

MONETARY POLICY AND ITS IMPACT ON THE PROCESSES OF TRANSITION TO MARKET ECONOMY: BULGARIA'S EXPERIENCE IN THE PERIOD AFTER 1990

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Introduction

The monetary policy carried out in every country is one of the most essential elements of macroeconomic policy. It is a factor that concerns all main macroeconomic processes. It could be oriented towards discretion or it can be based on rigid rules that monetary experts stick to. The choice of monetary policy depends on the historical circumstances in the formation and the function of the financial system of the country as well as the concrete processes that require central bank's interference in one way or another.

Setting of the aims and the choice of monetary instruments for their achievement as well as the laying out of the corresponding rule for functioning of the central bank are complicated, multilateral and extremely delicate processes. They concern the nominal measurements of the most important economic indicators, such as income, gross product and investment and directly influence the level of prices. The central banks of the so-called economies in transition face extremely tough questions in respect of monetary policy. The economic transition in the Bulgarian economy is a complicated, dynamic and controversial process. It encompasses the formation of adequate relations and business entities in the real sector and the financial system, public finances and relations with the rest of the world related to it.

The central bank, being the institution directly tied down with the processes of transition, can transform itself from a factor for growth into a destructive force. The economic theory offers different types of conduct for the central bank and respectively gauging the efficiency of the implemented monetary policy in different situations. The examination of some of them¹ in the conditions of Bulgarian economy reveals unsatisfactory degree of application. But the reasons for the low efficiency of the monetary policy are not only based on the activity or inertness of the BNB but are also the result of its position among the rest of the components of the macroeconomic policy.

Until the beginning of the 90's BNB combined the functions of both central and commercial bank. The bank system of Bulgaria was built up of several sections (till 1987).² BNB acted as a universal bank granting short-term and long-term credits to companies in the business sector and the government. The monetary policy was brought to fulfilling the tasks in the economic plans and programs. It was not a separate element of macroeconomic policy. The issue of money was planned in advance and was accomplished in the fulfillment of the respective five-year plan. One of the prime tasks of BNB was 'control through the lev' of the activity of the socialist enterprise. The existing commercial banks, including the branches of BNB formed a bank system that had low efficiency but it was closely examined and decreed and through which not only economic but also political aims were accomplished. The monetary practice in the rest of the socialist countries was similar. The model of monetary policy was based on the understanding of the secondary importance of circulation and the transitional role of money and lending. This created a certain degree of underestimation of the role of

¹ Monetary targeting, exchange rate targeting or inflation targeting.

² The system includes State Saving Bank (specialised in saving deposits and credits to households), Bulgarian Foreign Trade Bank, BEI "Mineralbank" (financing small and medium size firms).

the central and commercial banks. In the 90ies the consequences of this process hindered the reform of banking and central banking in almost all-former socialist countries.

The State of the Monetary Policy in the Period 1990 - 1992

BNB had the opportunity to conduct in the beginning of the 90ies the type of monetary policy, which reflected the state of the market for loan capital and influenced it. Two separate periods and one preparatory period (1990-92) could be differentiated. The reasons for this classification lie in the specific character of the activity of BNB, the legal environment and the state of the real sector and its changes. The following incidents took place during the preparatory period.

- The processes of forming the legal framework in the limits of which the financial system of the country should function. In 1991 and 1992 the laws of BNB, Banks and Lending were passed respectively. Both laws regulate and specify the processes of setting up the system of the Central Bank, commercial banks, finance houses and exchange bureaus as well as their function. They define the obligations and rights of the participants in the money sector when there are active market structures in the real sector. In this aspect it could be stated that the two laws get ahead of the practice in the country. Besides being a prerequisite for the market changes in the financial system and the real sector, this fast-running character of the normative organization also generates discrepancies in the banking sphere that is still to a very great extent put into gear and managed automatically as it was in the past;
- Starting and specifying the usage of the typical instruments of the monetary policy such as the required minimal reserves, refinancing and the setting of the basic interest rate. Lending ceilings are being applied transitional instrument of money regulation that restricts the activity of the commercial banks mostly in the public sector;
- Preservation of the state ownership in the economy that is protected to a certain extent by its principal – the state, represented by different Ministries and institutions. The structures in the private sector – to the servicing of which the bank laws are oriented – are economically too weak. In this sense they are not a desirable client for the banks except in relations and considerations of non-economic character. The greater part of the commercial banks are state owned, former branches of BNB with close relations with and preferences towards enterprises that have so far been serviced by the bank;
- Liberalization of prices and foreign exchange regulations give the chance for speculative profits, grand and petty larceny; strong redistribution of incomes and the starting of impoverishment of certain layers of the population. A certain degree of chaos is being created in the economic life and it corresponds to the illusory idea for economic prosperity.

The monetary policy of BNB and the use of the instruments for money regulation in the period 1990-1992 can most generally be classified as fluctuating to the extent of being contradictory in their purpose. In the search of the most suitable combination of regulators, which are to restrict, in the first place, the inflationary price growth and to stabilize the national currency, BNB simultaneously refinanced the commercial banks, changed the lending ceilings, and too slightly punished the institutions that generated overliquidity in the economy. In this respect the monetary policy has low efficiency as far as the credit expansion of the commercial banks continues regardless of the restrictive lending ceilings, the imposing of a reserve coefficient over attracted funds and the attempts to slow down the rate of refinancing. This confirms the data in Table 1. The policy is clearly (definitely) discretionary. It is based on interference in the financial system and puts the stress on the so-called 'direct' instruments³ of interference and attempts to tune both the monetary and the real sectors. From the point of view of its content, the monetary policy and its corresponding instruments are transitional. They are combined in order to satisfy the requirements of the large government sector, which is to a great extent moving under its own momentum acquired in the period of planned economy.

³ See Filipov, L. (1992), p. 14. "The Monetary Policy Instruments of BNB", *Bank Review*, No4.

