up production costs in the current year. NSI data on means of production costs in agricul-

<sup>1</sup> Inflation measured by the Harmonized Index of Consumer Prices (HICP) is analysed in this section.

ture show price rises in its own produce used for intermediate consumption, as well as in other means of production, such as, *inter alia*, fertilizers, electric power and fuels. In addition to insufficient supply and higher production costs, increasing income due to wage rises and growing employment allow producers and tradesmen to transfer the bulk of higher production costs to end-use consumers.

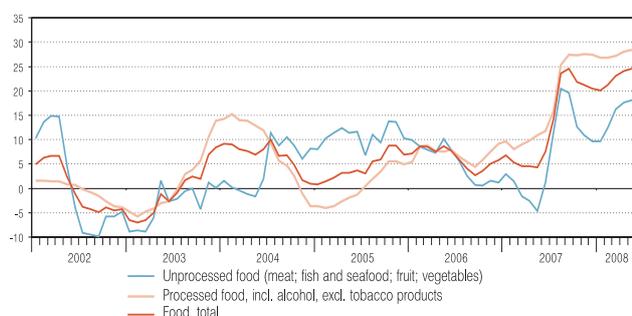
Indirect effects are most evident in the raised prices of meat, bread and dough products, sugar and chocolate products, fruit and vegetable juices. The increase in fodder prices by 30 per cent on an annual basis in the second half of 2007 impacted with a time lag meat retail prices. Reduced supply continued affecting fruit prices which have risen by 50 per cent since early 2008.

During the first half of the year vegetable oil prices went on rising at high rates, with inflation in this group coming to 104 per cent on an annual basis.<sup>2</sup> Vegetable oil price appreciation to a great extent reflected the 58.7 per cent decline in sunflower harvest in 2007 compared with 2006, the weaker yields in the other countries in the region, as well as the continuing growth of international sunflower prices. As a result of the ascending dynamics in sunflower oil price, in 2007 it exceeded the average price for the EU member states.

Provided weather conditions are favourable for the crops, in the current year a sizable increase in supply is expected; therefore, the annual rate of food appreciation will start slowing down in the second half of 2008. Appreciation of major agricultural products, for instance, wheat, has already been observed both in Bulgaria and on international markets.

### Harmonized Price Indices of Food

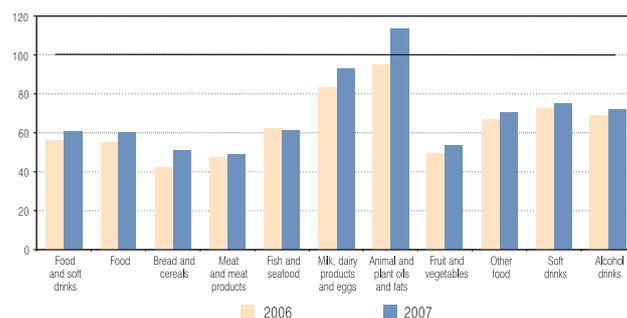
(inflation on corresponding month of previous year, %)



Sources: NSI, BNB.

<sup>2</sup> In 2007 the prices of this group picked up by 78 per cent on average by the close of the year.

### Indices of Food Price Relative Levels in Bulgaria (EU-27 = 100)



Source: Eurostat.

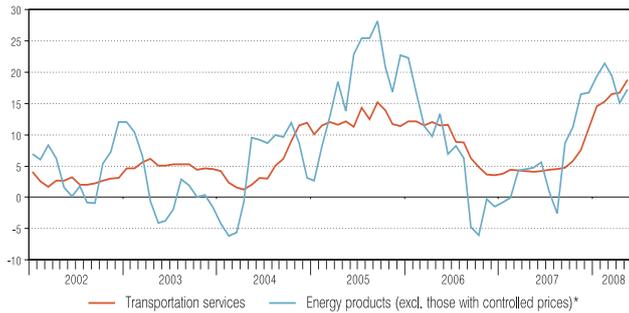
The trend to a considerable acceleration in the annual rate of fuel inflation, which occurred by the end of the third quarter of 2007, was sustained in early 2008 as well, following the continuing oil price rises on international markets.<sup>3</sup> Since the year start crude oil has appreciated by some 27 per cent (taking into account the euro to US dollar exchange rate). In Bulgaria diesel and petrol prices grew by 20 per cent and 15 per cent respectively; besides the upward petrol price dynamics, the rise was also ascribable to the change in fuel excise rates. Since the beginning of the year the excise duty on unleaded petrol was raised by 8 per cent, while that on diesel by 12 per cent. The appreciation of transportation services and urban public transport by 9 per cent and 18 per cent respectively since the beginning of 2008 resulted directly from fuel price rises. Owing to the inclusion of transportation expenditure into the prices of all goods and services, fuel price rises have an indirect effect on inflation.

