

Instead of the long awaited news,  
the wind has wafted upon us ...  
the wings of the messenger.

Boris Christov

**THE YEAR OF  
THE IRON SHEEP**

Business Survey of the Bulgarian Economy 1991

**December 1991**

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## INTRODUCTORY NOTES

The present publication of the Agency for Economic Coordination and Development (AECD) is the first in a series of surveys of economic developments in Bulgaria. They are elaborated in co-operation with the National Statistical Institute (NSI). The Agency intends to publish monthly, quarterly and annual surveys in its Business Survey Series as well as research and policy oriented papers in the Working Paper Series and Policy Paper Series respectively.

Presenting our first annual economic survey to the public at large we feel we have to emphasize several points.

Regular macroeconomic analyses have not been published in Bulgaria for the last fifty or so years. The objectives which the AECD survey intends to pursue are to document, to illustrate, to interpret and to comment on the short-term developments in the national economy.

We realize that it is nearly impossible to undertake a comprehensive assessment of the economic situation without a large set of monthly and quarterly data satisfying some fairly stringent standards. This kind of data is still very limited and we are thus forced to use proxies in a number of cases. The two essential tools of short-term macroeconomic analysis are the quarterly national accounts and a system of business cycle indicators. Our national statistics can avail of neither of them. It will inevitably take quite some time to create a system of national accounts. Absent such a system, we are forced to use data which imitate its structure but lack the underlying logical and quantitative coherence. The second tool can be developed more quickly. The AECD therefore has joined its efforts with the NSI in setting up a network of business cycle indicators. The first preliminary results are to appear in our next survey.

It is important to bear in mind that short term macroeconomic analyses in market economies are based upon continuous historical observations of the behavior of the principal economic agents. The Bulgarian economy of today undergoes a process of radical change where the lack of well-defined behavioral standards is still the rule. The Five-Year Plan cycles have disappeared while "normal" business cycles are still somewhere in the future. This makes it impossible to perform a classical business cycle analysis and even more so for an year as unique as 1991 happened to be.

The original version of this survey built upon information available by late November 1991. Although the English version which appears in late February is fully updated to account for all statistical data that have appeared since then, it may well be that there remain some discrepancies across the data as well as the overall feeling of a somewhat tentative evaluation of economic policies that was prevalent in December.

## **MACROECONOMIC DEVELOPMENTS IN 1991: AN OVERVIEW**

By early 1991 the Bulgarian economy was on the verge of complete disintegration. The socialist economic policies of 1990 combined with the negative impact of the Persian Gulf crisis brought about the total collapse of economic activity. The situation was characterized by an unprecedented drop in real output (-13%), the moratorium on external debt repayments, the complete cut-off from world financial markets and the consequent hostile attitude of private and official creditors, by growing inflationary pressures coupled with huge commodity shortages, accelerated "dollarization" of the economy, an unnaturally low income velocity of money, the virtual collapse of traditional foreign trade relations and the ensuing critical shortage of fuels, energy and raw materials supplies.

The IMF one year "stand-by" agreement was negotiated and completed against this background. Approved on March 15, 1991 by the IMF this program was the only window of opportunity to partially replenish the depleted foreign exchange reserves of this country subject to the standard Fund conditionality.

### **Parameters of the Stabilization Program**

The IMF supported program was structured along the lines of a classical orthodox stabilization package. The major three components were:

- the assumption that government "withdrawal" from economic activity automatically leads to private sector recovery;
- the presumption that supply and export elasticities are positive;
- and a belief that monetary aggregates are broadly controllable.

The closest objectives of this short term anti-inflationary program were to shrink all final demand components, to introduce a unified exchange rate and to provide the external financing needed to fill the gaps in the balance of payments. The elimination of the monetary overhang relied on the "price shock" effect: privatization could not take off right away, while monetary reform had been rejected as a feasible solution. The objectives had to be achieved through the combined effect of fiscal and monetary policies supported by an appropriate incomes policy. The program fixed two nominal "anchors" - incomes and credit. Their growth was strictly monitored as they served as important performance criteria under the "stand by" arrangement. Due to the complete lack of foreign exchange reserves and the severe shortfall of external financing, the exchange rate could not be fixed as a third nominal anchor to allow for more gradual and predictable adjustment of incomes and prices.

The program parameters were fixed under conditions of complete uncertainty. Viewed with hindsight, this program was erring, if anything, on the optimistic side. Its basic parameters were the following:

1. Overcoming output decline during the first half of the year and achieving

some slight recovery during the second. An annual decline of GDP of 11 percent.

2. A three-fold increase in the price level with monthly rates of inflation by the end of 1991 not exceeding 2 percent.

3. Reduction of government revenues by 35 percent.

4. Annual average rate of unemployment of around 5 percent.

5. Money supply growth (in terms of M2) by 25.5% in nominal terms and a considerable increase in the income velocity of money (The ratio of M2 to GDP was 43 percent in 1990).

6. Overall, tight fiscal and monetary policies were expected to produce a dramatic cut in subsidies to the state sector (by around 12 percentage points of GDP) and provide for the non-inflationary financing of the budget deficit which itself was targeted at 3.5 percent of GDP. With the anticipated price dynamics the budget was not expected to be financed through the inflation tax.

7. An exchange rate of 7-10 leva for US dollar.

8. The sharp devaluation of the lev was due to raise exports and reduce imports, thus leading to a current account deficit slightly in excess of 2 bn USD (23% of the expected GDP) and a deficit on services in the balance of payments amounting to 674 mln USD. The capital account was expected to end up with a surplus of 275 mln USD, including inflows from the international financial institutions (IFIs).

9. The remaining gap in the balance of payments under the Fund program amounted to some 3.8 bn USD and was assumed to be filled by the complete rollover of all debt repayments (2.2 bn USD) and program financing from the IFIs to the tune of 1.6 bn USD.

The program did not particularly emphasize structural reforms since it was implicitly assumed that the success of the stabilization effort was by and large possible even without a comprehensive institutional reform. The stabilization and the “structural” component of the reform were obviously treated as developing over different time spans.

In reality no systemic reforms of significant macroeconomic effect were implemented throughout 1991. The “spontaneous” processes taking place in the semi-legal or plainly “underground” economy were of greatest importance as they induced the actual preparation for privatization which in turn started shaping trends in the pricing of capital assets.

### **Driving Forces of the General Macroeconomic Dynamics**

Throughout the year the balance of the basic macroeconomic components has changed significantly. During the first three months of the stabilization effort the tight economic policies coupled with the limited inflow of foreign financing brought about a much stronger than expected drop in all components of final demand. Investment, which started shrinking already in 1990, continued its slide downwards, accelerated to

a large extent by the sharp cut in budget expenditures. Private consumption was severely reduced by the larger than expected drop in real incomes and the psychological effects of the price shock. This was a period of major fiscal restriction. The only potential sources of output dynamics were the change in inventories and export demand.

The classical inventory cycle implies expanding stocks of inventories during a recession period, contraction in times of depression and a renewed expansion during a recovery. Under the economic circumstances prevailing in Bulgaria by the turn of the year inventories were extremely large because of the depressed demand. This compensated to some extent the drop in GDP but no precise quantitative estimates can be made for lack of quarterly or annual national accounts.

The current account balance moved by and large in a positive direction with a declining deficit during the first quarter and a slight surplus during the two subsequent quarters. Due to the dramatic drop in the level of trade however these overall positive developments had but a marginal quantitative effect. Trade with the major trade partner - the former Soviet Union - was subject to unpredictable payments and delivery disruptions that exerted critical impact on the domestic economy.

Throughout 1991 the fundamental constraint on macroeconomic developments was the influx of foreign financing which came in with huge delays and in amounts way off the initial Fund estimates. In the absence of alternative capital flows and with the virtual collapse of short term trade facilities, financing through the international financial institutions set the real constraints on economic growth.

In April 1991 Bulgaria concluded a rescheduling agreement with the Paris Club. No solution was found at the time for the much larger and, in a sense, more difficult problem with commercial bank debt. Though only insignificant amounts are paid off on public bond issues and debt repayments still do not have major fiscal implications, this problem cannot be side-stepped and thus remains the single most important general constraint on medium term economic growth.

The macroeconomic policy stance changed during the second half-year when indications of monetary and fiscal relaxation became evident. These changes were reflected in monetary policy relaxation, the speeding up of planned budget expenditures, in the still negative real interest rates and in the increase of real incomes. The budget was under pressure by corporative and trade unions interest groups while concessions were made to the Tripartite Commission on incomes policy issues. By the end of the year the budget continues to be a source of potential instability and tensions because of the lack of an adequate institutional structure to ensure the non-inflationary financing of the deficit. The outburst of inflation during the summer months illustrates that inflationary pressures are not subdued.

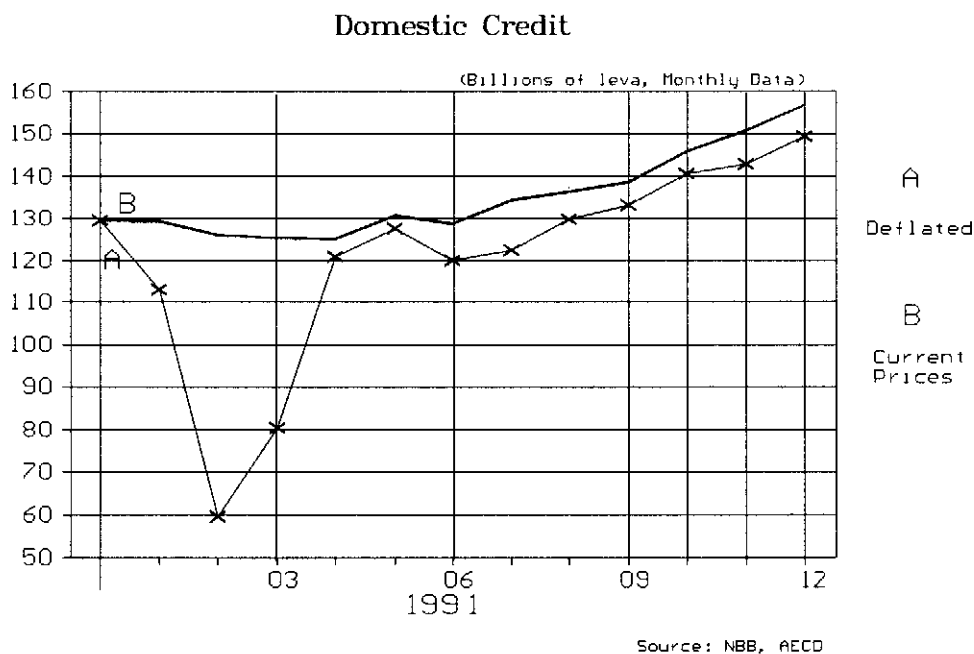
The fact that the relaxation of macroeconomic policy did not affect the real economy confirms the hypothesis that there is no direct link between a fiscal stimulus and the growth of output. Such a configuration of the macroeconomic driving forces could initiate some slight recovery but no significant result was achieved so far. A final

demand element, capable of ensuring noninflationary growth still does not exist. A number of institutional and “physical” barriers on the supply side remain in place, increasing the risk of relaxing incomes and monetary policy.

The entire course of the stabilization effort during the year illustrates the limits of macroeconomic policy making in an economy in transition. The difference between the reported and actual effects is profound and forms an increasingly peculiar kind of economic structure that includes the area of “official” restrictions reflected in the statistically visible part of the market and the area of palliative solutions, substitutions and uncontrolled processes at the microlevel that skirt - and often neutralize - the expected macroeconomic effects. This situation has its roots in the absence of authentic market agents and the inability of existing businesses to react adequately to standard macroeconomic stimuli.

### MONETARY POLICY

Monetary policy was undoubtedly assigned a central role within the stabilization package. It had to eliminate the monetary overhang, reduce the inflationary pressures and restrict the possible unfolding of an hyperinflationary spiral following the liberalization of prices under the prevailing monopolistic production structures.



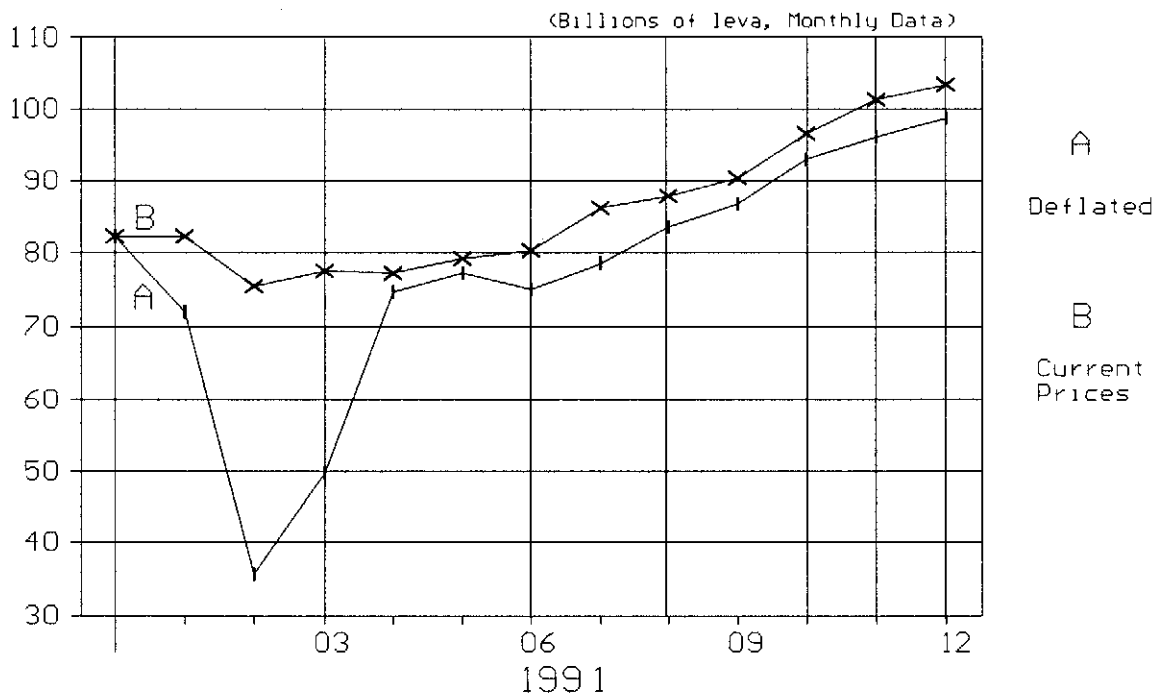
During the first stabilization quarter monetary policy tightened in both real and nominal terms. It was not until the second quarter of 1991 that nominal credit recovered in nominal terms to its December 1990 level while still staying about five times lower in real terms. A slight relaxation of credit policy -- motivated by the seasonal pick-up in production activity -- was initiated by early September and that set the stage for less

restrictive monetary policies to accommodate the growing fiscal pressures. Thus monetary policy restricted total demand and contributed to containing the spillover effects of price liberalization.

