Agency for Economic Coordination & Development

MONETARY POLICY: MECHANISMS & OUTCOMES

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Introduction

The radical transformation of the nation's economic system requires that a new financial system facilitating the functioning of today's market economy in the utmost degree should be worked up.The basic tasks it has to face amount to:

- monetary policy should reemerge as a major macroeconomic stabilization tool;

- a bi-sectional banking system relying on the agency of a central bank,independent of executive authorities and yet responsible for the implementation of the monetary policy with a number of ancillary competitive commercial banks should be set up;

- contemporary economic devices for indirect control in accordance with up-to-date financial theories should be established.

The monetary policy effected throughout 1991 had two prime objectives:first,it aimed at establishing an equilibrium on the money market by reducing the extremely high level of money demand to economically relevant levels of money supply and second, at preventing price liberazation from growing into menacing hyperinflation. A variety of economic tools had been used but direct control was assigned a decisive role. We can thus say that in spite of the cases of deviation from its own line the monetary policy had fulfilled the greater part of its tasks.

After the initial delay the institutional part of the monetary reform has been accelerated. The now existing forms of operation of the financial mechanism and the set of instruments for control over its basic parameters have been brought into line with contemporary financial systems.There is now the solid ground for the implementation of the monetary policy which will lay greater emphasis on the set of indirect tools of control ('open market' operations) and oust the ones used hitherto (rate interest and credit ceilings).

The consolidation of the banking system through enlargement of the existing commercial banks aiming at a higher degree of their stability is now underway.

The present survey touches upon the following points:

Section 2 hints at the novel forms of operation of the monetary mechanism which prepares the basis for indirect control over money aggregates.

Section 3 describes the existing prime instruments of the monetary policy.

Section 4 dwells upon an analysis of the empirical effects of the monetary policy in effect.

Section 5 gives an account of the conclusions and recommendations made by AECD experts.

The monetary mechanism and its forms of operation

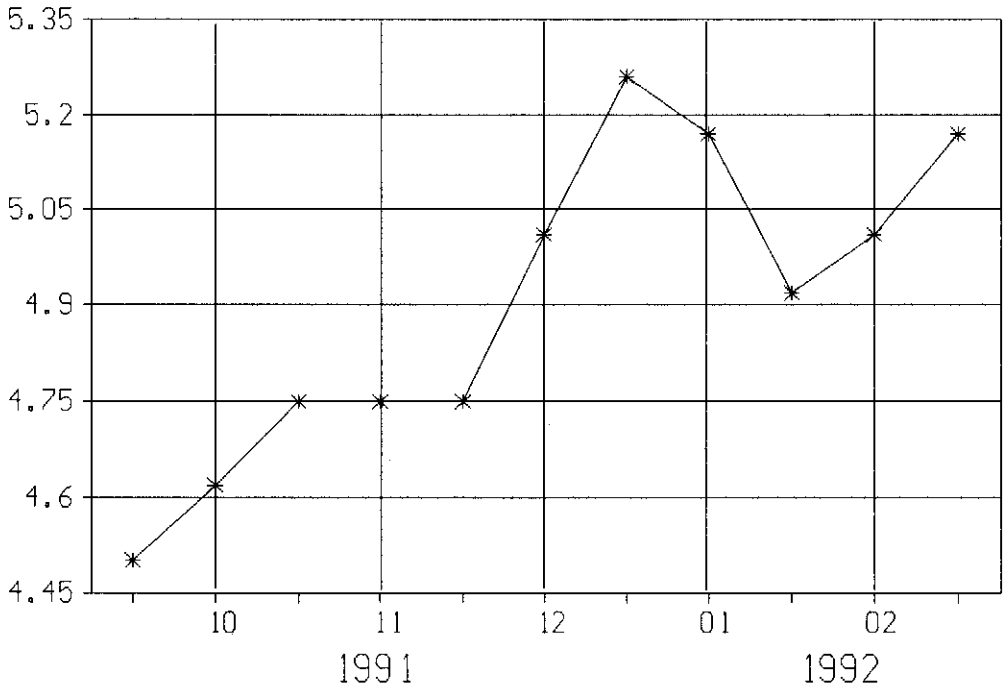
A basic element of the stabilization programme in 1991 was the restrictive monetary and credit policy maintained by the government. Such a policy presupposed the existence of a powerful and influential central bank and a number of independent commercial banks in keen competition as well as a system of reliable and efficient mechanisms for interbank regulation.

