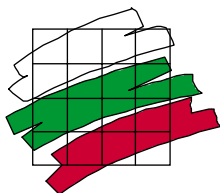


# BUSINESS SURVEY SERIES

## **BULGARIA** **1999 ECONOMIC SURVEY**



***AGENCY FOR ECONOMIC  
ANALYSIS & FORECASTING***

31 Aksakov Str., 1000 Sofia, Bulgaria

---

© **Agency for Economic Analysis & Forecasting 2000**

*31 Aksakov Str., Sofia 1000, Bulgaria*

*Tel. (+359 2) 980 04 84, 980 24 74*

*Fax (+359 2) 981 33 58, 980 93 22*

*e-mail: aecd@ttm.bg*

*All rights reserved. No part of this publication may be reproduced,  
stored in a retrieval system, or transmitted,  
in any form or by any means, without the prior permission in writing of  
the Agency for Economic Analysis & Forecasting*

*Translated by Ventsislav Voikov & Peter Stoyanov.*

*ISSN 1310-327X*

*No part of this publication may be reproduced without reference to  
the AEAF "BUSINESS SURVEY SERIES".*

---

---

Two international crises characterised the external environment in 1999 – the slowly fading East Asian financial crisis and the conflict around Kosovo. Both affected negatively the Bulgaria's economy since mid-1998, however, in the first half of 1999 the traditional trade routes of Bulgarian exports were severed by the Kosovo war. Months after the end of the conflict the Danube River still remains blocked. The unfavourable external environment in the first half of the year overlapped with an important stage of internal structural reform – the end June deadline for closure or privatisation of loss-making enterprises on the program for liquidation.

In early 1999 due to the above-mentioned factors expected overall negative impact on growth was evaluated at 2.5 percentage points and the forecast for GDP real growth was reduced from 3.7 percent to 1.5 percent. According to preliminary data, in 1999 real GDP grew by 2.4 percent.

Despite the unfriendly external climate macroeconomic parameters within the country remained stable thanks to the continued application of the basic economic policy principles outlined in the government's program „Bulgaria 2001“. In January 1999, in accordance with the BNB Law (adopted in July 1997), the Bulgarian Lev was pegged to the Euro at the fixed rate of the German Mark. The Bulgarian National Bank buys all Euro currencies at their respective fixed rate. Money supply under the constraints of the currency board grew in line with money demand while interest rates remained stable. In 1999 broad money increased nominally by 11.5 percent, which is sufficient to facilitate the economic growth.

Following the deterioration of the balance of payments at the beginning of the year and perceived future erosion due to crude oil prices jump measures, adopted in the State Budget 1999 Law, have early been activated. The fiscal stance was tightened, and the initially envisaged budget deficit was reduced from 2.7 percent of GDP to 1 percent of GDP. Since mid-year the balance of payments stabilised, foreign reserves started to grow in dollar terms – at end 1999 they were 5.6 percent higher year on year.

### Key Macroeconomic Variables

	1997	1998	1999
Real growth rate	-7.0%	3.5%	2.4%
Inflation			
– e.o.p.	578.6%	0.9%	6.2%
– annual average	1182.3%	22.2%	1.8%
Exchange rate (Lv/USD)			
– e.o.p	1776.5	1675.1	1.95
– annual average	1676.5	1760.4	1.84
Unemployment rate (e.o.p)	13.7	12.2	16.0
GDP per capita (USD)	1166.4	1489.3	1525.3
GDP per capita – real growth rate		4.2%	3.6%

A major event with direct impact on the economy was the completion of the program for the privatisation or liquidation of loss-making state-owned enterprises. The privatisation of several large state-owned companies – Balkan Airlines, Kremikovtzi, Neftochim, Petrol, was the next most important reform step. As a result 1999 turned out to be the most successful privatisation year.

The high speed of privatisation and the liquidation of loss-making companies in the last two years initiated a high intensity process of restructuring and labour productivity improvement. Employment reduction and growing unemployment rate became explosive at the end of 1999.

\* \* \*

---

The present analysis focuses on economic growth and the importance of restructuring for the growth and efficiency of the Bulgarian economy – an important precondition for raising incomes and improving competitiveness. As the growth rate was not very high in 1999 (mostly due to the negative impact of external factors on industry), per capita income increased by 3.6 percent in real terms compared to 1998, and approached the level of the pre-crisis 1995. GDP per capita in dollar terms was 1558 in 1998, fell to 1100 in 1996, and increased to 1525 in 1999 (a 38.6 increase since 1996). Despite the good growth rates of the economy per capita income still remains low. Individual incomes depend not only on the overall growth rate but as well on the process of restructuring, which leads to increased number of unemployed, and the withdrawal of the state from certain areas (the expenditures for which are shifted to the households). The present economic survey also analyses the recent study of the National Statistical Institute (NSI) from April 1999 „Standard of Living – Economic and Social Indicators“.

After the 1996 crisis the changes in the banking system understandably enjoy special attention. During 1999 the banking system can be characterised as having stable indicators and with a tendency for an increase in real-sector and especially private sector lending.

In the conclusion we summarise the main tendencies during 1999, and present the major challenges for 2000. □



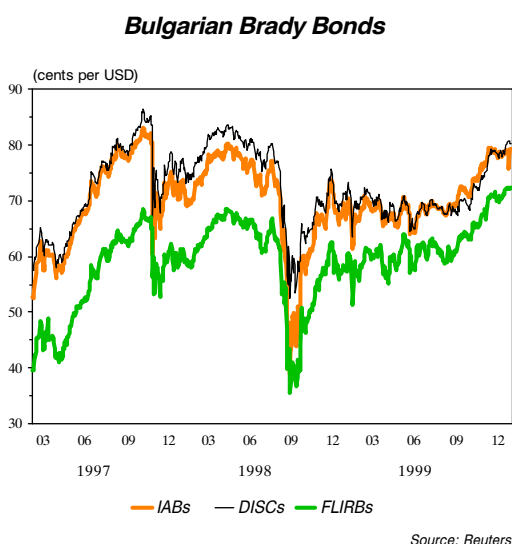
---

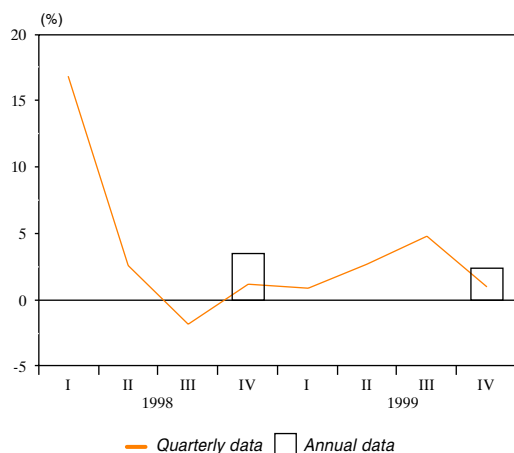
# 1. ECONOMIC GROWTH RATES

For a second consecutive year the Bulgarian economy registers economic growth despite the negative influence of the external environment. Underestimating external factors often leads to misinterpretation of the necessary instruments of economic policy for growth promotion. The dynamics of Bulgarian Brady bonds prices indicates the magnitude of external factors impact not only on Bulgaria but on the world economy as a whole.

In the beginning of 1997 the change of the government and the new start of reforms in Bulgaria quickly restored the international investors' confidence in the country, and the Bulgarian Brady bonds prices sharply increased. Afterwards, during any period of international markets tranquillity, Bulgarian Brady bonds prices went up. However, those calm periods were not frequent over the last three years.

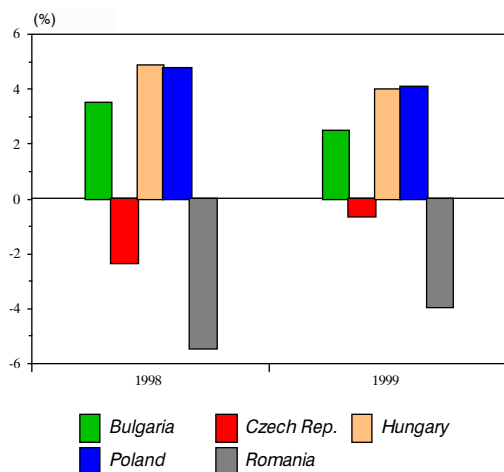
At the end of 1997 the crisis in Thailand erupted and spilled over the East Asian region, and all Brady bonds prices (including Bulgarian) fell immediately. Apart from the obvious financial effect, this crisis had a definite real-economy impact by decreasing the world growth rates. Major industrial sectors like metallurgy and chemical industry fell into recession. The sharp contraction of demand led to significantly lower prices for many raw materials commodity groups. The latter affected the fiscal stability of the Russian economy and in August 1998 the Russian financial market collapsed, the Rubble devalued. For comparison, in 1999 because of this Estonia and Lithuania



**GDP Growth\***

\* Corresponding quarter of previous year = 100

Source: NSI, AEAf

**Real Growth Rates**

Source: Business Central Europe

reported negative growth rates of -1.4 and -4.0 percent respectively.<sup>1</sup>

After the end of the military conflict in Kosovo and Serbia, the prices of Bulgarian Brady bonds quickly rose, since despite the unfavourable external development the economy continued to grow, albeit at lowered rates.

**1.1. Domestic Demand**

The extremely unfavourable external environment during the first half of the year caused Bulgarian exports to decline substantially. The high growth rates of exports during the last two quarters of the year (2.5 and 7.6 percent respectively) could not compensate for the fall in the first half-year, and exports for the whole year (based on the SNA definition) fell 5.2 percent compared to 1998.<sup>2</sup> As Gross Domestic Product rose by 2.4 percent in 1999, it can be argued that domestic demand continues to compensate for the fall in exports.

**Table 1. Dynamics of GDP by components of final demand**

(in percent, volume indices, same period previous year = 100)

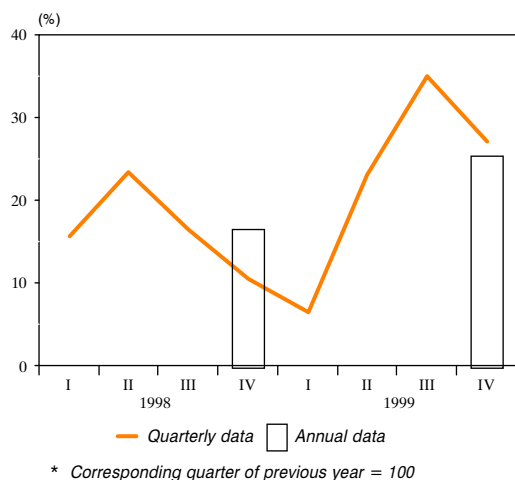
	1998	1999
Gross Domestic Product	3.5	2.4
Final Consumption	7.5	4.7
Gross Fixed Capital Formation	16.4	25.3
Exports of goods and services	-15.6	-5.2
Imports of goods and services	-2.8	5.1

Source: NSI

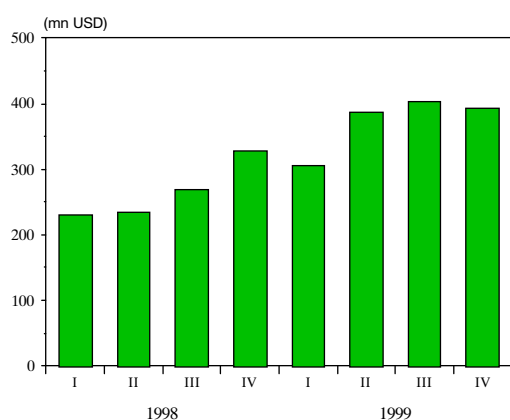
<sup>1</sup> Based on information from the forecast of the European Commission for the economic development of EU accession candidates over 2000-2001.

<sup>2</sup> A more detailed discussion of this important topic is presented in 1.3. External Sector



**Changes in Gross Fixed Capital Formation\***

Source: NSI, AEF

**Imports of Investment Goods**

Source: BNB

In 1999 the tendency of investment growth acceleration continued. The quantity and quality of present investment determines Bulgaria's perspectives for growth and the speed of the catch up with its EU partners. The macroeconomic stabilisation guaranteed by the currency board and protected by prudent fiscal policy, facilitates the technological and product renovation in the economy. The NSI survey of economic activity in industry in October 1999 shows a 24 percent increase of expenditures on the acquisition of fixed assets in 1999, compared to investment intentions reported by the same survey in April 1999. Obviously the fact that the economy remained stable even under the conditions of a war in a neighbouring country had its positive impact on investment plans.

The changes in the composition of investment are slow, with the share of renovation and maintenance expenditures gradually decreasing, coupled with rising investment in new production assets and energy-saving technologies. From a social point of view it is very important that investment in environment protection activities goes up.

The high investment growth rate invigorated imports of investment goods, including that of machines and equipment.

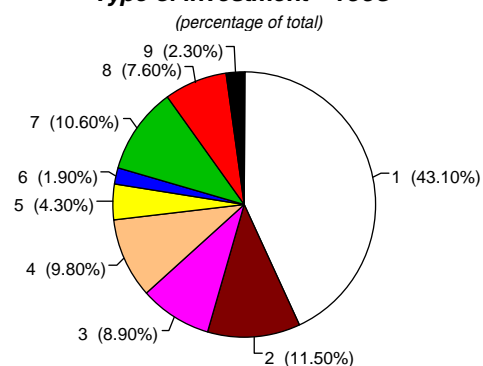
**Table 2. Growth rate of investment goods imports**

(in dollars, same period previous year = 100)

	1999 Q1	1999 Q2	1999 Q3	1999 Q4	1999 full year
Investment goods	32.9	64.4	49.5	19.2	39.8
of which: machines and equipment	88.0	75.9	79.3	9.3	56.3

Source: BNB

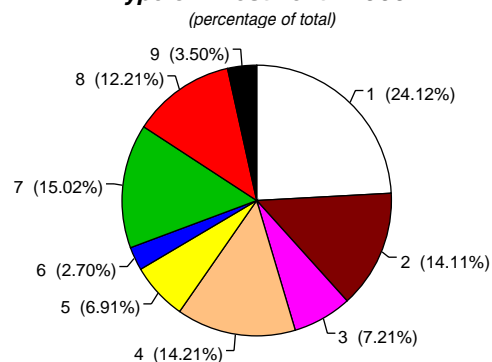
**Planned Investment in Industry by Type of Investment - 1998**



1. Renovation and Repair of Existing Equipment
2. Enlargement of Production Capacity, Same Product Range
3. Enlargement of Production Capacity, Wider Product Range
4. Automation of Existing Production Process
5. Adopting a New Technology
6. Adopting an Energy Saving Technology
7. Environment Protection
8. Safety Measures
9. Other

Source: NSI

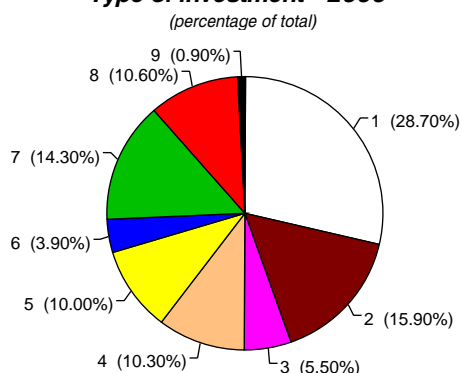
**Planned Investment in Industry by Type of Investment - 1999**



1. Renovation and Repair of Existing Equipment
2. Enlargement of Production Capacity, Same Product Range
3. Enlargement of Production Capacity, Wider Product Range
4. Automation of Existing Production Process
5. Adopting a New Technology
6. Adopting an Energy Saving Technology
7. Environment Protection
8. Safety Measures
9. Other

Source: NSI

**Planned Investment in Industry by Type of Investment - 2000**



1. Renovation and Repair of Existing Equipment
2. Enlargement of Production Capacity, Same Product Range
3. Enlargement of Production Capacity, Wider Product Range
4. Automation of Existing Production Process
5. Adopting a New Technology
6. Adopting an Energy Saving Technology
7. Environment Protection
8. Safety Measures
9. Other

Source: NSI

The dynamics of investment in fixed assets is one of the elements of gross investment in the SNA. The other element – change in inventories – has a very distinctive pattern in the first half of 1999.