The sectoral structure of credit investments remained virtually unchanged throughout the year with nonfinancial public sector employing some 70% of bank credit, the government sector (i.e. the budget) - some 24% and the remaining 6% being accounted for by the population and the private sector. The population decreased its liabilities to the banking sector by some 1.5 bn leva on a net basis while the private sector's demand for credit increased particularly during the third and fourth quarter. This is a clear indication that a large part of the population still holds some sort of "money illusion" and that – contrary to casual observations -- nominal interest rates are not an impediment to expanding the scope of the emerging private sector.

A strong and permanent impact on monetary developments was exercised by the persistent budget disequilibria. Throughout the first half of 1991 the only type of credit that still increased in nominal terms was credit extended to the government sector which virtually "crowded out" the public and private non-financial enterprises in this market. Besides, the interest rate for credits extended to the government were lower - 44% on average per annum, while interest rates for credits extended to state and private firms were 50.9%. By the end of September credit recovered the structure it had at the beginning of the year.

### Broad Money





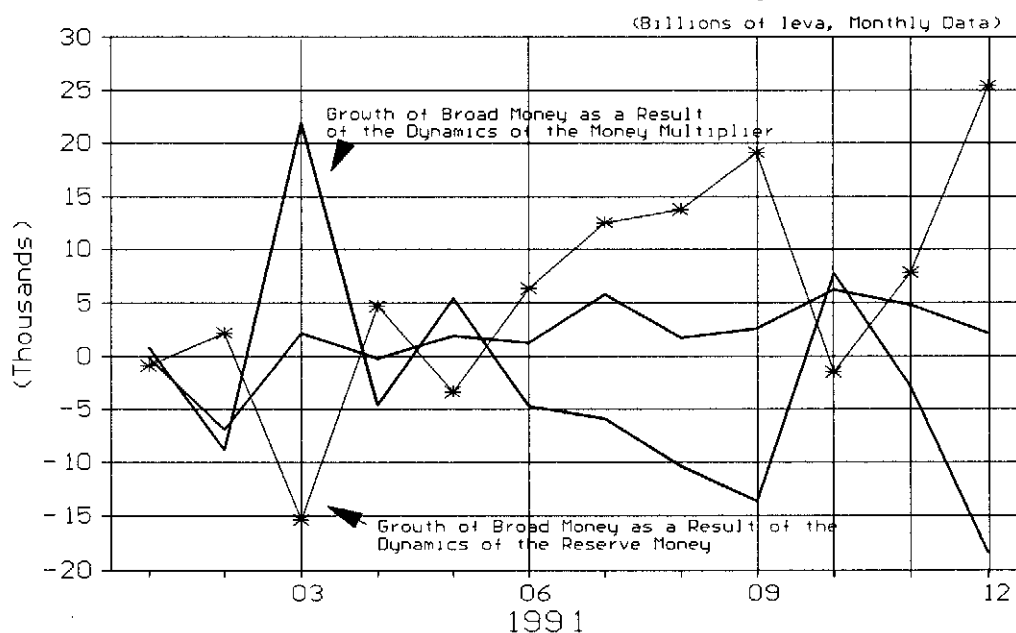
Both money supply (in terms of M2, valued at 20 leva for the dollar exchange rate) and credit have increased in nominal terms by 27.4% and 20.9% respectively by the end of 1991, while still keeping some 80% below 1990 levels in real terms. Thus monetary policy in 1991 has successfully dealt away with the “overhang” problem through a substantial reduction in real cash balances of both the household and the enterprise sector. The restrictive monetary policy played the role of an effective anti-inflationary factor in the whole package of stabilization tools.

The relaxation of the credit ceilings during the third quarter mimicked closely the dynamics of money in circulation. The growth of the latter kept ahead of the inflation rate thus producing some real recovery of the cash balances held by the non-financial sector and hence weakened the pressure of monetary policies on aggregate demand.

The interest rate policy of the Central bank was targeted at shifting deposits into the less liquid components of M2 by stimulating time and saving deposits. According to the BNB the difference between the average annual interest rates charged on time and demand deposits of the population was 14.1% (48.2% and 34.1% respectively). This increased the share of time and saving-deposits in M2, though not to the expected benchmark. During the last months of the year this trend was overruled by an offsetting tendency. At the same time the share of the more liquid components of M2 - cash and demand deposits, remained high according to the international standards, thus illustrating the underdeveloped and clumsy system of payments and the poor spectrum of financial services.

The money supply is determined by the interaction between the BNB management of bank reserves by the Central bank changing behavior of commercial banks and the non-financial sector, which is reflected in the value of the money multiplier.

Growth Structure of Broad Money



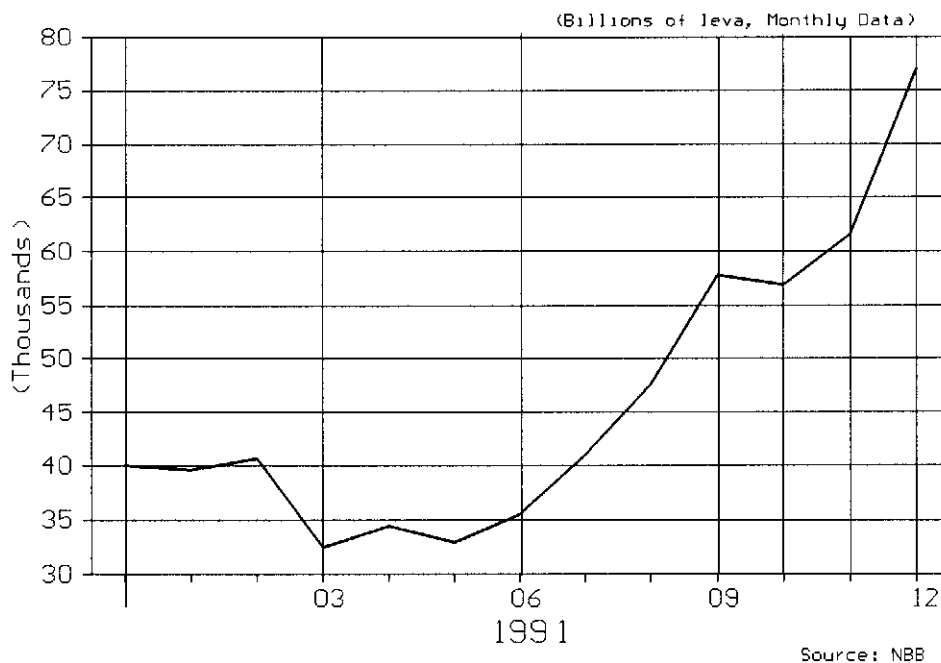
Source: NBB, AECDD

The figure shows M2 fluctuations under the influence of the change in reserve money and the multiplier. It confirms the fact that restrictive monetary policy leads to the multiplier increases, relaxing restrictions and vice versa.

The monetary policy pursued by the BNB at the beginning of the year was flexible and pragmatic. It didn't result in loss of control over M2, but could arise some serious dangers, concerning the unknown and unexplored lags of the effect of the monetary policy upon real economic activity, as well as problems connected with the initial position of the national economy.

During the third quarter the stance in monetary policy have changed as BNB started regularly injecting liquidity in the economy. The effect was neutralized to some extent by the decline of the multiplier mainly attributed to the free bank reserves' expansion. The enterprises and the population contributed to this too increasing their cash deposits ratio, though the influence was smaller.

Reserve Money



During the last quarter of 1991 the BNB returned to a restrictive policy stance. Its main objective was to absorb the accumulated excessive reserves in commercial banks. This aim was attained through a successful sterilization policy.

A particular feature of monetary developments in 1991 in the close correlation between the growth in high-powered money and the percentage share of bank reserves in the volume of total deposits which, by and large, reflects the passive position of the commercial banks vis a vis Central Bank's policies. The commercial banks obviously share the widespread perception of a lack of profitable investment opportunities under the current disruption of the productive sector and the concomitant economic uncertainty

underlying any medium term project. Hence, until the real economy raises its absorption capacity for new investment, the continued injections of high-powered money will only add to the building up of reserves within the banking sector and probably raise its flexibility to operate in the foreign exchange market.

The BNB monetary policy could be appraised as a success of the economic stabilization program. It did not allow the price liberalization to transfer into a self-enforcing spiral. It also managed to overcome the monetary overhang in the economy, setting the necessary base for a transition to a firm restrictive fiscal policy.

One caveat that strongly emerges from 1991 experience with interest rate policies is that the Central bank should not play with "fine tuning" the base rate to current developments in the economy. Attempts at fine tuning during the summer proved that the fundamental merit of monetary policy lies with its predictability and consistency.

The radical economic reforms to some extent helped carrying out the monetary policy - up to now, making transparent its objectives and the tools to be achieved. It will become more difficult and unsure in normalizing economic situation to determine the final objectives in the short-term monetary policy, the most important of them being to maintain the domestic and external position of the national currency.

The success achieved by the monetary stabilization cannot be considered as final and results for at least two reasons: the remaining inflationary expectations and the budget, as an inflationary factor. Under these circumstances monetary policy turns out to act as a natural center of the stabilization effort.

Though early success at curbing inflation and keeping it under control made monetary policy the champion of the stabilization effort in 1991, it should be clear that the monetary policy alone cannot substitute for the other components of economic policy.

## **FISCAL POLICY**

In the context of the stabilization program fiscal policies were relied upon to provide the major leverage for curbing aggregate demand and eliminating the basic source of inflationary pressure. Throughout the year the existing practice of redistribution of huge resources through budget had to be modified. That meant not only strict fiscal restriction but also abrupt change in state and economic agents' standard of behavior.

The macroeconomic projects, originally targeted in the first budget draft, coincided with stabilization program results. The lack of definite budget procedure and a schedule for its ratification prolonged the revision and current budget account rendering. In fact two different budget drafts (in February and in June) were worked out and approved, the second one reflecting the performed important changes in microeconomic developments.

The main effort of the fiscal policy was to restructure budget expenditure side which was more amenable to control than its revenue side.

The primary goal was to drastically cut down the huge burden of government

subsidies, curtail government investment and operation and maintenance costs. The government subsidies were really substantially cut down but still accounted for 4.6% of the total budget expenditures in the three quarters. Subsidy payments delayed and concentrated in the second quarter thus bringing their share to 21,14% of total budget costs during the third quarter. The investment costs were also cut down to the physical minimum.

The presumption was that provided these cuts were well in place, there would remain some room to reduce the overall deficit as a percentage of GDP. As fiscal developments throughout 1991 indicate the space left for deficit reduction was soon filled up with increased interest payments on the internal debt and the higher than projected costs of the social safety net.

The January Budget Bill projecting were overoptimistic and revisions had to be done later. The main reasons for this was a bigger than projected drop in economic activity, the concomitant reduction in profit tax base revenue (in the revised Budget Bill this reduction amounted to 5.425 bn leva) and a higher than expected share of social security expenditures, financed through the budget. In fact the budget shifted from indirect subsidies to via subsidies to enterprises to direct subsidies for the consumers (via social benefits). Not expectedly this brought about quite a few problems for the budget. The deficit of the social security fund turned out to be one of the major structural problems for the budget. The safety net accounts for no less than 35% of total expenditures and were if not to be financed through the budget, the latter would run a healthy and sizeable cash surplus. During 1991 pension expenditures accounted for 22% (33% in the first quarter) of all the fiscal expenditures.

A critical issue in transitional fiscal policy is that the major restructuring and reduction of expenditures has to be implemented against the background of a virtually unchanged revenue structure which - on top of that - is rapidly shrinking in volume terms. The 1991 budget still had to rely for roughly half of its tax revenue on profit taxation. With more than 21 per cent real drop in GDP and the virtual collapse of some traditionally high-profit industries the tax base was clearly eroding at a faster pace than the budget could make up for by simply withdrawing from the real economy. In fact 49.6% of 1991 budget tax revenue came from profit taxes and profit taxation of non-financial enterprises assured 21.6 per cent of budget revenue. A significant share of profit taxation revenue came from financial organizations.