At the initial stages of the stabilization programme BNB had put an end to the limitless amount of credit resources granted to commercial banks which in turn made them all the more anxious to increase deposits coming from firms and natural persons as well as to enter into interbank negotiations of resources.

Three-month deposits had been largely and progressively used by BNB as the only form of refinancing commercial banks since January 1991. The maximum deposit amount was not supposed to exceed the 20 % credit ceiling allowed to the banks during the first three quarters of the year or hit the 10 % point in the last quarter of the same year. The total volume of refinancing commercial banks by way of deposits amounted to 13 468 million levs as at 31 December 1991, 6 942 million levs of which were granted for extinguishing non-performing or bad debts whose payment was postponed till later in the year (after 1 January 1991);612 million levs for covering outstanding debts of firms in the military sector now in a process of conversion;1943 million levs encompassing clearing accounts and 3971 million levs granted as additional credit resources (as compared to the sum of 9 007 million levs as at 30 September).A resolution of BNB's Board of Directors, dated February 1992, brought direct unguaranteed deposits granted to commercial banks to a close.

Since September 1991, when a new form of refinancing commercial banks was introduced, BNB has been holding regular auctions for short-term interbank deposits. On the basis of the orders placed with BNB an interest rate is announced aiming at achieving an equilibrium between aggragate demand and supply. It is noteworthy that by 16 March 1991 the larger part of deposits had been granted solely by BNB (the only exception being the two auctions at which three commercial banks had also acted as depositors but the amount of the deposits was rather inconsiderable) while commercial banks acted mainly as recipients of deposits. The monthly deposit volume vacillated about 5,6 - 7 billion levs in the last four months of 1991 and the average monthly marginal interest rates, fixed at the auctions,followed an upward tendency rising from 54 % (as calculated on an annual basis) in September to 61.08 % in February. The actual amount of interbank deposits remaining with the banking system was 5 936 million levs as at December 1991.

