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THE 1996-1997 FINANCIAL CRISIS IN BULGARIA

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Introduction

Since the beginning of the 1990s Bulgaria has experienced several episodes of banking sector crises in: 1991-1994, 1995 and 1996-1997 (Table1.). We focus on the deepest and most complex one, which took place in 1996-1997 and affected about one third of the banking sector. The 1996-1997 banking sector crisis coincided with a currency crisis, which reinforced the banking sector crisis. Macroeconomic vulnerabilities combined with delayed structural reforms in the banking and enterprise sectors and contributed to the development of a dual banking and currency crisis.

The main objective of the paper is to identify the initial conditions and vulnerabilities that led to the 1996-1997 crisis, as well as to outline the key developments and characteristics of the dual banking and currency crisis. In addition, it analyzes the crisis resolution policies implemented by the authorities.

The first section focuses on the structural and macroeconomic weaknesses that brought about the dual crisis. The second section addresses the crisis period with a special emphasis placed on the second wave of the crisis that took place in the second half of 1996. The section addresses the main developments and characteristics of the banking and currency crisis, as well as the authorities' policy response. The third section explains the specifics of the monetary policy conducted during the critical second wave of the crisis, and the last section covers the authorities' major restructuring effort that took place in the second half of 1997 with the currency board introduction.

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Table 1. Bulgaria: Episodes of Banking Sector Crises in the 1990s

Period	*Magnitude of the Banking Crisis*	*Crisis Features*
1991-1994	Former state-owned banks inherited from centrally planned economy non-performing loans amounting to more than 50 percent of total loans. In 1993-1994 banks' inherited bad loans were replaced with ZUNK bonds.	Banks faced solvency problems.
1995	Two state-owned banks faced liquidity problems.	Liquidity problems emerged.
1996 -- H1-1997	The crisis affected about one third of the banking sector - both state-owned and private banks, and was characterized by several sub-periods: • In **spring 1996** the BNB Board placed five banks into conservatorship. • In **September 1996** the BNB Board placed another nine banks into conservatorship. • In **April 1997** the BNB Board placed one more bank into conservatorship.	Widespread banking crisis combined with a severe currency crisis. Solvency and liquidity problems persisted.

1. Initial Structural and Macroeconomic Conditions

A review of the initial financial sector and macroeconomic vulnerabilities allows the identification of the risks, some of which developed into major causes and driving forces behind the banking and currency crisis. We view vulnerabilities as risk factors that increase the economy sensitivity to shocks. Some of these factors coincided and mutually reinforced each other, while others grew in strength independently and caused severe disturbances that finally resulted in a banking sector and currency crisis.

1.1. Banking Sector Vulnerabilities

At the beginning of Bulgaria's transition a two-tier banking system emerged, consisting of a central bank and numerous highly concentrated and relatively specialized commercial banks. A Bank Consolidation Company (BCC) was set up in 1992, which served as a holding company for the shares of the state-owned banks. It was expected to merge the existing state-owned banks and prepare them for privatization. By 1996 the mergers of state-owned banks reduced their number to ten, including the State Savings Bank (SSB). The number of private banks exceeded 30, while the number of foreign banks and branches was only five. The state-owned banks held about 2/3 of the banking sector assets. The sector was highly concentrated, as the five largest banks held 60% of total assets. Most state-owned banks remained sectorally and regionally oriented.

Some of the major banking sector vulnerabilities stemmed from the loose licensing and exit standards and procedures. In the early 1990s many small private banks began to emerge thanks to the liberal licensing rules. Banks were licensed with less than the required minimum capital and were allowed to pay out dividends of 50 percent and above even before having paid in the required minimum capital.

Banks inherited non-performing loans from the centrally planned economy. Some of the loans extended to state-owned enterprises (SOEs) were transformed into public debt in 1991. All remaining loans, extended to SOEs prior to December 30, 1990 and in arrears of more than 180 days, were replaced with government securities – ZUNK bonds in 1993 and 1994.[1] ZUNK bonds restored banks' solvency only in a technical sense but could not improve their actual viability. Due to delayed reforms, poor management and lack of financial discipline, the newly extended loans in the first half of the 1990s soon turned into non-performing, and became one of the main causes for the banking sector crisis. Banks' management was closely connected with its shareholders and borrowers-mainly private companies. This contributed to the growth of non-performing loans not only in state-owned banks but also in the newly established private banks.

The existing legislation was underdeveloped in terms of undertaking actions against insolvent banks. The Bulgarian National Bank (BNB) powers were quite limited, as it could not close failed banks. The Law on Banks and Credit Activity (LBCA) did not provide any legal basis for the BNB to place banks into conservatorship. Banks were explicitly excluded from the 1994 Insolvency Law, as it was believed that the owner of state-owned banks would be able to close an insolvent bank, while the withdrawal of the license by the BNB would be quite sufficient in order to open a liquidation procedure for private banks.

Weak banking supervision and non-compliance with prudential regulations was a major problem. The BNB had limited supervisory power over private and state-owned banks that fell under the authority of the BCC. Some of the BNB Banking Supervision Department (BSD) shortcomings stemmed from the limited authority the LBCA and the BNB Law (BNBL) gave the BSD to implement the BNB prudential regulations. Deficiencies were observed in bank disclosure, monitoring of large loan exposure, capital adequacy, etc. The BSD could not develop and implement procedures for a rapid and predictable response to violations of prudential regulations as a result of which some prudential regulations were systematically violated. One example is the violation of BNB provisioning standards. Between 1994 and 1995 the ratio of the average actual provisioning relative to the required provisioning fell from 12.5 percent to 10.7 percent.

The BNB classified non-performing loans in three categories: Doubtful A, Doubtful B and Unrecoverable.[2] Based on them, the BNB provisioning standards required provisioning only for arrears in principal, not interest. In most cases provisions were made only to the extent that banks made profits. Provisioning expenses, which would result in net losses, were not permitted.

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[1] Claims on SOEs were transferred to the Ministry of Finance and restructured. Two types of bonds, called ZUNK bonds after the name of the Law on the Settlement of Non-Performing Loans, were issued. Lev-denominated loans were replaced by 25 –year lev-denominated ZUNK bonds, and foreign currency-denominated loans were replaced by 25-year dollar-denominated ZUNK bonds.

[2] Category Doubtful A included lev and foreign currency loans with 30-day arrears. These loans were expected to be provisioned at a rate of 20 percent. Category Doubtful B included lev and foreign currency loans with 60-day arrears. They had to be provisioned at 50 percent. Category Unrecoverable loans included loans in lev and foreign currency with arrears of 90 days.

Table 2. Losses and Liabilities of State-Owned Enterprises (in percent of GDP)

	1994	1995	1996	1997	H1-1998
Total losses	-7.4	-5.6	-7.1	-2.9	-3.8
Total liabilities	76.2	60.8	94.6	37.1	32.7
Bank credit*	39.2	23.6	35.4	13.8	12.5
Bank credit arrears in % of bank credit	12.9	19.3	20.2	18.0	12.0

Source: NSI, MOF IMF estimates
These data are bank claims on enterprises collected by the MOF

Enterprise restructuring was crucial for Bulgaria but had been delayed for years. The period before the 1996-1997 crisis was characterized by lack of political commitment to reform the enterprise sector.

Poor governance and soft budget constraints remained a serious problem of the SOE sector, and resulted in weak financial performance. Key obstacles to improving financial discipline included inadequate exit policy and shortcomings in accounting practices. The SOE managers relied heavily on bank credit to keep them open. Weak financial discipline in both enterprises and banks resulted in an increase in enterprise arrears on bank credit. (Table 2.) The share of bank credit arrears increased from about 13 percent in end-1994 to 19 percent in end-1995, indicating that weak financial discipline in both SOEs and banks deteriorated in the eve of the crisis. The BNB had been refinancing banks to keep them going.

Table 3. Bulgaria: Bank Portfolios as of December 1995 (BGL million)

	Performing Loans	Doubtful (A) Loans	Doubtful (B) Loans	Unrecoverable Loans	Loans Total	Total Assets	Doubtful B+ Unrecove-rable	Doubtful A+ B+Unrecove-rable
State banks	59 165	202 358	7 622	47 592	316 740	661 584	55 214	257 572
Private banks	60 688	47 781	13 014	24 317	145 800	249 124	37 331	85 112
Total	119 853	250 139	20 636	71 909	462 540	910 708	92 545	342 684

Source: BNB

At the end of 1995 the tension and vulnerabilities in the banking sector intensified, resulting from the accumulation of longstanding structural factors, related to the absence of hard budget constraints in SOEs, poor bank management and lack of enforcement of supervisory standards. At the end of 1995 the unrecoverable and non-performing loans in banks increased. The Bulgarian banking sector had BGL 71 909 million unrecoverable loans or close to16 percent of the banking sector loan portfolio and about 8 percent of banks' total assets (Table 3). 66 percent of the unrecoverable loans belonged to state owned banks whose share in the assets of the banking system was about 73 percent. The remaining 34 percent of the unrecoverable loans belonged to the private banks (Table 3.). The non-performing loans (Doubtful A and B together with category Unrecoverable loans) amounted to about 70 percent of total loans (more than 30 percent of total assets). Behind these discouraging figures on non-performing loans that signaled serious

weaknesses in the banking sector, there were significant differences in individual banks, as the two largest state-owned banks were sound.[3]

The banking sector financial weaknesses were the basis on which the banking crisis unfolded. Despite repeated re-capitalization of some banks by the government, the financial condition of the banking system could not improve because the underlying weaknesses had not been addressed and banks continued to lend without paying sufficient attention to borrowers' indebtedness and creditworthiness. The growth of non-performing loans began seriously affecting banks' financial position and net worth. Banks' "losses", identified in 1995 according to Bulgarian accounting standards[4] totaled about BGL 25 billion. In compliance with these standards, the losses were subtracted from capital. Estimates about banks' net worth were quite different when using Bulgarian and International standards. Estimates based on international standards, showed that at the end of July 1996, many banks had negative net worth and needed substantial re-capitalization to achieve required levels of loan loss provisions and the international capital adequacy standards. Banks had already been experiencing serious liquidity and solvency problems. The authorities were aware that many of them were technically bankrupt.