Table 1. Money supply and domestic credit 1990-1992

| Indicators | 1990 | 1991 | 1992 |
|---|-----------------|-----------------|---|
| | Million Levs | Million Levs | XII.1990=100 Million Levs XII.1991=100 |
| 1. Broad money | 49144 | 103209 | 210 |
| 1.1. M1 | 21100 | 26890 | 127.4 |
| - Money outside banks | 7110 | 11866 | 166.9 |
| - Demand deposits | 13990 | 15024 | 107.4 |
| 1.2. Quasy money | 27387 | 72730 | 265.6 |
| - Time deposits | 4221 | 25867 | 612.8 |
| - Savings deposits | 17916 | 15945 | 90 |
| Deposits in foreign currency | 5250 | 30918 | 588.9 |
| 1.3. Import and restricted deposits | 657 | 3589 | 546.3 |
| 2. Domestic credit, total | 67459 | 167271 | 247.9 |
| levs | 57158 | 85160 | 149 |
| convertible currency | 10301 | 82111 | 797.1 |
| 2.1. Claims on Government | 13657 | 52994 | 388 |
| levs | 9821 | 16232 | 165.3 |
| convertible currency | 3836 | 36762 | 958.3 |
| 2.2. Claims on non-financial public enterprises | 46522 | 101291 | 217.7 |
| levs | 40057 | 55942 | 139.6 |
| convertible currency | 6465 | 45349 | 701.4 |
| 2.3. Claims on private sector, lev | 7280 | 12986 | 178.4 |

Source: BNB, Annual Reports 1990-1992.

In the real sector there is a process of reorientation of state-owned companies towards market rules going on and some market segments are poorly developed – labor, securities, there is no market for land etc. The bank environment itself is in a process of construction and because of that it does not help the successful carrying out of the Central bank's monetary policy, but it rather hinders or restricts the all-out application of the market instruments.

Central Banking in the Period 1993 - 1997

The first period of the actual functioning of BNB as a Central bank encompasses the period from 1993 to the middle of 1997.⁴ The policy carried out by the bank cannot very easily be defined since there is a period during which the monetary policy of BNB has well expressed positive effects over the banking system and the real sector – 1993 – the beginning of 1995. But the period 1995 – 1997 is described with considerable discrediting of the monetary policy, which at the end of 1996 turned out to be useless and inappropriate. In broad outlines the described period can be characterized with the following characteristic features in the activity of BNB:

- The bank is forced to stick to the policy conducted by the governments.

⁴ The currency board in Bulgaria was established in July 1997. The Bulgarian lev was fixed at 1000BGL/ DEM.

In this sense the activity of BNB is strongly dependent on the ways of forming and mostly financing of the government budget. The granting of direct credits to the government or supporting the foreign exchange rate of the lev strongly disturbs the money supply and generates serious inflationary waves in the economy. The practice of granting direct credits to the government by the Central bank is a serious threat to the efficiency of the conducted monetary policy. It shatters the stability of the monetary sphere and the equilibrium between the money supply and demand. Especially dramatic for the state of the monetary and the real sector are December 1996 and January – May 1997 when BNB strongly credits the state and thus additionally burdens the inflationary environment in the country and strengthens the inflationary expectations.

Table 2. Direct credits to the government, 1996- September 1997, (million levs)

| Quarters | Total | BNB, % | Commercial banks,% |
|-----------------|-----------|--------|--------------------|
| 1996, total | 567 427 | 97.98 | 2.02 |
| | 106 587 | 95.85 | 4.15 |
| First quarter | | | |
| Second quarter | 93 153 | 95.45 | 4.55 |
| Third quarter | 129 870 | 96.88 | 3.12 |
| Forth quarter | 237 817 | 98.38 | 1.62 |
| End of the year | 139 325.7 | 99.09 | 0.91 |
| 1997 | | | |
| First quarter | 428 356 | 99.14 | 0.86 |
| Second | 346 657 | 98.99 | 0.01 |
| At 31 June 1997 | 1144436.5 | 99.90 | 0.10 |
| Third quarter | 3 288 | 0.00 | 100 |

Source: BNB, Monthly Bulletins 1996-1997;
BNB, Annual Reports 1996-1997.

- It has certain successes in the regulation of the banking system but it does not succeed to protect it from the crises in the sector 1996/97

As a whole the relations in the financial area during this period are not stable. The processes develop in parallel with the transition in real economy from centralized economic system to market economy. In this connection we cannot expect the formation and existence of highly efficient bank sections just like we cannot expect the existence of exceptionally rational and expedient policy of the central bank. The indefiniteness in the real sector is enormous. It often corresponds to chaos in the relations between the business entities. In this way the transmission of positive effects from BNB that can be transmitted through the financial system is restricted.

The reasons for the 1996/1997 crisis and the failure of BNB's monetary policy are contained in the way of development and functioning of the bank environment. The leading role of the state ownership in this sector hinders the market performance of the banks. The simplest example in this respect is the possibility to make the state banks grant credits to not well performing enterprises. Thus the commercial bank enters into a non-market relationship – it cannot exert pressure over the borrower through economic means. The outcome of this situation is the bankruptcy of the bank itself as the further development of the monetary sector shows. On the other hand, the contradictory and inconsistent policy of BNB is one of the most important factors that provoke crisis in the financial sector.

- It makes attempts to modernize the arsenal of means for carrying out the monetary policy

Over this period BNB introduces the operations on the open money market and a special body in the bank is created for their defining and directing. The lending ceilings, which turned out to be an inefficient money regulator is, removed (1994). Attempts are made to substitute inter-bank market of

resources for refinancing and BNB undertakes the functions of an organizer and a participant in the deposit auctions.

The analysis of the monetary policy in the period 1993 – 1997 and the development of banking that is connected to it show contradiction and low efficiency. Because of that the bank system cannot manage to generate enough positive impulses to the real sector by motivating depositors and investors.