Monthly Interest Rate on Interbank Deposit Auctions

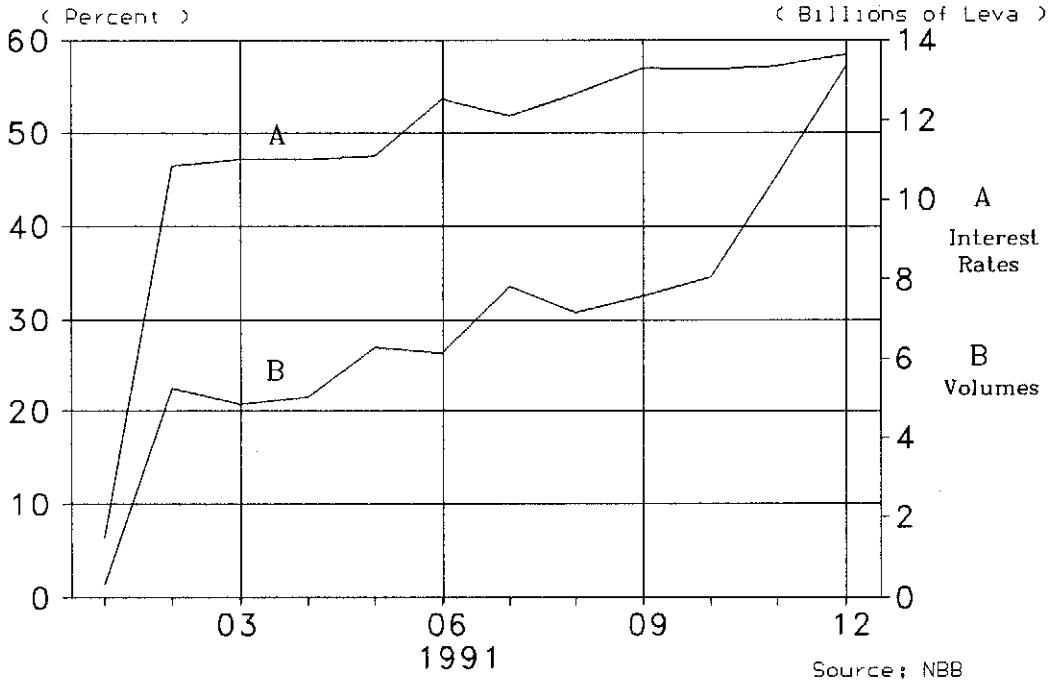


Source: NBB

January 1991 saw the beginning of an interbank money market whereon on the basis of mutual agreement as to the term and interest rate of the credits, commercial banks with temporarily free credit resources granted credits to banks in temporary need of such. The total credit volume registered on the market as at 31 December 1991 amounted to 82 430 million levs,14 609 million levs (or 17.72 %) of which had a 7-days' term;50 026 million levs (or 60.69 5) a 7-days' to 1-month term;and 17 795 (or 21.54 %) with a term over a month.The main factor responsible for the rather low relative share of interbank operations handled within a 7-days' term was , and still is , the sluggish interbank transfer system which takes at least two or three days for a single transaction. Commercial banks granted credit resources in the form of deposits or credits,the latter being widely employed mainly by the State Savings Bank.

The average annual interest rate for 1991 remained steady at 53.52 % and rose to 58.49 % in December (as compared to 61.62% at the interbank deposits auction in the same month). The advantage the interbank money market had over interbank deposits auctions found expression mainly in the flexibility of the former thus allowing the two parties to enter into direct negotiations concerning the conditions (terms and interest rates) of the credits granted. The previously existing structure of the interbank money market,however, created all the prerequisites for destabilization of the financial system due to the chain interdependency among the commercial banks. This in turn led to cases when BNB's control was often evaded and basic banking regulations left out of consideration. Following the assumption that there is a basic necessity for a reliable and trustworthy banking system as well as for the gradual restriction and subsequent disappearance of unguaranteed deposits granted by the Central Bank, we think that the blending of the two mechanisms of refinancing and the formation of a contemporary interbank market into a single whole is an appropriate measure strengthening BNB's control over the existing legal banking norms and regulations.

Interest Rates and Volumes on the Interbank Money Market in 1991



With the introduction of the Interim Interest Rate Tariff in November 1991, which ever since then BNB has consistently applied in the handling of its domestic transactions, the forms of refinance were further expanded. The Central bank began to grant Lombard credits as a collateral for three-month Treasury bills issued by the Ministry of Financce. BNB granted a Lombard credit amounting to 80 % of the nominal value of the pledged securities and 90 % of the currency,precious metals and bonds received by the Ministry of Finance under Decree 244 of the Council of Ministers, dated 29 December 1991, concerning base interest rates. In consequence of the ten successive issues of Treasury bills 15 commercial banks were granted 38 loans amounting to 845.1 million levs as a collateral for government securities, the nominal value of which totalled 1 273 million levs. Aiming at a diversification of portfolios* the commercial banks which used up their credit ceilings acted mainly as buyers of the remaining part of the whole issue of Treasury bills. Another two issues of state securities followed in January 1992 and short-term government securities auctions have begun to take place regularly since the

*Commercial banks have the right to purchase Government securities outside the established limits of their credit ceilings.

beginning of February. Auctions are held every other Monday of the month. The drop in the base interest rate anticipated,which might be expected to lead to substantial revenues because of the fixed yield evolving from the Treasury bills, can also be recognized as a basic motive for the unflagging interest of the commercial banks in the auctions.