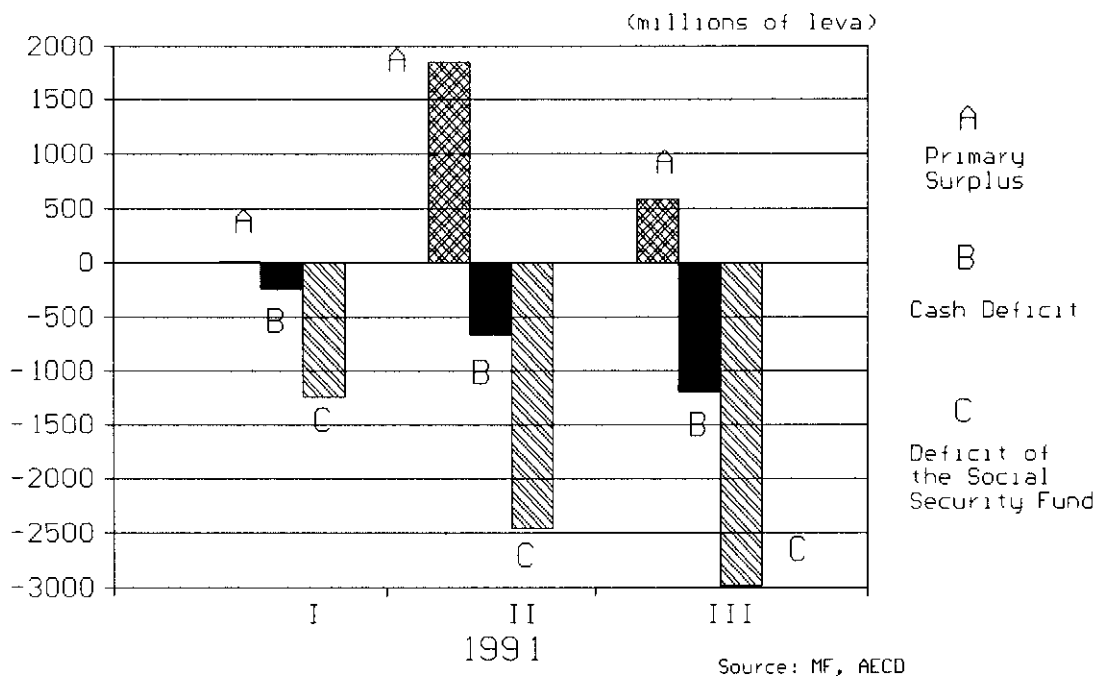
Thus two kinds of problems arose. In the first place, budget revenue turned out to be oversensitive to drop in output. Secondly, the firms endured the major burden of the restrictive policy. The main goal of tax policy was to ensure budget revenue and not stimulate output and savings. These financial conditions were extremely unfavorable for enterprise (firm) performance and induced them to evade taxation. Meanwhile large sectors of economic activity (personal income and profits) were left out of taxation.

One should bear in mind that parallel to price liberalization, the inflationary tax acted as an important source of "indirect" budget income. This is quite natural in

the existing inflationary environment and in that sense any decrease in inflation would reduce such kind of revenue. Inflation devalued the government debt and the ratio of government debt to GDP during the year fell down.

Serious problems for the budget arose from clearing payments and settlements of passive balances with the East European countries for 1990. The budget delayed subsidy payments to exporters and thus hampered tax payments.

Deficit of the State Budget  
(Quarterly Data)



The most correct indicator of the budgetary restriction stance is the primary deficit, which excludes interest payments on external and on domestic debt. Its ratio to revenues shows the scale of reduction in current and investment expenditures. In each quarter of 1991 the budget registered primary surplus, its volume amounting to 2.2 bn leva by the end of the third quarter. Thus cash deficit resulted from interest payments on domestic debt. These payments increased substantially during the second and third quarter, amounting to 19% of total budget expenditures.

The major issue still remaining unresolved is the non-inflationary financing of budget deficit whatever its percentage share in GDP happens to be. Finally the essential part of overall budget deficit was financed by external sources and complete roll-over of external debt repayments. It means that achieving balance in budget is an illusion. The results in 1991 budget accounts could be treated as satisfactory only in case that no external debt interest will be paid and only partial external debt repayments will be made this year. The transfer problem which underlies any attempt to resume payments on the external debt is still an issue for the more distant future.

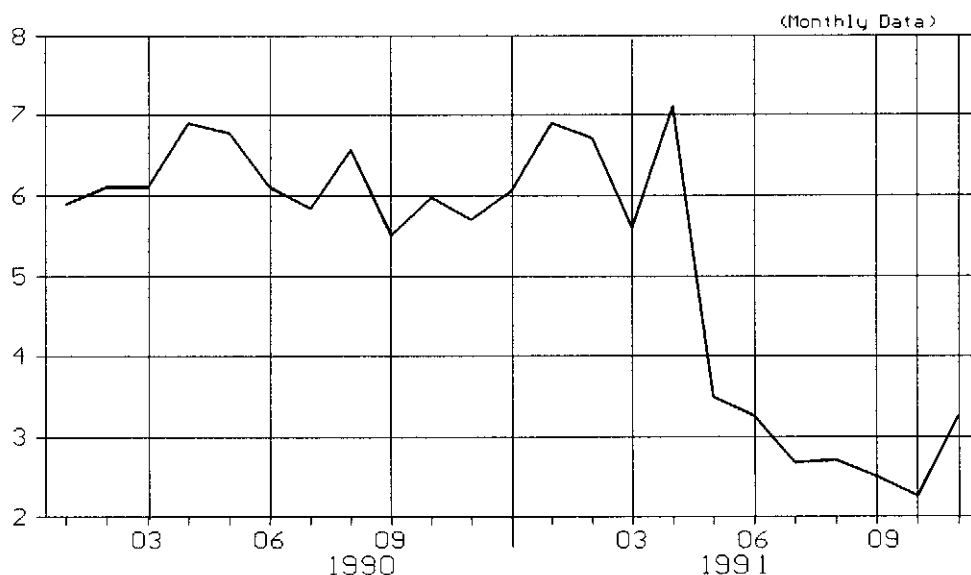
In a narrower sense cash deficit was financed mainly through domestic sources, the net external cash financing being negative in 1991 due to clearing-off (pay-off) of passive foreign trade balances (2.2 bn Leva) with former COMECON countries.

The problem of domestic sources of budget deficit financing was not worked out in the February Budget Bill. The projected revenue coming from three-month treasury bill emission amounted to 500 mln. leva and represented just a tiny portion of the budget deficit (6.2%). In the revised June Budget Bill was stated that the projected budget deficit, amounting to 8473.1 mln Leva will be financed by BNB credits and government treasury bill emissions in equal shares. The BNB continued financing the budget deficit, though not automatically. According to preliminary estimates in 1991 the half of total domestic budget financing (4236.5 mln leva credit) came from the BNB, the loans going to the budget (3129.5 mln leva) and to the social security fund (1107 mln leva). The BNB financed the budget indirectly too. The three-months treasury bill issue which accounted for 21.9% of domestic financing (1827 mln leva) was a hidden form of bank financing, as far as the only official owners of these treasury bills were commercial banks (because of lack of secondary market) which liquidity was assured from the BNB.

### PERSONAL CONSUMPTION

The evaluation and the trend in employment damped demand as a whole. This was most obvious till April. Afterwards real income grew up and resulted in fluctuating increase in consumer expenditures (according to household surveys).

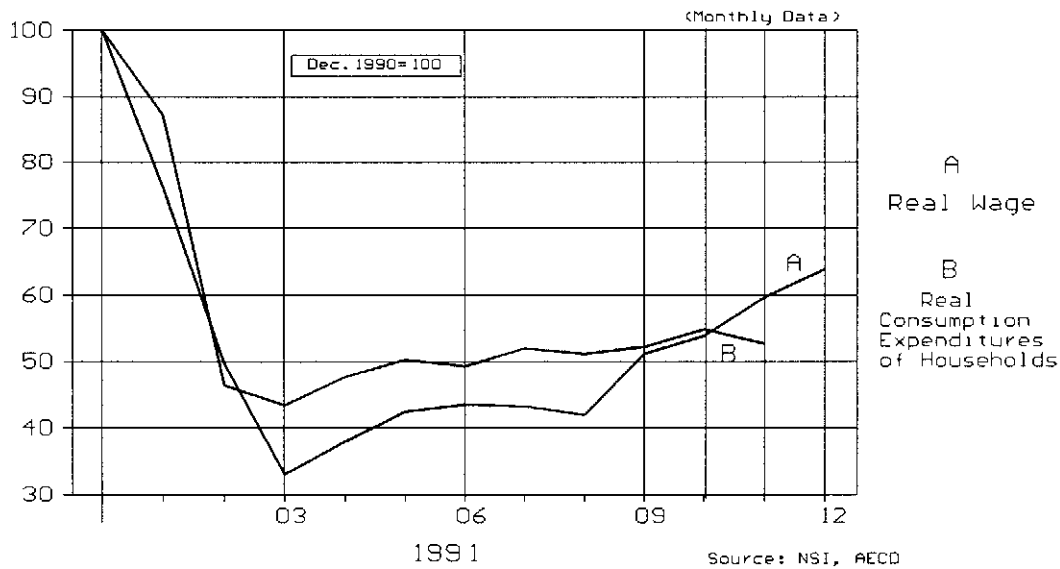
Loans Repaid by Households  
(Percent from Total Income)



Source: NSI, Data from Household Surveys, AECD

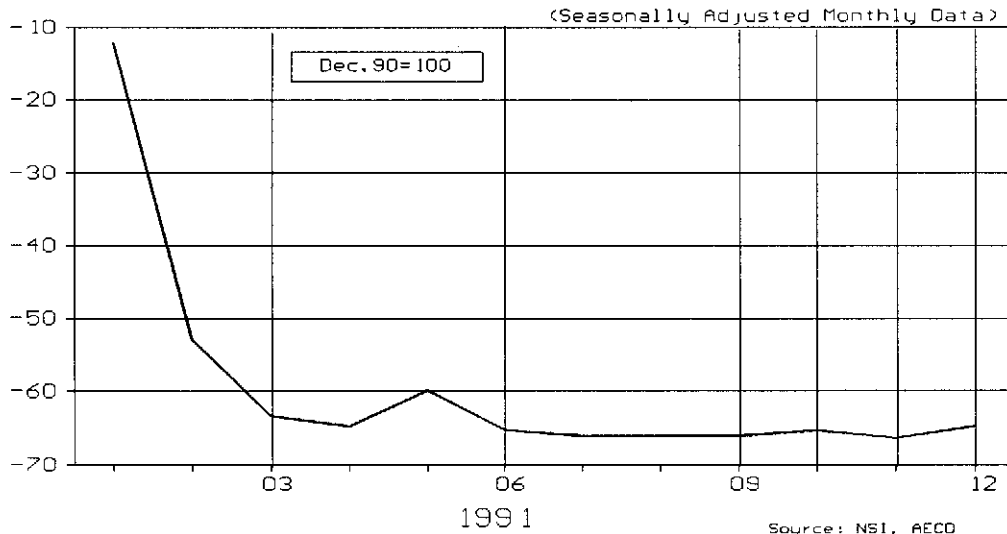
At the same time savings and transfer payments acted as a buffer, reducing the effect of the restrictive policy. Consumption would have dropped even more if not the entrepreneur's incomes a lot of them being unregistered. A major compensation arose from the "naturalization" of demand. Compared to 1990 money income in 1991 was as a rule by more than 10% lower than aggregate income (including imputed income from home grown product). The greatest difference was registered during winter months when stock piling in population exerted the strongest positive effect over consumption.

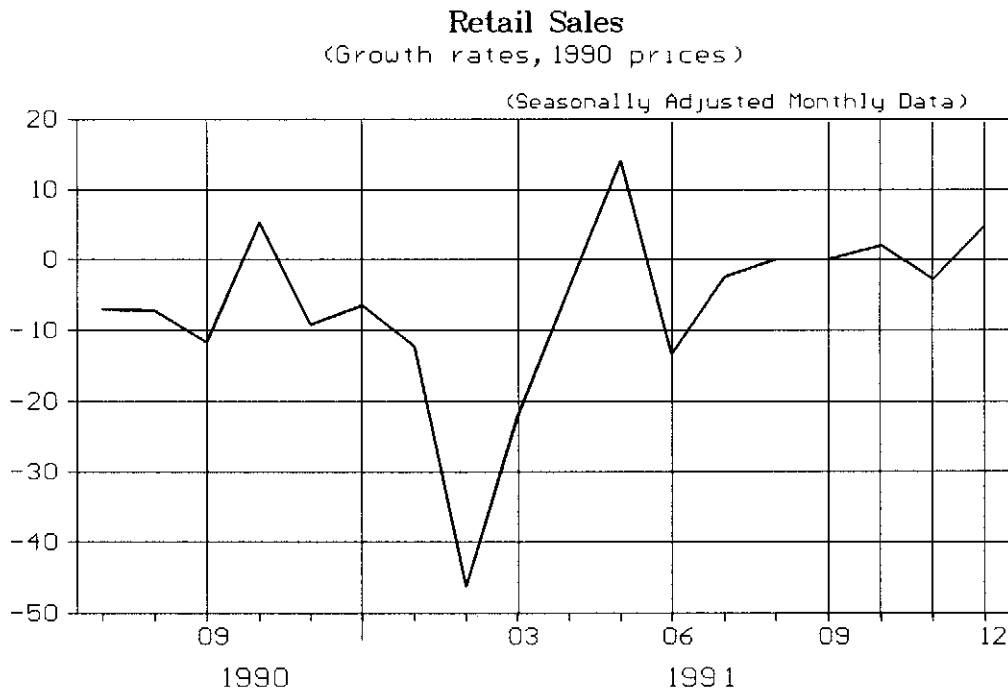
Average Real Wage and Real Consumption Expenditures of Households