The average oil price is expected to be about USD 130 by the year end and to bring about a slowdown in the annual growth rate of fuel and transportation prices, especially during the fourth quarter of the current year. Projections are facing a risk associated with a possible continuation of the trend to crude oil appreciation on international markets.

<sup>3</sup> At the end of 2007 fuel prices posted an 18 per cent rise on December 2006, with diesel appreciating by 27 per cent and petrol by 21 per cent. These price rises included the raised excise rates in 2007 by 24 per cent and 20 per cent respectively on 2006.

## 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.

During the first half of 2008 the annual growth rate of administratively controlled prices started accelerating, reaching 6.5 per cent in May. The major pro-inflationary groups in administratively controlled prices in the first five months of the year include urban transportation services, medical and hospital services, and legal services which were raised by 18 per cent, 22 per cent and 48 per cent respectively since early 2008.<sup>4</sup>

During the second half of the present year rises in the prices of electricity for households, heating, water, urban public transport and railway transport are envisaged. Planned appreciation of electricity by 14.5 per cent since the beginning of July is provoked mainly by the rise in the price of coal used in electric power stations which was not included in end-use electricity prices as of mid-2007. Concurrently, heating price rise of some 13 per cent on average is based on natural gas price rises in 2007 and 2008.<sup>5</sup> Rises in the price of water supply and sewerage services are attributable to appreciating electricity and investments needed for water supply facilities renovation. Urban public transport and railway transport price rises reflect the appreciation of energy resources (mainly of diesel).

The assessed direct effect on inflation of already made and planned adjustments in administratively controlled prices comes to 1.7 percentage points by the year end, with electricity appre-

<sup>4</sup> In these three groups only the rise in prices of medical and hospital services was expected; appreciation came to 22 per cent due to the minimum wage rise from BGN 180 to BGN 220.

<sup>5</sup> Natural gas has not been included in the consumer basket so far due to its low share in household expenditure. As a result, no direct effect of rising natural gas prices on inflation is reported; there was rather an indirect effect of heating price rise.

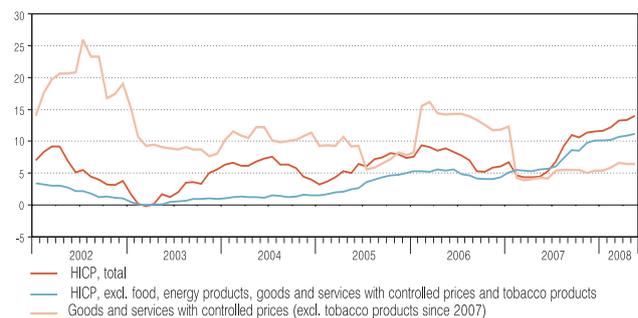
ciation contributing most, owing to its largest share in the consumer basket (about 4.5 per cent).

The prices of tobacco products, whose excise duty was raised in early 2008, registered a total increase of some 10 per cent by May 2008 compared with December 2007. By the close of 2008 we expect another rise in cigarette prices of about 4.5 per cent; thus, as it was anticipated, by the close of the year their total contribution to inflation will comprise some 0.5 percentage points.

In May inflation of goods and services (excluding foods, energy resources, administratively controlled prices and tobacco products), stayed at a relatively high level of 11.2 percentage points on an annual basis, without accelerating considerably on December 2007, when it was 10.2 per cent. Inflation processes in this group of goods and services reflect to a great extent indirect effects of food and fuel price rises.

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

(inflation on corresponding month of previous year, %)



Sources: NSI, BNB.

Catering and transportation services contributed most to accelerating annual growth rate of services' prices during the first six months of the year. Inflation in telecommunication services retained its descending trend of the past few years reflecting the global trends in this sector. Services, excluding catering, transportation and telecommunication services, preserved their growth rate on an annual basis at the level, registered in the last quarter of 2007. Inflation in this group of services was impacted by growing production costs (raw materials, transportation costs, wages); high consumer demand allows these costs to be transferred entirely to end-use consumers.