At the end of 1991 BNB used discount credits as a form of guaranteed refinancing for the first time. By 31 December 1991 BNB had granted discount loans amounting to 612 million levs at a discount rate corresponding to the base interest rate plus 1 %. These loans had been granted against a collateral for rediscounting of securities such as bills of exchange and promissory notes on the part of the commercial banks.

Prime instruments of the monetary policy in 1991

One of the prime instruments of the restrictive credit policy is the credit ceiling imposed upon the growth of the credits granted by commercial banks. This can be said to function as an indirect instrument employed by BNB for immediate control over credit volumes and money supply. In 1991 credit ceilings reaching the respective percentage points of 102,112,132 and 152 were established on a quarterly basis.The figures are indicative of the extremely restrictive credit tendencies at work in the first two quarters of the year. The second half of the year marked a certain relaxation in the credit limits due to the agency of seasonal factors.In the beginning of 1992 BNB defined the growth of the credit ceilings allowed to the commercial banks for the purposes of national currency crediting of businesses in the first quarter of the current year as 10 % of the credit ceilings characteristic of the end of 1991. Later they were further revised and reduced to 7 % with no provisions made as to the unused amounts of credit ceilings for 1991. Credit ceilings contributed a lot to the fall in aggragate demand, viewed as an essential part of the control exercised over money supply. Nevertheless, they had their side effects. Most influential commercial banks ran out quickly of their credit limits while vast sums of unemployed resources remained with smaller banks.As a result of this credit resources were inefficiently and inadequately distributed and competition among banks put under constraint. We can thus say that the rise in the interest rates of credits granted to quickly- consuming-

credit- ceiling banks and the reallocation of their free resources to foreign currency transactions were consequent upon the above- mentioned processes. All this doubled the risk of their portfolios and led to cases of instability and abrupt fluctuations in the exchange rate of the lev. The possibilities for handling transactions covering two-third of the unemployed part of the ceilings offered at BNB auctions and establishing monthly credit ceilings on deposit volume grounds will do away with the above-mentioned disadvantages and improve considerably the allocation of credit resources.

The high nominal interest rates were meant to reduce the growth of money supply and credit volume. They were used as a measure counteracting the anticipated headlong rate of inflation. What is more, they aimed at weakening inflation impact via redirection of the monetary overhang to time deposits as well as at forcing the non-lucrative businesses to restructure their production or declare bankruptcy when unable to do so. Although the task was partially fulfilled, the population was practically transformed into a net creditor and the real interest rates manifested a steady negative tendency towards decreasing. The real interest rates for the period April-December steadied at the negative percentage point of -8.9% even though a set of corrective anti-inflationary mechanisms were well into effect as early as February and March. This fact alone accounted for the depreciation of the savings of the population and the transfusion of resources from savings accounts into the accounts of economic agents took on the character of a specific kind of subsidies. All this resulted in a certain shrinkage of the national- currency demand and the transfer of assets into foreign currency which perpetuated further devaluation of the lev. This could be identified as the major reason for the decrease registered in the inflation tax base and together with the existing budget deficits they both sped up the rate of inflation. As compared to the slow rising nominal interest rates responsible both for the depreciation of the savings of the population and reductions in the domestic debt and liabilities of firms (in particular trade companies and firms producing consumer goods) to the banking sector,consumer price and retail price indexes spiralled upwards. Nevertheless, a great number of enterprises which put up their production for sale at producer prices (the latter being much slower in their rise than consumer prices in 1991) had to cope with considerably high real interest rates during certain spans of time throughout