**Table 3. Investment in 1999**

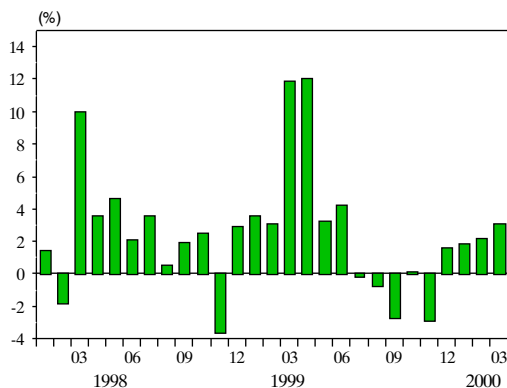
(volume indices, same period previous year = 100)

	1999 Q1	1999 Q2	1999 Q3	1999 Q4	1999 full year
Investment					
– as share of GDP	15.7	20.5	19.1	20.2	19.0
Gross fixed capital formation					
– as share of GDP	9.3	16.2	17.0	19.5	15.9
– volume index	6.5	23.1	35.0	27.1	25.3
Change of inventories					
– as share of GDP	6.5	4.3	2.1	0.7	3.1

Source: NSI

### Stocks of Finished Goods

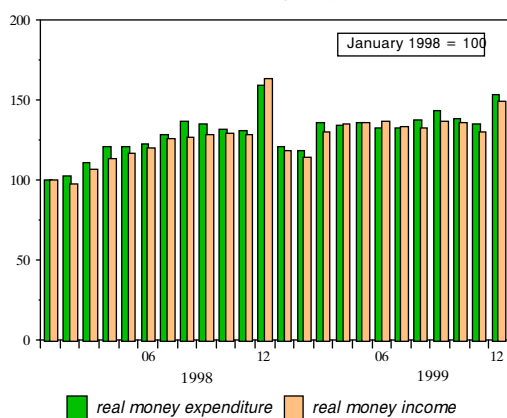
(An NSI Business Tendency Survey Indicator)



Note: The indicator is calculated as a difference between the weighted percentages of firms with stocks above normal and firms with stocks below

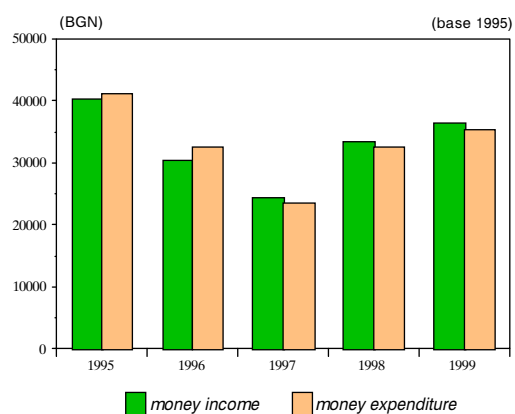
Source: NSI

### Dynamics of Households' Real Money Income and Money Expenditure



Source: NSI, AEF

### Real Money Income and Money Expenditure of Households



Source: NSI, AEF

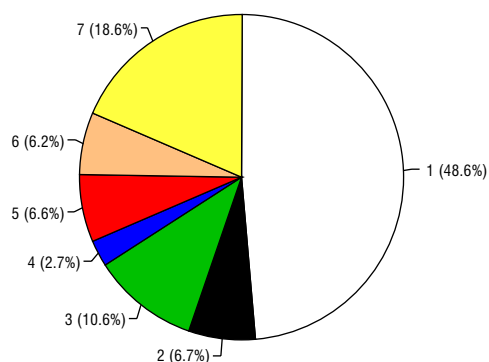
The Kosovo crisis and postponed exports generated a process of inventories accumulation. During the second half of the year, the survey of industry suggests that managers see the tendency of stockpiling as over.

In 1999 final consumption increased by 4.7 percent year on year. The growth rate of final consumption expenditures of the households remained high at 5.3 percent.

The rise of real household income is the major factor behind the dynamics of their consumption. In 1999 income per household increased by 8.9 percent in real terms, while household expenditures rose by 7.9 percent real. During the last three year there is a positive tendency for monetary income to be higher than monetary expenditures – quite the opposite of 1995 and especially 1996, when households were forced to use up their savings to cover expenditures. There were major changes in the structure of household expenditures. Expenditures on food still have the largest share, but it is constantly falling. The share of expenditures on services is rising, which is due to the increased prices of services offered by the state monopolies, as well as the reform in the public provision of goods and services. Expenditures that the state used to cover through budget subsidies are gradually shifted towards the households.

In this respect the changes of electricity and central heating prices have an impact on the structure of household expenditures. Higher prices trigger the mechanism of structural changes in the composition of consumption, as the number of households that get out of the central heating system increases. The real expenditures on central heating (measured by nominal expenditures

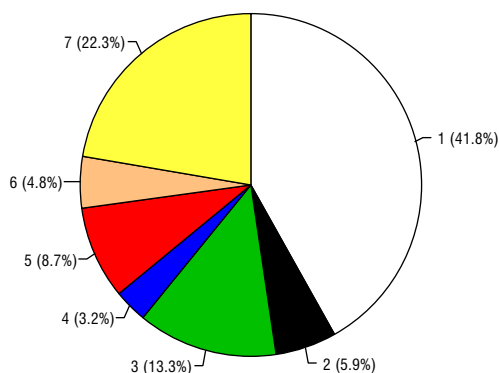
**Structure of Money Expenditure of Households 1997**



1. Food, alcohol, cigarettes
2. Clothes, Shoes
3. House, electricity and central heating
4. Health and Education
5. Transport and Communications
6. Taxes
7. Others

Source : NSI

**Structure of Money Expenditure of Households 1999**



1. Food, alcohol, cigarettes
2. Clothes, Shoes
3. House, electricity and central heating
4. Health and Education
5. Transport and Communications
6. Taxes
7. Others

Source: NSI

deflated by the respective price index) fell by 4.6 percent. The problem is most acute in large cities – Sofia, Plovdiv, Bourgas, Varna – where alternative sources of energy are limited. As a result, the physical consumption of electricity (measured in kilowatt-hours) have grown by 7.6 percent – an obvious indication that households from large cities have turned to electricity as means of heating. Real consumption, measured as nominal expenditures deflated by the respective price index, has fallen by 0.1 percent in 1999. Probably this reflects a shift in the structure of consumed electricity, as households turn to the (less expensive) nighttime consumption.

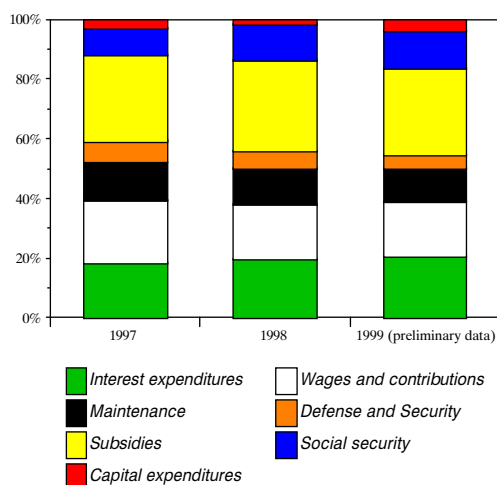
Healthcare expenditures increase as a share of consumption because of the development of private-provided healthcare services and the increase in their prices. A similar tendency can be observed in the expenditures on transportation and communications, which rise nominally by 29 percent in 1999.

The increased expenditures on services is at the expense of the structure of the other elements. Expenditures on food increase nominally by only 2 percent, and there is a 3.6 percent decrease in expenditures for clothing, shoes and personal belongings.

In 1999 the expenditures of the general government budget on education, healthcare and other individual services have increase by 4.8 percent in real terms (as per the SNA). This tendency is also observed in government accounts – non-interest expenditures rise both in nominal and real terms.

The data shows that as a result of the stabilisation and the decrease of interest expenditures it is possible to restore the normal

### Expenditures of the Consolidated General Government Budget



Source: Ministry of Finance

functioning of major budgetary systems (that were practically destroyed during the years before 1997), while keeping a broadly balanced budget. The restoration of these systems is possible through their co-financing – both by the government and the individual.

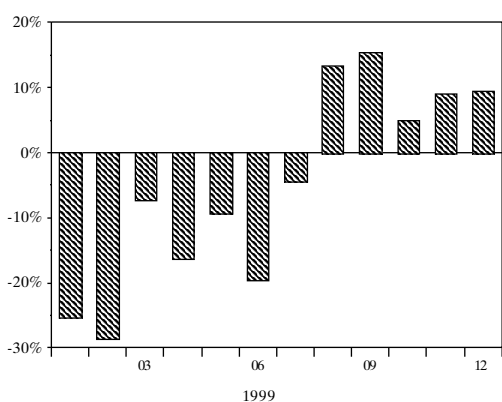
An important element of GDP in recent years is the so-called adjustment item, which comprise mostly indirect taxes. Their growth rate is high in 1999 of 7.4 percent. These are private sector resources that have been transferred to the state. This is the second factor (after the reduced interest expenditures) that allows an increase in real non-interest budget expenditures while keeping the deficit low.

## 1.2. External Sector

Foreign trade in 1999 can be characterised with two opposite tendencies. During the first half of the year exports continued to decline, while during the second half the tendency reversed and exports revenues started to rise quickly.

The recovery of exports can be observed since August 1999. A major factor is the growing external demand during the second half of the year, when EU countries (towards which over 50 percent of our foreign trade is oriented) picked up and accelerated their growth rates. EUROSTAT data show that EU growth was 2.3 and 3.1 percent during the third and fourth quarter respectively, and only 1.7 and 1.76 percent for the first two quarters. Imports of goods into the European Union reached double-digit growth rates in value terms during the second half of the year. The coefficient of correlation between the change in Bulgarian exports and the change in imports into the EU is

### Percentage Change in Exports Over the Corresponding Month of the Preceding Year



Source: BNB

0.89, both high and statistically significant, which confirms the close relationship between these two indicators.

The prospects for growth of several other countries, major trade partners to Bulgaria, are quite favourable. Since mid-1999 the Russian economy started to slowly recover from the shock devaluation of the Rubble in 1998. The rising international prices of crude oil and other raw materials also contributed to the recovery. In Bulgaria the positive effect was felt during the last quarter, when exports to Russia increased by 9.3 percent.

CEFTA countries (with the exception of Romania) also increased their growth rates. Bulgarian exports to CEFTA countries fell by 46.9 percent during the first quarter of 1999, by 24.1 percent during the second, and by 8.9 percent during the third. During the fourth quarter, however, exports increased by 20.5 percent. There is not enough evidence to speak of a stable growth tendency in the Bulgarian exports to these countries, but the dynamics during the year do induce positive expectations.

In the second half of 1999 Bulgarian exports to Balkan countries registered exceptionally high growth rates. BNB data shows that exports have grown by 144 percent in the third quarter of 1999 (compared to the same quarter of 1998), and fourth-quarter growth has reached 164.3 percent. Part of these high growth rates can be attributed to the fulfilment of deals that were hindered by the conflict in Yugoslavia, but one should also take into account the increased demand for imports in the region after the end of the military campaign.

Bulgarian exports are highly dependent on international prices. This is particularly true for

petroleum products and metals, both of which have a large share in total exports. An increase in prices, given a relatively inelastic demand, automatically increases the dollar value of exports.

**Table 4. Correlation coefficients between exports and international prices of selected product groups**

	Steel and cast iron	Petroleum products	Wood
Correlation coefficients	0.671	0.839	0.754

*Source: BNB, World Bank, own calculations*

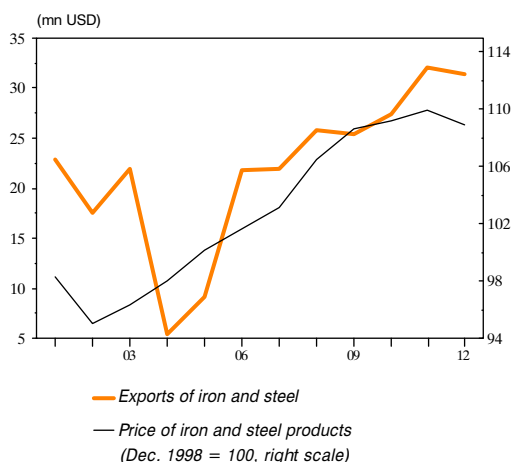
The prices of petroleum products are very dependent on the international *price of crude oil*.<sup>3</sup> In the last quarter of 1999 crude oil prices jumped another 15 percent as stocks fell and demand increased. According to BNB estimates, the effect of the increased oil prices on Bulgarian imports is 194.3 million dollars, and 76 million dollars on exports. The net effect is a deterioration of the trade balance with 118.3 million dollars.

The index of *steel prices* increased by 3.1 percent in the last quarter of 1999, compared to the third quarter, and by 15 percent compared to the lowest levels of February 1999 (the increase varies by specific product). Hot pressed products became more 40 percent expensive as a result of increased imports of the US from Brazil and Russia, while the prices of cold pressed steel increased by only 25 percent because US introduced anti-dumping tariffs for 12 countries.

The price of *carbamide*, another major export item for Bulgaria, fell drastically in 1997 after China

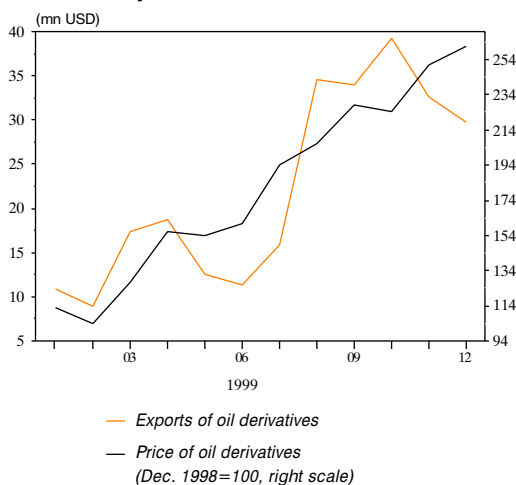
<sup>3</sup> *The information on the dynamics of international markets is based on Global Commodity Markets, January 2000, World Bank.*

### International Price and Value of Exports of Ferrous Metals



Source: BNB

### International Price and Value of Exports of Oil Derivatives



Source: BNB

decided to ban carbamide imports to support local production. China is the largest consumer in the world (around 20 share). Ukraine also had a significant impact on carbamide prices, by increasing exports under falling domestic demand of around 90 percent for 1988-1998. These two factors played a significant role in the depressing of carbamide prices on the international markets, which hit bottom in 1999. After that the trend reversed and bulk carbamide (f.o.b. prices Eastern Europe) increased from \$63.25 per ton in June to \$68.25 in December 1999. The rise in prices is attributed to falling supply from Europe and the US, and increased demand in the Asian region and Brazil, which are among the largest consumers of fertilisers.

The fall of Bulgarian exports of fertilisers continued in the last quarter of the year as well, but in December exports more than doubled compared to December 1998.

Another major price also changed substantially in 1999 – the price of the US dollar in leva terms. As our currency is fixed to the Euro, the BGN/USD exchange rate passively follows the EUR/USD rate. In theory the depreciation of the national currency should have a positive impact on a country's exports. In 1998 and 1999, however, export dynamics was dominated by the deteriorating external environment and the fall of international prices, and not by the depreciation of the lev (respectively the Euro and the German Mark) to the US dollar. This is due to the structure of exports, where raw materials have a large share, and this product group is characterised by very volatile international demand. The currency composition of Bulgarian foreign trade changed



after the Lev was fixed to the Euro. In 1999 the share of US dollar transactions in exports fell to 60.3 percent (from 65.8 percent in 1998), while the share of Euro transactions increased from 30.5 to 34.5 percent – quite in line with the deepening trade relations between Bulgaria and the European Union. The currency structure of imports changed as well, with the share of dollar transactions falling from 53.9 percent in 1998 to 46.5 percent in 1999.

In the structure of exports the highest growth rate is observed in relatively labour intensive products. For example, exports of clothing and footwear increased by 23.3 percent, furniture and household appliances by 13.8 percent. There's an increase in some agricultural products (unprocessed foodstuffs by 29.6 percent, tobacco by 24.7 percent); wood and paper (3.6 percent); and cement (7.3 percent), with a total share in exports of 10.5 percent for 1999. It is also important to stress that exports in the „Machines and equipment“ have increased by 8 percent. The sector was strongly hit by the disintegration of the Council for Mutual Economic Assistance (CMEA) markets in the beginning of the 90s. The exports of petroleum products also increase (by 72 percent). The next years will see a change in the structure of exports because of accelerated privatisation over the last two years, especially in industry.

In 1999 the imports of consumer and investment goods had high growth rates. During the last months of the year there is a tendency for slowing down, which corresponds to lower growth rates of investment.

**Table 5. Imports by end use, 1999**

	Q1		Q2		Q3		Q4	
	Value	Change	Value	Change	Value	Change	Value	Change
	(mn USD)	(%)	(mn USD)	(%)	(mn USD)	(%)	(mn USD)	(%)
Consumer goods	199.7	37.3	241.1	42.9	221.9	30.8	276.5	23.8
Raw materials	404.1	-5.5	482.8	-14.5	437.8	-13.4	491.5	-3.6
Investment goods	305.5	32.9	386.4	64.4	401.5	49.5	390.5	19.2
Energy resources	276.8	-26.9	192.3	-20.3	342.3	27.7	399.2	36.5
<b>Total imports (c.i.f.)</b>	<b>1186.1</b>	<b>0.4</b>	<b>1302.5</b>	<b>7.7</b>	<b>1403.4</b>	<b>15.8</b>	<b>1557.7</b>	<b>15.1</b>

*Source: BNB*

The increase of international crude oil prices has a serious impact on imports of energy resources. The import of crude oil and natural gas increases by 57.1 percent in the third quarter of 1999, and by 67.8 percent in the fourth. For comparison, imports fell by 23.1 and by 9.8 percent in the first and second quarters respectively.

Given these developments, the trade balance in 1999 deteriorated compared to the previous year, and reached a deficit of 1064 million US dollars. The current account deficit for 1999 is 659.1 million dollars. The surpluses on tourism (405.8 million dollars) and net current transfers (299.7 million dollars) compensated more than half of the trade deficit.