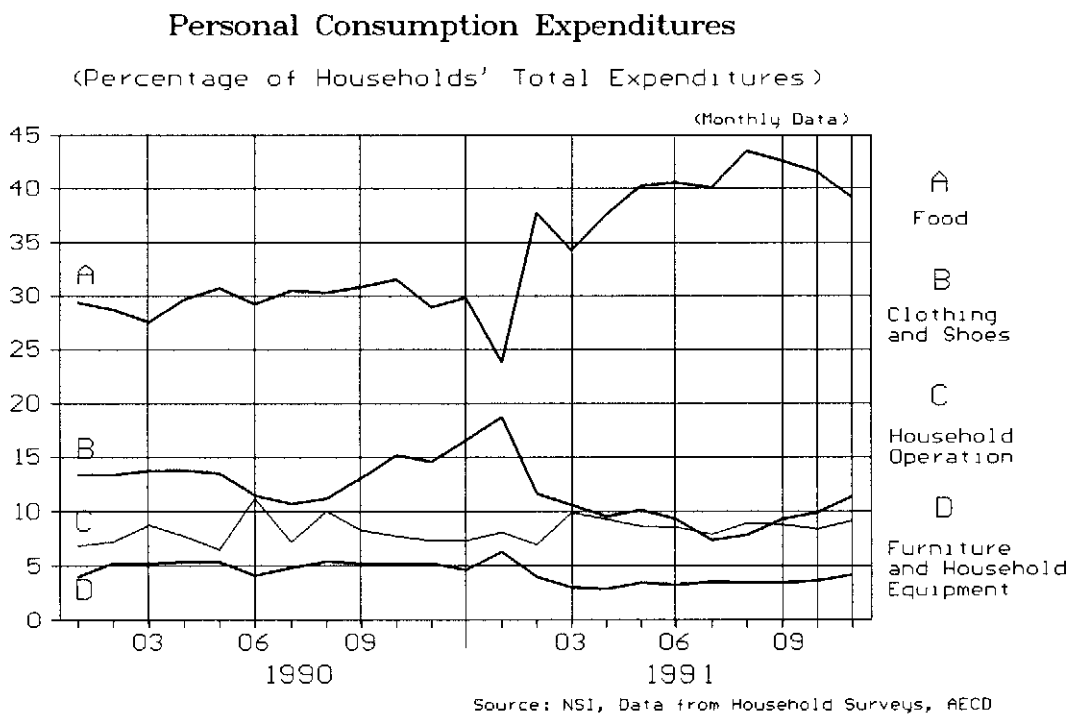
According to household surveys "the compensatory mechanisms" had good enough effect upon demand. During 1990 consumption contracted less than drop in average real wage.

Retail Sales (1990 prices)





The only available monthly statistical indicator of consumption dynamics is commodity turnover. Its real volume till March fell less than average real wage. Throughout next months the level of commodity turnover slightly decreased, while from August an upward trend in volume appeared. This trend was most explicit in October and December and was due to the accelerated growth of the real wage level.

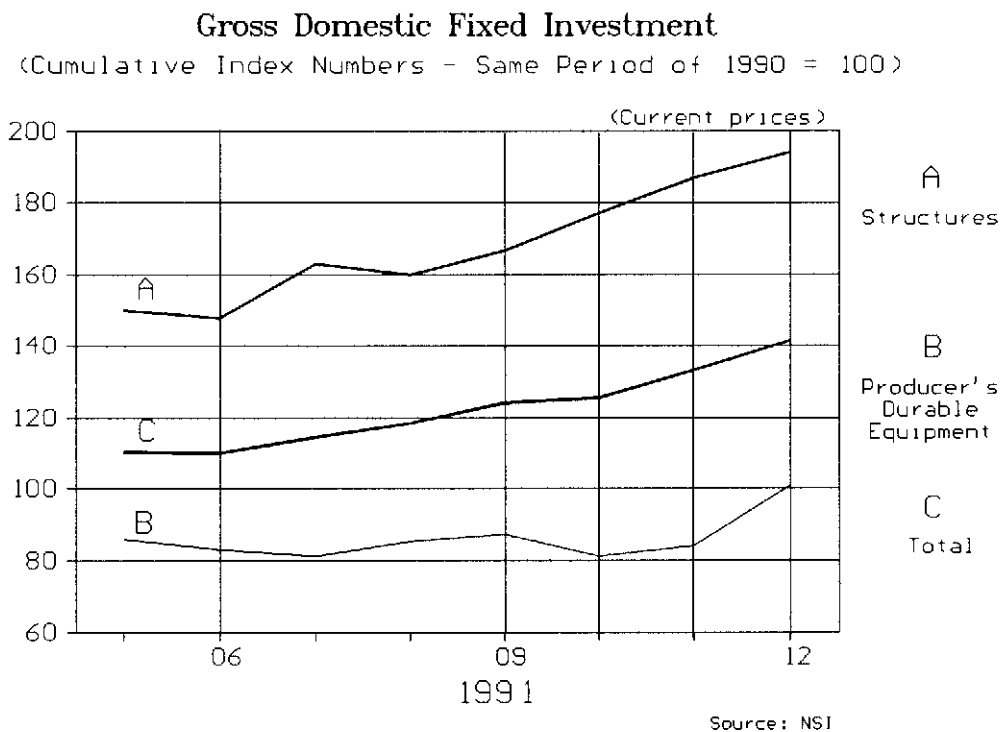




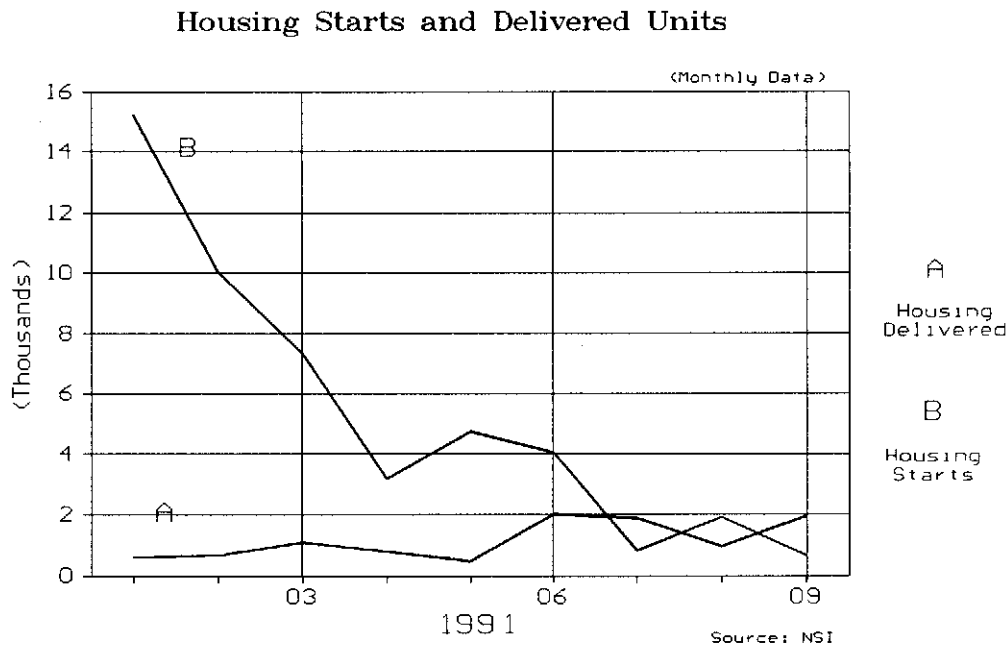
The drop in consumption led to typical changes in its structure. All non-food expenditures decreased, the share of food-expenditures in households amounting to 40 per cent during summer months and attaining a maximum of 43% in August. A dramatic drop was registered by durable-goods expenditures. Meanwhile the share of service-expenditures in total expenditures of households increased in 1991.

### FIXED INVESTMENT EXPENDITURES AND INVENTORY CHANGES

As predicted, restrictive economic policy affected most severely investment demand. Reliable deflators to assess its dynamics do not exist but still we could surely say that budget investments contracted significantly throughout the year. Their share in aggregate budget expenditures did not exceed 4.5 per cent.



The investments undertaken in 1991 were oriented to a great extent towards structures. In 1991 machinery and equipment investments accounted for only 38.7% of total investment. This contrasts with the structure of the stock of gross fixed assets of where the share of machinery and equipment amounts to 51.5%.



This trend is reflected in the relatively stable dynamics of the construction sector, whose output decreased by only 6.1% in 1991. This stability could be related to the emerging sector. “Natural” indicators confirm that housing construction, depending directly on budget financing, was most affected by the overall business situation. The number of finished apartments was almost the same as in 1990 but the number of new units starts decreased substantially: starts the second and third quarters amounted to 36.7 and 9.4% in compared to the first quarter of 1991.

Inventory dynamics plays a central role in recession periods. Its normal under restricted demand for inventories of finished goods to accumulate beyond the desired level. They later decrease as a result of high interest rates on short-term credits and because of the natural tendency under restrictive policy of break away from money to goods. Inventory holdings serve as buffers between output and final demand by absorbing the essential part of fluctuations in demand.

The lack of appropriate deflators makes it difficult to get a right idea of the changes in inventories’ physical volume. Data in current prices could be found only in the quarterly enterprise balance-sheet survey (carried out by the NSI).

It is a common knowledge that in the eve of price liberalization economic agents accumulate substantial inventories because of long-term high inflationary expectations. The comparison of the balance-sheets for 1990 and the first quarter of 1991 indicates a dramatic upward trend in inventories at the beginning of 1991.

Through the first quarter of 1991 the increase in stock of materials and finished goods (in production and trade sectors) related to sales was 12.7 and 24.2% respectively. Sales amounted hardly to 76% of final output.

During the second quarter inventories slid downwards. Their growth was

negative representing: -5.7% of sales. Finished goods inventories (held by manufacturers and traders) grew up though at a lower rate while materials inventory contracted. Most probably these changes in inventory dynamics were caused by recovery in exports to the Soviet Union and the influence of higher interest rates.

Raw materials inventories grew up again through the third quarter (+5.4% compared to sales) and finished goods increased by 8.7% in comparison to sales. This trend could have been influenced by seasonal factors as well as by expected upward inflationary expectations due to increasing inflation pressure during summer months.

Though a quantitative assessment is not available data illustrate an overall positive effect of inventory changes upon GDP dynamics. The growth in inventories during the nine months amounts to 10.4% of sales (2.7% for materials and 7.6% for finished products). This tendency proves that enterprises adapted very slowly to the new economic environment. The firms couldn't manage output in a flexible way in conformity with changes in demand. The very fact that inventories increase means that real financial pressure was not strong enough to act as a hard budget constraint.

It must be taken into account that inventory concentration by firms is very strong. The situation in industrial sub-sectors is also different which made them give different answers to the question about projected inventory changes in the NSI's business survey carried out in October. As a whole forecasts of upward and downward trends in finished product inventories were equally distributed among the enterprises in the sample. The persistent inventory overstock does not mean we should expect output revival in the short run.

## **INCOMES AND SAVINGS**

It was originally envisaged that real incomes drop by 35% in 1991. In reality income dynamics was influenced by four main factors: the higher than expected price shock during the first months of stabilization effort; the steeper increase in unemployment whose effects were neutralized to some extent by offsetting transfer payments; the effect of pension payments and other transfers within the social safety net; the level of entrepreneurial incomes.

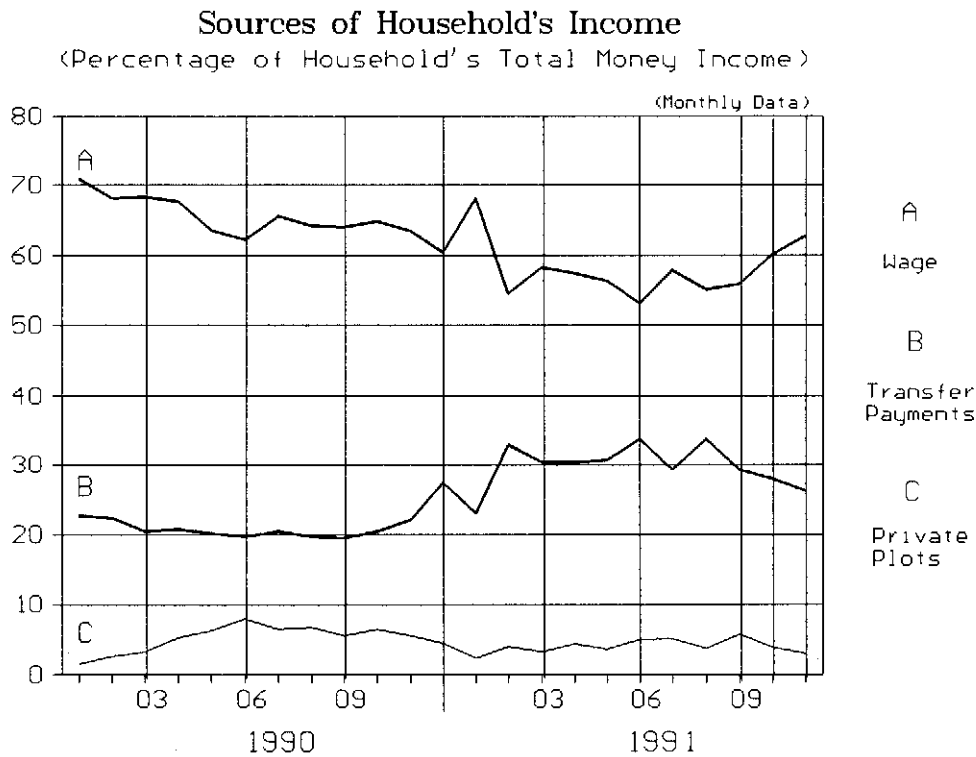
Reliable monthly and quarterly statistics is available on wage incomes and social security incomes. Indirect assessments could be made of all the other sources of income and the data from household budget survey are very useful in this instance.