If we try to locate evidence of the previous facts, we can conclude the following:

- Instability and inefficiency of the applied monetary instruments as well as of the entire discretionary orientation of the monetary policy. This for its part leads to varying and contradictory dynamics in the basic macroeconomic parameters – nominal gross product, general price level, exchange rate etc.. As a result of this the economic entities become disoriented, the functioning of product and factor market is hindered and as a whole the sources for sustained economic growth shrink;
- The loss of control over money supply. As a result of this effect of the monetary policy carried out by the BNB the so-called galloping inflation is generated. Its negative effects are connected with the redistribution of the financial resources of the society, a tendency towards impoverishment of the broad layers of the population, loss of efficiency in the economy and loss of confidence in the national currency. The increasing inflationary expectations additionally burden the economic environment if it is in the depression stage or in the stage of sluggish revival;
- The dynamics of nominal and real interests. When interests strongly fluctuate this transfers contradictory effects from the monetary to the real sector. With unpredictable dynamics and with negative real values the interest rate losses its resource-distribution function which on its part leads to a decrease in investment activity, decreasing pressure over markets and over the value of the national currency. Prevailing in time of crisis are the negative interest rates (see Fig.1).
- The unsuccessful interference in the foreign exchange markets, which leads to the depreciation of the national currency and the so-called ‘flight’ process from it. The monetary policy provokes contradictions on the foreign exchange markets, which finally lead to their crisis. The economic problems are deepened by the negative combination between bank and foreign currency crisis.

The bank is forced to function under the condition of unstable real sector and a changing political environment. In the country’s economy the dynamics of the main parameters often change. This creates periods of relative stability, which lasts for a short period but as a whole the decreasing trend in the economic growth continues accompanied by negative real interest rate, unstable exchange rate with clearly defined tendency towards the depreciation of the lev, shrinking of the domestic and mostly of the international markets for Bulgarian products (see Table 3).

The political atmosphere in the country is characterized by frequent change of governments which, in genera, don’t have a clear cut concept (a program or a plan to act) regarding the economic development-structural reform, privatization, openness of the national economy, problems concerning debts, fiscal and monetary sphere. This absence of strategic aims in those who govern the economy, quite often combined with lagging behind real needs, leads to ‘catching up’ with problems instead of solving them.

Table 3. GDP growth by selected final expenditure categories, (in %¹)

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--------------------------|-------|-------|-------|-------|-------|--------|
| Total GDP | -7.3 | -1.5 | 1.8 | 2.1 | -10.9 | -6.94 |
| Final consumption | -3.1 | -3.6 | -4.5 | -2.9 | -11.9 | -15.10 |
| Households | 1.0 | -0.7 | -2.6 | -1.8 | -7.5 | -15.67 |
| Government | -18.6 | -15.0 | -16.9 | -13.8 | -29.1 | -14.18 |
| Fixed capital investment | -7.3 | -17.5 | 1.1 | 8.8 | -13.5 | -22.07 |

¹Previous year = 100.

Source: NSI, Main Economic Indicators 1996, pp.26-27; BNB, Annual Report 1997, p. 145.

Figure 1. Real interest rates on one-month deposits and short-term credits, 1995-1997, in %*



Source:BNB, Annual Report 1995, p.145; BNB, Annual Report 1996, pp.155-156; BNB, Annual Report 1995, pp.174-175.

BNB Under the Currency Board

The second period is the time when the country's economy and mostly the financial environment are under the restrictive framework of the Currency Board (since July 1997). Its characteristic feature in relation to the central bank can be summarized as follows:

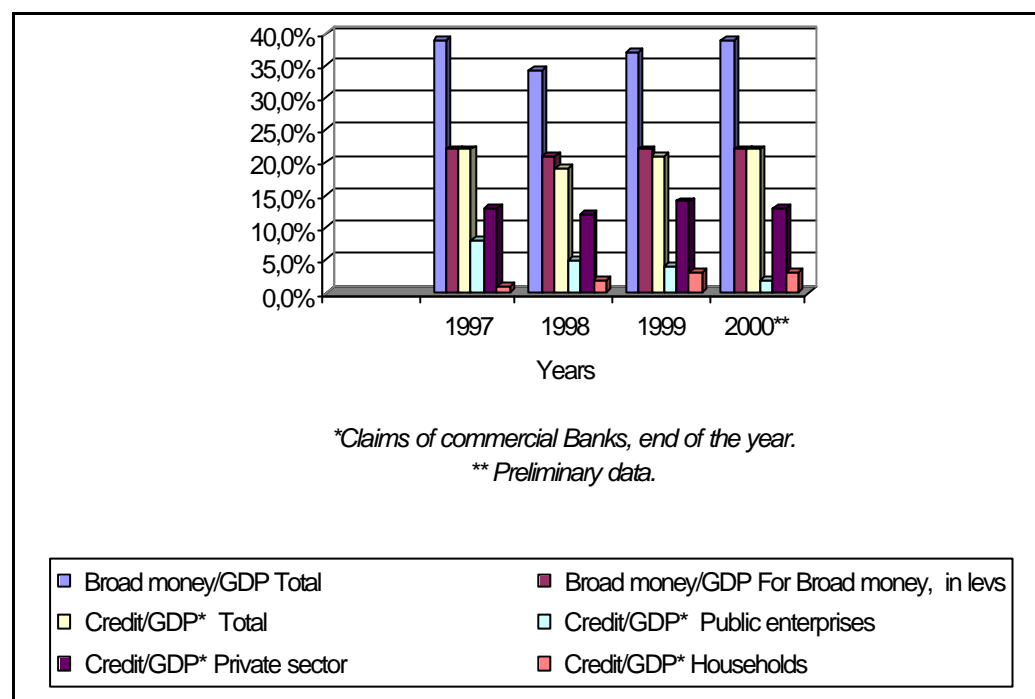
Inability to use the main instruments of the monetary policy –operations on the open market and refinancing. This restricts the financial contacts of BNB with the commercial banks quite a lot but at the same time it gives reasons and real possibility to strengthen the supervisory functions of the bank. In relation to that strengthened supervision BNB gradually starts to substitute the relatively softer behavioral rules of the banks for the tough regulators, the observation of which it closely monitors. This on its part contradicts the maintaining of the fixed exchange rate of the lev – a non-market and strongly institutionalized mechanism to regulate the financial environment;