the year. The real interest rate of the credits granted to enterprises remained fixed at the 10.2% point from April to December. The conditions of credits affecting state firms were further complicated by the fact that only 25% of interest rate costs had been recognized as actual costs before their profits were submitted to taxation. Relying on recent AECD calculations we can say that the increase in the sums transferred into the budget by credit-drawing enterprises corresponded to a 22-24% increase in the effective interest rate.Along with other factors such as certain restrictions, the lack of any alternative for the restructuring of the state enterprises into other forms of ownership and the continuous crediting by commercial banks, the above-mentioned tough and rigid conditions of credit prompted the accumulation of vast amounts of non-performing and bad debts and practically made the enterprises non-viable. Moreover, the high interest payments were calculated within the prices of production and thus grew into a powerful inflationary factor of threatening dimensions. And again, along with the cutbacks effected in the credit volume via credit ceilings, the high interest payments narrowed down and made bank financial resources inaccessible to many firms.On the other hand,they gave rise to an unexpected expansion of interfirm crediting. The allocating function of the price mechanism was thus disrupted, for the interdepency of the enterprises made their distinction into "good" and "bad" ones hazy. This in turn led to microeconomic distortions in the economic processes. The lack of a reliable information system by means of which risk and solvency can be assessed and distinctions between the "good" and "bad" enterprises made hindered the implementation of efficient credit management and credit policy**.

What effects would further reductions in the base interest rate have on the economy? In answering this question we should above all point out that the base interest rate is not calculated in the abstract but is firmly based on inflation anticipations. If we take for granted the Government's intentions to reduce inflation down to 3 % on a monthly basis by mid-1992 the interest rate will be reduced within some reasonable limits. However,further reductions both in the inflation rate and the higher actual inflation registered will hold back the real interest rate at the negative level and will eventually result in:

**G. Calvo, J. Frenkel, "From centrally planned to market economy", IMF Staff Paper, June 1991

first, continuous depreciation of the savings of the population and transformation of time deposit resources into foreign currency assets;

second, if the established credit ceilings are kept invariable for a certain period of time, the low interest rate will fail to generate an unexpected growth of the credit volume and money supply(as measured by M2 or broad money). However, it will cause a certain growth but only within the limits of the unemployed credit ceilings and is thus unlikely to grow into a decisive inflationary factor. Credit ceilings can be fully consumed provided the unused part of them is sold at auctions. Therefore, our choice should be with one of the two instruments of implementation mentioned;

third, once money supply is retained within the limits of the credit ceilings and government expenditures are cut back or at least checked, any reductions in the interest rates can be expected to have anti-inflationary effects. This, together with the deductions of 50 to 75 % of the interest payments before profits are submitted to taxation, will help reduce the impact exercised over prices through expenditure cuts. Also, it will cheapen the financing of budget deficits and thus increase the share of the non-inflationary coverage of deficits at the cost of a decrease in the excessive money creation;

fourth, the circumstances under which the lower rates of interest and credit restrictions will oust credits with a higher degree of reliability and efficiency are not the conditions Pareto-optimal. On the contrary, the latter creates all the conditions necessary for the improper allocation of resources.

After the advantages and disadvantages of the mechanisms have been carefully considered, we are justified in saying that with the rather low degree of elasticity of reaction of the population to reductions in the interest rates at hand , such a precautionary measure is very likely to have favourable effects on the economy.

The ever-increasing tendencies discernible in the interest rates and the continuous devaluation of the lev are simultaneous processes deserving particular attention. Anticipation, underlying the business activity of both firms and consumers, can be said to be a reason of major importance.When prices were progressively on the increase, the creditors (individuals in particular) profited from the rise in the nominal interest rates, off-set the lower purchasing power of the lev as brought about by the high rates of inflation.

Similarly, borrowers tended to pay up high interest rates in the hope that the repayment of their loans could quickly be extinguished taking advantage of the devaluated lev.

Steady inflation anticipations, triggered off by hazy and somewhat blurred economic prospects, accounted for the upward tendencies the nominal interest rates followed throughout 1991. By the same token, after the initial period of devaluation of the lev, or put in more precise terms, the initial period of the so-called overshooting effect and its subsequent adaptation to to some kind of equilibrium, the lev reacted immediately to BNB's repressed expectations, submitted to the constant pressures of the devaluation processes. This was due maily to the fact that financial assets proved more liable to changes than consumer prices.However, we have no right now to conclude that there was a direct relation between the nominal interest rate and the exchange rate of the lev despite the unidirectional character of the empirical data employed.