The slowdown in food inflation on an annual basis will also lead to a slowdown in catering prices in the second half of the year. Growing

crude oil appreciation poses risks of higher inflation in services due to the direct effect of transportation services' prices and the indirect effect of appreciating transportation services on the prices of the other services.

During the first six months of 2008 inflation in non-food reached 6.5 per cent on an annual basis and registered certain acceleration on the fourth quarter of the previous year (6 per cent). The trend of the last few years towards a decline in the relative price of these goods against the overall price level, in tandem with the increase in household incomes, promoted consumer demand in this group of goods. National accounts data shows that during the first quarter of 2008 final consumer expenditure on non-foods posted a

9.4 per cent growth on the same quarter of the prior year against 4.8 per cent and 4.6 per cent for the third and fourth quarters of 2007. Data on revenues from retail trade in textile, clothing, footwear and leather articles and data on retail sales of non-goods also supported the accelerating trend of non-food consumption. Annual non-food price growth rates are anticipated to stabilize in the second half of 2008.

Under weather conditions favourable for the harvest and crude oil average price of some USD 130 per barrel, during the second half of 2008 inflation is expected to start slowing down on an annual basis and to reach about 8 per cent by the year end.

### Inflation, Exchange Rate, and Short-term Interest Rates in the New EU Member States Outside the Euro Area

Inflation in the new EU Member States outside the euro area started to increase underpinned by rapidly rising international prices of food and energy resources in 2007 and in the first six months of 2008 (see Section One, *External Environment*). However, in individual countries the degree of international prices' impact on domestic inflation is different. The appreciation of the nominal effective exchange rates which to a great extent curbed inflationary pressure of the rises in the prices of imported raw materials, such as crude oil and natural gas, and imported food, is typical of all reviewed countries (excluding Romania in the first quarter of 2008). The degree of the nominal effective exchange rate appreciation is also different: it was higher in the countries with a floating exchange rate, since it was accompanied by appreciation of their bilateral nominal exchange rates (to the euro). In economies with a currency board and a fixed nominal exchange rate (to the euro) nominal effective exchange rate appreciation is minimal and, hence, the inflation level is higher.

Market interest rate appreciation, which also differs in individual countries, is an expected reaction of interest rates to accelerated inflation processes. On the one hand, short-term interest rates carry over interest rate dynamics to the euro area, meanwhile taking into account the impact of specific factors, such as the level of minimum required reserves maintained by banks with the respective country's central bank, inflation rates, and changes in the national central banks' interest rates. In the countries with a currency board and a fixed exchange rate, market interest rate rises are a natural process of a response to increasing inflation rates. Data on the new EU member states which have not introduced the euro show a general trend to growing short-term interest rates since mid-2007. The only exceptions are Latvia and Lithuania, despite the observed relatively fast inflation rate growth since the second half of the prior year.

Specific factors affect total price level dynamics in addition to global inflationary factors. In particular, food appreciation in individual countries is realized at different rates and impacts total inflation in a different way. The 2007 decline in food production and, hence, in food supply due to adverse weather was a specific factor in Bulgaria and Romania; this put an additional demand pressure (domestic and external), resulting in price rises. Competition along the supply chain to the end-use consumer also influenced the rate of food price rises. Different weights of food in the consumer basket of each country determined the different contribution of food price rises to overall inflation.

The dynamics of fuel prices and their contribution to overall inflation also differed in individual countries. The extent to which crude oil international price rises are carried over to local fuel prices is different, mostly depending on the indirect taxes' relative share in the price and on competition on the external market. The contribution of the appreciation of fuels to overall inflation is determined by their weight in the consumer basket, which varies across countries.