The financing of the current account deficit was done mainly through foreign direct investment, which reached 770.4 million dollars. The overall balance of payments was positive (86.4 million dollars), and the contribution of official credits is 431 million dollars. The foreign exchange reserves of the BNB increased by 517.4 million dollars (net of valuation changes), which is a result of good forecasting, secured official international borrowing and restrictive fiscal measures.

### 1.3. Industry

Industry was characterised by falling industrial sales in 1998 and the first half of 1999. This gave way to speculation about the adequacy of implemented economic policy and especially the fixed exchange rate and the currency board arrangement. The arguments, however, usually lacked in taking into account the unfavourable external environment and the poor business climate on the Balkans as a region with a complex conflict. Even Bulgaria, which has maintained stability and positive growth rates of GDP since 1997, bears the risk of the region. The arguments also failed to encompass the underlying structural micro and macro-level processes, which lead to increased production efficiency and labour productivity, and consequently to decreased intermediate consumption, the result of which is falling volume of domestic sales of raw materials.

With the improvement of the external environment since mid-1999 industrial sales started to grow. The increase of total industrial sales for the second half of the year is entirely due to export sales, while domestic sales continue to fall. The process of optimisation of the production process continued, reducing intermediate consumption and thus requiring less purchases of raw materials. If all factors are taken into account, the conclusion obviously is that the present macroeconomic policy is good for industry, as it increases its effectiveness.

By looking at the monthly dynamics of industrial sales and exports in 1999 one can find a definite relationship between the two variables. The correlation is especially strong in petroleum products, beverages, tobacco products, electrical



Source: NSI

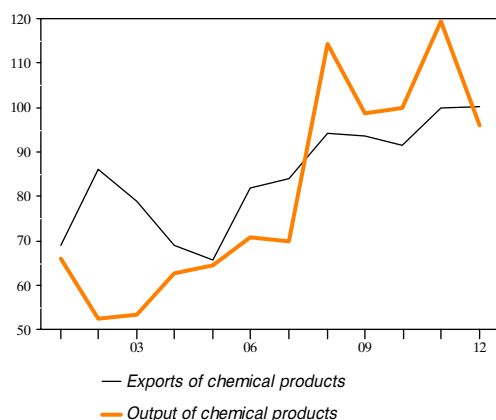
machinery and clothing. It is less pronounced in ferrous metallurgy, where the dollar value of exports increases because of higher prices.

**Table 6. Correlation coefficients between industrial sales indices and exports**

Commodity group	Correlation coefficient
Coke and refined petroleum products	0.83
Tobacco and tobacco products	0.77
Beverages	0.75
Electrical machines and appliances	0.75
Textile, clothing	0.74
Machines and equipment	0.70
Foodstuffs	0.69
Ferrous metallurgy	0.57
Non-ferrous metallurgy	0.57

Source: NSI, BNB, AEF

**Output and Exports of Chemical Products**  
(in % over the corresponding month of the preceding year)



Source: BNB, NSI, AEF

Based on the data one can argue that the pickup of industry in the second half of 1999 is highly correlated with increased exports as a result of the improving external environment.

Exports recovery in sectors badly hurt by the 1997-1998 crisis, namely chemistry and ferrous metallurgy, is important for the overall growth of industrial sales. The high concentration of industry in few sectors is inherited by the period of socialism, however, it gradually started to change in the last three years. Of the 34 sub-branches of industry, for 1998 and 1999 17 of them create 87 percent of sales, and 5 of them generate 50 percent of total industrial sales.

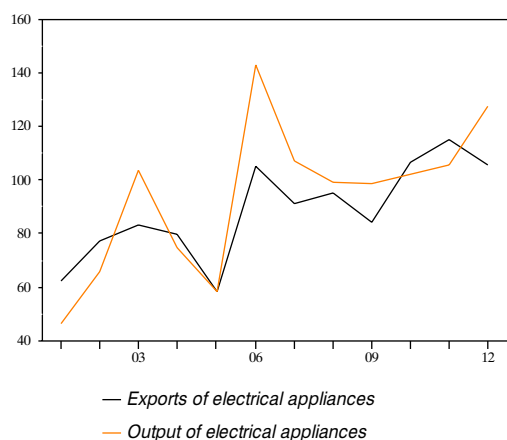
**Table 7. Relative share in total industrial sales**

(using 34 branches level of disaggregation)

	1998		1999
Production and distribution of electricity, gaseous fuel and heat	13.8	Production and distribution of electricity, gaseous fuel and heat	13.8
Production of foodstuffs	12.4	Production of foodstuffs	12.8
Production of coke, refined petroleum products and nuclear fuel	9.4	Production of coke, refined petroleum products and nuclear fuel	12.1
Production of chemicals, chemical products, synthetic fibres	8.4	Production of chemicals, chemical products, synthetic fibres	7.7
Ferrous metallurgy	6.3	Manufacturing of machines, equipment and household appliances, (excluding those included in other items)	5.9

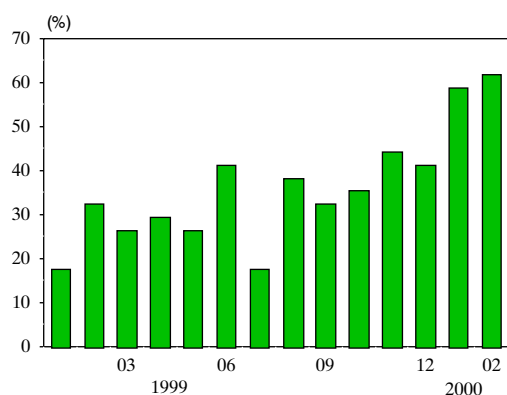
### Output and Exports of Electrical Appliances

(in % over the corresponding month of the preceding year)



Source: BNB, NSI, AEAf

### Diffusion Index\*



\* The diffusion index is based on the year-on-year sectoral sales indices.

Source: NSI, AEAf

Over the last two years the share of chemicals and ferrous metallurgy in total industrial sales has decreased because of the worsening external environment. In 1999 the production of machines, equipment and household appliances replaces ferrous metallurgy as the fifth-largest branch of industry in Bulgaria. This is a positive development, related with the increased export sales of the branch. The symptoms of revival in machines, equipment and household appliances is a positive, and comes as a result of privatisation in 1998 and 1999.

The diffusion index measures the industrial sales spill over effect.<sup>4</sup> This index can be used as an indicator of the degree of 'synchronisation' in industry, i.e. whether the observed growth is concentrated in a few branches or is an industry-wide phenomenon.

The dynamics of the diffusion index show that industrial growth is encompassing a relatively large number of branches as late as end-1999 and early 2000. On the other hand, monthly growth

<sup>4</sup> The diffusion index is calculated using indices of industrial sales in 1999 by months, compared to same period previous year. The data used is for the 34 branches of industry, as per the analytical representation in the publication of the NSI Survey of Current Business.

rates by industries are quite volatile. In most cases a month of growth is followed by a month of decline, and vice versa. A reasonably apparent growth tendency is observed in the branches distribution of water; production of radio, TV or communications equipment; processing of furs and leather and manufacturing articles from them; publishing and production of audio, video and computer recordings; production of wood and articles from wood (excluding furniture); production of medical equipment, precise appliances and instruments.

In several branches of industry increased sales are coupled with increased producer prices as well because of the tendency for international prices to increase due to increased foreign demand. These are production of textile and knitwear; production of refined petroleum products; production of chemicals and chemical products; ferrous and non-ferrous metallurgy.

**Table 8. Sales indices in real terms and producer prices**

(second half of 1999 over first half of 1999)

Extraction of crude oil and natural gas	Sales	110.7
	Producer prices	119.2
Production of textiles and knitwear, fibre processing	Sales	110.0
	Producer prices	116.5
Production of clothes from textiles or knitwear	Sales	101.3
	Producer prices	119.6
Processing of furs and manufacturing articles and clothes from them	Sales	105.8
	Producer prices	105.8
Processing of leather and manufacturing articles and clothes and shoes from them	Sales	135.0
	Producer prices	103.6
Production of coke, petroleum products and nuclear fuel	Sales	137.5
	Producer prices	147.1
Production of chemicals and chemical products, synthetic fibres	Sales	135.0
	Producer prices	107.0
Ferrous metallurgy	Sales	119.0
	Producer prices	111.2
Non-ferrous metallurgy	Sales	111.7
	Producer prices	104.6

These relationships between prices and sales volumes are not predetermined; they are mostly related to the world economy getting out of the crisis of the last two years.

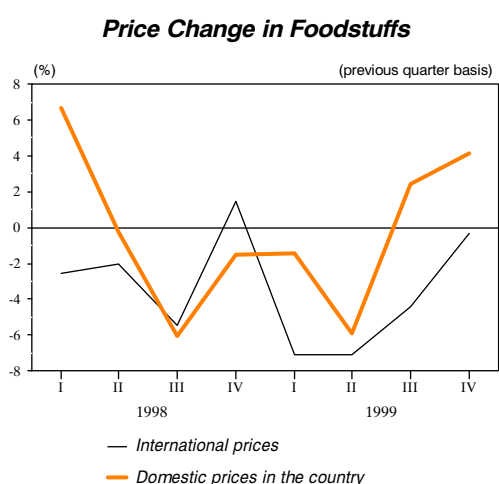
Data shows that economic growth observed in the agriculture and services sectors over the last two years will spread to industry as well. Industry had fallen into a deep crisis after the dissolution of the market of the formerly socialist countries, which was further aggravated by the lack of privatisation and general macroeconomic instability so characteristic of the Bulgarian economy for the pre-1997 period. A precondition for the future development of industry is the conduct of a sound macroeconomic policy that allows the expansion of the investment horizon and the creation of stable commercial relations abroad, especially with European countries.

## 2. INFLATION

The end of year inflation in 1999 is 6.2% while average annual inflation amounted to 1.8%. Similar to the other indicators, two periods of characteristic inflation dynamics were discerned in 1999. In the January to June 1999 period, the overall consumer price change ran negative at -2.0% whereas inflation in the second half of the year was positive at 8.35. Food prices registered the largest fluctuations, decreasing by 8.9% in the first six months of the year and stepping up by 9.0% in the period July to December.

**Table 9. Contribution of Major Commodity and Service Groups to Inflation**

Major commodity and service groups	Weight in the CPI	Price change (%)			Contribution to annual inflation
		I-VI	VI-XII	I-XII	
<b>ALL</b>	<b>100.000</b>	<b>-2.0</b>	<b>8.3</b>	<b>6.2</b>	<b>6.2</b>
Foodstuffs	47.822	-8.9	9.0	-0.7	-0.3
Non-food items	29.310	0.0	5.3	5.3	1.5
Public catering	3.185	1.3	7.5	8.9	0.3
Services	19.683	10.0	10.8	21.9	4.6



Against the preceding year, foodstuff prices in 1999 remained at lower levels and contributed, together with the increase of incomes, to the reduction of the relative share of food expenditures in total households' expenditures<sup>5</sup>. The weight of food items, however, remains high and therefore greatly influences monthly inflation variations. The discrepancy between supply and demand of foodstuffs is seasonal in nature and is most distinctly pronounced in the group of fresh fruit and vegetables. Throughout the whole 1999, some

<sup>5</sup> The weights of food in the CPI amounted to 48.3% in 1996, 51.8% in 1997, 55.1% in 1998, and 47.8% in 1999. Its weight in the year 2000 consumer basket is about 42.9%.



major food items groups reported substantial price fluctuations.

**Table 10. Price Changes of Some Foodstuffs**

	Price change in %	
	January – June	July – December
Pork	-26.4	21.4
Sausages	-16.6	11.5
Milk	-15.3	30.6
Cow's cheese	-27.6	43.1
Yellow cheese	-31.4	49.8
Sugar	-33.8	14.4

**Table 11. Price Increase and Contribution to Annual Inflation of Some Commodity and Service Groups<sup>6</sup>**

Commodity and service groups	CPI weight (%)	Annual price rise (%)	Contribution to inflation (% points)	Month (period) of reported price increase
Bread	8.984	15.3	1.3	Throughout 1999
Cigarettes	2.465	24.3	0.6	January – new excise
Water	0.686	43.7	0.3	January – VAT; throughout the whole year
Electricity	6.694	25.5	1.7	January; July
Wood for heating	0.699	16.8	0.1	January – VAT
Coal	0.598	35.0	0.3	August
Steam power	2.194	12.4	0.3	July
Medicines	2.516	7.6	0.2	July – December
Fuels (petrol, diesel, gas)	2.885	25.2	0.7	July – December
Coach and urban bus transport	1.783	19.7	0.4	July – December
Newspapers	0.374	29.9	0.1	January; April; July; September
Restaurants, canteens and caf�s	3.185	8.9	0.3	January – December
Passport fees	0.161	95.3	0.2	September – October
<b>Collective contribution to annual inflation</b>			<b>6.5</b>	

While the overall domestic price level of foodstuffs mirrored their international price dynamics, it was also influenced by the ratio of

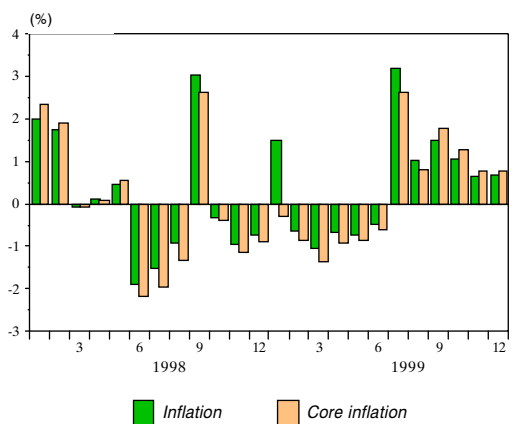
<sup>6</sup> Goods and services with controlled prices are presented in grey shading.

imported to domestically produced goods. According to balance of payments data, the imports of food, drinks and tobacco in 1999 stepped down by 13.8% relative to the preceding year, with recurrent import declines reported in each of the four quarters of the year. At the same time, both the production and sales of foodstuffs in the country followed an upward trend.

Out of all foodstuffs, bread had the largest contribution to annual inflation. Its price growth in 1999 was due to the impact of four factors, namely the introduction of VAT on bread, higher fuel prices, the depreciation of the BGN against the USD and grain price rises on the domestic market. The second half of 1999 witnessed an ever-increasing demand for wheat both at the domestic commodity exchanges and at the international markets which, in turn, induced higher exports of wheat and other cereals. Thus, corn exports in 1999 stepped up by 17.8% on a year earlier.

The growth of administered and controlled prices contributed 3.53 percentage points to cumulative annual inflation. The adjustment of these prices aiming at the elimination of subsidies and the financial recovery of companies in the energy sector had an adverse impact on overall inflation not only through price rises themselves but also as a result of the ensuing increase of the relative share of those goods and services in households' money expenditures. Accordingly, in 2000 the weight of administered and controlled prices in the consumer basket was raised by 2.74 percentage points relative to 1999 to reach 19.95%. Therefore, the overall inflation level will be subject to greater influences by the dynamics of these prices.

**Monthly Inflation Rate**



Source: AEF, NSI

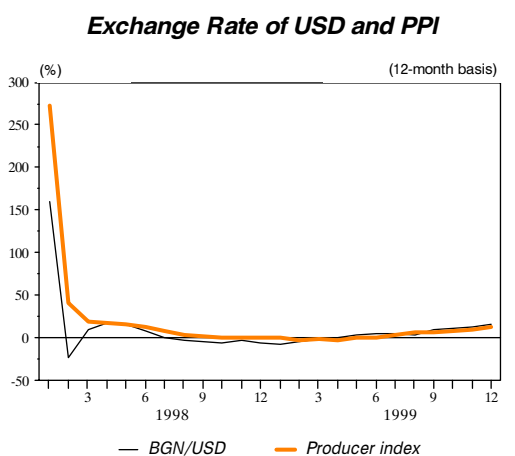
**Table 12. Annual Price Growth of Controlled and Free Prices**

	Weight in the consumer basket (%)	Annual price increase (%)	Contribution to annual inflation (% points)
<b>TOTAL</b>	<b>100.00</b>	<b>6.15</b>	<b>6.15</b>
Controlled prices	17.21	19.68	3.53
Free prices (core inflation)	82.79	3.20	2.62

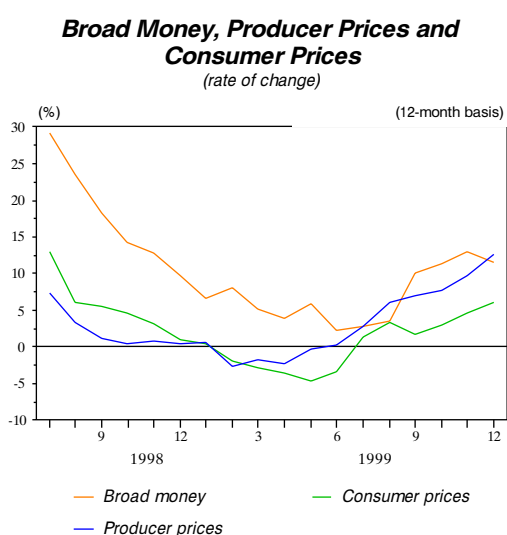
The contribution of core inflation (free prices) to 1999 inflation amounted to 2.62 percentage points inclusive of the price rises of petrol, diesel, gas and bus transport which had been determined by the jump in petroleum international prices registered in 1999.