Income growth in 1991 was partly neutralized by the downward trend in employment. In 1991 the total wage fund contracted by 2.6 bn leva (compared to 1990) due to growing unemployment. This accounted for 10.1 per cent of total fund growth achieved as a result of increased average nominal wage level. (Meanwhile more than 500 mln Leva were paid as unemployment benefits for the January-October period of 1991).

Real wage dynamics illustrates the fact that income restriction policy was effective only during the first quarter. The biggest drop in real wage levels was registered

in March - 67 per cent decrease compared to December 1990. During the spring and summer monthly growth in nominal incomes was equal and even higher than the increase of the price level. During April-August the average wage rate rose by 37.1 percent while CPI increased only 24.4 percent. If dynamics during that period is to be considered as a low-profile compensation for the lower than expected wage level at the beginning of the year, a compensation in wage levels followed by the end of the year. The first results of wage negotiations are evident. Average nominal wage levels raised 42.2% in the last quarter of 1991 while the CPI grew up by 13.8%. This had an obvious inflationary impact on economy.

The downward trend in real income was compensated by other non-wage sources of income. It is obvious that entrepreneur income the newly permitted capitalization of fixed asset was of great importance in 1991. Of greatest importance was the growth of interest incomes as a result of increased interest rate on time-deposits. In 1991 interest income accounted for 8.5 per cent of total private income compared to 0.7 per cent in 1990. Evidently this facts qualify the statement that all the population is getting poor during the stabilization period.

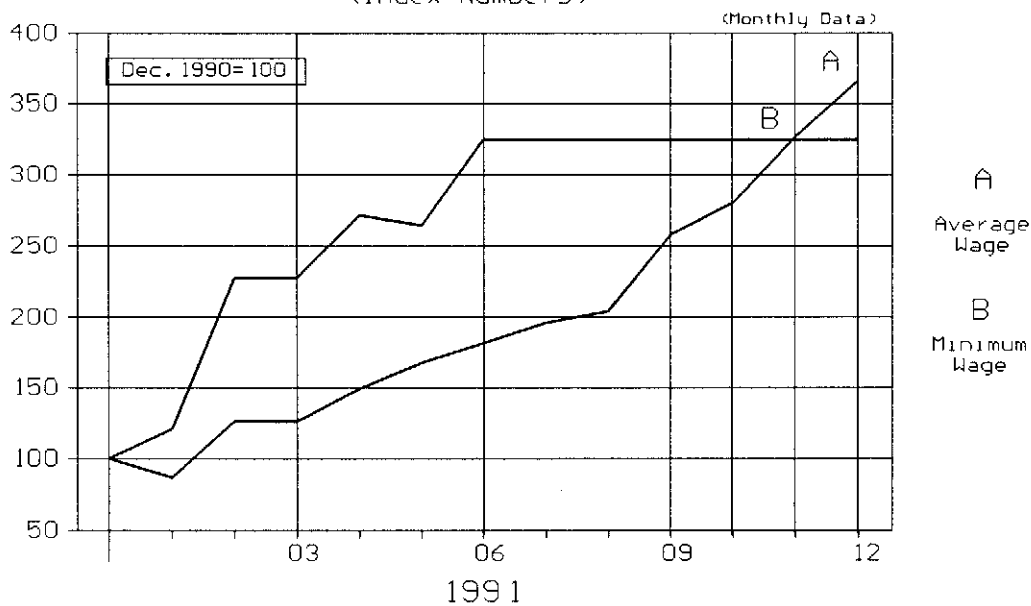


A typical effect of the stabilization program was the contracting share of wages and salaries in total money income. According to households budgets surveys the share of wages and salaries income decreased from 65 per cent in 1990 to less than 55 per cent in February-August 1991. (Data from Income and Expenditure Accounts of the

population points out that the share of this item fell from 54.3 per cent in 1990 to 47.5 per cent in 1991.

The most effective factor for such developments was the substantial expansion in transfer payments in aggregate money income of households. An upward trend brought it from 20 per cent in 1990 to 30 per cent at the end of the second quarter and 28.2% at the end of the third quarter of 1991. A slight decrease was registered during the last quarter of the year (24.3% on average for 1991). This was the result of generously given social compensations and pension-level growth going ahead of price-level expansion.

Average and Minimum Nominal Wage  
(Index Numbers)



As a result of the applied scheme of social safety net a new problem of emerged: the dampening of the differential in wages of the public sector employees to unprecedented limits. Up to August 1991 the index of the nominal average wage was 104.5 per cent and the index of the minimum wage was 224.6 percent compared to December 1990. The share of compensation in wage's structure reached 50 per cent, while inter-branch income differential increased from 8.6 percent during the first half of 1990 to 11.7 percent in August 1991. The gap between public and private employees' incomes also widened.

All this affected factors of production movement and their relative price. A number of public sector activities turned out to be noncompetitive. The shift of employment from public to private sector did not always mean higher productivity, but it forced the public sector it to raise wages. Apparently the system of wage agreements between employees and employers applied since summer was an attempt to overcome the mentioned income distortions. During the last quarter of the year the rate of growth

of average wage outpaced substantially that of the minimum wage.

The dynamics of savings could be assessed just indirectly by using data from household budgets' surveys, from the income and expenditure accounts of the population and Bank statistics.

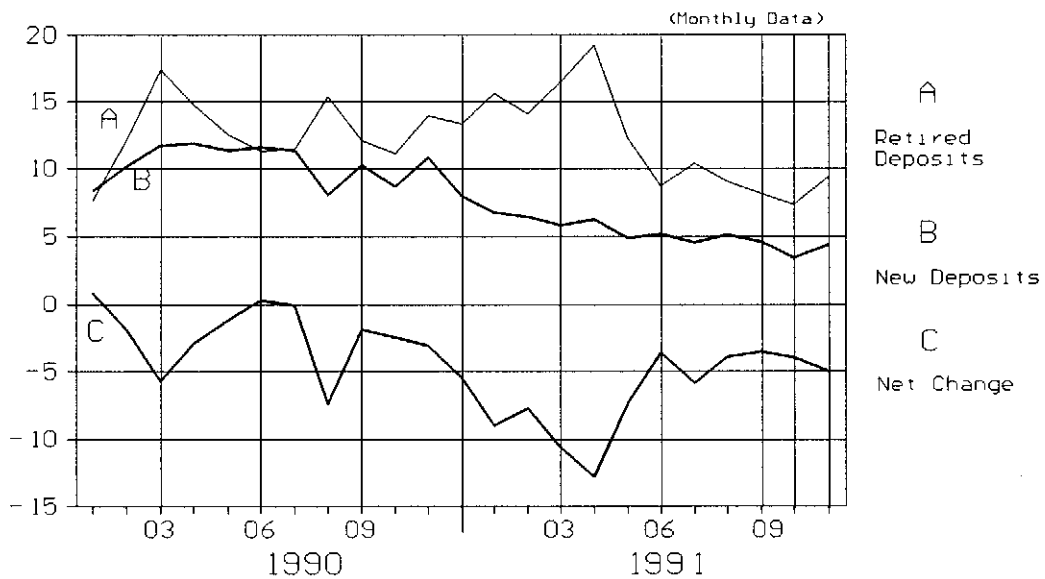
### Household's Money Income and Expenditures Balances



Source: NSI, Data from Household Surveys, AECD

### Household's Saving Balances (In State Saving Bank only)

(Percent from Total Income)

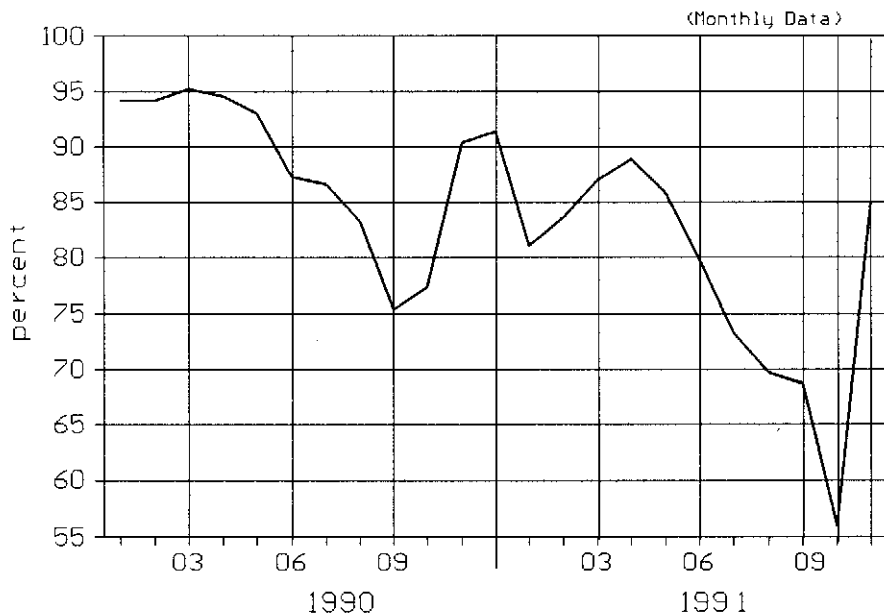


Source: NSI, Data from Household Surveys, AECD

According to data in household budget surveys during most of 1991 a cash deficit appeared which resulted in a sharp reduction of deposits in the SSB. The difference between new and withdrawn deposits in SSB fell by 3 percentage points. During the first four months of 1991 this trend was most intensive. Meanwhile the ratio of deposits to aggregate household income fell from 8-11 percent in 1990 to 5 percent in May 1991. Parallel to this the rate of withdrawn deposits from SSB increased mainly because of mass anticipated repayment of old mortgaged credits. This brought a negative balance between deposits and withdrawn savings in April followed by a downward trend till the end of 1991.

According to data from the income and expenditure accounts of households, interest income amounted to 6.37 bn leva in 1991. This amount was sufficient to compensate the diminishing flows to the SSB (interest income excluded) and to expand savings by more than 1.883 bn Leva. So savings' income ratio grew from 2 percent in 1990 to 13.9 percent in 1991 due to upward nominal interest rate level.

Share of Money Income in Total Households' Income



Source: NSI, Data from Household Surveys, AECDD

The share of the repaid loans in aggregate household income grew up significantly during the first four months of 1991, with a peak in April. During the period of sharp inflation the population opted to withdraw its savings in order to meet anticipated credit repayment and to maintain its level of consumption. Net indebtedness of households fell in 1991: the difference between repaid and obtained credits amounted to 1.9 bn leva (in 1990 it was -1.5 bn Leva).

Another specific feature of savings' behavior in 1991 was restructuring of the deposit. A substantial transfer to time-deposits took place fueled by of high interest rates.

Deposits of the population in the Commercial Banks and in SSB grew up by 50 percent in nominal terms in 1991, the leva savings increasing by no more than 24.5 % (November '91/November '90).

Though marginal propensity to save in 1991 did not grow up, an important outcome of the implemented stabilization package was the fact that the income from capital and the role of the population as a net economic creditor were at last acknowledged. Net interest income became of economic significance and its share in total household income expanded from 0.8 percent in 1990 to 8.5% in 1991. This helped to overcome one of the most deeply rooted ideological dogmas of the communist regime.

## INFLATION

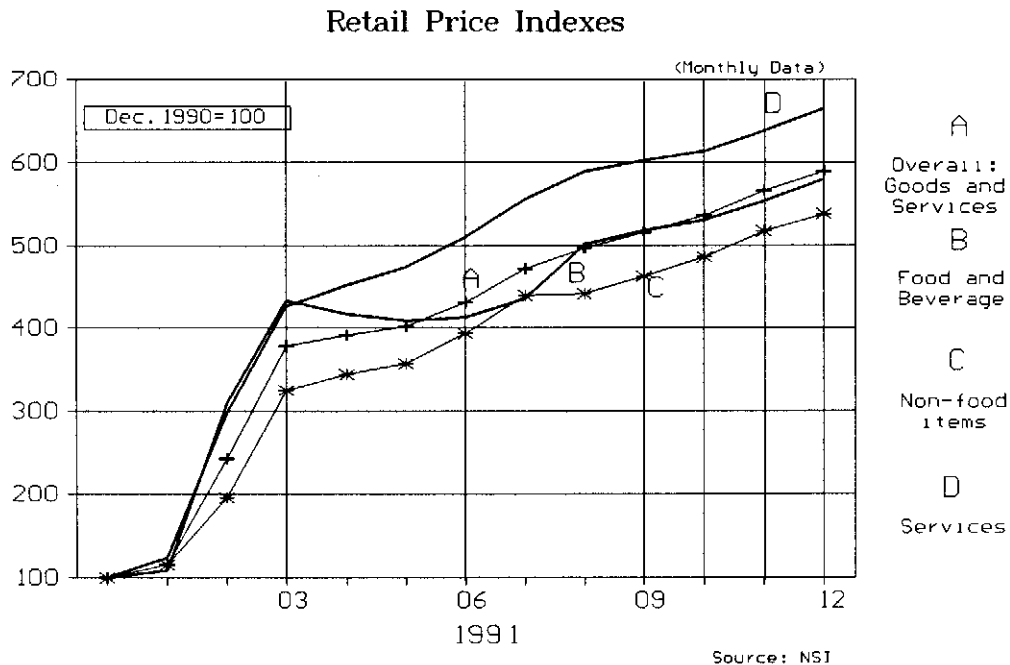
The main objective of any stabilization program is to get inflation under control and to assure non-inflationary growth environment. These goals were to some extent attained during the three quarters of 1991. The implemented stabilization package envisaged three types of prices: liberalized, fixed and controlled. A two-stage price-liberalization was adopted and fuel prices were relaxed in June. The main price shock occurred in February-March because of the necessary adaptation of price levels. The actual inflation process developed later. We should notice that our statistics still does not dispose of a set authentic deflators and this makes inflation assessment tentative. Strictly speaking the consumer and retail-price indexes are not the most correct indicators of inflation dynamics though they are often used for such purpose.