1.2. Macroeconomic Vulnerabilities

The banking and currency crisis unfolded in a deteriorating macroeconomic environment, characterized by declining GDP and accelerating inflation (Table 4). A BNB study on inflation, using VAR models and monthly data indicates that the exchange rate of lev versus the dollar, ex-post inflation rate and monetary base were the main factors behind inflation prior to the currency board introduction (Yotzov, V. et al., 1998). The exchange rate influenced inflation through inflationary expectations and fuel prices that are usually quoted in dollars. Prior to the currency board introduction the exchange rate itself had been strongly influenced by the declining BNB foreign exchange reserves and expectations about their further decline[5] (Chart 5).

The 1996-1997 crisis was both a banking sector and a currency crisis linked not only to the banking sector weaknesses but also to the external balance vulnerabilities. They were at the heart of the 1996 currency crisis and aggravated the banking sector crisis. The

[3] Some of the major state owned banks had the worst performing portfolios. However, the two largest state-owned banks Bulbank and State Savings Bank (SSB) were in sound condition. Three state-owned banks (UBB, Expressbank, Biochim) were involved in improving their operational efficiency and showed improved results in making new loans during 1995. In the private sector there were also some banks that were actively trying to restructure and improve their operations and others that were not.

[4] In 1995 and 1996 estimates of the aggregate position of the Bulgarian banks were based mainly on Bulgarian accounting standards. Based on Bulgarian accounting standards and some limited adjustments to international standards, as of end-1995, 20 banks had negative net worth, with a total negative net worth of some BG L 96 billion. Five state-owned banks, one private bank and the bank taken over by the BNB had negative net worth greater than BGL 7 billion.

[5] Inflation began subsiding in March and April 1997 only after the IMF announced it would renew its financial support for Bulgaria.

overall balance of payments marked a record high deficit of 8.5 percent of GDP, which was a result mainly of the capital account deficit of about 9.4 percent of GDP. The balance of payments weaknesses and related currency crisis in 1996 were linked to high external debt service obligations and short-term capital outflows, which intensified as residents began withdrawing savings from the banking system, while the authorities had difficulties controlling the outflows leaving the country. Reflecting Bulgaria's delayed start to financial stabilization and economic reform, direct investment was relatively low in comparison to other transition economies, while portfolio investment was negative.

Bulgaria's high external debt and debt service burden coupled with insufficient foreign currency reserves to service the maturing obligations. In 1996 and 1997 the debt-to-GDP ratio reached close to 112 percent and 104 percent correspondingly. Total external debt service in percent of GDP increased from 8 percent in 1995 to close to 13 percent in 1996. Total external debt service in percent of exports increased from 15.5 percent in 1995 to 20 percent in 1996. At the same time by the end of 1996, foreign exchange reserves, excluding gold fell to only 0.9 months of imports and continued falling in the beginning of 1997 (Table 4, Chart 5). The decline in BNB foreign currency reserves influenced the exchange rate depreciation and inflation.

Table 4. Bulgaria: Selected Economic Indicators

	1994	**1995**	**1996**	**1997**	**1998**
	Annual growth, %				
Real GDP	1.8	2.9	-10.1	-7.0	3.5
CPI, average annual	96.0	62.1	123.0	1082.3	22.3
	% of GDP				
Current account balance (BOP)	-1.7	-0.2	0.8	4.2	-2.2
Capital account balance (BOP)	2.5	2.8	-9.4	6.5	1.9*
Overall balance (BOP)	-4.3	2.6	-8.5	10.7	1.2*
Foreign Direct Investment (US$ million)	105.0	98.0	138.0	507.0	401.0
	%of GDP				
Overall fiscal balance***	-5.8	-5.6	-10.4	-2.1	1.0
Public debt	149.9	106.4	111.8	104.4	76.0**
Public external debt	103.0	69.0	90.0	90.0	73.0**
External debt service	10.0	8.0	12.8	10.3	8.8*
External debt service (in % of export)	18.7	15.5	20.0	16.5	19.4*
External debt service (US$ million)	970.0	1 049.0	1 259.0	1 046.0	1 114.0
BNB gross int'l reserves, US$ million	1311.0	1546.0	793.0	2474.0	3056.0*
(in months of imports of G&S)	2.4	3.1	1.6	5.2	6.3*
BNB int'l reserves excl. gold, US$ million	1 002.0	1 236.0	483.0	2164.0	2180.0**
(in months of imports of G&S)	2.1	2.1	0.9	4.2	5.2*

Source: BNB, NSI, IMF and WB estimates
*** IMF estimates**
**** September 1998**
***** Consolidated government balance**

Bulgaria's access to private creditors was limited, and the official multilateral creditors were the only source of new financing flows. In the first half of 1996 Bulgaria had not signed an agreement with the IMF yet. The Fourth Stand-by Arrangement (SBA), signed in mid-1996, was short-lived – only one tranche was disbursed, after which IMF

financing was interrupted. Left without any external financing, and with rapidly depleting foreign currency reserves Bulgaria was on the verge of a second default on its external debt. Similar expectations fueled further nominal exchange rate depreciation, contributed to the exacerbation of confidence crisis in both domestic currency and banks and encouraged runs on foreign currency deposits.

Table 5. Bulgaria: Selected Monetary Indicators and Interest Rates

	1994	1995	1996	1997	1998
M3/GDP, %	79.5	66.3	74.9	35.3	30.6
M3, nominal annual growth, eop, %	78.6	39.6	124.5	359.3	9.6
M3, real annual growth, eop, %	-19.5	4.9	-45.4	-32.3	8.5
Real base interest rate, annualized, %	12.05	2.36	-69.3	-10.5	14.4
Real deposit interest rate, annualized, %	-4.48	-7.89	-82.1	-13.8	12.4

Source: BNB, NSI, IMF, World Bank

Persistent fiscal deficits that grew substantially in 1996 became another factor behind the financial sector crisis. The huge overall fiscal deficit contributed to loose monetary policies and financial market crisis, which affected confidence in the financial position of banks, which kept substantial amounts of government securities in their portfolios. Despite the primary balance surplus of 9 percent of GDP, the 1996 budget became untenable as the growing interest expenditures contributed to an overall fiscal balance deficit of more than 10 percent of GDP (Table 4). Owing mainly to the increase in domestic interest payments, interest expenditures grew from 14 percent of GDP in 1995 to about 20 percent of GDP in 1996. The growing burden of interest expenditures put limits on BNB interest rate policy and contributed to low nominal and negative real deposit rates that further exacerbated confidence crisis in the national currency and banks. As fiscal balance difficulties intensified, confidence in the government securities markets also deteriorated. Under these circumstances the huge budget deficit had to be financed by the central bank, leading to loss of monetary control.

In 1995 the growth of M2 and M3 was linked both to the recovery of real demand for money, and to some money creation (Table 5). The BNB resisted nominal exchange rate appreciation pressures that appeared in early 1995 by intervening heavily in the foreign exchange market. These interventions contributed to an increase in official reserves from about US$ 1 billion in end-1994 to US$ 1.2 billion (US$ 1.5 billion including gold) in end-1995 and to some money creation. In end-1995 the overall BNB lev refinancing marked a decline in comparison to end-1994, while foreign currency refinancing increased (Table 6). Following the decline in inflation to about 62 percent (average annual), the central bank rate (base interest) fell from 66 percent in mid-1995 to 39 percent in end-1995, bringing real deposit rates to negative levels. In late 1995-early 1996 real deposit rates were kept negative and together with rumors about bank insolvencies contributed to bank runs on the leading private bank and smaller banks. The fragility of the banking system together with high interest expenditures and fiscal balance weaknesses prevented the BNB from raising the base interest rate. At the same time the growing need to refinance ailing banks and provide direct credit to the government, contributed to a gradual loss of monetary control, especially having in mind that loss of

confidence in banks and domestic currency resulted in a decline in the demand for lev money. In 1996 all monetary aggregates registered negative real growth rates, reflecting the depth of confidence crisis (Table 5).

Table 6. BNB: Net Domestic Assets (BGL, billion)

	1994 Dec.	1995 Dec.	1996 Mar.	1996 June	1996 Sep.	1996 Dec.	1997 Mar.	1997 June	1997 Sep.	1997 Dec.
Net domestic assets	100.3	116.2	136.7	180.6	287.0	481.6	1,174.5	-469.4	-754.5	-545.3
Government credit (net)	41.4	25.6	59.8	48.9	98.3	222.0	398.2	35.3	-216.7	-71.6
Of which securities	13.0	50.6	73.2	78.1	139.7	272.9	523.9	0.0	0.0	0.0
Claims on DMB (forex)	18.6	20.5	24.9	46.4	64.8	113.4	348.2	159.6	159.6	181.9
Claims on DMB (BGL):	28.9	24.2	37.0	66.5	79.2	125.40	139.10	152.5	155.4	152.7
Deposits	0.1	11.4	29.2	52.9	54.4	0.0	0.0	0.0	0.0	0.0
Lombard loans	22.5	1.0	3.0	3.9	6.2	6.2	1.0	0.0	0.0	0.0
Discount credit	1.3	2.1	1.3	0.4	0.4	0.0	0.0	0.0	0.0	0.0
Overdrafts	4.6	5.6	0.3	0.3	0.1	61.1	0.4	0.4	0.4	0.0
Arrears	0.3	0.8	1.2	7.0	16.1	56.1	54.8	53.4	53.4	53.4
Other	0.0	3.3	2.0	2.0	2.0	2.0	82.9	98.7	101.7	99.3
Other items net	11.4	45.9	15.0	18.8	18.8	20.8	289.0	-816.8	-852.8	-808.3
BGL/USD	66.0	70.7	78.8	155.5	230.0	487.4	1,588.7	1,718.6	1,762.8	1,776.5