The depreciation of the BGN against the USD affected inflation primarily through the growth of producer prices in the manufacturing and agricultural sectors. Both the dependency of the Bulgarian economy on raw materials imports and the increased external demand since mid-1999 onwards contributed to the 12.6% high inflation of producer prices in the manufacturing sector. An increase of domestic prices was monitored in the industrial branches reporting export sales growth such as the manufacturing of textile, knitted or crocheted clothes, furniture manufacturing, production of basic iron, steel and ferro-alloys, and production of petroleum products. The agricultural producer price index in the fourth quarter of 1999 points out that the overall price level had not increased relative to the corresponding period in the preceding year. However, the prices of cereals stepped up by 19.1% on average, with the price of soft wheat rising by 58.4%.

Higher money supply also added to the rise of inflation. The correlation between broad money



Source: BNB, NSI



Source: BNB, NSI

dynamics and producer prices is more distinctly pronounced than the one between money and consumer prices.

Data on inflation dynamics in Bulgaria show that its overall annual levels after the introduction of the currency board regime in July 1997 remain low. Still, monthly inflation fluctuations sustain high values due to both the highly seasonal nature of food items which account for a large share in the consumer basket and the gradual raises of administered prices (still having quite a substantial weight in the CPI) in accordance with the programmes for restructuring of public utilities.

### 3. RESTRUCTURING

The optimisation of operating costs whereby the share of value added in goods produced goes on the increase was a major factor behind economic growth in the last two years. Thus, in 1998 when gross industrial output declined, value added in industry increased by almost 8% as a result of the positive impact of this factor and contributed to the overall economic growth of 3.5%. In 1999, both indicators in industry followed close dynamics while in agriculture and services the growth rate of value added was slightly higher than that of gross output.

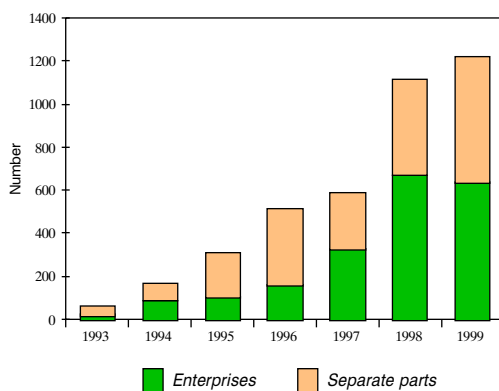
The invigoration of the growing efficiency factor originates from restructuring at the background of a stable macroeconomic environment. Management improvement measures, inevitably undertaken by the new owners of privatised enterprises, initiated restructuring at the micro level, which will inevitably result in economic structure changes.

#### 3.1. Privatisation

The highest number of deals concluded since the launch of the privatisation process in Bulgaria in 1992 marked the year. It also witnessed the largest number of sales of large-scale state-owned enterprises (SOEs) and of heavy indebted SOEs included in the Liquidation Programme of firms in grave financial situation. The highest rate of cash privatised assets was also reported in 1999.

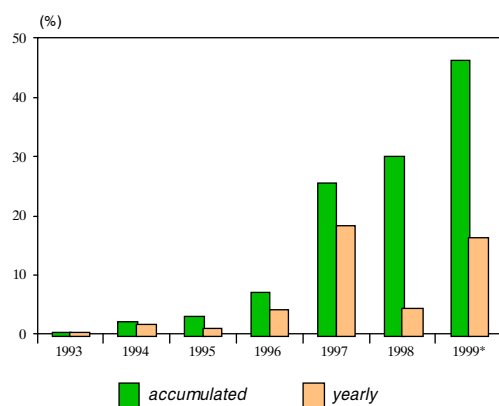
The overall financial effect of privatisation in 1999 accounted for some 40% of total financial proceeds since the launch of privatisation. Respectively, indirect effect had the largest

**Number of Privatization Transactions Concluded by All State Bodies**



Source: PA

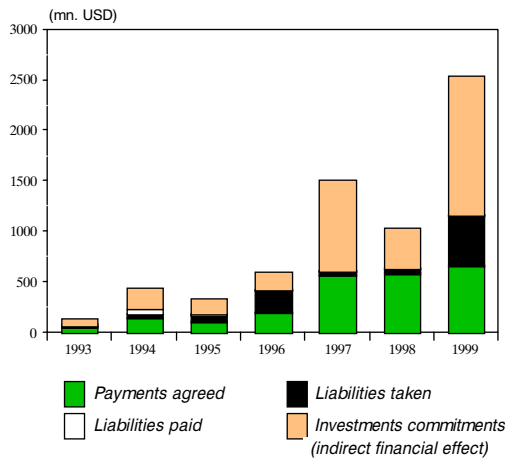
**Privatized State-owned Assets**



\* Calculations done towards 30.11.1999; World Bank's criteria for privatization considered

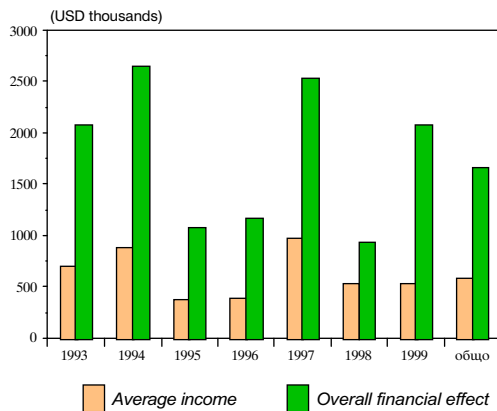
Source: PA

**Financial Results of Privatization**



Source: PA

**Average Income\* and Overall Financial Effect per Deal**



\* Ratio between the sum of payments agreed and the number of privatization transactions for a particular year

Source: PA, AEF

contribution to this result as investment commitments increased 3.7-fold relative to 1998 and accounted for 43% of their aggregate amount in the six years of the privatisation process. Because of the high number of privatised heavy-indebted SOEs in 1999, contracted payments went up by merely 15% on a year earlier and were responsible for only a quarter of the total financial result. The impact of these factors pushed down the average profitability per deal in 1999 to a value almost equal to the 1998 figure and lower than the average registered in the whole privatisation period. As of end-1999, over two-thirds of all state-owned assets allocated for privatisation had been transferred to private hands.

**3.2. The Liquidation Programme**

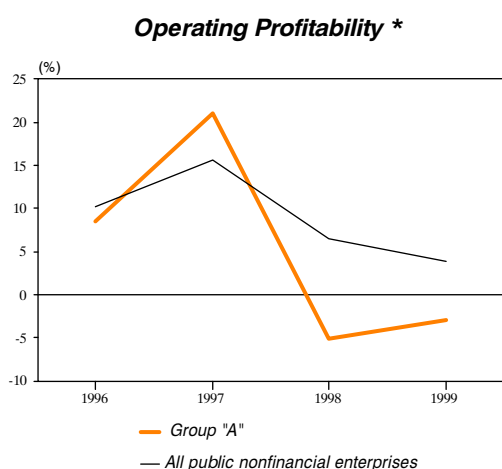
Attempts at finding appropriate measures to cut and eliminate losses of SOEs had been made long before 1989. Yet, since 1991 when the transition process towards a market economy started, this issue has proved to be the main obstacle to overall reform. The loss-making large SOEs turned out to be in such a grave financial situation, which prevented them from successfully implementing whatever financial rehabilitation programme. The implementation of stillborn measures and initiatives further aggravated the situation while financing losses by bank credits which, in fact, substituted state subsidies disrupted the entire economy. Unfortunately, the opportunity to resolve the issue with the help of the Law on the Settlement of non-performing loans to SOEs issued before 1991 (voted in 1993) was missed. If the Act had incorporated, as was initially proposed, a special clause providing for an accelerated

bankruptcy procedure for unviable enterprises whose credits were to be written off, the generating of new losses would have been avoided. Instead, the enforcement of the Law triggered an incessant process of devising and adopting of successive financial rehabilitation programs which all failed to produce the desired effect.

In 1996, giving in to the pressure from the international financial institutions and particularly that of the IMF, the National Assembly passed a Law on the financial rehabilitation of SOEs. The firms in question were loss-making SOEs, heavy indebted to the budget, commercial banks and suppliers. They were placed in two groups depending on their size and importance to the national economy. Group „A“ included 30 key enterprises in infrastructure (mines and heating companies, the national railway and Sofia municipal transport companies). Inasmuch as these firms could not be liquidated and had not been slated for privatisation, they had to undergo financial rehabilitation. Group „B“ consisted of 41 enterprises, which in the final stage of the rehabilitation process had to be either privatised or liquidated.

The financial sanation of SOEs in Group „A“ aimed at changing their pattern of behaviour to a market oriented one and to this end envisaged the observation of tight budget constraints and improvement of these firms' overall effectiveness. The enterprises in this group, however, had some characteristic features that obstructed to a certain extent the accomplishment of the set tasks.

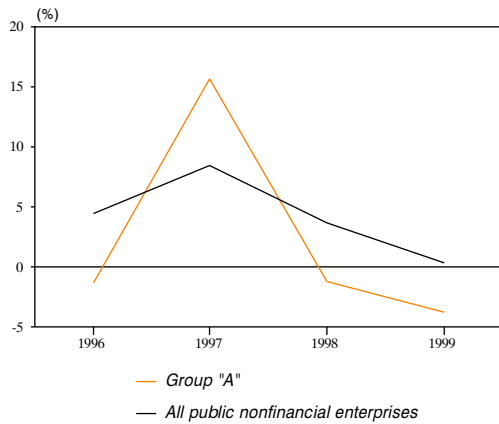
All enterprises in Group „A“ are state monopolies. The prices of their goods and services are government-controlled and in view of social



\* Ratio between operating profit and revenues from sales.

Source: NSI, MF, AEF

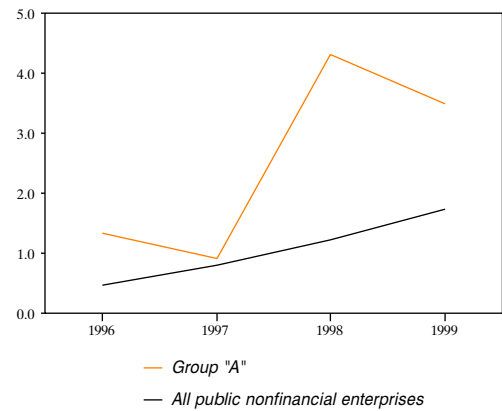
**Gross Profitability\***  
(Before Taxes)



\* Ratio between profit before taxes and sales revenues

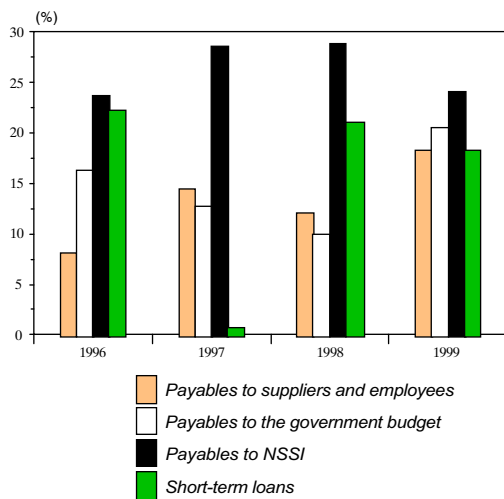
Source: NSI, MF, AEAf

**Coefficient of Financial Autonomy**



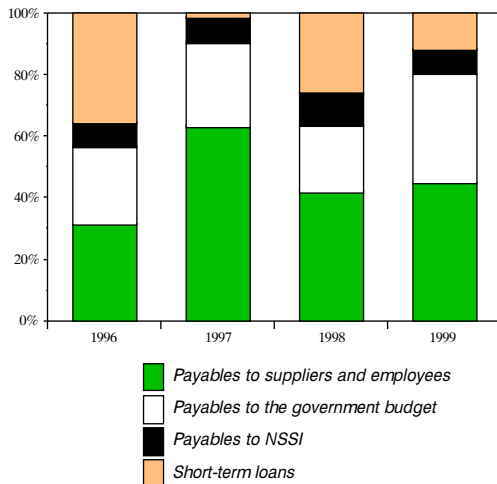
Source: NSI, MF, AEAf

**Structure of Short-term Liabilities of Group "A" as a Share to the Short-term Liabilities in the Public Nonfinancial Sector**



Source: NSI, MF, AEAf

**Structure of Short-term Liabilities for Group "A"**



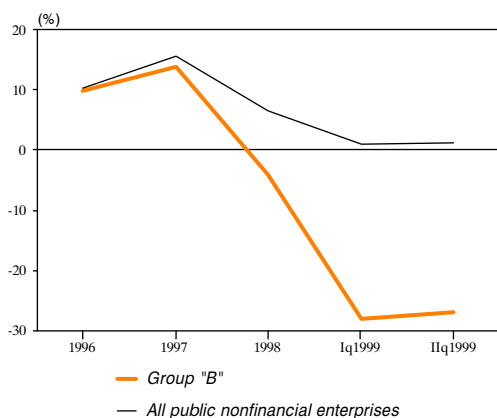
Source: NSI, MF, AEAf

considerations are kept below their equilibrium level. Therefore, these firms react ineptly to market changes and especially to any fluctuations of the international prices of imported raw materials or of the BGN/USD exchange rate. Moreover, they not only lack ways and means but also real motivation to react swiftly to market changes as long as the state compensates their losses.

These reasons stand behind the inability of enterprises in Group „A“ to generate a positive financial flow and reduce their debts. Still, their coefficient of financial autonomy sustained high levels and improved appreciably in 1998 as a result of the increase of their own capital (most probably due to the higher provisions following the revaluation of assets in 1997). The negative trends in their financial results and indebtedness persisting in 1999 speak for the necessity of urgent adequate measures for the restructuring and rehabilitation of those enterprises through the creation of competitive environment for their operation.



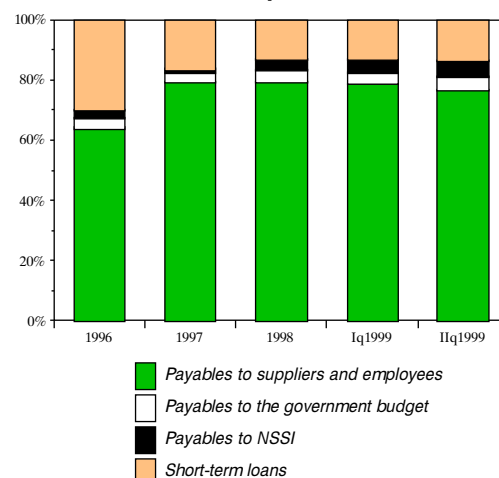
### Operating Profitability \*



\* Ratio between operating profit and revenues from sales.

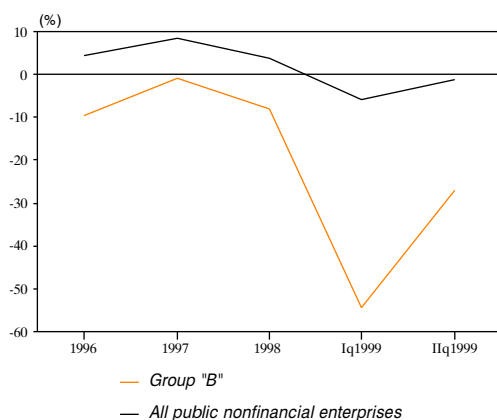
Source: NSI, MF, AEAf

### Structure of Short-term Liabilities for Group "B"



Source: NSI, MF, AEAf

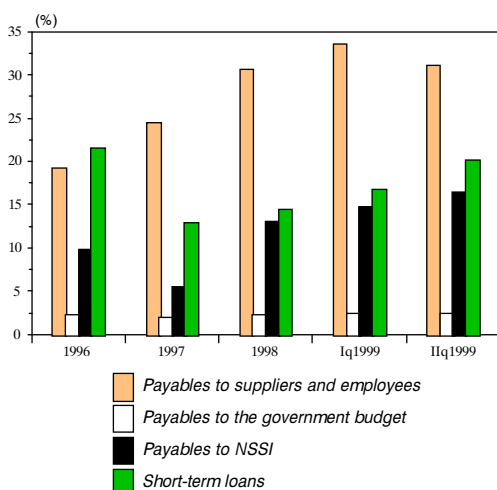
### Gross Profitability \* (Before Taxes)



\* Ratio between profit before taxes and sales revenues

Source: NSI, MF, AEAf

### Structure of Short-term Liabilities of Group "B" as a Share to the Short-term Liabilities in the Public Nonfinancial Sector



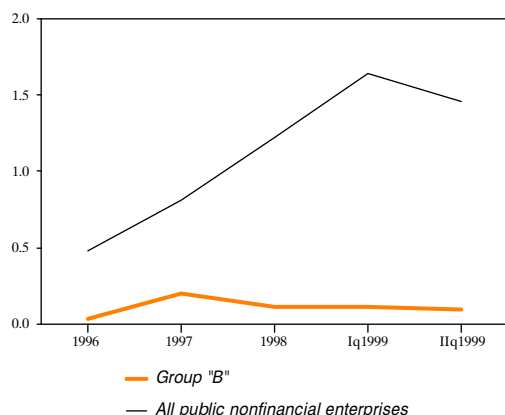
Source: NSI, MF, AEAf

In 1996, Group „B“ enterprises realised some 6% of total sales revenues in the state sector. Over the 1996-1999 period, the public sector as a whole registered positive net financial results whereas firms in Group „B“ generated only net losses, accounting for more than 10% of total net losses of SOEs exhibiting negative financial results.