The results of the monetary policy

As has already been pointed out in Section 1 inflation counteractions can be clearly identified as ranking among the prime and most decisive objectives of the monetary policy in 1991. The stabilization programme pursuing the aforementioned objective requires that aggregate demand should be influenced through reductions in money supply. The comparatively consistent implementation of the monetary policy enabled BNB to cope with the two shocks of price liberalization quite successfully. Had the fiscal and income policy followed the same rigid line of restrictions the results of the monetary policy would have been far better. In fact, they counterbalanced partially the positive anti-inflationary effects of the monetary policy during given periods of the year. BNB aimed also at achieving an equilibrium on the money market. It was a necessity brought about by the fact that the demand for money had to be reduced and brought into line with the reduced size of money supply thus eliminating the effects of monetary overhang in 1991. The base interest rate and credit ceilings were used as the basic instruments for fulfilling the task. The full use of the credit ceilings for the banking system as a whole

approximated to 100%, which in view to the different conditions of credits granted by the commercial banks spoke of a certain prevalence of money demand over supply. The accumulation of vast sums of reserves with the commercial banks, in a sense, was partially triggered off by the fact that they had used up their credit ceilings for a given quarter. Meanwhile BNB carried on refinancing them for the sake of improving its own liquidity and living up to its own inflation anticipations. But it was not until the fourth quarter of the year when only 76% of the credit ceilings were used and the financial situation changed. The money market reached a more stable equilibrium as late as October and November, and December witnessed another substantial growth in the bank reserves which could be interpreted as a case of prevalence of money supply over demand. This in turn influenced the interest rates strongly pushing them further downwards. 1991 marked the nominal growth of the lev domestic credit by 41.9% but the sky-rocketing prices registered led to a drastic shrinkage by 85.9 % in real terms. The sector structure of credits remained more or less steady. The share of credits drawn by non-financial public enterprises oscillated about the 64-66 percentage points and the respective shares of the state and the private sector and the population about 28-30% and 5-6% . The total amount of the credits in levs granted by the commercial banks rose by only 115.7% while the amount of the credits granted to the private sector increased only by 39.7 % in nominal terms,which was far below the 52 % limit of the credit ceilings.