The prices of 14 consumer goods were set under control but the applied control mechanism was not efficient enough and even induced sometimes inflationary expectations. Of economic significance was only the system of fixing in advance some forecast prices for this group as they were used in the negotiation process of the Tripartite Commission.

The difference between the actual controlled and forecast-prices was negligible (it varied from -2 to +8 percent excluding February and June-July price-levels). The hardest shock occurred at the end of July due to food price increases. Though retail prices were under control, procurement prices didn't drop to the desired by the government levels.

During the year the inflation process was uneven. Retail prices grew up at an annual rate of 68.5 percent during the second quarter and by 108 percent - during the third quarter and by 169.9% in the fourth quarter of 1991. The annualized average rate of inflation for the period March-December was 72.5 percent.





Price-liberalization brought a significant change in the price structure. The adjustment of the different groups of prices depended on the previous level of subsidies and the situation on the corresponding market. The initial price-level jump was most pronounced for food and service-prices. Later the food-price index increased by a lower than average rate (except in August).

The relative prices of clothing and house maintenance expenditures augmented while furniture-prices went downwards.

Though the implemented anti-inflationary package had an initial success, at the end of 1991 there still remain various focus of inflationary pressure which are periodically activated. Such a source of during the last months were the second stage of price liberalization, the fast growth of real-incomes in the last quarter, the upward trend in procurement prices, the structure of the budget-deficit financing, and the rising exchange rate. Such sort of shocks appeared at different periods of time but the economy reacted always by following the same pattern.

The symptoms of potential inflation are manifested in periodically appearing on the commodity market, in the failure of the government to impose lower grain procurement prices in August 1991, etc.

Vivid inflationary expectations became apparent in upward trend of the interest rate at the interbank deposits' auctions. The registered dynamics of monthly interest rates at these auctions might be interpreted as an indicator of the projected rate of inflation in short-term perspective. At the first auction in September 1991 the interest rate was 4.5 percent and reached 5.3 percent by the end of the year. This represents an annualized interest rate from 54% to 63.1 percent. (\*)

(\*) These data can be compared with the basic annual interest rate, the real interest rate, used by the banks, is obtained by raising the monthly rate of interest, taken as an index (for ex: 1.0526) to an exponent (degree), equal to the number of months, specified in the document.

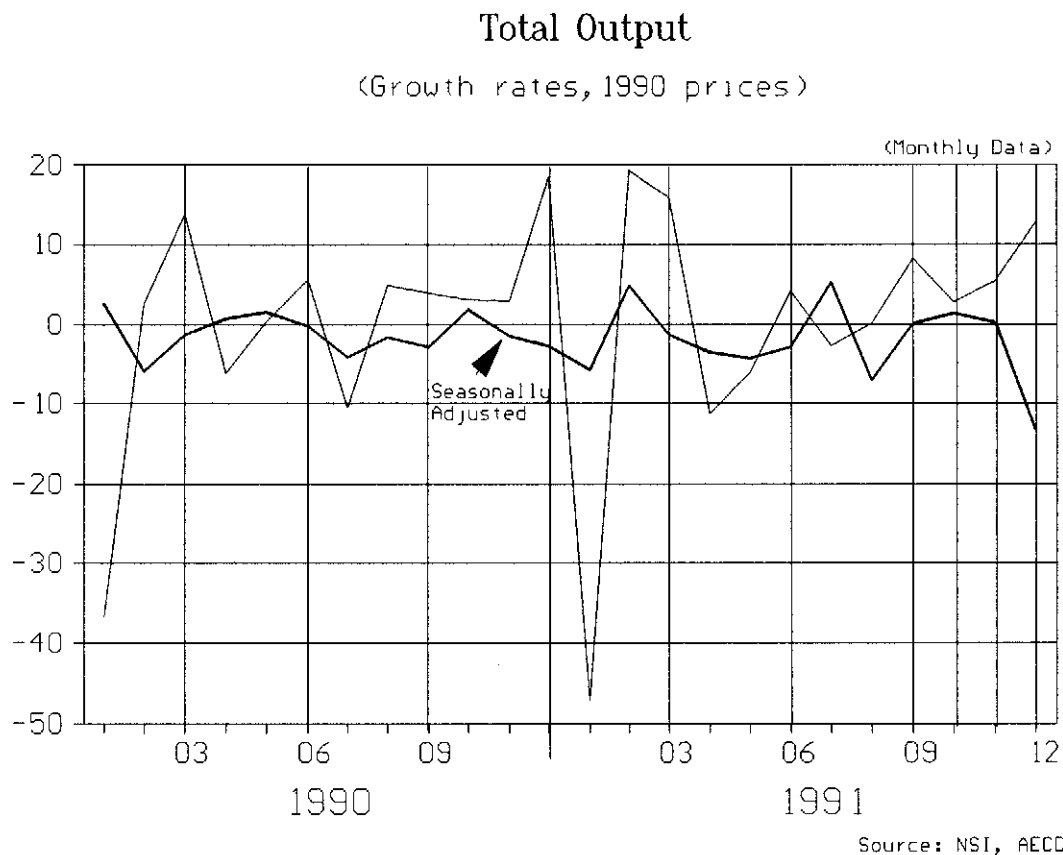
## OUTPUT

The possibility of output recovery was the focus of public debates in 1991. Unfortunately the lack of reliable statistics led to distortions in the assessment of the actual output dynamics and to a number of erroneous interpretations. The disposable data gave a biased picture of the economic situation, stressing upon the downward trend in the level of output, without taking into account its seasonal dynamics.

In this review we'll make an analysis of some purely cyclical aspects in output dynamics.

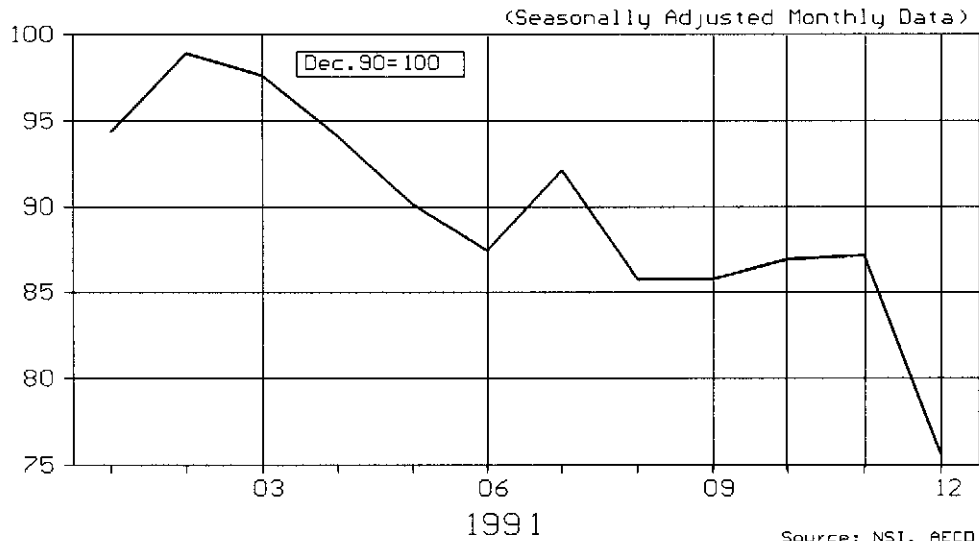
1. The seasonal profile of output did not change significantly in 1991. It means that economic agents' behavior remained identical to previous years partly due to the inertia inherited from the classical annual rhythm of planned economy. Untypical fluctuations were registered in July due to the influence of two specific factors: revival of the export to the USSR after a prolonged stagnation during the first half of the year and a sharp drop in the number of employees, who used their summer holiday vacations.

The evidence of a well shaped seasonal profile allows the influence of the seasonal component to be eliminated and a more precise interpretation of output dynamics in 1991 to be done. A seasonal adjustment of output dampens the sharp fluctuations and makes it easier to identify the real monthly dynamics.



Total Output Indexes

(1990 prices)

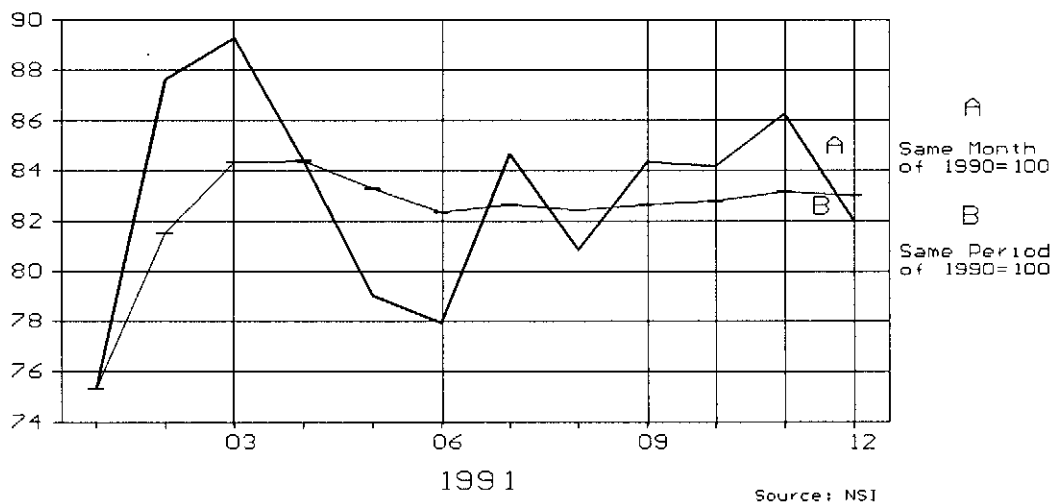


Monthly seasonally adjusted data on output in 1990 prices indicate sharp downturns in monthly chain indexes in January, April, June, August and December and real growth in February and July.

These fluctuations are to a great extent a statistical artefact, due to product concealing during the months, preceding price-liberalization (January and June). Manufacturers registered these goods in the next months statistics. The real output profile should be consequently considered much smoother.

Total Output

(Cumulative Index Numbers, 1990 prices)



2. The utilization of cumulative indices permits us in part to avoid seasonal fluctuations and to assess the tendency in the change of the level of production. The graph shows the index of the corresponding base period of 1990. If we disregard the fluctuations in the dynamics of production under review during the first months of the year and during June, we can see that its level changes in a comparatively narrow interval. The cited cumulative indices refute the assertion of a revival in the economy or of an intensification of the decline. The several "peaks" of the monthly indices are not sufficient to change the trajectory of production to a higher level. For this a longer sequence of months with positive growth is necessary. A growth rate of 4 percent during October, following the stabilization of the monthly rate from July onward, can hardly be interpreted as a true positive sign. But it also proved to be of short duration and was followed by a slight decrease during November. From the point of view of cyclical theory, the dynamics of production during the 1991 stabilization resemble a depression more than a cumulative recession.

3. The industry structure of the fall in production reflects most clearly the reasons for the depression of 1991. It is directly connected with the collapse of the traditional foreign markets and to a lesser extent with the contraction of the domestic market.

The concentration of the decline is most clearly evident in those industries which were most affected by these processes. Almost the entire decrease in production from the beginning of the year was caused by the contraction of industry and to a much lesser degree by that in construction. The remaining industries registered growth in the range of 5-16.1%. Five sub-sectors (chemical, electrical engineering, electronics, mechanical engineering, food and tobacco, and ferrous metallurgy) generated 69.4 percent of the total decrease in industrial production. This is evidence of varied level of activity in the individual industries. The widely discussed decline in manufacturing production is to a great extent a decline in industry. The ideological and structural deviation towards "heavy industrialization" is reflected in the one-sided perception of the real economic dynamics.

In assessing the dynamics of production during 1991, we should not fail to overlook a phenomenon which can be observed in the transitional economies of all the East European countries: the serious overestimation of the actual decline due to a failure to account for the activity of the private sector. This distortion is probably stronger in Bulgaria than in the other countries because of the total lack of statistics for this sector of the economy. Here we can rely only on very approximate estimates according to which its share in production is 4 percent, while up to 10 percent of the employed can be accounted for entirely or partially in the private sector. We can cite as an indicator the explosive growth of credits for the private sector, the portion of which in the overall total of credits provided for economic activity increased from 1.7% at the end of 1990 to 10.3% during November 1991.

Indirect estimates of the real decline (and consequently for the price shock as

well) show that it is probably on the order of 20 percent and is weaker than the statistical reports. This estimate is arrived at, for example, by utilizing the close connection between the consumption of electrical energy and the dynamics of the GDP . It is also confirmed in part by the data of the NSI on the “loss” of production during 1991: these show that the loss amounted to approximately 10-12 percent (with the exception of January and February, when it is significantly higher).