The financial isolation of enterprises in Group „B“ brought about shrinkage of bank claims on them in end-1998. Thus, their share in public sector's short-term loans declined from 21.5% in end-1996 to 14.3% in end-1998 while their share in the sector's long-term credits stepped down from 22.7% to 17.9% respectively. Simultaneously, the indebtedness of these firms to suppliers, the budget and the state social security system went on the increase.

The low sales profitability and growing debts keep the financial autonomy coefficient of enterprises in Group „B“<sup>7</sup> at a low level. While the

<sup>7</sup> The financial autonomy coefficient is the ratio between own capital and total indebtedness for a given period of time and represents the reciprocal value of the indebtedness coefficient.

**Coefficient of Financial Autonomy**

Source: NSI, MF, AEAF

value of the indicator for the other SOEs was above one, for Group „B“ firms it approximated the zero level.

The delays in the privatisation or liquidation of enterprises in Group „B“ narrowed their opportunity for a better sale. The bulk of Group „B“ companies were either privatised or liquidated only in the period January to July 1999<sup>8</sup>. Some of their liabilities and outstanding loans were either assumed by the new owners of privatised enterprises (19 firms) or had to be covered by the sale of assets during the liquidation procedure (11 firms). The remaining part of liabilities was either deducted from the total amount of payables (as in the case of the privatisation of *Kremikovtzi* metallurgical works) or assumed by the Year 2000 State Budget, thus ensuring the privatisation rather than the liquidation of these enterprises.

**Table 13. Implementation of the Liquidation Programme**

(By years and according to the way of restructuring of these enterprises)

	1996	1997	1998	As of 30 June 1999	Total
Privatised	2	6	4	19	31
– by a local investor	2	1	1	5	9
– MEBO	0	0	1	10	11
– foreign buyer	0	2	2	4	8
– through voucher privatisation	0	3	0	0	3
In liquidation	0	0	3	11	14
Declared bankrupt	0	2	1	0	3
<b>Total</b>	<b>2</b>	<b>8</b>	<b>8</b>	<b>30</b>	<b>48</b>

<sup>8</sup> Thus, the state relinquished 14.4% of short-term liabilities, 15% of long-term and some 20% of short-term credits outstanding of hitherto existing SOEs.

**Table 14. Number and Relative Share of Employees in Group „B“ Enterprises According to the Way of Restructuring**

Status of Group „B“ firms	Employees				Average number of employees per firm	
	1996-1999		1999		1996-1999	1999
	number	%	number	%	number	number
Privatised						
<i>Of which:</i>	54466	79.0	44988	84.9	1878	2646
- MEBOs	18902	27.4	18687	35.2	1890	2076
- local investor	23183	33.6	19949	37.6	2576	3990
- foreign investor	8178	11.9	6352	12.0	1168	2117
- voucher privatisation	4203	6.1	0	0.0	1401	0
In liquidation	12404	18.0	8025	15.1	954	730
In bankruptcy procedure	2101	3.0	0	0.0	700	0
<b>TOTAL</b>	<b>68971</b>	<b>100.0</b>	<b>53013</b>	<b>100.0</b>	<b>1533</b>	<b>1893</b>

Management and employee buyouts (MEBOs) represent one third of the privatisation deals for Group „B“ enterprises (which include firms employing almost 2 000 people on average). Local investors ranked second in importance as buyers. In 1999 they bought five companies, with *Kremikovtzi* metallurgical works being the largest. Foreign investors bought four of the large-scale enterprises employing over 2 000 people on average.

In principle, privatisation is the most appropriate way of enterprise restructuring. It is still early to assess the end effect from the completion of the Liquidation programme since the restructuring process within those enterprises has just started. According to surveys on the post-privatisation development of firms, restructuring normally takes more than 18 months<sup>9</sup>. The successful re-integration in the economy of these enterprises mostly depends on their new owners and the

<sup>9</sup> See L. Dimitrovet al., Post-privatisation Development of Enterprises in Bulgaria, Sofia, 1999 (in Bulgarian).

capacity of the latter to invest fresh resources for a technological and, at a later stage, product renovation.

The completion of the programme for liquidation of loss-making SOEs is a key element of ongoing structural reform since the loss-generating sources threatening the overall economic stability have been largely eliminated and the preconditions for an improvement of financial discipline in the country have been created.

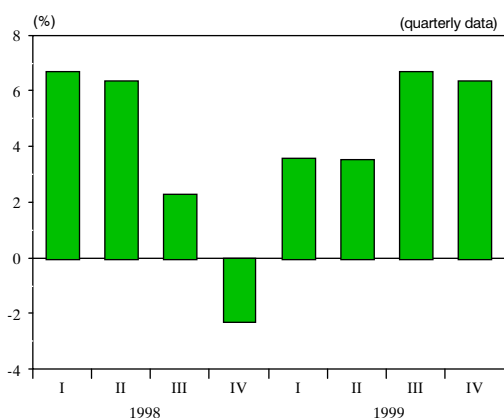
### 3.3. The State-owned Firms

The number of state-owned enterprises (excluding the budget-financed ones and state-owned agricultural businesses) sustained its downward trend in 1999 as a result of the ongoing privatisation. In end-1998 they amounted to some 3 000 firms stepping down to 2 264 SOEs in end-1999.

The optimisation process of SOEs production costs continued through 1999<sup>10</sup>. The results from the main economic activity of firms constantly improved throughout the year<sup>11</sup> due mainly to the gradual increase in sales revenues after the registered 16.2% decline in the first quarter of 1999 against the corresponding period in 1998. Sales proceeds in the last quarter of the year stepped up by 30% relative to their level in the first quarter of 1999.

The rational management of labour costs is one of the key elements of the expenditure

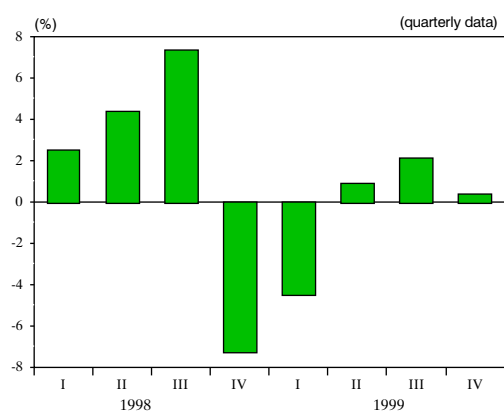
**Operating Profitability of the State-owned Firms \***



\* Ratio between operating profit and revenues from sales.

Source: NSI, AEAf

**Net Profitability of the State-owned Firms \***



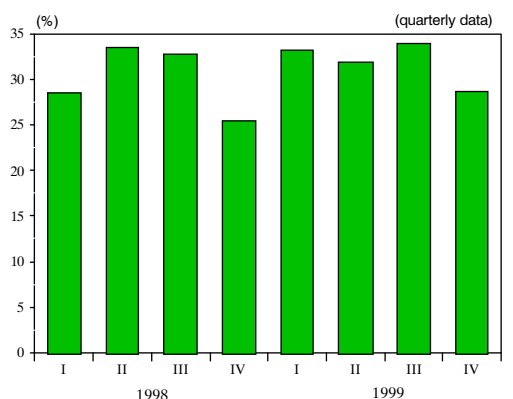
\* Ratio between net profit and revenues from sales.

Source: NSI, AEAf

<sup>10</sup> The process was also analysed in The Bulgarian Economy in 1998 – Annual Report of the Agency for Economic Analysis and Forecasting, Sofia, 1999.

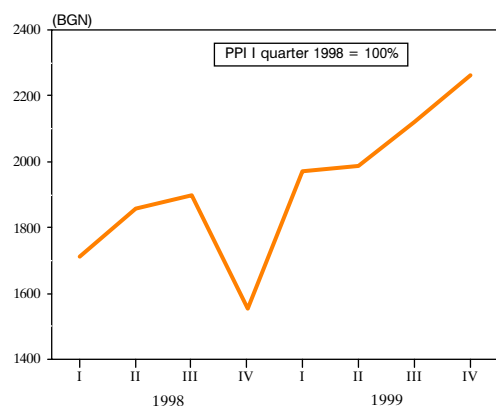
<sup>11</sup> The analysis is based on a sample of firms, which are represented in the data for all quarters of the year.

### Share of Gross Value Added in the Revenues from Sales of State-owned Firms



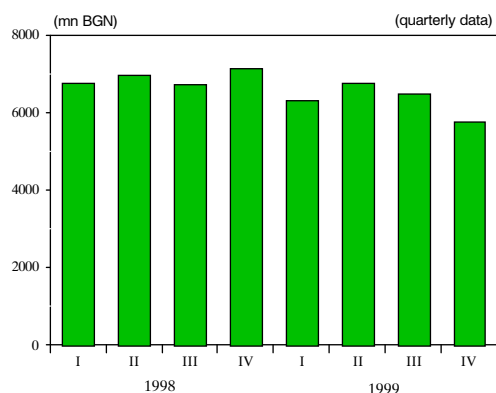
Source: NSI, AEAf

### Labour Productivity of the State-owned Firms



Source: NSI, AEAf

### Total Payables of State-owned Firms at the End of Quarter in Current Prices



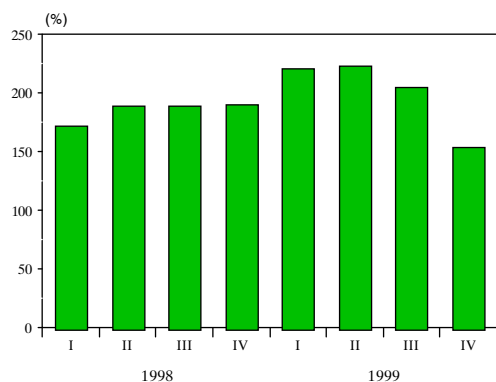
Source: NSI, AEAf

optimisation process. There are two major instruments to this end, viz. to curb the growth rate of the average nominal salary in the firm or to reduce the number of employees. The increase of wages and salaries in SOEs is subject to government control and existing regulations stipulate that wage dynamics is tied to the increase of labour productivity and is to be determined by the financial indicators of the firm. In the third quarter of 1999, the average salary in the sample of SOEs had risen by some 2%, the firms' operating profitability had stepped up more than two-fold while labour productivity per employee had grown by over 10%. In the last quarter of the year when a considerable increase in sales is typically observed (probably due also to seasonal factors) accompanied by employment contraction, firms' operating profitability went up by over 10% while the average salary (inclusive of end-year bonuses) rose by about 5%.

According to data from the sample, the number of employees in the SOEs followed a steady downward trend in 1999, decreasing by an average quarterly rate of 1-2%. In the last quarter of the year, however, their number declined by some 10%. The growth of value added in state firms together with the reduction of employees contributed to the rapid increase in labour productivity.

A process of gradual reduction of SOEs financial liabilities has been observed since mid-1999. Commercial bank credits outstanding represented the most important item in firms' total debts, accounting for over 28% of them in end-1999. The increase of long-term loans by about 20% in the last quarter represented a positive trend discerned in the second half of the year.

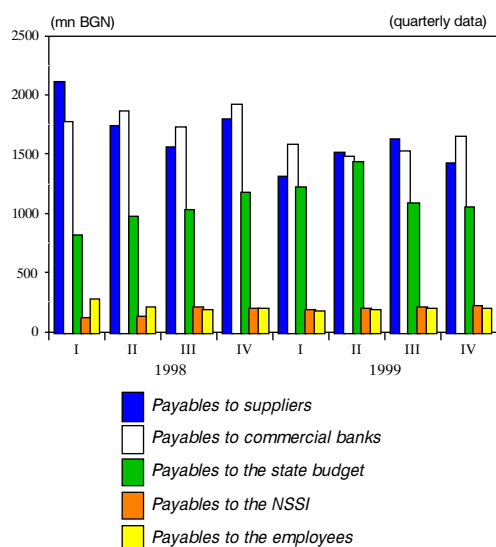
**Ratio between Total Payables and Revenues from Sales of State-owned Firms**



Source: NSI, AEF

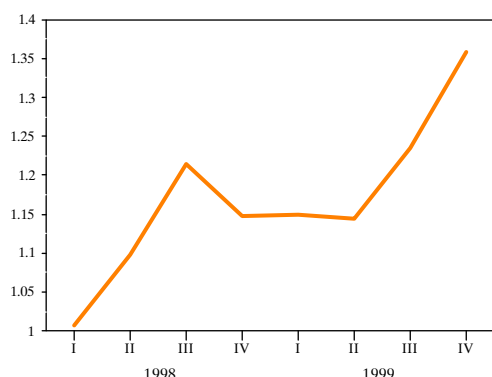
**Structure of Payables of State-owned Firms by Type of Creditor**

(in current prices, at the end of the quarter)



Source: NSI, AEF

**Acid Ratio of the State-owned Firms**



\* Ratio between short-term assets and short-term liabilities.

Source: NSI, AEF

SOEs delinquencies on payments to suppliers had been constantly on the increase till the end of the third quarter of 1999, and their amount in end-September exceeded the end-March figure by almost 24%. In the last three months of the year, however, firms' arrears to suppliers were reduced by over 12% and closed down on their mid-1999 level.

Considerable fluctuations had been observed in the dynamics of state enterprises' payables to the state budget. Having increased by some 17% in the second quarter of the year against the end of the first quarter, they stepped down by almost 25% in the third quarter. The reversal of the trend was entirely due to a debt-for-equity swap operation (transforming some of state-owned *Bulgargas Co.*'s payables to the budget into an increase of its capital) while all other SOEs' delinquencies to the state budget stepped up over the same period. Only in the last three months of 1999, firms' liabilities to the budget declined by over 2%.

State firms' payables to the National Social Security Institute followed a stable upward trend, recording an increase of over 10% in the second quarter. In the second half of 1999, however, the growth rate of these financial obligations fluctuated around 2.5% on average.

Net profits and losses of SOEs sustained a high degree of concentration. The top ten net profit-making state firms accounted for some 75% of total net profit of enterprises in the public sector. At the same time, 65% to 80% of total net losses in the public sector have been generated by the ten biggest net loss-makers in the different quarters of the year.

**Table 15. Distribution of SOEs According to Their Financial Results (%)**

	Net profit-makers*	Net loss-makers*	Top ten firms reporting the highest net profit**	Top ten firms reporting the biggest net losses**
I quarter 1998	47.7	51.3	37.2	10.2
II quarter 1998	38.3	60.7	19.6	9.0
III quarter 1998	59.7	39.6	32.9	8.7
IV quarter 1998	45.1	53.9	22.2	10.3
I quarter 1999	45.1	51.1	41.3	19.1
II quarter 1999	52.6	46.5	33.9	17.7
III quarter 1999	45.9	45.1	21.8	17.7
IV quarter 1999	34.6	47.6	31.5	18.9

Note: \* In percent of the total number of SOEs.

\*\* In percent of total sales of SOEs in the sample.

Source: NSI, AEF.

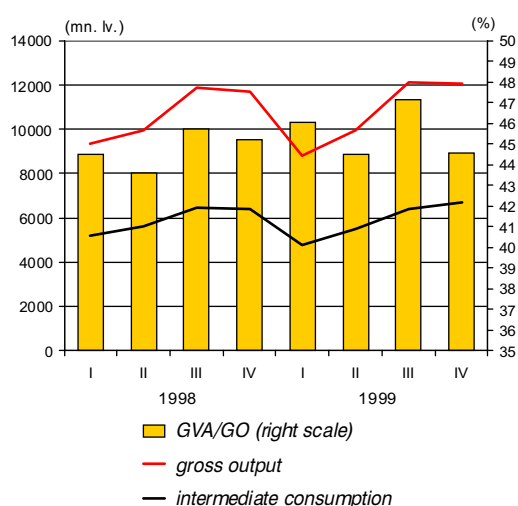
Large-scale state firms, some of which are either big exporters or hold a monopoly status in the respective economic branch, were the primary contributors to the overall improvement of financial indicators of SOEs discerned in the third quarter of 1999.

### 3.4. Efficiency

In 1999, the upward trend in the share of value added in gross output was sustained albeit it was not as clear-cut as the one monitored in 1998. Value added in the economy as a whole in 1999 stepped up by 1.8% on a year earlier although gross output practically remained at its 1998 level, reporting a meagre 0.1% growth.