Absolute stability of the national currency, of its exchange rate, which is firmly fixed and of the money supply. The predictability of these indicators can be forecasted stabilizes the price dynamics in the country and tames the inflationary expectations of the economic entities. This does not give rise to claims on the part of the commercial banks towards the additional money issue and the usage of the available free funds is gradually streamlined. Inflation⁵ drops from 578% at the end of 1997 to 0.9% in 1998 and 6.2% in 1999. There is a certain price increase in the year 2000 when their index goes up to 13.8%. As a result of the introduction of the Currency Board in the monetary sector a well defined

⁵ Calculated by CPI index (based on average consumer level in previous year).

tendency towards remonetization⁶ is observed which is at the same time ‘the most concise test for its (of the currency board) success.’⁷ This is proved by the data in Fig. 2.

Figure 2. Monetisation of Bulgarian economy, 1997-2000, in %



Source: BNB, Annual Report 1997, pp.145-173; BNB, Annual Report 1998, pp.121-1513; BNB, Annual Report 1999, pp. 125-158; BNB, Monthly Bulletin, N12,2000, pp.24-31.

The lack of close relations with the government finances part of its budget needs though foreign debts, mainly from the IMF, something, which is done, monitored and controlled by the BNB. The tightening of the budget discipline favors the functioning of the central bank and as long as the currency board functions it is not forced to give up the rules and regulations that it has introduced. Applying Cucierman's et al. methodology⁸ when evaluating the central bank's independence shows a change in the index of independence from 0.224 for the period 1990 - 1997, to 0.849 in the period 1997 - 2000 with its maximum value of 1.00; On the one hand this has a positive influence over BNB because it is not forced by the commercial banks to become their lender of last resort,⁹ but indirectly generates negative prerequisites concerning the expected results from the operation of the currency board especially after its repeal. The badly performing real sector could, in the long run, make pointless the efforts and sacrifices that the currency boards impose in the monetary sphere. Thus the discipline, introduced in the lending sphere and among borrowers becomes an isolated phenomenon, which does not give ground for economic optimism.

⁶ Remonetization is the process of restructuring of credibility in national currency. The BGL started to perform normally its basic function.

⁷ See Avramov, R., (1999), p.12. The Role of a Currency Board in Financial Crises: The Case of Bulgaria, *Bulgarian National Bank Discussion Papers*, DP/6/1999, p.12.

⁸ See Cucierman, Webb, and Neyapti, (1992). Measuring the Independence of Central Banks and Its Effect on Policy Outcomes, in *The World Bank Economic Review*, Vol.6, No.3.

⁹ The possibility arises from the deposit of Bank Department in BNB in Issue Department. If there it systematic risk, BNB can support the banks. See *Law on BNB, 1997, Article 20, (2)*.

Table 4. New credits from commercial banks, 1999-2000, (million levs)*

| | Short-term credits | | Long-term credits | |
|----------|--------------------|------------|-------------------|------------|
| | Enterprises | Households | Enterprises | Households |
| 1999 | | | | |
| -in levs | 1058.0 | 13.1 | 159.1 | 245.0 |
| -in USD | 390.7 | - | 124.3 | - |
| -In euro | 828.4 | - | 84.4 | - |
| 2000 | | | | |
| -in levs | 1036.8 | 22.6 | 304.0 | 322.1 |
| -in USD | 247.6 | 4.5 | 145.2 | 0.3 |
| -in euro | 344.6 | 0.13 | 180.2 | 7.8 |

* Average monthly level

Source: BNB, Monthly Bulletin, N12, 2000, pp. 23-34

The achieved financial stability (without active monetary policy) is a prerequisite for the future normal functioning of the monetary sector. It is of especially great importance regarding Bulgaria's joining of the European structures. But as a process it has to be combined with certain activity in the real sector, which on its part should generate positive effects to all the other spheres of the economic life. This would give some of the familiar transmission mechanisms the chance to act.

Characteristic Features of Some of the Mechanisms of Transmitting of Effects from the Monetary to the Real Sector in Bulgaria

Mechanism based on interest rate

When analyzing the monetary policy and the state of the bank environment in the period under observation, it is most suitable to consider the activity of the classical Keynesian transmission mechanism based on the interest rate. In the case of this transmission mechanism, an important place in the analysis is given to the correct definition of the so-called central bank's reaction function.¹⁰ This function is showing how one should try to change the short-term interest rates in response to different factors that form the respective changes in real GDP and the price level. In the period 1990 - 1997 there were frequent, confusing and even dramatic changes of the basic interest rate. It quite disorganized the commercial banks and the financial markets. In this sense BNB hindered the successful accomplishment of the central bank's reaction function that by changing the basic interest rate influenced the short-term interest rates, the inflationary background and finally the correlation between the potential and real GDP over the period.

In September 1996 BNB set 25% simple monthly interest rate. In January 1997 the annual effective rate of the basic interest rate was 443.5% and in February it was 525%.¹¹ So in the Bulgarian economy the well-known "Effect of Wright Patman" in the monetary policy performs. It was named after the American congressman who said that the fight with inflation based on increasing interest rates is like trying to put out fire by using petrol.¹²

¹⁰ John Taylor (Professor of Economics and Director of the Centre for Economic Policy Research, Stanford University, Stanford, California, USA) emphasises that the interest rate channel of monetary transmission is a key component of how monetary policy effects are transmitted to the real sector. He introduces the central bank's reaction function and proposes a simple interest rate rule in which the federal funds rate reacts to two variables: the deviation of inflation from a target rate; and the percentage deviation for real GDP from potential GDP, with reaction coefficient being one-half for each variable. In Taylor, John (1995), pp.11-26 John Taylor The Monetary Transmission Mechanism: An Empirical Framework in *Journal of Economic Perspectives*, Vol.9, No.4, Fall, pp.11-26.