It is indicative that according to the quarterly economic survey of the National Statistical Institute carried out during October, the utilization of industrial capacity in half of the enterprises in manufacturing industry was above 70 percent. In construction it was 62.7 percent. The majority of the industrial enterprises expected an increase in the utilization of capacities. It is not entirely clear what the respondents understood by industrial capacities, but in any case (when we take into consideration the period of exploitation of the fixed capital) the maximum rates of utilization were far below 100 percent.

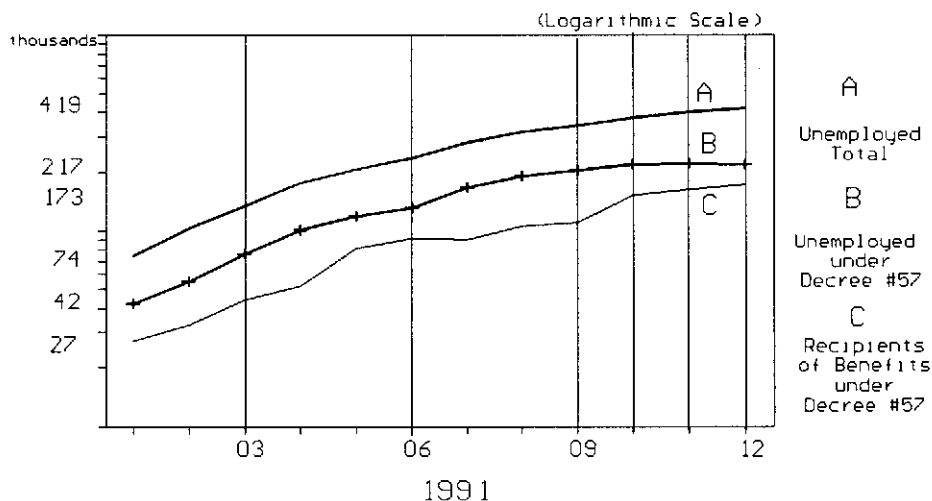
### EMPLOYMENT

Growing open (obvious) unemployment in 1991 became a symbol of the economy in transition.

However the rate of unemployment remained lower than the rate of output reduction.

Microeconomic employment adaptation was not fully applied and a substantial overemployment still exists: during the first months of stabilization effort the enterprises obviously implied survival strategies and did not try to ensure maximum profits. This diminished the negative of recession upon employment but had a negative effect upon microeconomic effectiveness.

Number of Unemployed and Recipients of Benefits under Decree #57



Throughout 1991 unemployment increased. For the period December 1990 - December 1991 they decreased by 24.1 percent. At the end of 1991 the number of employed workers was 787 628 people less in comparison to December 1990 (-21.1%). In the middle of 1991 unemployment grew by lower rate due to the specific political circumstances and the process of contracting the new wage-levels which retained payroll cuts for some period of time.

The trend of increasing unemployment, according to economic theory, resulted from the fact that in 1988-89 was reached the maximum of employment. The new macroeconomic situation in 1991 imposed its reduction. This process developed under the conditions of general downward trend in the demographic and economic potential of the population. What made easier the settlement of this problem. The number of the population dropped from 8 683 thousand at the end of 1990 to 8 623 thousand in August 1991. (These data obviously do not take into account all the emigrants). At the same time the number of fit for people decreased by 180 000 and their share fell down from 46.8 to 45 percent.

By the end of 1990 till December 1991 the rate of unemployment grew from 1.6 to 10.8 percent. At the beginning of the year this contingent was filled by relatively unoccupied workers, forming the nucleus of unemployment or by people who were not actively integrated in economic activity. Thus the share of young unemployed men (under 30) increased and the share of female unemployed, remained high. Substantially grew the share of unqualified or low-qualified and recently graduated people.

The present analysis is based upon incomplete, though enough representative statistical data because data of employment in private sector and in underground economy is not available. For the lack of data some cases of employment have not been taken into account: supplementary labor, employment by civil contracts, unofficially hired workers, while seasonal and part-time employment are accounted fragmentary. No data is available about actual work time - a basic indicator used in analysis of employment.

It is to be noted that structural characteristics of downward trend by spheres and branches in 1991 remained the same as in 1990. It means that work-place changes (dynamics) are negligible and there were not substantial modifications in the economy's structure by branches during the period of stabilization. Changes in employment by branches coincide to a great extent to a downward trend in output. Unemployment in construction industry was the greatest (-36.4 percent), followed by trade (-33.1 percent) (most probably due to private business sector) and in industry (-23.1 percent).

Though some attempts were made, no real labor market was established. The most common (aggregate) indicator of its condition and development are data of work force "turnover". In nine months the ratio between hired and fired workers was approximately 2.4/1 (1 044 850 to 428 270 individuals). This proportion followed a downward trend in 1991 which means that work force turnover had intensified, but its mobility had remained low. Some of the reasons for such a dynamics are granted generous compensations and the existing sources of additional income, the imperfect

institutional structure of work labor market and the existing purely legislative barriers, impeding employees' dismissal. The result of some analysis prove that high wage-level is necessary to make an unemployed person start working.

### **FINANCIAL SITUATION OF COMPANIES**

At present any attempt for an assessment of the financial situation of firms is inevitably biased. As a rule it would rather reflect accumulated distortions than the development after price liberalization. This makes the different microeconomic financial parameters just provisional.

Worsening financial situation was the dominant trend in 1991. Quite like at the start of the stabilization effort within the first quarter profitability grew up. The profits to sales ratio reached 18.2 percent against an average of 14.6 percent in 1990. The reason was the short-term effect of using the inventories of raw materials, purchased at the low pre-liberalization prices and selling the final products at the high post-liberalization prices. Quarterly abstracts of balances show a downward trend in profit during the second semester. On the base of sales it amounted to 13.1 percent during the first half and 10.7 percent in nine months. The average profit per month was lower in comparison to the first half of the year. During the third quarter raw materials' inventories were exhausted and increasing real income and financial expenditures substantially increased the number of unprofitable (losing) companies and of firms in which profit income was used to repay increased interest rates. Profit loss was bigger for the economy as a whole. All these data in one way or another reflect also tax-evasion by private and public firms (The officially granted tax expenditures during that period hardly reached 912 mln Leva).

At the same time the average rate of profit of the profitable enterprises grew from 14.2% in the first half of the year to 15.4% in the third quarter of 1991. With such a low level of profitability and the narrow range of profit margins between the different firms, the financial conditions for a revival seem too limited.

The drop of real incomes in 1991 allowed companies to contain the growth in labour costs. Their share during the nine months was 11% - much lower than in 1990 (19.1%). Thus the financial situation of firms was affected much more by the growing material and financial expenditures throughout the year.

The real taxation of profits was quite different from the statutory profit-tax rate (40%), which remained unchanged in 1991. The effective profit tax rate for the first two quarters corresponded hardly to 21.2%. This reflects in part the delay in the payment of subsidies from the budget and of the clearing settlement with the former USSR during the second quarter of 1991. Bulgaria's active balance on clearing accounts led to a deep crisis of payment. The budget couldn't pay its liabilities to exporters and in turn they held

back tax payments. This problem was solved with the establishment of a depreciated exchange rate of the clearing dollar and by the removing of clearing payments from budget accounts. These payments were settled during the third quarter and growing profit-tax flows entered the budget. During the third quarter the effective profit tax rate sharply rose (to reach 68.3%). Nevertheless for the nine months as a whole the real tax rate hardly reached 37.4%.

Indirect taxes (and especially the excises) were levied more effectively. The effective turnover tax rate averaged 16.9% during the nine months.

By the end of the third quarter firms had to pay Social Security Fund 913 mln. leva. At the same time they paid off only 85% of interest due. The firms remained a net debtor to the financial system, the ratio of their financial receipts to expenditures being just 24%.

A major problem concerning the financial position of firms in 1991 was the payment crisis which led to a dramatic growth of inter-enterprise credits, of indebtedness towards suppliers and the growth in clients' receipt claims. For the first six months sales receipts corresponded to 17% of sales, this ratio falling to 11% at the end of September. The total sum of receipts amounted to 18% of total company receipts. Debts to supplies grew faster than the other liabilities. (The total amount of company liabilities increased by 25% during the third quarter). Half of this sum was due to banks, the short-term indebtedness expanding more than average.

Throughout the second and third quarter the difference between debts and claims grew up by 5.5 bn leva and reached 10.4 bn leva.

The many interruptions in the chain of payments was due to the monetary restrictions and to the contracted domestic and foreign demand. The inter-enterprise crediting and the simple act of refusing payments brought substantial relief in the effective financial burden of the firms. This was possible for the lack of bankruptcy procedures and because of government ownership of most enterprises, which allows firms to treat any form of indebtedness as guaranteed, as last resort, by the state.

## **EXTERNAL SECTOR**

A major objective of the stabilization program was foreign trade and currency regime liberalization. Since February a system of internal convertibility was established for current transactions' payments.

Many of the constraints in the trade regime were easily abolished. Export quotas remained for only 33 items (till February they were applied to 57 items). Later the quotas were replaced for 16 of the items by temporary export fees for while quantitative export restrictions were fixed for the rest of the items (mainly food and raw materials). Further liberalization of export followed in June: all the export fees were eliminated and export ban, imposed on nine items mainly food was raised too. Temporary prohibited for export remained only six products (mainly raw materials). Throughout the year all the



export subsidies were suspended.

Liberalization concerned mainly trade relations with western partners. Though in foreign trade with former COMECON countries since January 1991 international prices were applied relations with the ex-USSR emerged as a central problem. The combined effect of world prices, clearing agreements and "indicative" commodity lists caused extraordinary difficulties in payments with former USSR. In 1991 Bulgaria practically didn't have a working mechanism of account settlements with its most important trade partner. Passive balances for 1990 with the east European countries also had to be settled.

Efforts for eliminating structural disequilibria in the Balance of payments continued in 1991. There were applied three main adjustment mechanisms: reduction of trade balance deficit by decreasing the volume of aggregate demand (import) and expanding export; non payment of foreign debt obligations payments to be continued; financing the rest of the Balance of payments deficit by the international financial institutions.

The outcomes of this policy exceeded the preliminary forecasts. Trade balance being negative during the first quarter, turned to positive during the second and third quarter and an equilibrium was reached at the end of September. After the initial downward trends in import and export during the first quarter for the rest of the year the rates of growth were high and the export, realized during the third quarter was 1.8 times bigger than in the first. According to AECD estimates during the fourth quarter of 1991 the value of exports was 1.85 times bigger compared to the first quarter, while the value of imports increased 2.29 times for the same period.

This dynamics corresponded to an absolute drop in exchange volume: export decreased by 59.7% (-63.4% for East European countries and -51.0% for the rest of the world) and imports dropped by 70.6% (-75.2% for East European countries and -60.4% for the rest). The geographical distribution of foreign trade changed the share of OECD countries increasing from 12% to 22 % in export and from 20% to 32% in import.

Exports were not so much stimulated by macroeconomic policy, as was the case in Poland in 1990. However the export expansion of Poland could not be repeated under the external conditions of 1991. The positive outcome in our trade balance should be explained mainly by the increasing positive balance in the clearing exchange with the former USSR which in fact had an unfavorable effect over the Bulgarian economy.

In this context it is difficult to say to what extent export growth was influenced by devaluation of the lev. What is obvious, is that the interest of exporters towards Soviet markets decreased after the depreciation of clearing dollar vis-a-vis to the lev.

Developments in 1991 proved that some products have a positive elasticity of supply and that their export was reoriented to the western markets. Thus the share of these markets in the exports of industrial consumer goods and foodstuffs in nine months grew from 8% to 20.9% and from 8.1% to 18.2% respectively.

It should be noted that foreign trade statistics does not register all transactions

because the activities of private firms and individuals are not taken into account.

The balance of services (due basis) in the Current accounts balance ended with a deficit of 912 bn USD which is bigger than projected. (Interest due for 1991 amounted to 881 mln USD). As the payment of interests on the external debt was insignificant, the deficit on cash basis was small.

The capital account was affected by problems, related to the rhythm of foreign financing. Reported payments of foreign debt for 1991 amounted to 2.1 bn USD. The remaining financial gap of 1.6 bn USD had to be filled out by the international financial institutions. The Balance of capital accounts including inflows from IFIs was projected to end with a surplus of 275 mln USD. Without these sums the projected deficit was 825 mln USD. In fact, according to preliminary estimates, the deficit amounted to 1119 mln USD.

In fact available financial resources were less and obtained later than agreed. In 1991, except the regular IMF tranches of the stand-by credit and CCFF (400 mln USD), the G-24 granted only 200 mln USD. In the course of the regular program revisions the disposable financial resources decreased from 1560 mln USD to 1040 mln USD.

Direct foreign investment in 1991 amounted to 55.9 mln USD.

In February 1991 the interbank foreign exchange market opened and this was one of the major achievements of the reform. Unified exchange rate was established its fluctuations being determined by the supply and demand of foreign exchange.