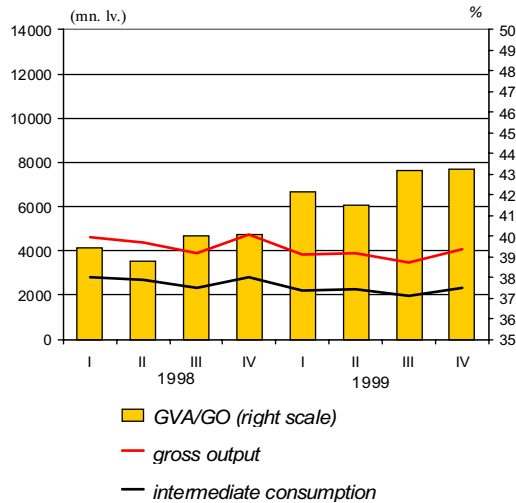
The above-mentioned positive trend persisted for a third year in a row; its effect has apparently started to dwindle. The cost optimisation in the last three years was made possible by the macroeconomic stabilisation of the country allowing the rational planning of necessary raw material

**Ratio of Value Added to Gross Output, Total Economy, 1998 Prices**



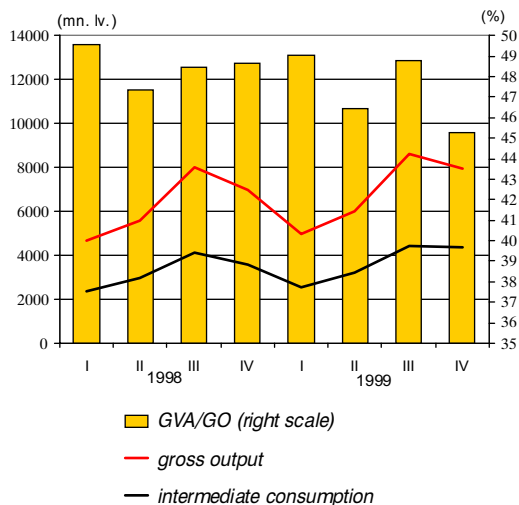
Source: NSI, AEF

**Ratio of Value Added to Gross Output,  
Public Sector, 1998 Prices**



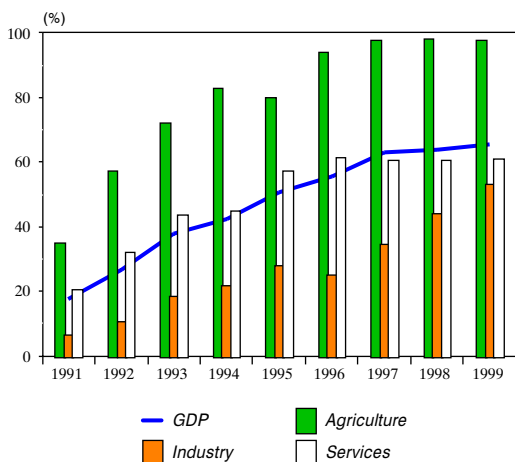
Source: NSI, AEF

**Ratio of Value Added to Gross Output,  
Private Sector, 1998 Prices**



Source: NSI, AEF

**Share of Private Sector**



Source: NSI

stocks and guaranteeing regular deliveries. The restructuring of privatised enterprises which usually starts by cutting down unnecessary expenses and excess inventories also contributed to the optimisation of expenditures. The analysis of the public sector also points out that the indicators of efficiency and labour productivity in it had improved. Yet the share of value added in the state sector remained low in comparison with the private sector. The transfer of economic activities from the public to the private sector wherein value added has the largest share in gross output is a key factor contributing to the more efficient distribution of resources in the economy and to productivity gains.

The positive effect of restructuring through investment manifests itself only after a considerably longer period. Having followed a steady downward trend for almost twenty years, investment activity has revived only since mid-1998 and, therefore, the impact of new investment on the process of expenditure optimisation is yet to be seen. Inasmuch as the technology and product renovation of production is forthcoming, its positive effect will be discerned in the years to come.



---

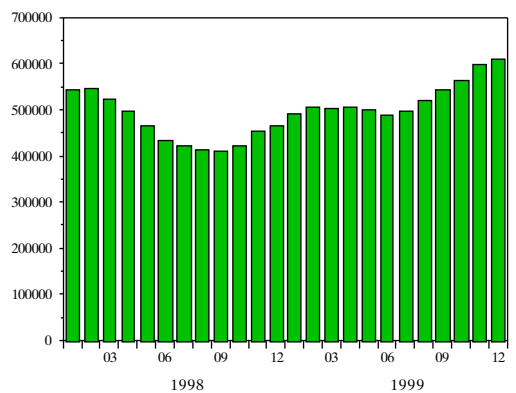
## 4. EMPLOYMENT AND LABOUR PRODUCTIVITY

Economic restructuring generates temporary employment contraction. According to the labour force survey in November 1999, the number of unemployed stepped up by some 20 000 relative to November 1998. In 1999, the number of lay-offs for economic reasons amounted to 268 888 stepping up by 55% (100 000) on a year earlier. Part of the registered unemployment inflow was a result of the liquidation of 11 enterprises with some 8 000 employees following the completion of the liquidation program for Group „B“ state-owned enterprises. Lay-offs in the budget sector (public administration, education, health services, etc.) amounted to about 8 000 people.

One fourth of the total number of newly registered unemployed entitled to unemployment benefits (75 000) were dismissed in the private sector (probably in the state-owned firms, privatised in 1998 and 1999). The number of lay-offs in the public sector remained relatively high, which can be explained by the ongoing employment optimisation process in the firms trying to avoid bankruptcy and insolvency.

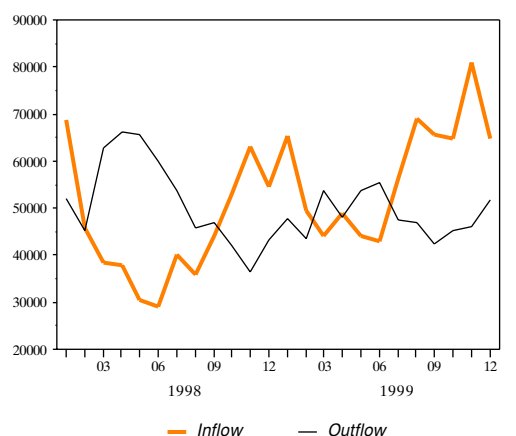
The new job creation in the private sector did not offset lay-offs in the state-owned and privatised enterprises. Shrinkage in labour demand discouraged part of the unemployed from registering with the unemployment office and they exit the labour market. According to November 1999 labour force survey, the labour force participation rate decreased to 49.2%, the lowest value registered since 1993. The relatively high share of unemployed aged below 30 in the group of people who exited the labour force indicates that they were probably absorbed by the grey economy.

**Number of Registered Unemployed**



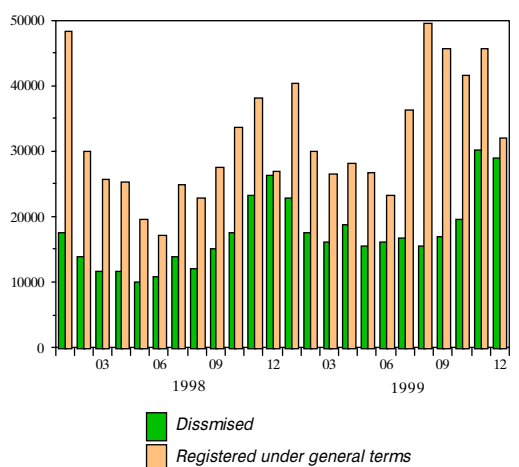
Source:NLO

**Unemployment Inflow and Outflow**



Source:NLO

**Number of Newly Registered Unemployed**



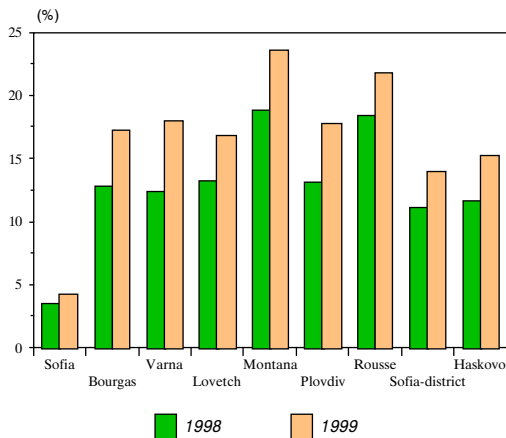
Source:NLO

The labour force survey data confirmed the general upward trend in registered unemployment. NSI labour force surveys that follow ILO methodology documented an unemployment rate of 17% while according to the National Employment Service (NES) data the indicator's value ran at 15.97%.

The two data sources differ in the size of flows. On a 12-month basis, the number of registered unemployed increased by 20 000 (relative to November 1998) according to the labour force survey whereas in end-1999 the NES registered an increase of 145 349 against December 1998. Respectively, the total number of unemployed in the labour force survey amounted to 576 900 whereas the NES corresponding figure was 610 600.

According to NES data the process of enterprise restructuring in 1999 affected the number of lay-offs which stepped up by 27% on a year earlier. A stable upward trend in the share of lay-offs in the private sector had been observed since early-1999. Their relative share in the unemployment inflow had increased from 15.8% in January 1999 to 44.9% in December 1999. In 1999, the number of newly registered unemployed not entitled to unemployment benefits grew by 25% on a year earlier. This was probably due to some of the provisions of the Health Insurance Act since, in the period after its entry into force (July 1999), the average monthly number of newly registered unemployed not entitled to unemployment benefits increased by some 47%.

Significant discrepancies exist in the regional distribution of unemployment. The coefficient of variation increased from 0.35 in early-1999 to 0.37 in end-1999. Targoviste and Razgrad were the

**Regional Structure of Unemployment**

Source:NLO

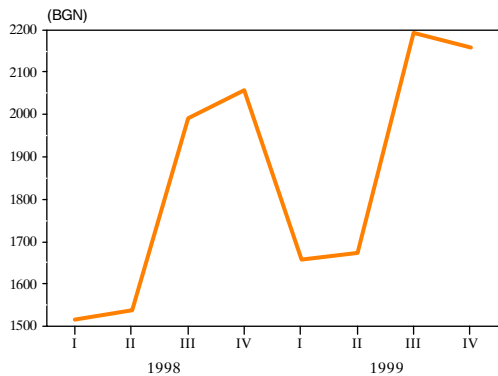
districts where the unemployment rate peaked to its highest, registering values of 29.7% and 26.1% respectively. The population in these regions is of mixed ethnic origin and predominantly occupies with tobacco- and vine-growing. The temporary employment programmes reduced to a certain extent the level of unemployment in these regions providing incentives to unemployed to register with unemployment offices

In the region of Smolyan the unemployment rate increased to 25.7% probably due to the liquidation of several mining and quarrying enterprises included in Group „B“ Liquidation List.

The unemployment rate in Northwest Bulgaria was also above the average for the country. In Montana, Vidin and Vratza districts the indicator's value grew to 24.1%, 23.5% and 23.3% respectively, affected by the closure of two major companies in the region, viz. *Vidahim* chemical works in Vidin and *Pima* munitions plant in Montana.

In 1999, employment contraction was monitored in all economic branches in both the public and private sectors. Simultaneously, average salaries by branches followed the opposite trend. Firms implemented different policies on salaries in the first half of the year when sales revenues did not increase and in the second half, when sales growth rates stepped up. In periods of stagnation, enterprises adjust their labour costs to sales proceeds. During the deflationary months in the first half of 1999, real wages followed an upward trend irrespective of low (or absent) increases in their nominal-term level. In the second half of the year, however, all branches reported rises of the average nominal salary against the first six months. Firms also raised average salaries using the ongoing employment contraction regardless of

**Gross Domestic Product per Employee**  
(in average prices for the particular year)



Source: NSI, AEAIF

whether they had rises or falls in sales. The pressure for sustaining and increasing of real salaries in the second half of the year when inflation rate increased was probably the reason for such behaviour.

One of the anticipated effects of restructuring, viz. the improvement of labour productivity, has been apparently achieved as pointed out by the shrinkage of employment and the growth of gross value added produced. In 1999, the value of the indicator went up by 6.4% on a year earlier. The upward trend in productivity gains can be seen as a positive phenomenon regardless of its temporary negative impact on employment. If this upward trend is sustained (having in mind that all necessary preconditions for it are in place), it would bring about further improvement of competitiveness of Bulgarian producers and result in the attainment of sustainable economic growth. Moreover, the increasing efficiency and productivity of labour are major factors inducing real salary growth.

## 5. INCOMES AND LIVING STANDARDS

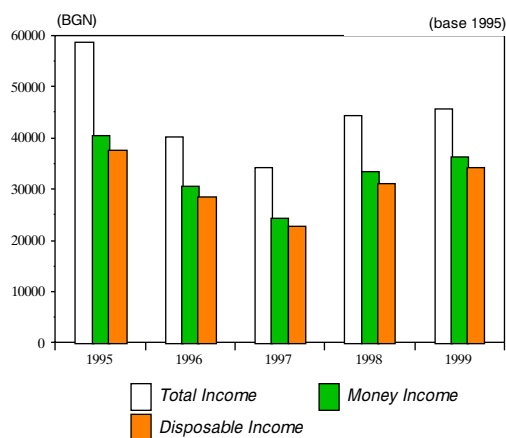
In April 1999, the National Statistical Institute carried out a sociological survey *Standard of Living Indicators*. It summarised the assessments of respondents of their standard of living and the development of the key components of social environment, viz. education, labour market and healthcare. According to the results of the poll, some 43.4% of households considered themselves poor while 12.9% of them viewed their way of life as destitute. The standard of living of 62.4% of the respondents did not undergo any changes in the last two or three years whereas some 35.6% reported a deterioration of their living standards over the same period.

Notwithstanding the subjective nature of respondents' assessments of their living standards, they were also predetermined by the actual dynamics of incomes in the country. On the one hand, incomes in the country on average increased in real terms but on the other hand, the number of employed declined due to both the growth of total unemployment, especially since mid-1999, and the objective process of gradual ageing of the population. The latter two factors affected directly the distribution of incomes.

According to NSI data on incomes and their various components, the last two years saw a substantial real-term growth of these indicators. In 1999, households' money incomes increased by 8.9% in real terms on a 12-month basis.

Incomes from wages and pensions remained the main sources of funds for households and accounted for over 70% of their money incomes. The average salary increased by 9% in real terms. In 1999, the average real wage in the private sector

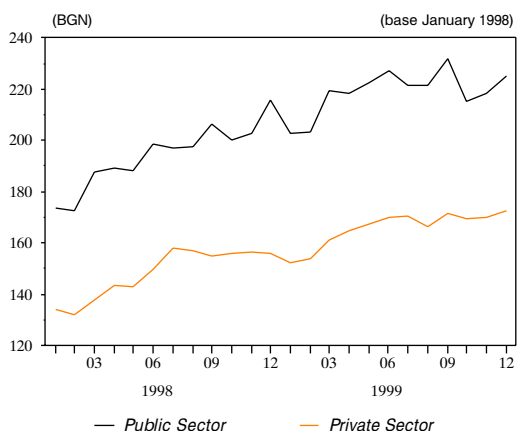
**Total, Money and Disposable Income of Households\***



\* The Disposable Income is the Money Income decreased by paid payroll taxes

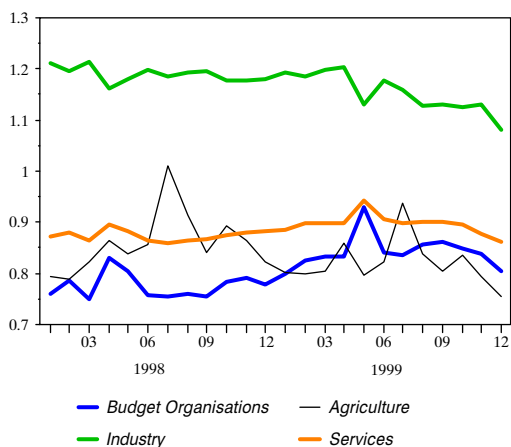
Source: NSI, AEF

**Real Average Wage in Public and Private Sector**



Source: NSI

**Relative Wage by Sectors\***



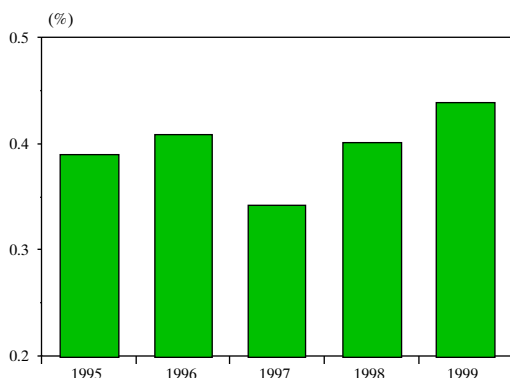
\* Average Wage for the National Economy = 1

Source: NSI

stepped up by 21% on a year earlier while over the same period public sector average wage registered a 4% real-term rise. Wage dynamics in the SOEs was dependent on the improvement of labour productivity as stipulated by the existing Regulation on wage growth in public sector firms.

In 1999, pensions were raised twice: by 5% in the beginning of the year for all pensioners and in mid-year following the adjustment of individual pension benefits according to the new base of BGN 88.20<sup>12</sup>. Social pensions were increased to BGN 34.65 in January and to BGN 37.00 in July. The average expenditure per pensioner in 1999 stepped up by 6% on a year earlier.

**Replacement Ratio\***

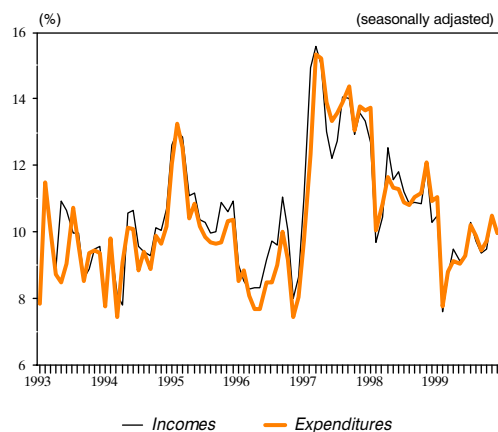


\* Ratio between the average expenditure per pensioner and the disposable income. The disposable income is calculated on the base of the average wage.