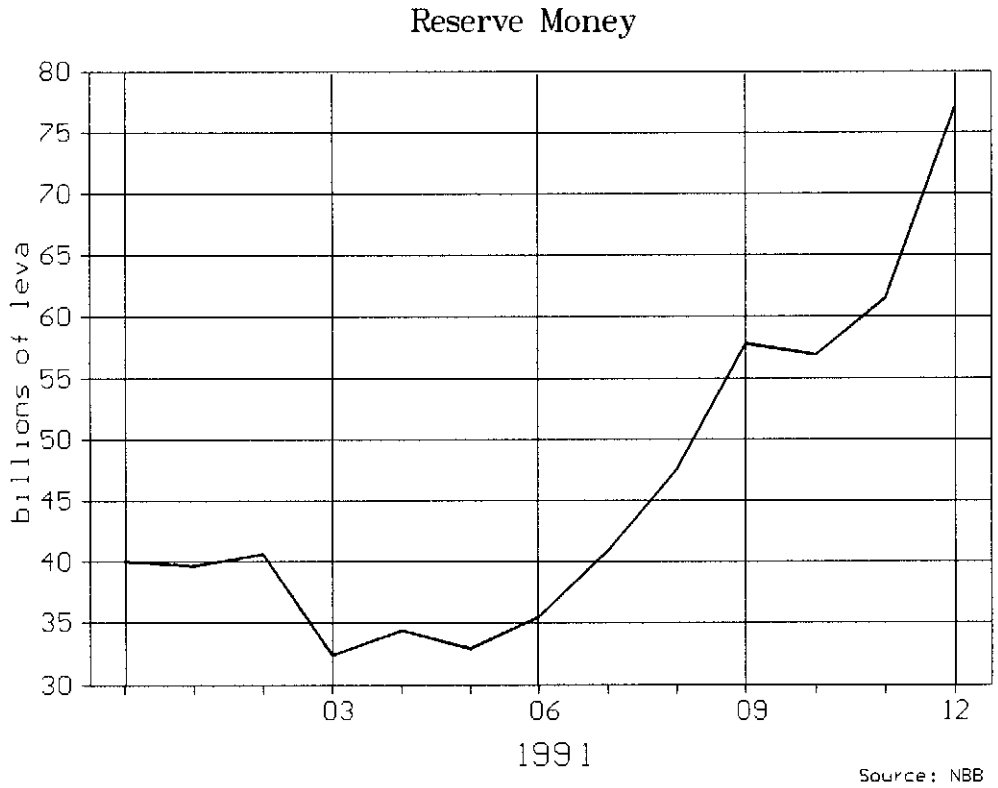
Due mainly to the devaluation of the lev, the dynamics of money supply was characterised by a nominal rise by 13.5% in the broad money and a 109 % growth in money aggregate M2 throughout 1991. After eliminating the influence of the exchange rate their nominal growth reached 25.5% and 27.5% respectively. With regard to the 6-fold rise in prices in 1991 we can say that the considerable decline affecting money supply as measured by M2 amounted to 62 %. Within the structure of M2 the shares of the money in circulation and demand deposits, i.e. M1, rose to 64.6 % from 54.8 % under the impact of the foreign exchange component of demand deposits and is now still failing to meet the requirements of the international standards while the share of quasi-

money,consisting of savings, time deposits and a very small part of foreign currency deposits edged down at 36.%.

Growth Structure of Broad money

Source: NBB, AECD

The dynamics of money supply throughout 1991 reflected the adverse influences of both the money multiplier and money reserves.Inflation anticipations resulted in the reduction of the nominal money balances of the individuals effected by the purchase of real or dollar assets or the transfer of resources in national currrency time deposits which further curtailed the ratio between the money in circualtion and deposits. This can be treated as the reason for the increases in the bank reserves and hence the upward movement of the money multiplier. The money multiplier has been marking a steady swift movement downwards since mid-1991 when credit growth was substantially reduced through the agency of the high nominal interest rates and credit ceilings. As reserve money increased, money supply marked a further growth.



Conclusion

The development of the money market mechanisms in Bulgaria is quite encouraging. This can be said to be one of the economic fields that has benefited most with the advent of the reform processes. The gradual expansion of the instruments of the contemporary monetary policy lays greater emphasis on the control exercised over money supply through more precise and adequate open market operations rather than on the set of direct instruments. Or in other words, the expansion of monetary control is directed towards the implementation of an efficient monetary policy.

At the initial stages of the economic reform (February-May) the monetary policy adopted restrictive and rigid standards and the results were quite promising and remarkable - inflation was checked and dropped drastacally to the desired level, the demand for local currency increased,the initial demand for consumer goods was now replaced by a demand for money. The liquidity accumulated in the national economy was done away with,

which in turn sort of relaxed the impact of inflation. But certain unsteady and inconsistent tendencies at work in the summer months, however weakened the initial powerful effect of the monetary policy and kept the secondary inflation anticipations of the economic agents intact. As the end of the summer brought its quick recovery, the monetary policy soon produced the desired effects.

The "soft" budget constraints applied to firms and the practically uncontrollable and chaotic growth of the real incomes in the fourth quarter of 1991 transformed the interest rate from a prime instrument of regulation into an inflation-generating factor,which in turn forced the Central Bank to exploit the reductions effected in the interest rate for anti-inflationary purposes (by way of reducing money supply through fiscal measures and credit ceilings). As a result of this the inflation countermeasures undertaken now focused on the impact of the budget policy with all the unfavourable social and political consequences possible.

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