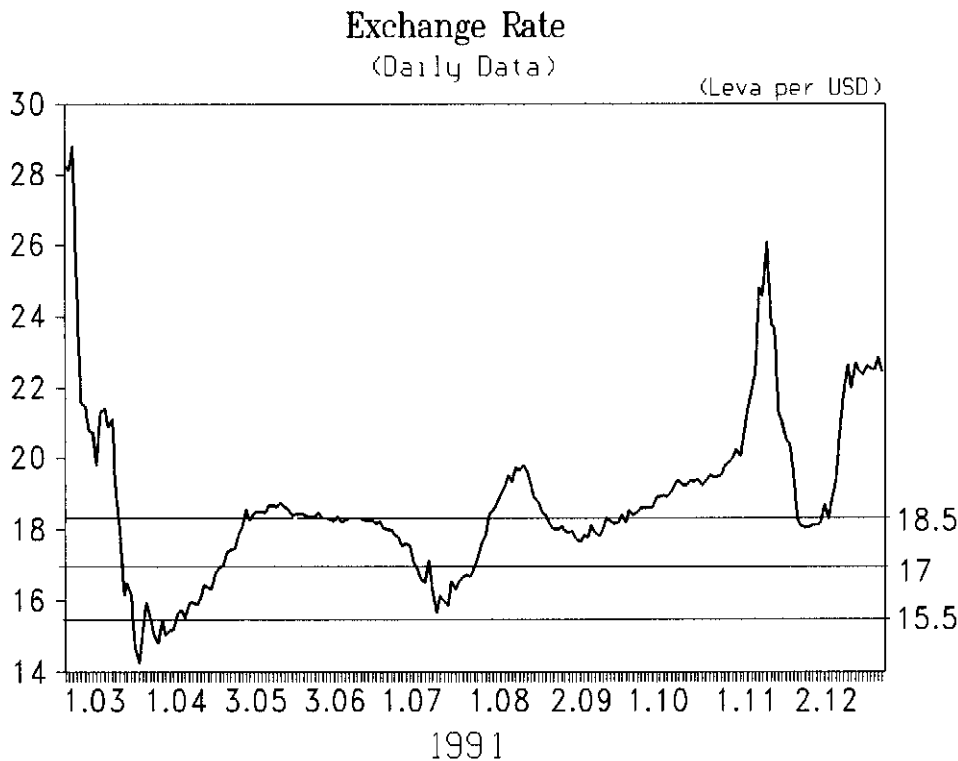
Currency market was servicing successfully current payments. The activity of the economic agents and the dynamics of the market in 1991 make us draw the following conclusions:

1. Currency market turnover though expanding remained limited. During the period February-December the turnover approached 2.1 bn USD per month. The average daily turnover in no month exceeded 13 mln USD.

2. The main participants were BNB and the most important commercial banks. The importance of private exchange bureaus increased by the end of the year as their share in total currency turnover grew and they were giving higher quotations of the USD. This was proved by the unsuccessful attempt of the leading commercial banks to impose a stable downward trend of the exchange rate in November 1991. The elimination of individuals from the official market maintained the activity of the parallel unofficial exchange market.

3. The trends of the exchange market are determined by some the important commercial banks and the BNB. The BNB interventions had no immediate effect and its activity was limited by the volume of foreign exchange reserves. (In nine months the reserves increased from 125 to 568 mln USD). The BNB as a rule did not interfere the influence of the fundamentals, determining of level and fluctuations the exchange rate.

4. Exchange market is isolated - it depends of the internal, sometimes speculative factors, and not on the general trends in the world exchange markets. The US dollar rate led, the exchange rate of other currencies just repeating its profile.



Source: NBB

5. Until May the government had not fixed any level of the exchange rate to be monitored. After the first IMF revision of the stand-by program limits for preferred currency fluctuations were set at  $- 17 \pm 1.5$  leva/USD. As shown on the figure the real exchange rate was fluctuating near or above the top margin. This trend reflected the inflationary expectations and the restricted possibilities for an effective influence on the fundamentals determining the exchange rate trend.

The existence of a statistically significant short-term effect of the interest-rate fluctuations upon the exchange rate-level cannot be proven. The figure illustrates that its upward trend in June preceded the downward trend in the USD-exchange rate and later - the downward trend in interest rate's level in July preceded the growth of the USD exchange rate. This dynamics generally fits the theoretical expectations but on the other side growing interest rate in August was not followed by a downward trend in USD-exchange rate. On the contrary - the exchange rate continued its upward trend.

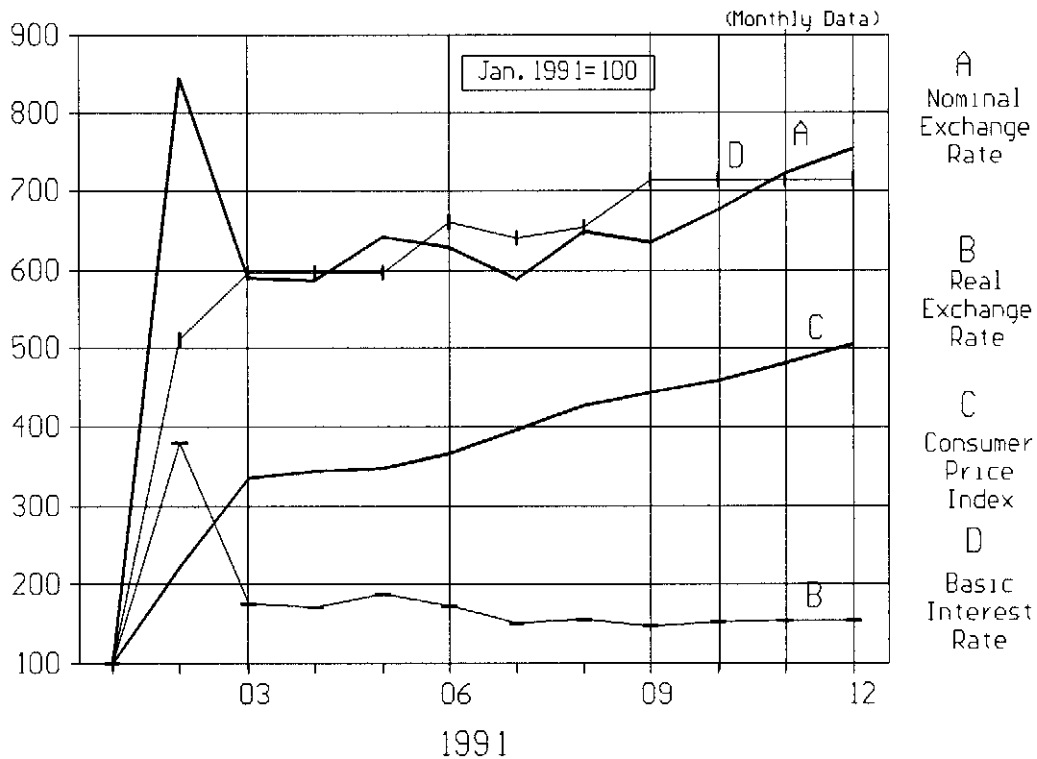
If we use data for a longer period of time, we'll see that in June-October the interest rate level was increasing while real exchange rate was decreasing.

Since 16.9.1991 auctions for inter-bank deposits in leva were organized by BNB. The empirical analysis proved the existence of good co-ordination between average interest rate fluctuations, registered on the auctions, and the dynamics of the exchange rate. The lack of data for such average interest rates for a longer period doesn't allow us to determine parameters of this relationship.

The behavior of the commercial banks confirms that a definite relationship exists between their liquidity position sources and the exchange rate level. For example the additional liquidity injected from the BNB in the third quarter permitted them to feel sure when operating on the exchange market.

Nominal Exchange Rate, Real Exchange Rate, CPI, and Basic Interest Rate

(Index Numbers)



Source: NSI, NBB, AECD

On the other side no statistically significant relationship can be found between short-term exchange-rate fluctuations and price-level dynamics. The figure shows the real exchange rate fluctuations which represent the dynamics of the nominal rate, when changes in domestic and USD-inflation rates are taken into account. (The official exchange rate for January 1991 = 100). Two different periods can be clearly defined: a real devaluation of the lev during March-May and later - some "revaluation" of it. Although the difference between the two periods was not very big, it might had affected negatively the exporters. But the incentives, created by the high devaluation of the national currency in the beginning of 1991 was strong enough and effective till the end of the year.

A compromise with the basic principle of unified exchange rate was made when a separate clearing dollar exchange rate market was organized in August 1991. This

was imposed by the domestic changes in the economic situation of the former USSR. In fact this was a hybrid solution for a hybrid problem. As far as clearing-dollar can not be identified with "normal" USD the use of unified exchange rate for the two basically different systems of payments was not possible.

### **BUSINESS CYCLE INDICATORS**

In the second half of 1991 the AECD and the National Statistical Institute began the implementation of a joint-project for the establishment of a network of business cycle indicators for the Bulgarian economy. Some experiments were carried out by the NSI in August. The objective of the project is to put in place a system of business cycle indicators which are sensitive to the economic fluctuations, can determine the current situation and forecast its short-term developments. The system consists of two basic elements: entrepreneurial surveys carried out among managers of firms and a network of specifically processed time series with proven forecasting qualities and sensitiveness to business cycle developments. We hope that later the full set of cyclical indicators will be the object of a special publication.

In this survey we intend to illustrate the idea with the first results of the entrepreneurial surveys. We give the balance of the answers (the difference between the share of the companies with positive and with negative answers) in the first quarterly entrepreneurial survey carried out in industrial enterprises at the beginning of October. After we get enough observations, the dynamics of these balances will be of statistical importance.

The assessments were as follows:

	(Balance) percent
Expected sales	20.4
Expected output	14.2
Expected orders	9.4
Expected inventories of finished goods	0.5
Expected export	19.8
Expected sale prices	18.5
Difficulties in raw-materials supply (percent "Yes" - percent "No")	21.6
Expected labour force turnover	-39.1
Expected utilization of production capacity	12.3

The economic situation according to these answers should be the following:

1. Recovery expectations are to be assessed as cautiously optimistic. Though projections for growing rate of production capacity utilization prevail the positive

balance is not strong enough. There is an obvious inclination to further labour force reduction.

2. Sales and output projections are not identical and this should affect the volume of inventories. The forecast of inventory fluctuations itself is indefinite, depending on the specific situation in each of the industrial sub-sectors.

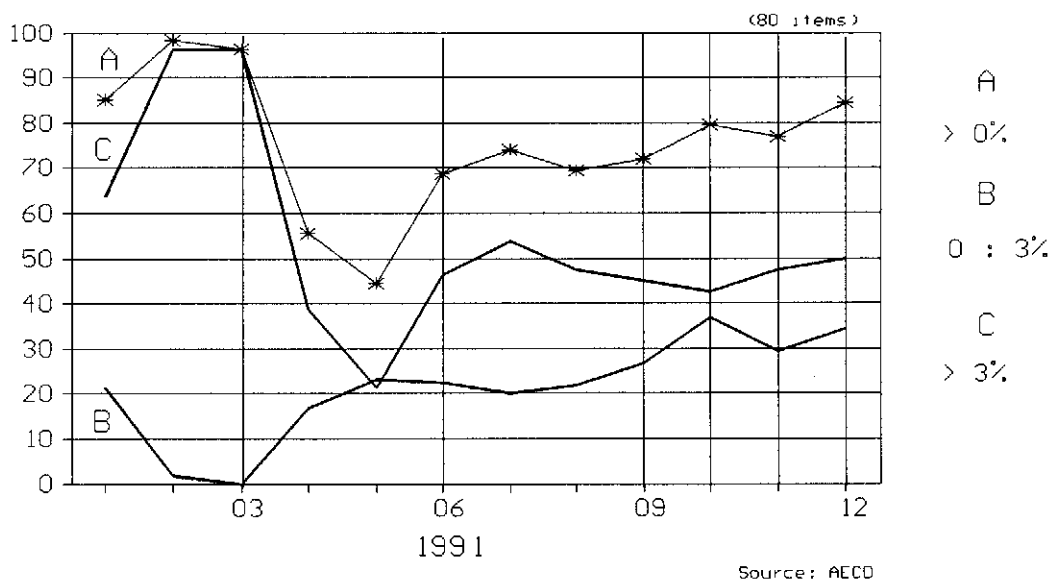
3. Inflationary expectations are positive. Decreasing price are expected in only four sub-sectors of industry. The problem of raw-materials' supply remains unsolved, which means that potential focus of inflation still exist.

Though the balance of industry as a whole is positive, the situation in the different branches varies significantly. Most optimistic are the projections in the petroleum, chemical clothing industries and in non-ferrous metallurgy. Most pessimistic short-term expectations have managers in metallurgy, paper industry, construction, raw-materials industry, glass and food industry.

Another type specific business cycle indicators are the diffusion indexes. They indicate the relative share of the elements of a set, which follow an upward (downward) trend. These indexes are extremely sensitive to business cycle dynamics and illustrate it very clearly.

Diffusion indexes find a broad application in business cycle analysis but for the moment the available data allow us to work out a suitable diffusion index only for prices. The figure shows the relative share of the elements, (among 80 items), included in the RPI index , which had increased during the corresponding month.

Diffusion Index: Retail Prices  
(Percent Rising, 1-Month Span)



Diffusion index's dynamics is well synchronized to that of the aggregate CPI but still it gives more detailed information on the "area" of inflation. The results illustrate

the fact that during periods with the same rate of inflation (as it was, for example, in the autumn of 1990 and during the summer of 1991), the scope of diffusion of the inflationary processes might be different.

We should notice that in spite of the fact that the rate of inflation was decreasing, the prices of more items increased in October than it was registered in September. The November upward trend of the rate of inflation was not unexpected. The prevailing tendency for the inflation since July was the expansion of its scope with some reduction in its average level. It means that a steady, but not very low rate of average monthly inflation of 3-5% is to be expected. The fact that the diffusion index remains high and nearly 50% of the elements, included in the RPI, are increasing with more than 3% monthly confirms the fact that the inflationary processes in the economy are still quite active.