Source: AEF, NSI

The decline in the share of incomes in kind as a result of low inflation and the growth of money incomes is an important indicator pointing out to an increase of the average living standards. In 1999, the relative share of revenues from and expenditures for family smallholdings in total household income and expenditures slumped to its 1993 level. On a 12-month basis, they stepped down by 10% in real terms while their share in total household income declined from 12.1% in 1998 to 10.4% in 1999.

**Relative Share of in Kind Incomes and Expenditures**



Source: AEF, NSI

The assessment of the standard of living relates not so much to the average amount of income or its dynamics but rather, to some relative variables such as the distribution of these indicators by groups and strata of the population. Households' budget surveys carried out each month by the NSI provide a good basis for the classification of households in decile groups according to their income level. Given the 8.9% real-term growth

<sup>12</sup> In the period July 1998 to July 1999, the base was fixed at BGN 78.50.

rate of the average household income, incomes in the first and second decile groups register the slightest increase. The ratio of average income per household in the first decile group to average income of households in the sample amounted to 28% in 1998 and to 26% in 1999. Gini coefficient rose from 0.307 in 1998 to 0.315 in 1999, indicating a further increase of household income disparity.

**Table 16. Ratio of Average Income per Decile Group to the Average Income of Households in the Sample**

(%)

Decile groups	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Average per person	Gini coefficient
Real-term change of incomes	-0.21	6.81	7.69	7.12	7.77	8.71	9.01	9.77	10.66	10.20	8.90	
April 1998	29.1	49.8	60.6	69.3	80.5	92.8	103.8	123.9	152.3	238.5	100.0	0.303
April 1999	25.1	48.2	60.8	70.2	80.9	92.2	103.8	121.4	154.2	244.2	100.0	0.312
1998	28.3	49.2	61.0	71.2	80.8	90.8	103.2	119.9	146.4	248.8	100.0	0.307
1999	25.9	48.2	60.3	70.1	80.0	90.6	103.3	120.9	148.8	251.8	100.0	0.315

Source: NSI, AEAf

The distribution of incomes is largely determined by the social status of the population and particularly by the presence or lack of unemployed people in the household. According to data from household budget surveys, the unemployment level in the first decile group was more than three times higher than the overall unemployment level. Long-term unemployment followed a steadfast upward trend in the last several years and in 1999, the number of long-term unemployed stepped up by 1.6% on average relative to 1998. Their share in the total number of unemployed ran at 31.7% whereas the average duration of job-seeking in 1999 increased by almost two months against that in 1998 to reach 11.3 months.

Financial assistance to poor families and persons undoubtedly has a direct social effect and is one of the most common measures for alleviation of poverty. In Bulgaria, such assistance is provided through the social aid and target energy aid schemes. However, these measures are temporary and depend on the capacity of the state and the willingness of the society to allocate and provide the necessary funds. Long-term policy measures on poverty reduction and not merely on poverty alleviation include as priority tasks the development of good education and healthcare, the promotion of an effective labour market and, of course, the securing of sustainable economic growth.

According to the above-mentioned NSI Survey *Standard of Living Indicators*, some 41% of respondents found education in Bulgaria good or satisfactory, with young people reporting a higher rate of approval while another 36% believed the system of education was bad. Socio-economic indicators also do not reveal a deterioration of conditions for education in the country. The expansion of educational services provided by the private sector and the increase of household expenditures for education were the most important changes that have taken place.

**Table 17. Share of Expenditures for Education in Households' Disposable Income**

(%)

	<b>Average per person</b>
1997	0.32%
1998	0.50%
1999	0.74%

General government budget expenditures for education including *inter alia* salaries and



remuneration of personnel, scholarships and grants, upkeep of schools and education establishments, represented 4.15% of GDP. In 1999, they increased by 12.2% in real terms on a year earlier and their share in GDP stepped up by 0.3 percentage points.

According to NSI data, the access to and the coverage of the education system is very high for primary and junior high school education. Usually, when the unemployment level rises, the number of people pursuing post-secondary vocational training also goes on the increase. A similar trend is observed in Bulgaria as well.

**Table 18. Net Enrolment Ratio**

By grades as per the International Standard Classification of Education (ISCED-97)

	1994/95	1995/96	1996/97	1997/98	1998/99
Primary education	92.8	94.9	95.5	96.0	96.8
Junior high school education	79.0	78.0	78.4	79.1	80.2
Secondary education	61.4	61.5	61.5	61.3	62.1
Post-secondary vocational training	-	-	-	0.5	0.7
Colleges	3.3	3.1	3.0	3.0	2.7
Universities and institutes	18.8	20.6	21.4	21.6	22.6
Net enrolment ratio of pupils and students (7-23)	-	-	60.2	60.2	60.9

*Note: The net enrolment ratio is the percentage of the number of children at a given age attending school out of the total number of children at the same age.*

*Source: NSI*

The percentage of pupils dropping out is another key indicator for the participation of population in the education system. According to the results of the sociological survey *School Dropouts – Problems and Reasons*<sup>13</sup>, some 4% of polled pupils drop out while about 2% of the

<sup>13</sup> This PHARE project was carried out with the assistance of the Bulgarian Observatory for vocational education and training and the labour market and Skala Centre for social strategies and initiatives.

respondents name the poverty of their families as the reason for it.

Labour force surveys carried out by the National Statistical Institute reveal that a considerable part of long-term unemployed are people either without or with a low level of education. Therefore, they can hardly expect any professional realisation and stand slim chances of finding suitable jobs. Consequently, the Bulgarian system of education faces two major issues. On the one hand, it is indispensable to provide children and youngsters with such an education and training that will facilitate their future professional realisation. And on the other hand, it is necessary to create opportunities for continual post-secondary vocational training and re-qualification. The National Employment Service programs for training of unemployed partially resolve current problems in this regard.

The balance of household assessments of the situation in healthcare as reported by NSI Survey *Standard of Living Indicators*, was negative. Some 48.8% of respondents regarded it as bad while 40.4% of them found it satisfactory. The current healthcare environment was assessed to be good by only 5.3% of the surveyed.

Mortality rate for people aged up to 60 is an indirect objective indicator of the quality of the healthcare system in the country. Data point to a slight improvement in 1999 relative to the preceding year. Mortality rates for men and women in the 1-60 age group were as follows: 0.35 and 0.13 in 1998 and 0.34 and 0.12 respectively in 1999.

The last two years saw a rapid increase in households' expenditures for healthcare. While expenditures for medicines sustained their primary place, the share of expenditures for health services

went constantly on the increase. The latter is also a probable cause for discontent. General government budget expenditures for healthcare in the nine months of 1999 stepped up by 8% in real terms against the corresponding period in 1998.

**Table 19. Share of Expenditures for Healthcare in Households' Disposable Income**

	<b>Healthcare expenditures, incl. those for medicines</b>	<b>For medicines only</b>
1997	2.49%	2.00%
1998	2.79%	2.13%
1999	3.31%	2.40%

*Source: NSI, AEAf*

The future prospects for living standards improvement will depend on the reasonable distribution of expenditures between households and the budget. The discontent caused by the fact that households had to assume an additional burden of expenditures that were heretofore financed by the state is an inevitable consequence of the transformation of relations during the transition to a market economy. The end effect, however, will be positive since the direct public control over the functioning of the education and healthcare systems will be enhanced. Since there is already a potential for higher economic growth rates, the latter will alleviate in the conceivable future the burden of reforms in the social sphere.

## 6. THE BANKING SYSTEM

Commercial banks are the principal financial intermediaries linking final creditors (usually households) and final borrowers (usually trade companies).

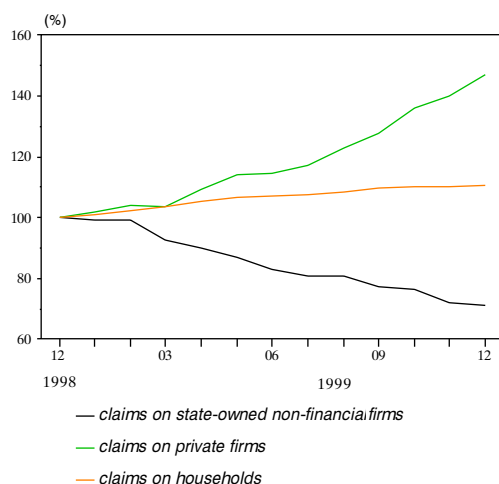
In 1999, households were the main depositors in the banking system. In the previous year, the net flow of credits and deposits between households and commercial banks followed the opposite direction, viz. the amount of credits extended to the physical persons exceeded the increase in their deposits. This anomaly was due to both the restored demand for credits from households after the introduction of the currency board and the lowering of interest rates. In 1999, the growth rate of bank claims on households registered considerably lower values.

The net flow of credits and deposits between banks and the government sector underwent no changes relative to the previous year. The decrease of bank claims on the sector predetermined the net outflow of money resources from the budget to commercial banks. Bank claims on SOEs sustained their downward trend. Apparently, the reduction of these claims was to a certain extent due to the privatisation of large-scale enterprises such as *Neftochim* refinery and *Kremikovtsi* metallurgical works.

In 1999, net money outflow from commercial banks to private enterprises registered the highest value. This was a notable positive trend in comparison with the preceding year when banks opted for investing the bulk of their assets abroad.

After the 1996 crisis, commercial banks became much more cautious in choosing trustworthy borrowers while the currency board regime

**Base Index of Loans to Non-Government Sector in Nominal Terms\***



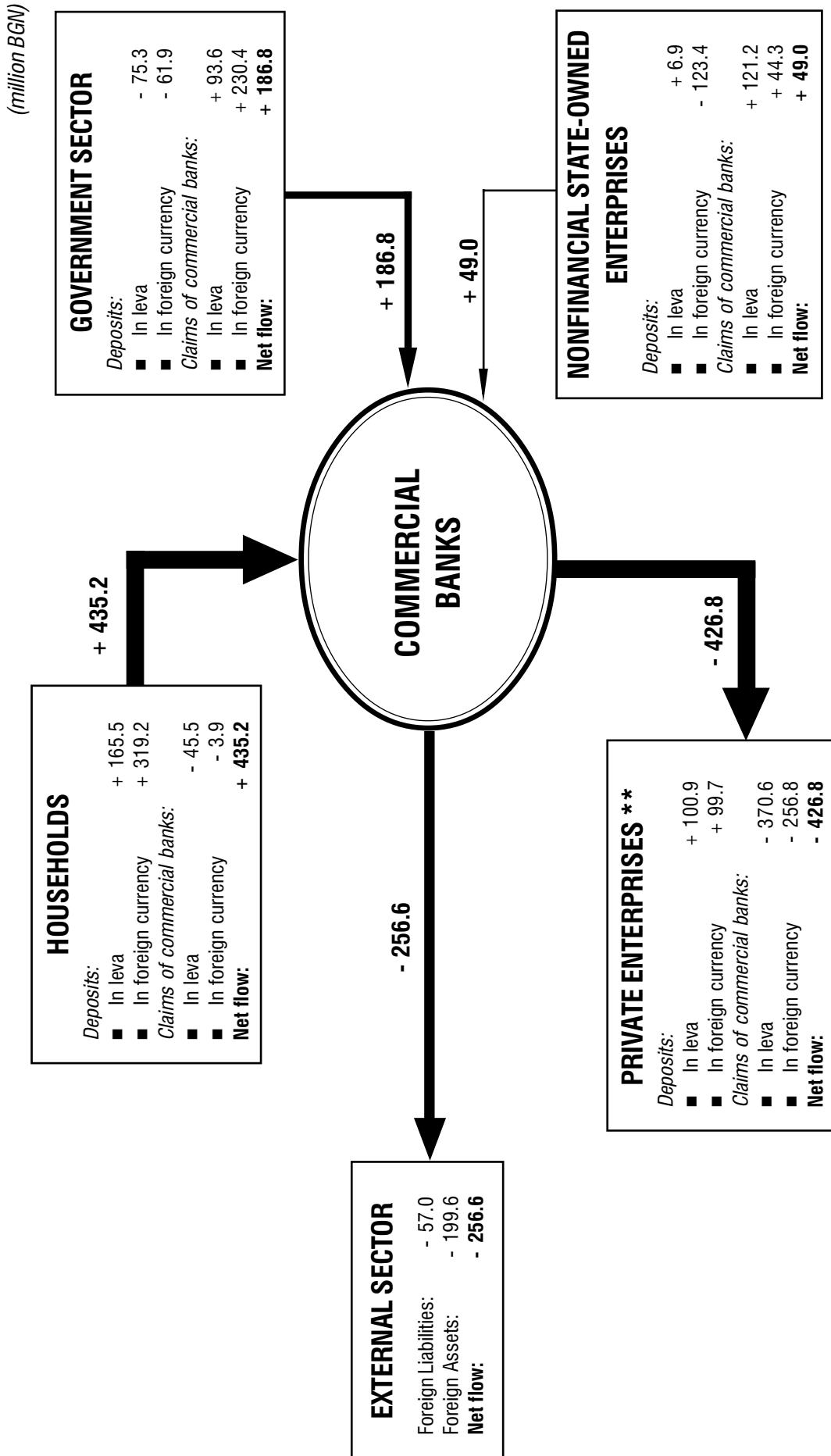
\* Banks in liquidation procedure excluded

Source: BNB, AEAf

**NET CREDIT AND DEPOSIT FLOWS BETWEEN COMMERCIAL BANKS AND INSTITUTIONAL SECTORS**

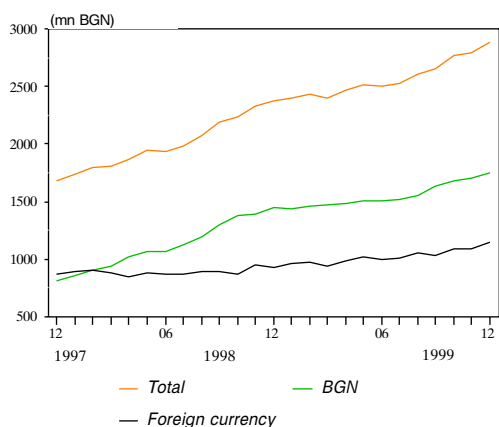
**FROM 31.12.1998 TO 31.12.1999 \***

(BANKS IN LIQUIDATION PROCEDURE EXCLUDED)



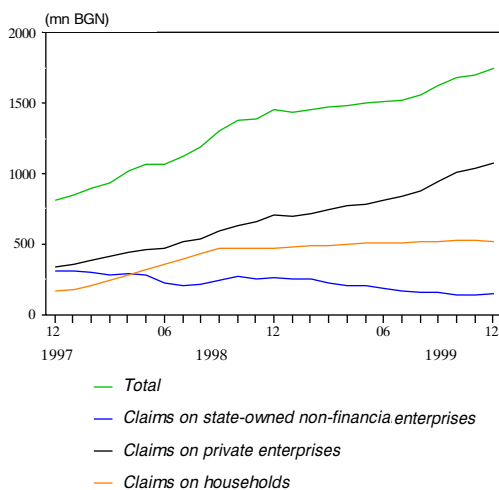
\* The data are from the Monetary Survey of BNB. The diagram describes credit flows only. The remaining money liabilities and receivables of institutional sectors (taxes, subsidies, wages) are not included. The plus sign (+) denotes flow from institutional sectors to commercial banks. The minus sign (-) denotes opposite flow.

\*\* Nonbank financial institutions included.

**Claims on Non-Government Sector \***

\* Banks in liquidation procedure excluded

Source: BNB, AEF

**Claims on Non-Government Sector in BGN by Groups of Borrowers**

\* Banks in liquidation procedure excluded

Source: BNB, AEF

imposed very strict preconditions for bank refinancing in case of a severe liquidity crisis. In 1999, the balance-sheet value (consolidated assets) of commercial banks stepped up by 10.7%, exceeding the reported 1998 figure of 3.2%. The bulk of the increase was accumulated in the second half of the year. As of end-December 1999, the total risk component of banks' assets had risen by some BGN 79 million against end-1998. The increase of the capital base of the banking system by about BGN 145 million over the same period brought about a 4.0 percentage points growth of capital adequacy. Thus, the value of the latter indicator reached 41.31% in end-December given a minimum required level of 12%. Commercial banks in Groups I and IV reported the highest values of capital adequacy (50.0% and 52.8% respectively) <sup>14</sup>.

Within the banking system, the share of standard exposures to financial and non-financial institutions was 88.3%, and classified exposures in the two most risky groups (doubtful and loss) comprised 6.8% of all risk exposures. The credit portfolio of banks in Group I was the most satisfactory. As of end-December 1999, some 95.1% of all credit exposures were standard. The largest share of credits classified as a loss was reported by Group II banks (17.2% of all credits).