Source: BNB

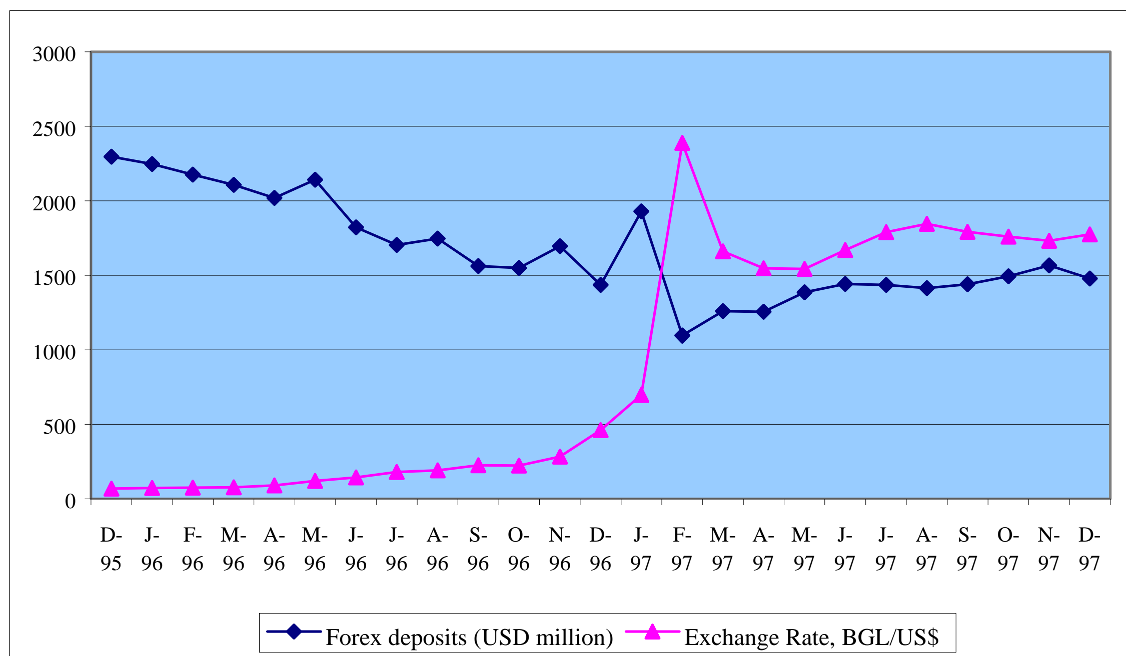
2. The 1996-1997 Crisis Episode

The crisis episode covered the period between spring-1996 and spring-1997. The dual banking sector and currency crisis began gaining momentum in the first half of 1996 and peaked in the second half of 1996 and early 1997 (Table 1.). The banking sector crisis coincided with a currency crisis, the two mutually reinforced each other and resulted in a general confidence crisis in the last quarter of 1996--early 1997. About one third of Bulgarian banks faced liquidity and solvency problems. The currency crisis was characterized by large depreciation of the national currency that took place during the banking crisis.

2.1. The Dual Crisis

In early 1996 banks' financial weaknesses and liquidity problems together with declining BNB foreign exchange reserves became the main factors behind bank runs, especially on foreign currency deposits. Loss of BNB foreign currency reserves was observed due mainly to huge external debt repayments, amounting to more than USD 1.2 billion (Table 4). In the summer of 1996 and September 1996 there were significant withdrawals of foreign currency deposits from banks as well as outflow of lev funds into stronger banks. Banks' weaknesses and depleting BNB reserves fed rumors about specific banks and blockage of foreign currency deposits. Massive runs on foreign currency deposits contributed to the depletion of commercial banks' foreign currency reserves.

Chart 1. Bulgaria: Foreign Currency Deposits and Exchange Rate

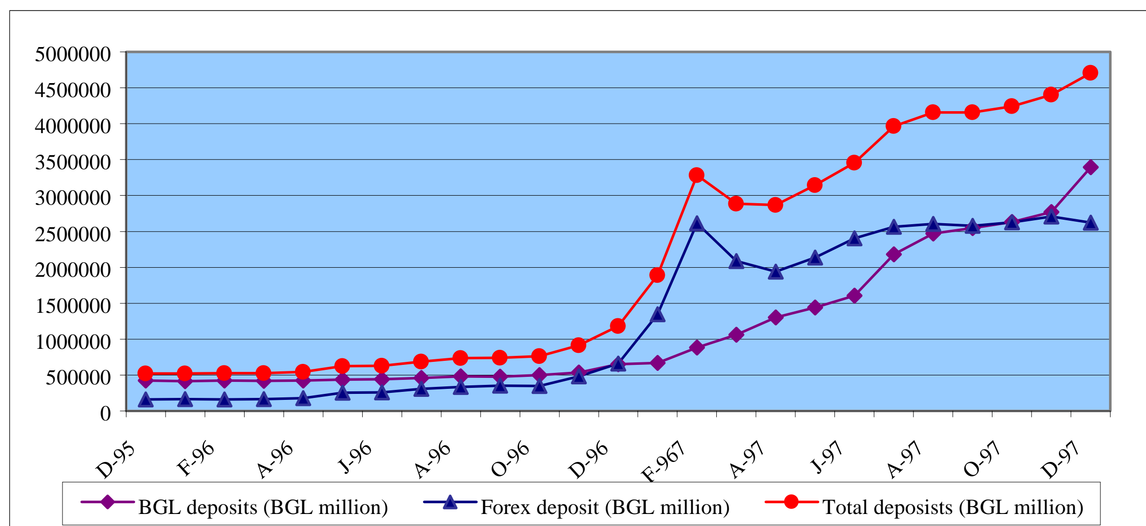


Source: BNB

Once the BNB foreign exchange reserves excluding gold fell below the critical threshold of USD 500 million and the lev rapidly depreciated, foreign currency deposit withdrawals from banks intensified. The BNB refinancing of banks and the government prevailed at different periods of time (Table 6), each one contributing to the money supply growth, loss of monetary control, inflation and further lev depreciation. The public lost confidence in banks and the depreciating lev and preferred to keep foreign currency savings outside banks. At the same time the withdrawn lev deposits put additional pressure on the demand for dollars contributing to further lev depreciation. Large arrears in the payment system caused system-wide liquidity problems, intensified loss of confidence in the system and together with large lev depreciation contributed to a general confidence crisis in September 1996.

The massive runs on foreign currency deposits became a typical feature of the Bulgarian banking crisis, reflecting its interdependence with the currency crisis. Most of the foreign currency deposits were dollar-denominated deposits. Runs on foreign currency deposits in dollar terms intensified together with the depreciation of the national currency versus the dollar (Chart 1). Once the lev stabilized in 1997 the decline in foreign currency deposits stabilized too.

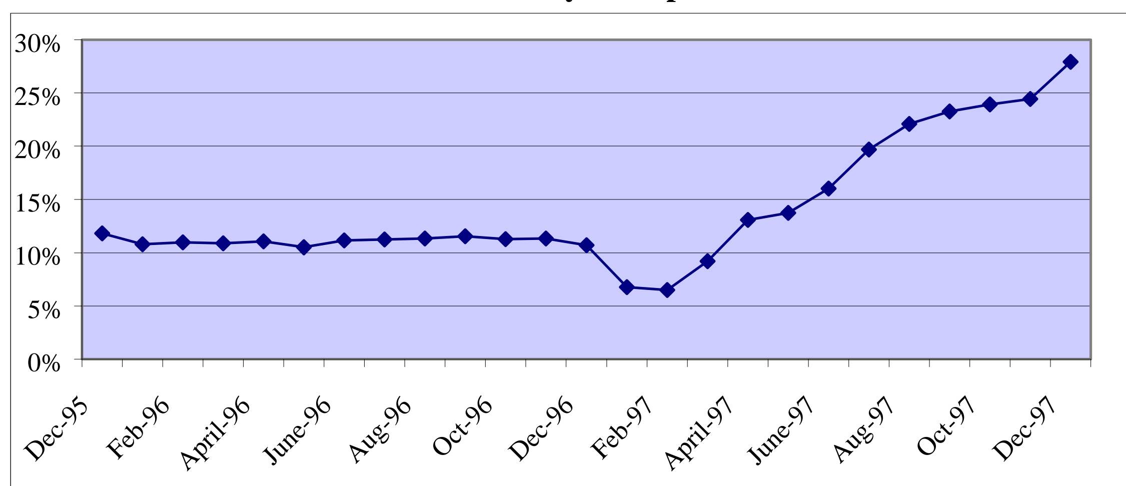
Chart 2. Bulgaria: Total Deposits, Lev Deposits, and Foreign Currency Deposits



Source: BNB

Lev deposits did not show any significant decline during the crisis episode, as in most cases they were withdrawn from ailing banks and transferred to SSB, which was considered sound and enjoyed public confidence (Chart 2). The foreign currency deposits expressed in lev terms kept increasing together with lev depreciation, which contributed to the growth of total deposits, expressed in lev terms and correspondingly to the decline in the ratio of currency in circulation--to-- all types of deposits included in M3[6] (Chart 2., Chart 3).

Chart 3 Currency-to-Deposit Ratio



Source: BNB

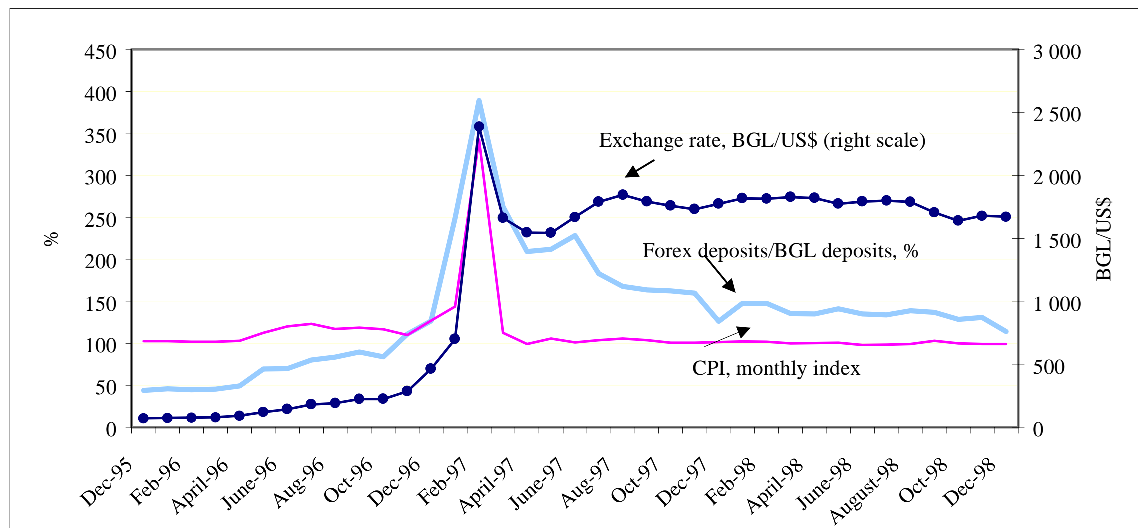
[6] During the Bulgarian banking crisis not only demand deposits included in M1, as suggested by Tang, Zoli and Klytchnikova (2001) but all types of deposits, especially foreign currency deposits, became subject to withdrawals by depositors, which made the ratio of currency to all deposits in M3 a more meaningful indicator.