### Change in Nominal Exchange Rate of the Euro against the National Currency on an Annual Basis (Quarterly)

(%, "+" indicates appreciation in the respective currency)

	2007				2008	
	I	II	III	IV	I	May
Bulgaria	0.0	0.0	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0	0.0	0.0
Lithuania	0.0	0.0	0.0	0.0	0.0	0.0
Latvia	-0.9	-0.4	-0.4	-0.5	0.7	-0.3
Czech Republic	2.0	0.4	1.4	4.5	9.7	12.5
Hungary	0.9	7.5	9.4	2.9	-2.7	0.3
Poland	-1.3	3.9	4.3	5.2	8.7	11.1
Romania	5.4	7.3	9.6	0.9	-8.3	-10.2
Slovakia	9.1	11.7	12.7	7.5	3.9	7.2

### Total Inflation on an Annual Basis (Quarterly)

(%)

	2007				2008	
	I	II	III	IV	I	May
Bulgaria	5.3	4.7	9.0	11.2	12.4	14.0
Estonia	5.1	5.8	6.7	9.2	11.3	11.4
Lithuania	4.4	5.0	5.9	7.9	10.8	12.3
Latvia	7.6	8.5	10.4	13.7	16.3	17.7
Czech Republic	1.7	2.6	2.7	4.9	7.6	6.8
Hungary	8.8	8.5	7.3	7.1	6.9	6.9
Poland	2.0	2.3	2.4	3.7	4.5	4.3
Romania	3.9	3.9	5.1	6.8	8.0	8.5
Slovakia	2.1	1.7	1.4	2.4	3.4	4.0
Euro area	1.9	1.9	1.9	2.9	3.4	3.7

### Money Market Interest Rates on Overnight Deposits (Quarterly)

	2007				2008	
	I	II	III	IV	I	May
Bulgaria	3.6	3.9	4.1	4.5	4.8	5.0
Estonia	n.a.	n.a.	4.5	5.0	5.2	5.2
Lithuania	3.7	4.4	4.5	5.0	4.0	4.1
Latvia	3.7	7.4	6.2	5.9	4.7	3.6
Czech Republic	2.5	2.4	2.9	3.3	3.5	3.7
Hungary	7.9	8.0	7.5	7.2	7.3	7.8
Poland	4.0	4.2	4.6	4.9	5.4	5.9
Romania	6.0	9.1	5.5	6.9	8.9	10.0
Slovakia	4.3	3.8	3.8	3.5	3.6	4.1
Euro area	3.6	3.9	4.0	3.9	4.0	4.0

### Change in Nominal Effective Exchange Rate on an Annual Basis (Quarterly)

(%, "+" indicates appreciation in the respective currency)

	2007				2008	
	I	II	III	IV	I	May
Bulgaria	1.1	0.9	0.7	1.6	2.0	2.2
Estonia	1.1	1.1	0.9	1.7	1.7	1.7
Lithuania	1.0	0.7	0.6	1.4	1.6	1.7
Latvia	-0.3	-0.1	-0.1	0.4	1.8	0.7
Czech Republic	2.7	0.8	1.7	6.0	11.8	14.5
Hungary	2.1	8.7	10.6	4.7	-0.6	2.7
Poland	-0.5	4.7	5.1	7.0	11.0	13.6
Romania	6.4	8.0	10.2	2.3	-6.3	-8.1
Slovakia	9.8	12.2	13.0	8.0	4.4	7.4
Euro area	3.8	3.3	3.0	5.7	6.9	7.6

### Total Contribution of Food and Soft Drinks, Catering, Fuels and Transportation Services to Inflation on an Annual Basis (Quarterly)

(percentage points)

	2007				2008	
	I	II	III	IV	I	May
Bulgaria	2.4	2.6	6.4	8.4	9.5	10.5
Estonia	1.9	2.1	2.3	4.9	6.3	6.7
Lithuania	2.6	3.0	3.7	5.3	6.6	7.2
Latvia	3.9	4.5	5.0	7.2	8.0	8.1
Czech Republic	0.5	0.7	0.6	2.3	3.3	2.9
Hungary	3.4	3.1	2.7	3.6	4.2	4.2
Poland	0.9	1.2	1.1	2.3	2.5	2.0
Romania	0.2	0.2	2.1	4.0	4.7	5.3
Slovakia	0.7	0.6	0.5	1.7	2.2	2.4
Euro area	0.5	0.6	0.7	1.5	1.9	2.1

Sources: ECB, Eurostat, own calculations.

Note: Nominal effective exchange rates according to ECB's EER-22 (AU, CA, CN, DK, HK, JP, NO, SG, KR, SE, CH, GB, US, CZ, EE, HU, LV, LT, PL, SK, BG, RO) – Euro area-15.

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