¹¹ BNB. Annual Report 1997, p.176.

¹² U.S.Congress. Joint Economic Committee, Report on the January 1970 Economic Report of the President. Wash, GPO, 1970, pp.55-56.

After the introduction of the Currency board BNB announces the basic interest rate, sets the methodology to calculate it, but the interest rate does not reflect essential credit relations in the bank sphere. The determination of the basic interest rate itself is based on the market principle – it depends on the demand and supply of 90 days Treasury bills. As to the commercial banks the basic interest rate has an informative function. The stability and predictability of the dynamic character of the basic interest rate presupposes a process of relative stabilization of short-term interests. Characteristic about Bulgaria in the activity of this segment of the transmission mechanism is that the central bank under a currency board is not directly related to the change of the market interests as is the case of institutions that have complete freedom. The rules of the board don't allow BNB to offer money stock deviating from the currency reserve. So it is rather extraneous factors that would change the interest levels in the country than its central bank. Or, there are no significant indicators that give us ground to think that the central bank's reaction function towards factors of internal nature, which impose changes of the short-term interests, performs.

Mechanism based on exchange rate

The capacity of the exchange rates to act as a transmission mechanism towards the real sector are due to the high degree of openness of most of the modern economic systems. The currency market is one of the main exhibits of the predominant tendencies in Bulgarian economy. The general evaluation of the currency market for the period 1990 - 1997 shows that it is mainly unstable and problematic. To a very great extent it plays the role of a spontaneous regulator of the money flows in the economy. In the period 1990 - 1997 the currency market is the institution that helps the business entities to protect themselves against the depreciation of the national currency and their inflationary expectations are based on it. With this function it contributes to the generation or deepening of the inflationary tendencies that are already performing.

In Bulgaria the characteristic feature of the transmission mechanism based on the exchange rate is connected with the bank and currency crisis in 1996 –1997. The instability of the currency markets combined with and 'nourished' by the instability in the banking system in Bulgaria leads to the performance of the "Twin-Crises" phenomenon,¹³ the most typical example of which is the crises in Asia in 1997. The characteristic prerequisites that are inevitably present in most observations of emerging market economies where the "Twin-Crises" phenomenon acts are: first, explicit or implicit help for the commercial banks from the government and, second, availability of significant short-term deposits in dollars or other currencies from outside depositors. And as long as the first prerequisite is available in Bulgaria, the characteristic feature of the national currency markets lies in the absence of serious interest expressed by foreign investors except for the time between the end of 1996 to the beginning of 1997. As a whole the exchange rate of the lev towards the dollar is formed on the domestic currency market and the speculative attacks against it have domestic origin.

Despite the attempts of BNB to stabilize the exchange rate it is not a stable and positive element of the transmission mechanism between the monetary and the real sector. On the contrary, the unstable exchange rate against the dollar helps to generate negative effects in the economy and it also provokes and maintains the instability of the financial and the real sector. There are a few clearly defined periods during which the dollar deposits become much more attractive than the lev ones and in most cases there is a serious leakage of capital from the country. (January, February, October 1993, March 1994, August, October 1994, July 1995 and April 1996) Since the crisis on the foreign exchange markets in March 1994, the tendency in the currency substitution is increasing. There is a constant decreasing confidence in the lev and a loss of part of its basic economic functions.

The application of the currency board rule turns the exchange rate into a nominal anchor in the economy, which brings about essential modifications in the performance of the currency transmission

¹³ See Moskow, (2000) H., Disruption in Global Financial Markets: The Role of Public Policy, Paper, presented at The DePaul University Global Finance Conference, Chicago, April 21, 2000.

mechanism. With fixed exchange rate combined with strict discipline in the money supply it is not the fluctuations in the exchange rate that change the flows of export and import and the capital movement but it is its loyalty towards the reserve /anchor currency that contributes to the following issues.¹⁴

- The stabilization of the growth rate of prices and of tradable (from the point of view of foreign relations) and of non-tradable goods.
It is not only with its stability that the exchange rate contributes to this, but also with the simplicity and clarity of the existence of the regime.
- When applying the fixed exchange rate regime the time-inconsistency problem in the monetary policy is overcome. Both in the short run and in the long run macroeconomics, politicians, who do not have the opportunities of the monetary discretions, stick to the monetary restriction and the accomplishment of similar objectives and they cannot exchange a short-term growth for a slump or other failures in the long run.

If it is accepted that under a currency board there is a minimum transfer of effects from the monetary to the real sector then this is based on one strict rule – the fixed exchange rate. The monetary policy of targeting the exchange rate under a currency board eliminates the role of the initial change of the interest rates that is the result of the changed money supply/stock. The impulses towards the exchange rate of the lev against the dollar have external origin. In this sense, the national economy depends on the international dollar markets and on the markets of those resources. Finally, the price of goods is calculated in dollars and are imported and ported from it.

Mechanism based on the prices of other assets

Broadly speaking, some effects are generated by the prices of other alternative assets for profitable investment of funds, which differ from the traditional Keynesian understanding and preference for the interest rates. These effects belong to the transmission mechanism based on the prices of the financial investments. The specifying of this type of transmission mechanism concerns two basic channels. The first is based on Tobin's q theory about the dynamics in the movement of the q indicator in the motifs for investments made by companies and the second is connected with the possible effect that the accumulated wealth in households influences consumption, incomes and employment in the economy.