2.2. The First Wave of Crisis

In the end of 1995 and early 1996 banks' financial position began rapidly deteriorating and banks began experiencing liquidity problems. The public also became aware of the banking crisis, as banks developed liquidity shortages, especially in foreign currency, and queues outside banks began increasing. In the spring of 1996 bank runs began intensifying due to rumors about weaknesses and problems in specific banks, accompanied by fears of foreign currency deposit blockage, linked to the depleting BNB foreign exchange reserves. Two banks of significant size experienced serious bank runs. Simultaneously large volumes of pending payments (arrears) in the payment system emerged, causing liquidity shortages in other banks and seriously impairing public confidence in the banking system. The BNB met these challenges by providing liquidity, while at the same time the SSB increased inter-bank lending.

In early 1996 the authorities recognized that banks were facing serious problems but by that time the LBCA did not provide the BNB with the legal basis for placing concervators in banks. In May 1996 they acknowledged the existence of the crisis and decided to amend the banking legislation in order to be able to take action. The May amendments to the LBCA empowered the BNB Management Board to protect banks' creditors and to make decisions on establishing a bank's bankruptcy. On these legal grounds the BNB made a decision to place into concervatorship two large banks (First Private and Mineralbank) and three smaller banks. It applied to the court system to request insolvency of those banks but failed to withdraw their licenses as courts rejected the BNB assessment of banks' financial weaknesses.

Chart 4. Currency Substitution, Exchange Rate and CPI Inflation



Source: BNB

To meet the first wave of bank closures in May 1996 the authorities passed a temporary Law on State Protection of Deposits and Accounts with Commercial Banks. Depositor protection law provided for BGL 80 billion and a small amount of foreign currency

resources to cover 100 percent of household deposits and 50 percent of enterprise deposits. Households and enterprises were able to collect the value of their lev deposits at the SSB. Household foreign currency deposits were payable over two years in six-monthly installments at the Postbank.

The May attempts to limit the crisis by placing 5 banks into concervatorship, and by re-capitalizing the state-owned banks through transfer of ZUNK bonds to the BCC and then to the ailing banks, did not bring about the expected outcome and runs on deposits, especially foreign currency deposits, continued in the subsequent months. Memoranda of Understanding (MOU) between the BNB and 19 state-owned banks with negative capital adequacy ratios were signed in order to improve their financial position. Banks that signed MOU were expected to undertake measures to collect loans, cut operating costs, limit interest rates on deposits, restructure and sell assets to improve liquidity. Banks that signed MOU were forbidden to extend new loans prior to achieving a viable capital adequacy ratio.

The measures introduced in May 1996 had only a temporary effect and could hardly put an end to bank runs. They proved insufficient to curb the banking sector crisis and bank runs, as they failed to address the major causes for banks' weaknesses and took place in the absence of serious bank and corporate sector restructuring and privatization.

By mid- 1996 liquidity position of banks seriously deteriorated, there were lines of customers outside many banks, seeking to withdraw deposits and banks introduced limits on both amount and timing for deposit withdrawals. Those banks that could afford to maintain high excess reserves did so and refused to invest in government securities, even at higher interest rates. Liquidity was inadequate and resulted in delays in the payment system, with payment arrears over BGL 9 billion despite several BNB attempts to clear them.

Table 7. Banks' Foreign Currency Assets and Deposits

	Dec-95	March-96	June-96	Sept-96	Dec-96	March-97	June-97
Foreign Assets, mln USD	1426	1447	1192	1235	1248	1331	1547
Foreign Currency Deposits*, mln USD	2245	2083	1661	1525	1357	1311	1399
BGL/USD Exchange Rate	70.7	78.8	155.5	230	487.4	1588.7	1718.6

Source: BNB, IMF

* Includes foreign currency time deposits of households, SOEs and the private sector.

Simultaneously the BNB foreign exchange reserves continued declining due to debt repayments, interventions in the foreign exchange market and foreign currency refinancing to ailing banks. In addition, expectations about further depletion of BNB foreign currency reserves, lev depreciation and fears of blockage of foreign currency deposits contributed to foreign currency deposit withdrawals. While foreign currency deposits kept increasing by the end of 1995, they fell by some 25 percent in early June and the subsequent months (Table 7, Chart 1). Some of the lev deposits were transferred into SSB or transferred into dollar cash. Simultaneously banks began transforming their lev deposits into foreign currency assets (Table 7). At the end of July 1996, the total long

foreign currency position of all banks amounted to about BGL 26 billion, or 20 percent of existing capital[7]. These figures did not include off-balance sheet exposures such as forward contracts, swap contracts, options, or futures.

In late July 1996 the IV IMF-supported Stand-by Arrangement (SBA) was signed. Both the adoption of the stabilization program and the provision of external financing from the IMF (about USD 185 million) and the EU (about USD 50 million) brought about a short-lived stability to the markets. In August official reserves increased temporary, contributing to a slowdown in lev depreciation, inflation and foreign currency deposit runs (Chart 5, Chart 1). However, the banking sector and currency crisis regained strength soon, as the resolution of the underlying macroeconomic and sector weaknesses was delayed.

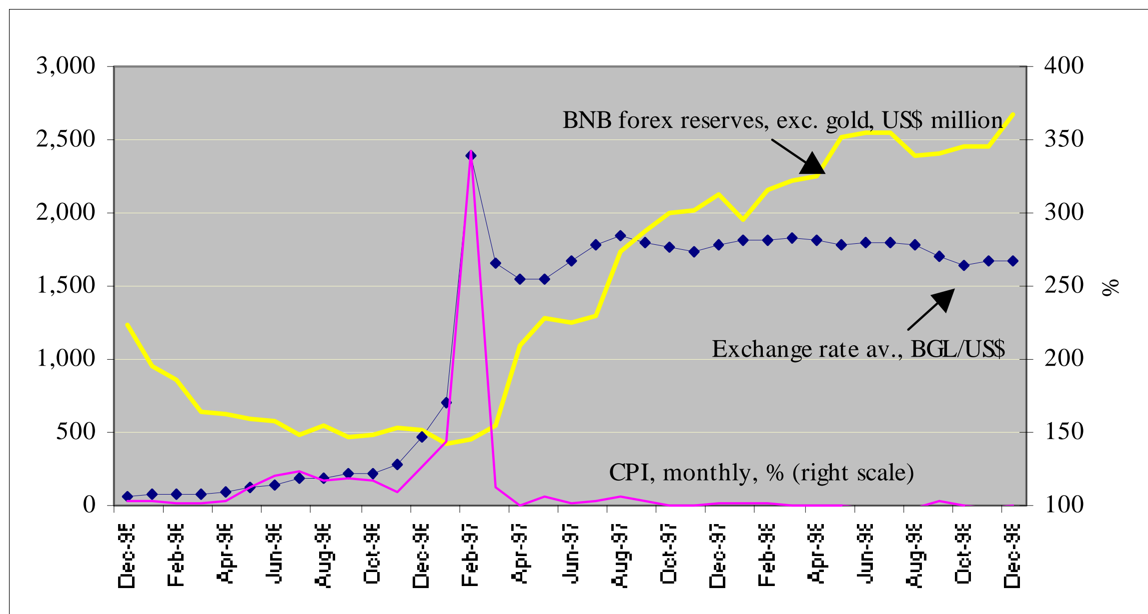
2.3. Crisis Escalation

The first wave of bank closures fell short of stabilizing the system and in September 1996 banks' liquidity problems intensified again. The negative effects of keeping undercapitalized banks in the system resulted in growing negative cash flow, interest arrears and further deterioration of quality of banks' loan portfolios. Additional contributing factors were the slow resolution of banks in conservatorship, insufficient and inefficient re-capitalization and lack of privatization in the corporate and banking sectors. Deposit outflows, queues and delays in payments of deposits occurred in all banks throughout the country.

Loss of monetary control due mainly to the escalating fiscal problems also fueled the crisis through inflation and lev depreciation. Once lev depreciation began accelerating, foreign currency deposit outflows intensified too. In September 1996 the strong interdependence between the BNB foreign currency reserves, inflation, lev depreciation, and runs on foreign currency deposits further intensified (Chart 4, Chart 5). The lev became extremely vulnerable to the progressive decline in foreign currency reserves, especially when they fell below the critical threshold of US$ 500 million and no further external financing was anticipated any longer. The lev depreciation and associated runs on foreign currency deposits were fueled not only by the actual decline in the BNB foreign exchange reserves but also by expectations of further foreign exchange decline, associated with expected external debt payments (Table 4).

[7] The IMF estimates showed that the total open position of all banks represented 99 percent of adjusted for required loss reserves capital of banks.

Chart 5. BNB Foreign Exchange Reserves, Exchange Rate, and CPI Inflation



Source: BNB

The banking sector confidence crisis spilled over to the government security markets and the payment system. Banks limited their participation in the government debt market as they feared further deposit withdrawals. In addition, there were sizable delays in the payment system, which threatened to lead to contagion and spread the crisis to relatively sound banks. These developments required from the BNB to provide refinancing to banks and the government, which undermined its ability to control money supply.