<sup>14</sup> In accordance with the new bank classification of the BNB, commercial banks were divided into four classification groups depending on their balance-sheet value. The fifth group comprised foreign banks' branches. The new groups include the following banks:

- Group I (commercial banks with balance-sheet value exceeding BGN 500 million.) – Bulbank, DSK Bank, United Bulgarian Bank;
- Group II (commercial banks with balance-sheet value ranging between BGN 300 and BGN 500 million) – Biochim, Bulgarian Post Bank, Hebros Commercial Bank, Expressbank;
- Group III (commercial banks with balance-sheet value ranging between BGN 100 and BGN 300 million) – BNP–Dresdnerbank (Bulgaria), First Investment Bank, Central Cooperative Bank, Municipal Bank, Raiffeisenbank (Bulgaria);
- Group IV (commercial banks with balance-sheet value of up to BGN 100 million.) – BRI Bank, Rosximbank, Neftinvestbank, Bulgaria-Invest, First East International Bank, Unionbank, Eurobank, Bulgarian-American Credit Bank, International Bank for Trade and Development, Bulgarian Investment Bank, Demirbank, Balkan Universal Bank, Tokuda Credit Express Bank, Corporate Commercial Bank, Teximbank;
- Group V (foreign bank branches) – ING Bank, Sofia Branch; Xiosbank, Sofia Branch; Hypovereinsbank, Bulgaria, Sofia Branch; Societe Generale, Sofia Branch; National Bank of Greece, Sofia Branch; Ionian and Popular Bank of Greece, Sofia Branch; TC Ziraat Bank, Sofia Branch.

**Table 20. Risk-related Structure of Commercial Banks' Credit Exposures**

<b>Credits</b>	<b>Dec. 1998</b>	<b>Dec. 1999</b>
Standard (%)	87.4	88.3
Watch (%)	3.5	3.8
Substandard (%)	2.2	1.1
Doubtful (%)	0.6	1.2
Loss (%)	6.3	5.5

Source: BNB

The banking system as a whole maintained high liquidity in 1999. The levels of primary and secondary liquidity as of end-December ran at 15% and 35.1% respectively. The value of the *secondary liquidity* indicator registered a considerable drop against end-1998, which was largely a result of the new methodology applied by the BNB and the incorporation of DSK Bank data in its calculation.

**Table 21. Liquidity Indicators of Commercial Banks**

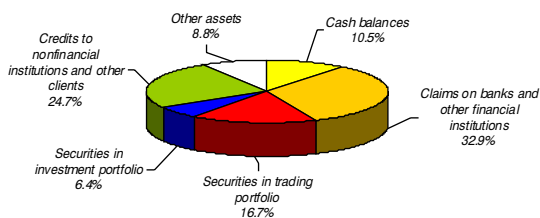
	<b>Dec. 1998</b>	<b>Dec. 1999</b>
Primary liquidity (%)	17.1	15.00
Secondary liquidity (%)	57.4	35.15

Source: BNB

In 1999, the share of credits to non-financial institutions within the assets structure of the consolidated balance sheet of the banking system went on the increase at the expense of the declining share of securities. As of end-1999, the share of commercial banks' foreign currency denominated assets rose to 56.3% as compared to the end-1998 figure of 54.6%. The reported increase was to a great extent due to the appreciation of the USD against the EUR, and respectively against the BGN.

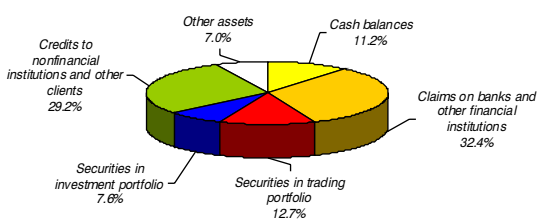
**Composition of Commercial Banks' Assets**

**31.12.1998**



Source: BNB

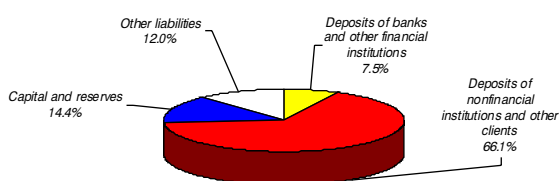
**31.12.1999**



Source: BNB

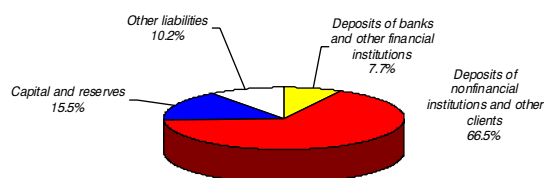
**Composition of Commercial Banks' Liabilities**

**31.12.1998**



Source: BNB

**31.12.1999**



Source: BNB

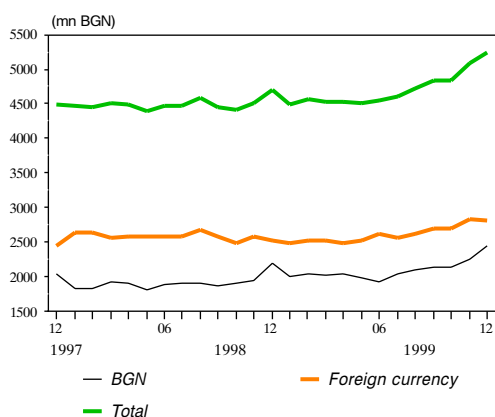
Within the liabilities structure, the share of attracted resources from non-financial institutions and other clients sustained its upward trend in 1999, rising by 0.5 percentage points. The amount of these deposits stepped up by 11.5%, or BGN 564.0 million on a year earlier. Banking system capital and reserves grew by 19.3%, or BGN 206.5 million.

Commercial banks' post-tax profit amounted to BGN 194.6 million in 1999, with Bulbank, DSK Bank and the United Bulgarian Bank (UBB Bank) accounting for 72.7% of it. In end-December 1999, net interest income of the banking system was BGN 359.1 million, representing 47.8% of operating profit (the 1998 figure amounted to 51.6%). It covered 81.0% of commercial banks' operating expenses (90.3% in 1998). Net income from interest exceeded operating expenses only in Group I banks. The share of net income from commissions and fees in operating profit stepped up from 15.2% in 1998 to 17.9% in 1999. Unlike 1998, when income from re-integration of provisions accounted for a substantial share in operating profit, in end-1999 allocated provisions exceeded re-integrated ones. In 1999, net income from revaluation of foreign exchange receivables and payables and from changes in market values of security portfolios ran positive at BGN 180.1 million, unlike in 1998. The result was due to the appreciation of the US currency against the BGN and the price increase of Bulgarian Brady bonds on the international markets.

Net interest income/operating expenses and operating expenses/assets ratios, reported on an annual basis, deteriorated relative to end-June 1999. As of end-1999 the return on assets measured by the post-tax financial result was lower than the



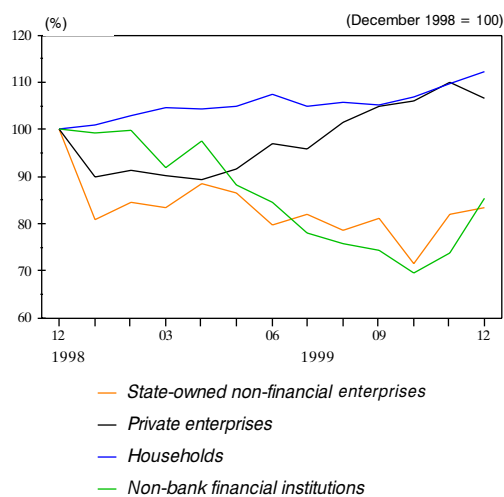
### Deposits in BGN and Foreign Currency Deposits\*



\* Banks in liquidation procedure excluded

Source: BNB, AEF

### Deposits in Real Terms\* by Holders\*\*



\* CPI deflated

\*\* Banks in liquidation procedure

Source: BNB, AEF

one reported in end-June (2.5% and 3.5% respectively on an annual basis). This negative change was due to the fact that operating expenses in the second half of the year registered a higher growth rate than in the first half.

The analysis of commercial banks' financial situation reveals that banking system's expenses remained high and the interest spread was insufficient for their financing. The interest difference between demand deposits and short-term (maturity of up to 1 year) credits in BGN ran on average at about 12.6 percentage points in 1999 while the interest spread between BGN time deposits and BGN long-term credits amounted to some 11.8 percentage points. This difference is not representative of the actual state of interest spread in the banking system since credits in BGN to non-financial institutions accounted for some 58% of all BGN deposits in end-1999. The same is true for the interest spread between deposits and credits in foreign currency. The ratio of foreign currency credits to non-financial institutions and other clients to foreign currency denominated deposits ran at about 25% in end-1999. Given the relatively low share of credits to non-financial institutions in total commercial banks' assets (appr. 30% in end-1999), the rate of return of lower risk bank assets such as BGN securities and deposits in foreign banks had a substantial weight in the calculation of the interest spread between banking system's assets and liabilities. According to information from the BNB, the interest spread between assets and liabilities of commercial banks was 6.1% as of mid-1999.

According to AEF estimates, the value of commercial banks' attracted resources (allowing for interest expenditures, operating expenses and

the opportunity costs of maintaining the minimum required reserves) ran at over 8% on an annual basis. Operating expenses accounted for the greatest weight in the calculation of the value of attracted resources; hence the sustainability of high interest rates on credits. The lowering of the minimum reserve requirements to 8% of all deposits as of 1 July 2000 envisaged by the BNB will hardly result in a substantial reduction of interest rates on credits given an absence of a downward trend in the other expenses determining the value of banks' resources.

Growing competition on the bank market is the sole factor that may induce the lowering of banks' expenditures and the interest spread. As of end-1999, about 52% of banking system's assets were concentrated in the three largest banks (namely Bulbank, DSK Bank and UBB Bank) which were included in Group I according to the new BNB bank classification. Competition within an industry is usually gauged by the degree of concentration in it. The concentration ratio and the Herfindahl Index<sup>15</sup> are commonly used measures of concentration in the banking sector. These indicators of concentration in the Bulgarian banking system are calculated for three measures of bank size: (1) total assets (balance-sheet value of a bank), (2) claims on non-financial institutions, and (3) deposits of non-financial institutions.

---

<sup>15</sup> The Herfindahl Index is given by the formula:

$$H = \sum S_i^2$$

where  $S_i$  is the share of a given bank in total assets (credits to non-financial institutions and deposits of non-financial institutions). The maximum value of the index is 1 and is true for a monopoly. The concentration coefficient is the share in percentages of the four largest banks in the total volume of assets (credits to non-financial institutions and deposits of non-financial institutions).

**Table 22. Measures of Concentration in the Banking Sector**

	1991	1993	1995	1997	1999
Bank assets					
Herfindahl Index	0.38	0.30	0.14	0.27	0.12
Concentration Coefficient (%)	80.9	73.4	60	72.3	57.8

Source: J. Miller & S. Petranov, *Banking in the Bulgarian Economy*, BNB, 1996.; BNB; AEAf.

With respect to banks' assets, the Herfindahl Index shows a steady decline in the degree of concentration in the banking sector in the period from the launch of market reforms to the financial crisis in 1996-1997, which is an indicator of a stable trend towards a more even and balanced distribution of assets among banks. The concentration coefficient again increased as a result of the closure of 14 banks during the bank crisis, 5 of which were among the first ten banks with the highest assets value. Competition in the banking system went again on the increase following the introduction of the currency board regime in 1997 due to the privatisation of state-owned banks and the entry of new foreign banks on the Bulgarian market.

**Table 23. Measures of Concentration in the Banking Sector**

	1991	1993	1995	1997	1999
Claims on non-financial institutions and other clients					
Herfindahl Index	0.18	0.24	0.14	0.14	0.09
Concentration Coefficient (%)	69.2	66.0	57.8	62.4	43.9

Source: J. Miller & S. Petranov, *Banking in the Bulgarian Economy*, BNB, 1996.; BNB; AEAf.

The last two years saw a more even and balanced distribution of bank claims on non-financial institutions most probably due to the very cautious bank credit policy. Claims on non-financial institutions have a relatively small share in assets

of some of the large banks like Bulbank and UBB Bank. The relatively small banks such as most of the branches and local offices of foreign banks, however, maintain a high share of credits to private and state-owned enterprises in their assets. The decline of the Herfindahl Index with regard to claims on non-financial institutions suggests increased competition among banks in the attraction of first-rate borrowers.

**Table 24. Measures of Concentration in the Banking Sector**

	1991	1993	1995	1997	1999
Deposits from non-financial institutions and other clients					
Herfindahl Index	0.15	0.15	0.13	0.15	0.12
Concentration Coefficient (%)	66.2	57.3	54.3	65.8	61

*Source: J. Miller & S. Petranov, Banking in the Bulgarian Economy, BNB, 1996.; BNB; AEAf.*

The dynamics of the Herfindahl Index with respect to attracted resources from non-financial institutions after the introduction of the currency board also points to growing competition among banks. Large banks with an extensive branch system attract the highest number of households' and companies' deposits. Therefore, these are exactly the banks (namely Bulbank, DSK Bank, UBB Bank, Biochim and Bulgarian Post Bank) rigorously competing for the attraction of more depositors. Consequently, the high concentration coefficient with respect to deposits from non-financial institutions is preserved.

With respect to all three measures of concentration in the banking system, the Herfindahl Index shows an upward trend in the degree of competition in the sector. This high degree, however, does not reach levels critical for commercial banks' operation.

The ratio quasi-money/GDP, measuring the „depth“ of the banking sector is another indicator of the development of the banking system. Until 1997, this ratio had sustained high levels in the country. The trend was reversed in 1997 due to the massive run on banks and the depreciation of BGN deposits as a result of high inflation. It is noteworthy, though, that the quasi money/GDP ratio sustained its downward trend through 1998. The growth of GDP and the 5.7% appreciation of the BGN at end-year values (which resulted in a smaller increase in BGN terms of foreign currency deposits) determined this decline.

### Quasi – Money / GDP

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Argentina	7.03	<b>6.34</b>	8.67	12.83	14.41	13.70	15.69	19.13	21.52
Bulgaria	-	53.59	55.76	60.76	63.55	52.64	57.64	<b>20.23</b>	16.23
Estonia	-	87.12	<b>8.54</b>	3.94	5.40	5.26	6.43	9.77	-
Lithuania	-	-	-	8.00	<b>11.13</b>	8.84	5.74	5.64	6.45

(%)

\* The year of introduction of a currency board regime is given in bold characters.

Source: IMF „International Financial Statistics OCTOBER 1999, own calculations

Unlike the other three countries with a currency board presented in the Table, interest levels in Bulgaria registered a more abrupt slump in 1997. Low interest rates thereafter discourage depositors from holding their available money resources in commercial banks. On the other hand, the price of credit is higher than in the other countries with a currency board regime. Consequently, the interest difference between credits and deposits has its highest value in Bulgaria. The phenomenon finds its explanation in the fact that the share of credits in total bank assets in Bulgaria is the lowest

(30%) as compared to those in Estonia (57%) and Lithuania (60%).

Macroeconomic stability is a condition *sine qua non* for the improvement of financial intermediation as it not only boosts confidence in the banking system but enables businesses to devise long-term development strategies which can be successfully financed by the banking system.

---

## 7. CONCLUSION

It is somehow difficult to make a broad assessment of the trend in Bulgaria's economic development in 1999. The most notable characteristic feature of the economy was the dynamic change in underlying structures, namely:

- The ownership structure
- The management structure
- The product structure
- The technological structure
- The branch structure

The accelerated privatisation process, the liquidation of loss-making firms, and the reforms in health and social insurance and budget resources management determined the positive development of these structures. As a result, the overall efficiency of the economy and allocation of resources, as well as labour productivity improved. In 2000, a primary challenge to government's economic policy will be the strengthening of market reforms through the launch of restructuring state monopolies and privatisation of selected self-sufficient parts of them. Notwithstanding the opposition of vested interests, the perseverance in the implementation of this component of structural reform is of utmost importance. Deepening of domestic market competition is the sole factor that will provide both the incentives and the favourable environment for rapid economic growth and overall improvement of competitiveness.

The transfer of costs previously financed by the budget, to individuals and households was

the major consequence of social sector reforms that manifested itself in 1999. The unemployment level went abruptly on the increase due to the optimisation of production cost, in privatised enterprises in particular.

The real-term rise in incomes only partially offset the social effect of structural reforms, with some income groups suffering greater losses of disposable income than others. The discontent caused by these hardships will be the second main challenge in 2000. The attainment of a reasonable equilibrium between the required velocity of structural reforms and their social price represents a real test to each economy in transition.

□



# CONTENTS

<b>1999 ECONOMIC SURVEY</b> .....	<b>1</b>
<b>1. ECONOMIC GROWTH RATES</b> .....	<b>7</b>
1.1. Domestic Demand .....	8
1.2. External Sector .....	13
1.3. Industry .....	19
<b>2. INFLATION</b> .....	<b>24</b>
<b>3. RESTRUCTURING</b> .....	<b>29</b>
3.1. Privatisation.....	29
3.2. The Liquidation Programme .....	30
3.3. The State-owned Firms .....	36
3.4. Efficiency .....	39
<b>4. EMPLOYMENT AND LABOUR PRODUCTIVITY</b> .....	<b>41</b>
<b>5. INCOMES AND LIVING STANDARDS</b> .....	<b>45</b>
<b>6. THE BANKING SYSTEM</b> .....	<b>52</b>
<b>7. CONCLUSION</b> .....	<b>63</b>

---