The influence of monetary policy in the first of the above-mentioned two channels goes through the change in the value of company securities. It is difficult to follow and analyze in the Bulgarian economy the functioning of this channel of monetary transmission. The calculation and the forecasting of an indicator similar to q and the analysis of its activity being a part of the transmission mechanism between the monetary and real sector of the economy would be burdened with a high degree of conventionality. The reasons for that lie in:

- The business entities in the real sector give low level of importance to the market of company securities. Capital markets are not the main source of funding company projects. As a result they cannot be used as a measurement of the market value of well-performing companies.
- In the private sector of the economy, the small and medium firms have not got opportunities for a broad access to the stock exchange. In the period after 1990 even under the currency board a restricted number of company shares are listed on the stock exchange. The turnover of the Bulgarian Stock Exchange for the year 1998 was 214.1 million levs and in 1999 – 133.8 million levs. The shares of “Neftochim”, “Solvey-Sody” and “Bulgartabak Holding” are the most liquid.
- In the public sector the main source of funds for most of the working enterprises besides their own resources are the bank credits. The level of inter-company indebtedness is high. For example, over the period 1996 – 1998 the level and the structure of the short-term company indebtedness is as follows:

¹⁴ See Mishkin (1998). International Experiences with Different Monetary Policy Regimes, Presented at the Conference on Monetary Policy Rules, Stockholm, 12-13 June 1998.

Table 5. Short-term inter-company debt in public sector

| | 1996 | | 1997 | | 1998 | |
|----------------------------|---------|-----|---------|-----|---------|-----|
| | bn levs | % | bn levs | % | bn levs | % |
| Total short-term liability | 1191 | 100 | 4371 | 100 | 4858 | 100 |
| -to contractors | 530 | 44 | 1527 | 35 | 1528 | 31 |
| -to staff | 50 | 4 | 180 | 4 | 194 | 4 |
| -to budget | 219 | 18 | 920 | 21 | 1048 | 22 |
| -to social insurance | 43 | 4 | 121 | 3 | 218 | 5 |
| -others | 369 | 30 | 1623 | 37 | 1870 | 38 |

Source: P. Tzekova, Interfirm Indebtedness and its Impact on Deposit Base, in "Banks Investment Markets, N 2, 1999, p.38.

The transition towards market economy in Bulgaria created many deviations and distortions from the typical characteristics in the behavior of households. "Before the start of the economic transition, Bulgaria could boast with a standard of living which was higher than the average standard in the countries in the Eastern Block. This meant guaranteed employment and subsidized prices of the basic consumer goods. "A great part of the Bulgarian population paid the price of transition."¹⁵ Since the beginning of the 90ies the level of poverty and economic difficulties that households undergo is constantly increasing. The increasing unemployment is combined unfavorably with a significant drop in real income. The restrictions on the performance of the channel of wealth are derived from:

- The big share of natural consumption in the total spending of households, which is due to the absence of sufficient means for the purchase of essential goods. The average degree of self-sufficiency of Bulgarian households for the period 1990 - 1998 was 12.59% and in 1997 it reached 17.6% of the total spending.
- The great share of spending for food during the period 1992 - 1998 that comprises about 46.77% of all other spending. Under these conditions the average Bulgarian household that typically complements its consumption with natural economy products would not tend to switch from the monetary policy of the central bank and to keep its funds in shares, debt instruments or real assets.
- Funds are concerned as the main form of keeping wealth deposits in lev and dollars in Bulgarian banks. A very strong factor influencing directly the decisions and ways of disposing with wealth in Bulgarian households is the high inflation and the decrease of real incomes. This combined with the instability of the banking system (till 1997) and the real danger from losing money, forces part of the households to accumulate funds outside the banking system. The correlation of savings to the total income of one member of a household for the period 1990 - 1998 was 5.27% on average.

The data we have about the household budgets provide us with a serious enough ground for drawing the following conclusion. During the observed period (1990 - 2000), the channel for transferring effects from the monetary policy through the wealth of the Bulgarian households was too restricted in its activity in households that fall according to its incomes in the group of the wealthiest 20% of the population.

The asset framework

Describing the transfer of effects to the real sector, there are at least three alternative assets – money, securities and real capital that motivate the economic entities that undertake some activities.¹⁶ When there are too strong inflationary expectations and strong mistrust towards national currency, the business entities are inclined to use foreign currency even for the purpose of transactions. A similar situation was observed, although partially, in 1996 – 1997 till the introduction of the currency board,

¹⁵ In OECD Economic Surveys 1996-1997, Bulgaria, p.34

¹⁶ See Meltzer, (1995). Monetary, Credit and (Other) Transmission Processes: A Monetarist Perspective, in *Journal of Economic Perspectives*, Vol. 9, No.4, Fall, pp. 49-72.

which stopped the action of this channel of money transmission and made the restrictive policy of the central bank pointless.

Securities are also seen as a nominal denominated part of the aggregate asset, which brings return in the form of interest. The above made analysis of the wealth as a channel of money transmission shows that for the prevailing part of Bulgarian households that receive mainly labor income, the prospects to activate participation in the market of securities are still insignificant. The conclusion is also true about the situation under a currency board. More active on the stock exchange are part of the companies that show interest in financial deals or trying to raise additional capital.

The real capital – production or durable consumer goods brings also real return for households. The three groups of assets are substitutes from the point of view of the individual investor but they are not perfect towards one another. Changes in their prices and profitability also influence the equilibrium market interests and also the price level in the economy.

It can be considered that the process of transmission of effects starts from the market of financial assets because the expenditures for information and transactions are lower than the price of change in production, of asset adopting or consumer expenditures. The purchase of securities by the central bank increases the monetary base and decreases the debt instruments held by the commercial banks or the rest of the economic environment. The increased cash balances in the economic audience enlarge the purchase of securities and real capital, which leads to an increase of their prices and the market interests go down. The investors' portfolio is also restructured.