Identifying the General Confidence Crisis

As the Bulgarian crisis was both a banking sector and a currency crisis that reinforced each other and led to a general confidence crisis, a set of criteria had to be introduced in order to identify the general confidence crisis. The set of criteria was developed within the framework of a BNB Contingency Plan drafted with the IMF assistance. The Contingency Plan was based on the assumption that in case the IV SBA became no longer sustainable certain emergency measures had to be undertaken in order to make sure that further deterioration in confidence in the banking sector would be avoided.

The following set of specific criteria was selected on the basis of which the BNB and the government were expected to identify the emergence of a general confidence crisis:

- An increase in the overall amount of pending payments during 5 consecutive days to more than BGL 11 billion in August, BGL 10 billion in September, etc.;
- Violation of the BNB refinancing limits during 5 consecutive days;
- BNB refinancing of two or more big banks;

- Further depreciation of the national currency by more than BGL 200 per USD 1 for about one week;
- Further depletion of foreign exchange reserves, excluding gold to below USD 400million.

The emergence of at least two or more of these symptoms would be considered a signal for inconsistencies and failures in the economic and structural reforms that would lead to a general confidence crisis.

In September 1996 the financial system experienced symptoms closed to those defined by the Contingency Plan:

- The overall pending payments in the settlement system grew above BGL 10 billion. Since September 19 they had been consistently exceeding BGL 12 billion, exposing the system to the risk of collapse.

- After the IV SBA approval the BNB limited its refinancing in compliance with the September performance criterion on the stock of BNB unsecured refinancing to banks. Though the extension of new unsecured refinancing was limited, the BNB extended the term to maturity of maturing loans of about 6 banks, which contributed to more than doubling loan arrears since end-June 1996.

- The BNB foreign exchange reserves, excluding gold did not fall below USD 400 million but the critical threshold turned out to be USD 500 million. The program of the IV SBA set the September limit on the minimum stock of net international reserves of the BNB at USD 434 million, while their actual amount was much lower. The September review of the IMF program signaled that the IMF would interrupt financing, which implied that the BNB foreign currency reserves would continue falling.

- All main performance criteria of the IMF program were violated, except the criterion on the stock of BNB unsecured refinancing to banks. The program review concluded that the IMF program went off track, and the IV SBA was no longer sustainable.

Addressing the General Confidence Crisis

As the banking and currency crisis began accelerating the authorities recognized that only wide-ranging restructuring of the banking sector could restore confidence in banks. The BNB Board and the high level Emergency Committee drafted a resolution strategy in close collaboration with the IMF. The primary goal of the bank resolution strategy was to stabilize the monetary system and restore confidence in banks. The objective was to minimize the cost of the operation.

Based on the strategy, the BNB bank restructuring plan envisaged placing all non-viable banks into conservatorship and providing refinancing only to viable banks. A set of banks

to be closed without delays was selected using specific indicators. The key selection criteria were banks' regular liquidity problems and negative capital adequacy ratios. Based on them the BNB placed another nine banks into conservatorship on September 23. Together with the banks put earlier under conservatorship they represented about one third of the banking system.

The BNB and the government reached an agreement on changing the rules of the generous deposit guarantee scheme and announced that the deposit insurance payments would be deferred until courts declared banks under conservatorship bankrupt. There were also suggestions to introduce a new less generous depositor protection scheme by introducing a mixture of a limited up-front cash payment and a bond issue for non-household depositors. The Bulgarian authorities were aware of the high costs of the existing deposit insurance scheme, but having in mind the deteriorating confidence in the banking sector, combined with escalating confidence crisis in the national currency, they considered the introduction of a new less generous deposit insurance scheme in the middle of the crisis highly risky.

The BNB was aware that it should provide protection to stronger banks both immediately and in the medium term. In the medium term the viable banks had to be protected through increasing their positive net worth and raising their capitalization. However, the immediate protection implied liquidity support in case of testing. The BNB declared its immediate support for viable banks and announced openly it would stand fully behind viable banks by:

- Purchasing government securities-both repo and outright purchases- in the open market;
- Providing collateralized and uncollateralized lev-denominated refinancing to banks;
- Restoring banks' access to 50 percent of their required reserves.

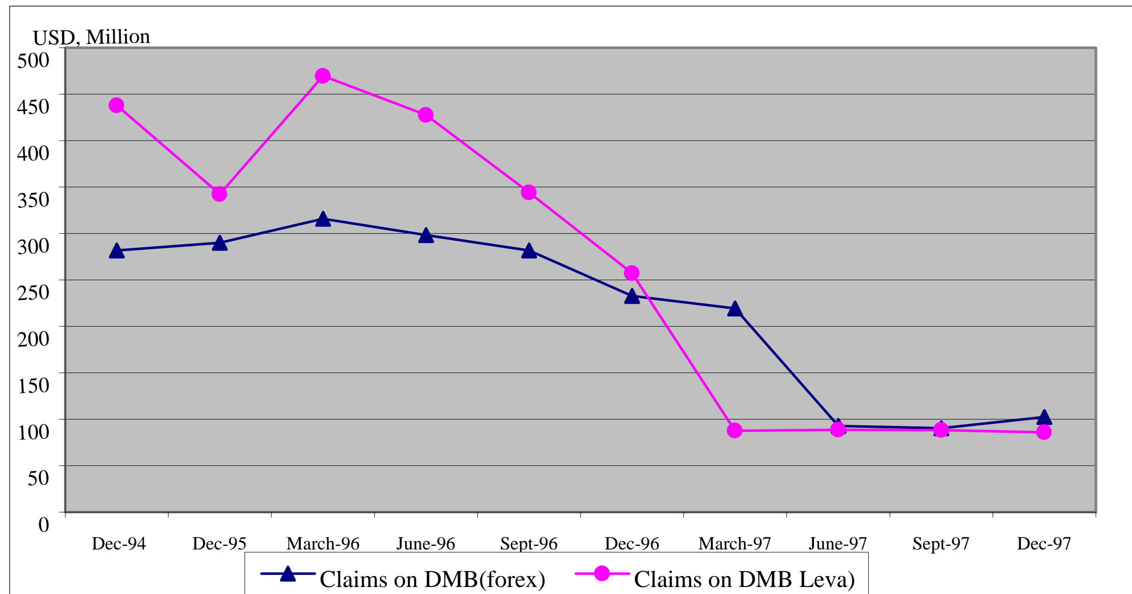
Following a standard IMF recommendation the BNB raised the monthly base interest rate to 25 percent to regain confidence in lev and banks (See Box.2.). It was believed that a policy measure like that would be appropriate because real interest rates were negative.

In the next couple of weeks the remaining banks became subject to testing. In October rumors that the Customs Service would shift its accounts caused runs on two banks. The withdrawn foreign currency deposits were sizable and represented about 1 percent of reserve money. There was one big state-owned bank subject to growing runs. The BNB provided mainly Lombard loans and refrained from refinancing in foreign exchange, as its foreign currency reserves were below the critical threshold. The total BNB claims on banks reached BGL 238.8 billion in the last quarter of 1996, which in dollar terms was much lower than that in the first half of 1996 (Table 6, Chart 6).

As inflationary pressures began intensifying and the political crisis gained momentum, additional official interventions in the banking sector were considered inappropriate and were not undertaken. They were renewed in the first half of 1997 only after the political

turmoil was over and inflation subsided. Only then the BNB placed another bank into concervatorship.

Chart 6. Claims on Deposit Money Banks (in US$)



Source: BNB

In late 1996 and early 1997 CPI inflation began accelerating and in end-February the monthly rate peaked at 243 percent, while the lev reached its strongest depreciation at BGL 2 045.5 per dollar (Chart 5). Driven by the loss of monetary control due to BNB government financing, declining BNB foreign exchange reserves, political turmoil and inflationary expectations, hyper-inflationary rates emerged in January and February 1997. In fact, the highest inflation rates and strongest lev depreciation coincided with the lowest level of BNB foreign currency reserves in January and February 1996 when they fell below USD 450 million, excluding gold (Chart 5). Confidence in the national currency further deteriorated as the lev kept depreciating, and resulted in further intensification of currency substitution (Chart 4). Expectations about blockage of foreign currency deposits further contributed to some of the strongest foreign currency deposit withdrawals (Chart 1). These fears intensified especially in January and early February 1997 fueled by an information leakage to Reuters about an internal discussion on blockage of deposits. Only the BNB Board timely efforts managed to prevent a major attack on banks in a period of political turmoil, and demonstrations.

3. Monetary Policy in the Second Half of 1996

Monetary policy during the crisis episode was of particular importance, as it could contribute to either curbing or further intensifying the dual crisis. In the second half of 1996 the BNB monetary policy could be characterized by two sub-periods. The first one was the period during which the monetary policy was conducted following the IMF-supported program of the IV SBA, which tried to put money supply under control (Box 1.) The second period was the period when the BNB placed 9 banks into conservatorship

and implemented its package of measures, focusing on providing support for all viable banks (Box 2.).

Box 1. Monetary Policy under the IV SBA

The program of the IV SBA was an attempt to introduce consistent monetary policy in a period of escalating banking and currency crisis. The main objective of the BNB monetary policy was to curb inflation, stabilize the lev and restore confidence in domestic currency and banks. The IV SBA introduced a money-based program, which targeted broad money and reserve money. In fact, as indicated in an IMF paper on Asian crisis (IMF, 1999), conducting monetary policy through targeting monetary aggregates in a period of confidence crisis could hardly be successful because the demand for money becomes unstable as well as the relationship between operational, intermediate and final targets. At the time of program preparation neither the BNB nor the IMF had any reliable estimates of the demand for money. As in other countries, banking crisis affected the stability of demand for money and money velocity. The variability of the monetary aggregates increased during the crisis period, and no money-based stabilization program could be successful under those circumstances. (Table 8.)

Table 8. Standard Deviation of Selected Monetary Indicators and Money Multiplier

	Jan.94-Jan.95	Jan.95-Jan.96	Jan.96-Jan.97
Demand deposits/M3	0.41	0.67	0.77
Quasi Money/M3	0.71	0.83	1.63
Money multiplier	0.25	0.33	0.23

In fact, in September and October 1996, the IMF recommended to monitor a set of indicators that would signal money demand shifts. It also warned that the uncertainty about demand for money shifts could lead to policy actions that might be inappropriately accommodating or too restrictive (IMF, October 1996).

Monetary management was complicated not only due to the banking and currency crisis but also due to the continuously growing borrowing needs of the government. By that time it had already become quite obvious that the only way to restrain the currency crisis was to ensure some increase in the BNB foreign exchange reserves and the BNB made strong efforts to obey any recommendations made by the IMF, in order to qualify for Fund support. However, the BNB could not meet the indicative targets for reserve money and the September IMF mission concluded that the BNB appeared to have lost the ability to follow the monetary aggregate as a nominal anchor due to:

- fiscal deterioration, which alone would have been enough to provide the most serious testing ground for the strength and commitment of any monetary management regime; fiscal difficulties were experienced due to rapid declines in revenues and a significant increase in expenditure linked to falling due of substantial amounts of domestic and foreign debt;
- sluggish real sector activity;
- growing banking sector instability;
- further depreciation of the national currency and loss of confidence in it;
- controversial monetary policy.

In the second half of 1996 the BNB conducted its monetary policy following the indicative targets and performance criteria set by the IMF money-based stabilization program under the IV SBA. The BNB could hardly meet the indicative targets for reserve money. Its attempts to stay within or at least closer to the Fund-supported program performance criteria were doomed to failure from the very beginning, as one key performance criterion of the program – limits on the stock of BNB net domestic assets – went off track at the time of SBA Board approval. The program was unsustainable and disbursements were interrupted in September 1996 (Box 1.).

Once the IMF financial support was no longer available, monetary conditions deteriorated and went out of control in the subsequent couple of months. As currency crisis accelerated, confidence in lev deteriorated and affected demand for money. Inflation intensified further on due to declining demand for real money, and loss of control over money supply. Between December 1996 and February 1997 demand for real lev currency and deposits declined by more than 60 percent, while velocity of money skyrocketed. While demand for real money balances began to decline, the refinancing needs of banks and especially the borrowing needs of the government kept fuelling money supply growth. The political turmoil that took place after the resignation of the socialist government in December 1996 and the subsequent deadlock strongly influenced inflationary expectations and inflation.

The main channels through which the BNB made liquidity infusions were lending to the government and bank refinancing.

In the second half of 1996 the BNB infused liquidity through lending to the government and participating in the primary auctions of government securities (Table 6). Net claims on the government became the main contributor to money supply growth and inflation, as government finances deteriorated significantly. On the expenditure side significant amounts of domestic and foreign debt fell due, while revenue collection faced serious problems. Direct credit to the government became a necessity because the government securities markets faced a severe confidence crisis exactly at the time when the budget deficit increased significantly due to poor revenue performance, and rising interest expenditures. The September increase in the base interest rate to 25 percent monthly rate brought about a substantial increase in interest payments on domestic debt putting additional pressure on interest expenditure of the budget. Its subsequent gradual lowering to 20 percent in mid -October and 15 percent in end-October did not prove sufficient to alleviate the burden on the budget, which at that time faced revenue collection difficulties. That rather complicated situation resulted in reliance on direct credit from the BNB.

The size of the fiscal gap was much larger and exceeded the limit on short-term loans, set by the BNB Law, within which the BNB was allowed to lend to the government. Nevertheless, the latest Amendments to the State Budget Law provided the legal basis for extending new BNB loans to the government. Thus the government was able to obtain from the BNB a loan amounting to BGL 115 billion by the end of 1996. The news of the loan extension stimulated further on inflationary expectations and contributed to hyperinflationary rates – a consequence that was envisaged by the BNB and explained by its Management Board in a letter to the Government and Parliament.

Liquidity difficulties of some of the banks also required refinancing in order to avoid the risks that the pending payments in the payment system would spread the liquidity problems and would contaminate healthy banks. In addition the BNB wished to avoid the possibility that the inability of some banks to meet the demand for deposit withdrawals would lead to a complete loss of confidence in these banks. The BNB refinanced banks

that were considered sound and whose failure would represent a systemic risk. Some banks obtained refinancing also from the SSB. Between July and September the BNB kept providing its refinancing to banks[8] within the limits set by the IMF-supported program and met the performance criterion of the IV SBA on the stock of unsecured refinancing of banks.

Following the explicit IMF recommendation, that once the ailing banks had been eliminated, the BNB should stand behind the remaining viable banks, by providing emergency liquidity assistance to avoid panic runs, the BNB made a clear announcement that it would follow this type of policy when it placed 9 additional banks into conservatorship (Box 2.). Consistent with its promises, the BNB increased its refinancing in nominal terms-both in domestic and foreign currency-between September 1996 and March 1997 (Table 6). However, calculated in dollar terms the BNB refinancing had been declining since March 1996 remaining below its December 1994 and December 1995 level (Chart 6).

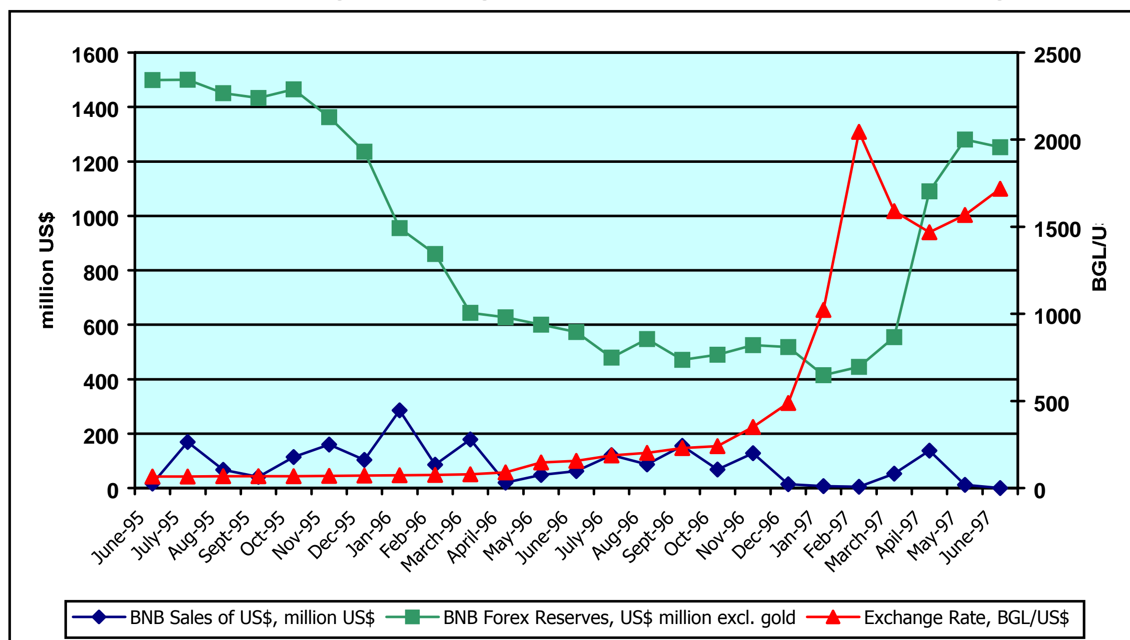
Throughout the entire crisis period the BNB tried to sterilize the liquidity infusions through its open market operations, reserves management and interventions on the foreign exchange market.

Once the IV SBA was signed the BNB conducted daily its open market operations, trying to sterilize liquidity in order to meet its indicative targets for the monetary base (reserve money), set by the IMF-supported stabilization program. The daily reverse repurchases auctions were designed consistent with the reserve money target. They were used to effect short-term changes in the monetary stance. In fact, the drive for stronger sterilizations through open market operations increased further interest rates, brought about higher interest payments and overall fiscal deficit and contributed to difficulties in servicing the domestic debt.

Being aware of the limitations of the rest of its monetary policy instruments, the BNB had to make use of the minimum reserve requirements as an active monetary policy instrument even at the time when the banking sector crisis began aggravating. However, the BNB used this instrument with caution, as it was aware that using the reserve requirements as an active instrument of monetary policy in a period of crisis would be problematic because the exact measurement of the liquidity stance was complicated, and the appropriate increase in the reserve requirements would be very difficult to determine. In addition, most of the excess liquidity was not held in bank accounts but in the form of foreign exchange cash and other valuables outside the banking system. In August 1996, the BNB tightened the reserve requirements from 8 percent to 10 percent of banks' deposit liabilities. In addition, the BNB decreased the accessible funds from 50 to 10 percent of the required amount. However, in September, after the BNB placed nine additional banks under conservatorship, it relaxed its reserve policy by increasing again banks' access to required reserves (Box 2).

[8] The quarterly increase in BNB claims on banks was BGL 31 billion in end-September 1996 against BGL 51 billion in end -June 1996 (Table 6).

Chart 7. BNB Foreign Exchange Reserves, Sales of US$ and Exchange Rate



Source: BNB

Attempts to smooth sharp exchange rate fluctuations and restrain strong lev depreciation through interventions in the foreign exchange market could hardly be successful due to insufficient BNB foreign currency reserves. The BNB intervened through relatively small amounts of sales that could not influence the exchange rate, as the demand for dollars was growing and strongly exceeding supply. At the same time the BNB interventions contributed to the depletion of BNB foreign currency reserves and this carefully watched indicator began influencing the exchange rate depreciation to a greater extent than the BNB sales did (Chart 7). The related deteriorating confidence in lev resulted in a further decline in demand for the domestic currency, stronger withdrawal of deposits from banks and increased demand for dollars. These processes intensified in late 1996 and especially in early 1997 when the BNB foreign exchange reserves fell to about one month of imports and forced the BNB to minimize its interventions in the foreign exchange market (Chart 7).