In fact, until 1996 the stock markets in Bulgaria develop too spontaneously. The reason for that lies in the absence of clear regulatory rules set by laws. Markets emerge spontaneously, even indiscriminately to a certain extent, they exist for a short period and then disappear. In the second half of 1993 these deals were in an upward trend and after that the market came to a standstill (1994) and was gradually caught in the grip of a crisis. In the middle of 1996 the stock markets in Bulgaria almost stopped functioning. As a whole the market of corporate securities was still underdeveloped and burdened with the defects of the entire economy of the country. It was the government securities that occupied the most significant part of the financial markets under the currency board. This reorientation of funds towards the state hindered the real sector.

Credit channel

The credit channel¹⁷ is yet another mechanism that belongs to the possible ones through which the monetary policy is carried out. The mechanism is not completely independent as long as it is an alternative and a supplement to the transmission mechanism through the interest rate and exchange rate but it is important enough to be analyzed in detail. Its performance is made possible through two mutually connected effects, bank-lending channel and of the balance sheet channel. The lending channel functions are especially successful when loans and bonds are a perfect substitute in the company and bank's balance sheets. The functioning of the lending channel concerns both sides of the bank balance. The monetary policy of the central bank based on the changes in the money stock ultimately concerns their liabilities while the operation of the lending changes bank assets. The so-called 'broad lending channel' exists where the free money resources are offered not only by the commercial banks but also by all other financial intermediaries. This is not typical for the Bulgarian economy while the other financial intermediaries – insurance and investment companies- are not

¹⁷ See Bernanke,(1993), Credit in the Macroeconomy in *Quarterly Review, Federal Reserve Bank of New York*, Spring 1993, 18, pp.50-70; Bernanke, Ben and Mark Gertler (1995), Inside the Black Box: The Credit Channel of Monetary Policy Transmission, A Monetarist Perspective", in *Journal of Economic Perspectives*, Volume 9, Number 4-Fall, p.27-48.

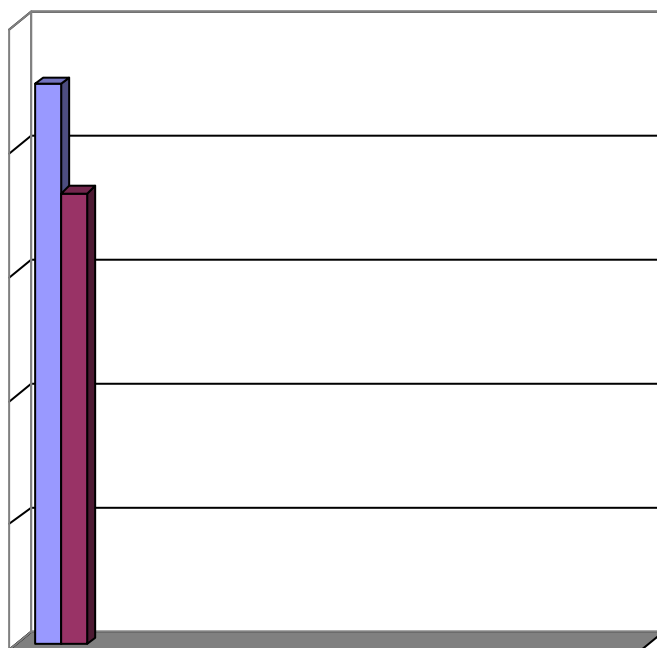
willing to enter into credit relations with end-users of funds. This is true for the whole period under observation – after 1990.

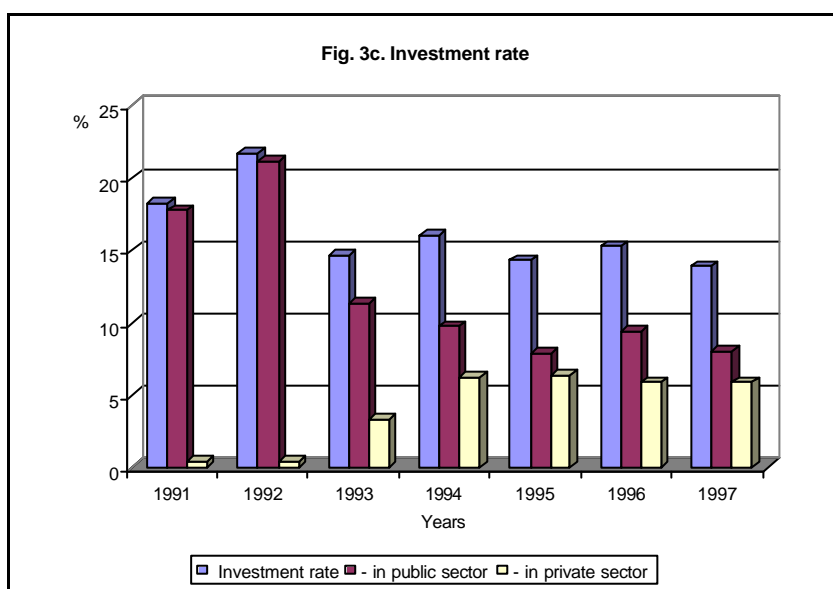
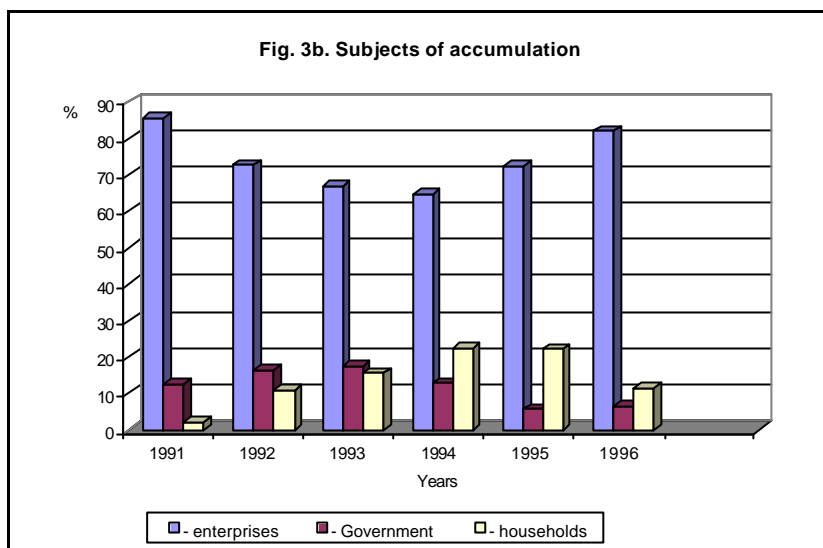
For the period 1990 - 1997 the lending channel of the monetary transmission act under the influence of two other factors. The first one is connected with the state of the real economy, which is definitely quite unstable. This, on its part, creates a stable tendency that credits for the private sector should be short-term, with high nominal interest rates and burdening requirements for additional guarantees which could reach up to 100% of the principal. The second group of factors reflects the participation of institutional investors on the lending markets. The government's activity in mobilizing the credit resource created potential and real danger from 'the effect of crowding out'. The participation of foreign capital as a source of lending of the economy remains insignificant.