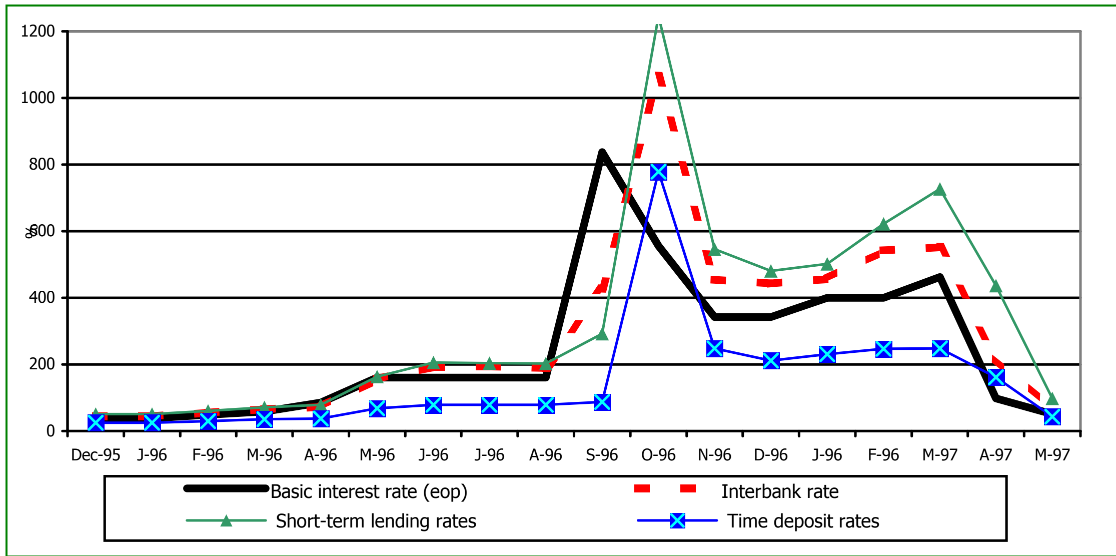
Interest rates in Bulgaria were largely dependent on the behavior of the base interest rate, which was administratively set by the BNB Management Board (Chart 8). The base interest rate was used as a reference rate for lending rates, coupon rates for government securities and the remuneration of reserve holdings in at the BNB. Other rates, determined in the primary T-bills auctions and the BNB reverse repo auctions moved in line with the base interest rate. There were two main periods in the BNB interest rate policy. The first one was characterized by a cautious increase in the base interest rate and prevailed until September 23, 1996. The second period was introduced by the September package of measures when the base interest rate was drastically raised to 25 percent and then slightly lowered in October and November (Box 2.).

Box 2. The BNB Package of Measures of September 23, 1996

Following the Contingency Plan and IMF recommendations, in September 1996 the BNB Board placed 9 banks into conservatorship and adopted a package of measures that focused on supporting all viable banks. The BNB package of measures relied heavily on rapid privatization of SOEs. There were still some hopes that the second IMF tranche would be disbursed. The IMF financing together with rapid privatization were expected to provide the foreign exchange support that was the major precondition for the success of the BNB package. The BNB

The BNB raised the base interest rate several times during the crisis. In May 1996 it was raised from 67 percent to 108 percent (simple annual, or 180 percent annual compound). Following the base interest rate, deposit rate on lev deposits reached about 100 percent. However, inflation increased by 20 percent in July and by another 15 percent in August and the real deposit rates became negative. Nevertheless, the BNB was cautious about further increases in the base interest rate. One reason why the BNB Management Board was reluctant to raise the base interest rate drastically was its link to the coupon payments on government securities. Any increase in the base interest rate would result in an increase in the servicing costs of domestic debt and fiscal expenditures at a time when revenues were declining.

Chart 8. Interest Rates*



Source: BNB
*** Annual compound**

In September 1996 the IMF made again its standard recommendation to raise the base interest rate to allow for positive real deposit rates in order to avoid interest rate distortions that would further destabilize expectations and increase flight out of the national currency. In fact a recommendation like that ignored the fiscal implications. The September increase in the base interest rate to 25 percent (300 percent simple annual) could neither reverse the withdrawal of deposits nor impact positively confidence in lev, but only further aggravated fiscal imbalances and problems of weaker banks. It brought about a substantial increase in fiscal interest expenditures and created problems in servicing interest payments on loans and securities. In January 1997 the option of an effective default on domestic debt was discussed by some government members, and was declined by the BNB in an attempt to avoid the complete collapse of the banking system in a period of lack of any political power and mass demonstrations.

4. Introduction of the Currency Board

The failure of the IMF money-based stabilization program stimulated discussions about fixing the exchange rate within a currency board. The IMF believed that the new stabilization effort could be successful in bringing back confidence to the lev and banks only if it was based on simple rules imposing discipline, a fixed exchange rate, sufficient foreign exchange reserves promised to be provided by the IMF and bank privatization. The fixed exchange rate regime was considered appropriate for a small open economy like Bulgaria's despite insufficient degree of price and capital account liberalization. The IMF suggested to fix the exchange rate within the framework of a currency board arrangement (CBA), because it was believed to be the only cure for the Bulgarian inflation and lack of financial discipline.

The Bulgarian CBA had to face the challenges of external and fiscal imbalances (Table 4), strong seasonality of the fiscal revenues and structural problems stemming from the fragile banking system and loss-making enterprise sector. The CBA structure and mechanism of operation were designed to meet the challenges of the fragile banking sector and fiscal imbalances. The IMF signaled it would provide the foreign exchange reserves needed for the smooth CBA operation. In fact, its introduction was the condition under which the IMF would continue providing financial support to Bulgaria.

In addition, the CBA introduction was accompanied by a comprehensive program of banking sector rapid privatization by strategic foreign investors. Following it since the CBA introduction, considerable progress has been achieved in bank privatization and restructuring. At present more than, 80% of the commercial banks' assets are in private hands and over 73% are foreign-owned.

4.1. Legislative Changes

The option of introducing a CBA in Bulgaria was publicly introduced in November 1996 by an IMF mission. The discussions that took place within the BNB Management Board prior to the IMF mission arrival resulted in a decision that the CBA should be adopted by a new Law on the BNB. The BNB Board rejected some early attempts to introduce the currency board without the necessary legislative changes and parliamentary approval.
A transition period, during which certain preconditions had to be met in order to make the CBA introduction successful, was considered mandatory.

The Implementation of the CBA was made possible on the basis of a new BNB Law, which was passed in June 1997 and effectively established the CBA on July 1, 1997. The law introduced the CBA rules, restructured the BNB and pegged the lev to the German mark. It strengthened the BNB independence of the Government and made the BSD more independent within the BNB. A new Law on Banks was also introduced in mid-1997 that aimed at raising the effectiveness of banking supervision. Based on the two new laws the BNB was empowered to revoke the license of any bank deemed insolvent. The Law on Banks introduced a very tight regime of large exposures with limited exceptions, and strengthened the BNB capacity to control the issuance of new licenses. It also reduced the rights to appeal the BNB Board decisions and made mandatory a ten-fold increase in the minimum capital requirement.

Several new prudential regulations were introduced in compliance with the requirements of the two new laws: a regulation on capital adequacy, a regulation on loan classification and provisioning, regulations on liquidity management and open foreign exchange positions. The capital adequacy regulation established a risk-based measure of required minimum capital and the ratio was set at 8 percent for 1997, 10 percent for end-1998 and 12 percent for end-1999. The regulation on provisioning replaced the system, which made provisioning dependent on banks' profits, as shown in the profit and loss statement, and led to under-provisioning. The new regulation gave the BNB the right to require changes to classifications and provisioning when it disagreed with bank's internal

classification. The regulation also introduced mark- to- market pricing for securities holdings. The BNB is continuously improving its prudential standards and updates the regulations accordingly.

A new Deposit Insurance Law was also introduced. It became effective on January 1,1999, when the introduction of a new Deposit Insurance Fund (DIF) became possible. To reduce the potential fiscal cost of bank failures, the new law introduced a less generous deposit insurance scheme. The DIF is an independent legal entity and it is funded from initial fees paid by banks, annual premia contributed by banks, investment income, and the fund's share of closed banks' assets in case of subrogation.

4.2. Introduction of the CBA

Since early 1997 the BNB began to prepare for the CBA introduction by gradually downsizing its open market operations and refinancing facility. In April 1997, the interim government began implementing a macroeconomic stabilization program that was centered on the CBA introduction. As the political turmoil gradually subsided and external financing was restored under a new V SBA and a CCFF, signs of confidence revival began to emerge months before the CBA introduction (Chart 5). The lev stabilized as confidence in the lev returned. One important requirement for the setting up of the CBA was to have sufficient amount of foreign exchange reserves to fully cover the monetary base. The restored external financing by external creditors began providing foreign exchange reserves to the BNB. In addition, the crisis resulted in a substantial decline in real money demand to 20 percent of the level that prevailed before the crisis.

The new BNB Law made the CBA introduction possible in mid-1997. The main principle of the CBA requires that the Issue Departmnet issues and redeems monetary liabilties (at the official exchange rate) for the reserve currency on demand and without any limitations. The deutschemark was preferred to the dollar[9] as the peg currency in view of prospects for Bulgaria's future EU accession. The exchange rate was fixed on the basis of the prevailing market BGL/DM exchange rate a couple of months after the emergence of hyperinflationary rates and few weeks prior to the CBA introduction. The new Law on the BNB pegged the BGL to the DM, at an official exchange rate of BGL 1, 000* per DM 1 and obliged the BNB and its branches to sell and purchase on demand deutchemarks against levs without any limitations within the territory of Bulgaria. Once the euro came into existence, the BNB re-pegged the lev from the deutschemark to the euro, pursuant to article 29 of the BNB Law.

The challenges of the Bulgarian environment imposed a specific structure of the CBA that compromises between the structure of an orthodox currency board and a full-fledged

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[9] In 1997 the US$ had the highest share in the currency structure of Bulgarian foreign trade (about 70 percent), while the DM share was about 25 percent but it has grown since then to about 40 percent. Foreign trade with the European Union is growing continuously. At the time of the CBA introduction the share of dollar-denominated external debt was about 62 percent and is about the same at present.

* Since mid-1999 BGL 1 000 = BGN 1 = DM 1

central bank. The BNB was divided into an Issue Department and a Banking Department. Correspondingly, the BNB balance sheet was also divided into two balance sheets. The Banking Department deposit with the Issue Department establishes the relationship between the two departments. The Issue Department holds the BNB monetary liabilities: banknotes and coins, banks' deposits, other non-government deposits, government deposits, part of which comprise the Fiscal Reserve Account, and the deposit of Banking Department (Table 9). All Issue Department liabilities are covered by foreign exchange reserves and gold. To enhance the CBA credibility and transparency the Issue Department combines the foreign exchange reserves of both the BNB and government.

Table 9. Balance Sheet of the Bulgarian National Bank, Issue Department/CBA

Assets	**Liabilities**
Cash and nostro accounts in foreign currency	Currency in circulation
Monetary gold	Bank deposits and current accounts
Foreign securities	Government deposits and accounts
Accrued interest receivable	Other depositors' accounts
	Account of State Fund for Reconstruction and Development
	Accrued interest payable
	Banking Department deposit

Source: BNB

The Banking Department deposit with Issue Department was meant to meet the challenges of the fragile banking sector, which was still trying to recover from the crisis, and required a lender of last resort (LOLR). Some foreign exchnage reserves in excess of what is needed to cover the monetary base provide a limited LOLR facility in case of liquidity risks, affecting the stability of the banking system[10]. These funds are subject to negotiations with the IMF and are kept as a deposit of Banking Department with Issue Department. The IMF program sets floors for the deposit of Banking Department with Issue Department. Bank refinancing is limited by the amount of this deposit, and in addition, being one of the performance criteria of the IMF-supported program, consultations with the IMF are required when a loan above BGN 2 million is to be extended to a bank. The Banking Department also holds other assets and claims on the Central Bank and acts as a fiscal agent of Bulgaria with the IMF. This implies that the SDR purchases from the IMF are channeled through Banking Department from where

[10] Regulation 6 of the BNB defines "liquidity risk for the banking system" and establishes the terms of extending collateralized lev loans to banks in cases of liquidity risks affecting the stability of the banking system. The total amount of the highly liquid assets pledged as a collateral should cover at least 125 percent of the loan amount approved by the BNB. The loan should be repaid within three months. The refinancing rate is "higher than the average interest rate in the inter-bank market".
* BGN = BGL 1 000 since mid-1999.

they can be either lent to the government or kept as a Banking Department deposit with Issue Department.

Issue Department holds also government deposits, which comprise the Fiscal Reserve Account and are fully covered with foreign exchange reserves. The Fiscal Reserve Account (FRA) was formed to help avoid any short-term financing requirements of the budget, resulting from any seasonal fluctuations of the fiscal balance. Each IMF program determines the balance of the FRA in order to make sure that the budget will not face any unexpected difficulties. The floors on the FRA provide the reserve funds the government needs in order to ensure its debt service and the stable position of the fiscal balance.

To meet the debt service and fiscal balance challenges, the BNB was given the opportunity to lend IMF purchases to the government upon a decision of the BNB Management Board[11]. Based on the IMF program, strict and transparent rules were introduced that provided for the use of IMF funds to stabilize the fiscal balance. Receiving and on-lending of IMF funds to the government is conditional upon meeting the IMF Program performance criteria and the decision of the BNB Management Board to extend credit to the government under art. 45 of the BNB Law[12].

Conducting monetary policy is impossible under a typical CBA. The specific structure of the Bulgarian CBA allows conducting some limited monetary policy. In addition to extending credit to commercial banks and the government under specific tight conditions, the BNB can also change the minimum required reserves, held at Issue Department. Initially, the minimum required reserves were fixed by the BNB Regulation 21 at 11 percent of deposits included in M3. In mid-2000 they were reduced to 8 percent. The conditions for access to the minimum required reserves were eased by the new version of BNB Regulation 21 in early April 1998, which introduced daily averaging.

To improve banking supervision, the BSD was reorganized, expanded, and trained its staff with the assistance of foreign advisors. To implement the Strategic Plan for on-site supervision, the BSD trained on-site examiners and developed an Examination Manual. Off-site supervision made significant progress by developing new monthly and quarterly call reports from banks, and requested from them the submission of these reports. To enhance the credibility and effectiveness of the new banking laws and regulations, the

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[11] Article 45 of the BNB Law states that the BNB may not extend credits in any form whatsoever to the state or to any state agency, except credits against purchases of SDRs from the IMF, extended by the BNB Management Board.

[12] The provision of the BNB Law regarding on-lending of IMF purchases to the government was introduced in order to help avoid violations of the BNB independence whenever budget deficit financing was required and could not be provided from alternative sources. Prior to the CBA introduction there were incidences when the limits on the BNB direct credit to the government, set by the previous BNB Law (1991), were overruled on the basis of Para 2 of the Additional Provisions of the Organic Budget Law. To diminish the opportunity of overruling the BNB Law, article 45 was introduced, allowing on-lending of IMF purchases to the government. However, the BNB independence can be guaranteed only by an amendment to the Constitution of Bulgaria, which will eliminate any provisions that can overrule the BNB Law (Roussenova, 2000).

BNB BSD introduced requirements for bank accounting, auditing, and reporting consistent with international practices.

The rules and discipline imposed by the CBA, the new tight prudential regulation together with improved banking supervision resulted in the implementation of conservative lending policies by banks. Bulgarian commercial banks are sound, highly liquid and well capitalized. The average CAR was 31 percent in end-December 2001, with Group IV (the group of the smallest banks) having the highest CAR of 47 percent, followed by the biggest bank Group I (36 percent). The non-performing loan exposure ratio (watch, substandard, doubtful and loss) keeps declining and reached 7 percent in the end of 2001.

Conclusions

The Bulgarian crisis experience indicates that the dual crisis requires system-wide policy measures addressing both the baking sector crisis and the currency crisis. Fragmentary policy measures may have only temporary success and will finally lead to new waves of crisis, which might be even deeper and more devastating. The Bulgarian banking crisis required radical system-wide measures like:

- closure of bankrupt banks,
- privatization of viable banks mainly through sale to strategic investors,
- introduction of adequate prudential regulations,
- efficient banking supervision and
- privatization of the corporate sector.

Banking sector reform and monetary tightening could not be successful and sustainable if not supported by real sector reforms.

Radical policy measures addressing the banking sector crisis could be successful if supported by radical approaches to monetary management. Money-based programs are unsustainable in a period of baking and currency crisis. The successful banking crisis resolution required radical policy measures to resolve the currency crisis and achieve economic stabilization. Overcoming a currency crisis of the magnitude Bulgaria experienced required:

- substantial foreign currency support to raise the central bank international reserves to levels that can stabilize the national currency,
- introduction of a tight monetary policy; in the case of Bulgaria the introduction of the CBA was possible and appropriate as it introduced strict rules and discipline and restored confidence in the lev;
- central bank independence guaranteed by law.

In Bulgaria all these requirements were met with the CBA introduction. It was designed to meet the specific challenges of the Bulgarian economy and the banking sector in

particular. Its success could be attributed to its specific structure and principles of operation, as well as to the IMF support.

Bibliography

Balyozov, Z., (1999) The Bulgarian Financial Crisis of 1996-1997, *BNB Discussion Papers, DP/7/1999.*

Bulgaria: Recent Economic Developments and Statistical Appendix, (1999), *IMF Staff Country Report No 99/26. .*

Bulgaria: Addressing the Banking Sector and Other Issues, Volume I, II, *IMF, Monetary and Exchange Affairs Department, October, 1996.*

Bulgaria: Request for Stand-by Arrangement, IMF, 1996

Bulgaria: Selected Issues and Statistical Appendix, (2001), *IMF Country Report No 01/54.*

Bulgarian National Bank, Information Bulletins, 1996,1997, 1998, 1999, 2000.

Bulgarian National Bank, Annual Reports, 1996, 1996, 1998, 1999

Bulgarian National Bank, Commercial Banks in Bulgaria, December, 2000, 2001

European Commission, 2000 Regular Report from the Commission on Bulgaria's Progress towards Accession, 2001

Enoch, Anne-Marie Gulde and D. Hardy, (2002), Banking Crises and Bank Resolution: Experience in Some Transition Economies, IMF Working Paper, WP/02/56

Financial Sector Crisis and Restructuring – Lessons from Asia, IMF, 1999

Gulde, Anne-Marie, J. Kahkonen and P. Keller, (2 000)**,** Pros and Cons of Currency Board Arrangements in the Lead-up to EU Accession and Participation in the Euro Zone, *IMF Policy Discussion Papers*, PDP/00/1.

Hanke, Steve, L. Jonung and K. Schuler, (1993), Russian Currency and Finance, London, New York, Routledge.

Keller, P., (2000)**,** Recent Experience with Currency Boards and Fixed Exchange Rates in the Baltic Countries and Bulgaria and Some Lessons for the Future, IMF.

Miller Jeffrey, (1999), The Currency Board in Bulgaria: the First Two Years, DP/11/1999, BNB.

Mihov, Ilian,(1999), The Economic Transition in Bulgaria, 1989-1999, forthcoming in Transition: The First Decade, M. Blejer and M. Screb (editors), MIT Press, now available on www.faculty.insead.fr/mihov/Research.htm.

Nenovsky, Nikolay and K. Hristov, (2001) “The Non-Orthodox Currency Boards: the Case of Bulgaria”, CETAI, Montreal, January.

Roussenova, L. (2000), “Bulgaria and the European Economic and Monetary Union”, European Institute, Sofia, www.europeaninstitute.net

Tang, H., E. Zoli and I. Klytchnikova, (2001), Banking Crises in Transition Countries: Fiscal Costs and Related Issues, World Bank Paper

Ulgenerk, E. and L. Zlaoui, (2000), “From Transition to Accession”, *World Bank Technical Paper No 473*

World Bank, 2001, Bulgaria Country Economic Memorandum, Washington, World Bank

Yotzov, V., Nenovsky, N., Hristov, K., Petrova, I., Petrov, B., (1998) The First Year of the Currency Board in Bulgaria*, Bulgarian National Bank Discussion Papers, DP/1/1998,* BNB.