A proof for the inefficient credit policy of the commercial banks and as a result the activity of the central bank is the parameters of accumulation and investment in the economy for the period 1991 - 1997. The rate of accumulation and investment is summarized in fig. 3 and it is taken into account that the internal accumulation is the main source for investments in the country.

Even if they are not the basic source of funding investments, the bank credits are definitely one of the factors that have brought about the shrinking of the rate of investment both by high real interests and by numerous requirements for guarantees.

Figure 3. Rates of accumulation and investment in Bulgaria, 1991–1997, in %





Source: Economic Outlook of Bulgaria by 2001 and beyond by 2010, "Fr.Ebert Stiftung", Sofia, June 1999, pp.130-131.

The function of the lending channel of the money transmission under the currency board still meets difficulties. The reasons can be found in different directions:

- The central bank is not independent when conducted monetary policy. There is certain fiscal domination in setting the basic interest rate, which modifies the credit channel. BNB complies with the rules of the currency board, but does not use the traditional instruments for influencing the money aggregates and in this respect it does not send impulses to the real sector that could change the conduct of the creditor-banks and the debtors;
- There is an apparent mismatch and asymmetry between the basic interest rate, the interest rate on the inter-bank market and the deposits in the commercial banks on the one side and in granting credits on the other. The significant margin (over 10%) in the price of the bank assets and liabilities strongly hinders the operation of the lending channel making credit unattractive and unrepresentative as a funding source especially of long-term investment projects. The lending relations are now determined by non-economic or non-market considerations;
- The state and behavior of the commercial banks – main financial intermediaries between the financial sphere, the depositors and the potential and actual consumers of credit resources.

- Extending of lending relations outside the bank system – the above mentioned inter-company lending just like the participation of leasing, bonded and other institutions on the credit markets. In some pessimistic evaluations commercial banks in general crediting of the economy occupy between 14 - 10% which means that we observe a certain tendency towards ‘crowding out of banks’ that are not capable to control a significant part of the money flows;
- Continuous ‘investment vacuum’. The reasons associated mainly with the behavior of the companies in the real sector, the inflationary dynamics and the problems with revalorization of fixed assets. The currency board being a rule for behavior in the monetary sphere only creates the prerequisites for operating of the lending channel that is of so great importance for the economy. The first years during its operation are exemplary for this. And as it was mentioned a few times the currency board is the necessary but not sufficient condition for economic growth. The change in the monetary sphere will necessitate the activity of the lending channel and the above mentioned ones of monetary transmission. The efficiency of their operation depends on the activation of domestic business, the development of money and capital markets, the improvement of the country’s positions on the international markets and the gradual overcoming of the disequilibrium in the fiscal sphere and the balance of payments.

Conclusion

The analyses made in this paper covers a 10-year period after the establishment and development of the market economy in Bulgaria and in particular the basic parameters and results from the conducted monetary policy. When analyzing the functioning and the development of BNB, the pursued objectives and its instruments, the general features of central banking have been taken into consideration as well as their performance in correlation with the concrete state of the real sector in Bulgaria, the legal framework that legalizes the existence and the activity of the institution just like the traditions and the national specific of banking.

The monetary policy carried out in Bulgaria in the period of transition to market economy from 1990 to the middle of 1997 is contradictory and of low efficiency. It is characterized by the stating of certain aims and achievements of the opposite results. This decreases the confidence of the economic environment in the efforts of macroeconomic politicians’ to achieve that particular aim and also hinders the functioning of the financial system. On the other hand the very development of the banking environment is contradictory and strongly asymmetrical. This distorts the transfer of positive effects from the monetary sector (the monetary policy in particular) to the functioning economic sections. Another very serious reason for the failures of the monetary policy carried out by the BNB in the first years of the transition period is the absence of rational interdependence, internal harmony and mutual complementation with the rest of the building parts of macroeconomic policy – fiscal, social and international business.

Under the currency board the monetary policy of BNB has been significantly modified from the viewpoint of the application of the simple strict rule of the fixed exchange rate and 100% backing of the money base. There is a high degree of automation in the functioning and maintaining of the equilibrium in the monetary sector and these changes the regulatory functions of BNB. Changes taking place in the transmission mechanisms connect the monetary to the real sector. The basic interest rate no longer functions as lever transferring effects to the investment activity in the economy. The central bank’s reaction function also disappears. The based on the exchange rate mechanism also does not act. With quite a number of modifications the lending channel of money transmission performs as well as those based on the price of different financial assets including the transmission mechanism analyzed by the monetarists.

The adherence to the rule for fixed exchange rate, disciplining, modernization and privatization of the bank sector as well as the gradual approach to the European model of financial environment is a condition assisting the Bulgarian future adaptation to the structures of the European Union. In this

respect the currency board in a medium-term perspective would facilitate the processes of joining with the achievement and maintenance of the financial and of the price stability.

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