

THE PROBLEM OF BAD LOANS AND ENTERPRISE INDEBTEDNESS IN BULGARIA

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Introduction

The escalation of bad loans, which in the broad sense denote substandard and nonperforming bank loans and interenterprise arrears, in the planned economies in transition (PETs) is one of the perverse legacies of postwar developments. It is imposing serious obstacles onto the process of turning the PETs into market-based economies. Oddly enough, the bad loans issue was not among the immediate priorities of policy makers at the start of the transition and none of the PETs has thus far come up with a strategy on how to deal with it comprehensively, within the general framework of their economic reform packages [Brabant J.M. van, 1994a]. This led to the exacerbation and, in some countries as Bulgaria, to the snowballing of the problem, further compounding the eventual policies to be taken. By 1993, policy makers in PETs had adopted some measures to contain the bad-loan problem. These were partial approaches with limited chances of a once-and-for-all solution to the problem [Ábel I. and J.P. Bonin, 1994; Mizsei K., 1994; Várhegyi É., 1993].

It is widely argued that the solution to the bad loans problem cannot be an isolated policy component but instead should be an element of a comprehensive economic strategy [Brabant J.M. van, 1994a and 1994b]. More specifically, it is often argued that the cleaning-up of the portfolios of commercial banks will only be successful, in the sense that the solution will avert a reemergence of the problem, if it is coupled with, or results in, the restructuring or eventual privatization of those holding the bad bank loans [Calvo G.A. and M.S. Kumar, 1993; Mizsei K., 1994; Rostowski J. 1994]. Partial solutions do not cure but rather have an adverse effect because of serious moral-hazard problems [Székely I.P., 1993]. Avoiding the latter, however, is much easier said than done. The main dilemma that policy makers are facing in coping with the bad-loan problem is the tradeoff between the speed of the eventual solution and the price to be paid for it. Approaches, promising a speedy and comprehensive solution tend to be intolerably expensive, whereas the implementation of less costly solutions may take unaffordably long.

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Accordingly, strategies for bad-loan management cannot be analyzed without considering their interactions with and repercussions on other aspects of the transition. Indeed, economic policy pertaining to management of bad loans can realistically be considered only in the context of holistic systemic transformation in any one country. Such policies need be tailored to the specific macroeconomic, legislative, and institutional environment in the country. Clearly, there are no single best-practice, universal solutions in sight.

The magnitude of the bad loans is one of the parameters that may confine the degrees of freedom in dealing with the issue. Exact quantification is, however, a notoriously difficult task due to the lack of proper data and the still unstandardized accounting practices. Taking only bad bank loans, the magnitude of the problem generally depends on the level of credit expansion relative to the size of the economy, which can be roughly measured by the ratio of total credit to GDP, and the share of bad loans in total allocated credit.

Such indicators as are available (although of varying, and in some cases dubious, quality) point to significant differences among the PETs. Whereas the credit-GDP ratio in Hungary was 45% and in Poland 20% [Mizsei K., 1994], in Bulgaria this ratio was 70% in 1991 and 68% in 1992 [News, various issues]. As regards the relative share of bad loans the picture is less clear due to different approaches in evaluating the riskiness of the banks assets [Brabant J.M. van, 1994a, 1994b; Rostowski J., 1994]. However, the most commonly quoted range for the Central European PETs is between 20% and 30%; in Bulgaria it is, however, in the 40 to 50% range [Calvo G.A. and Kumar M.S., 1993; Dobrinsky R., 1994b; Hrnčič M., 1994; Várhegyi É., 1994]. This suggests that the bad-loan problem is most severe in Bulgaria.

One obvious consequence of circumstance is that even if each PET were to follow an optimal strategy towards working out its bad-loan problem, the price to be paid will inherently vary across countries. This price has two components. One depends on the magnitude of the problem in the specific country. Another one depends on the efficiency of the bad-loan management strategy within the macroeconomic, institutional, and legislative environment of the country.

In this paper, I address some critical aspects of the bad-loan situation in Bulgaria, following the broad conceptual framework outlined above. Its genesis is traced in the context of the initial conditions for transition in the country because they contributed to the exceptionally high level of the financial disturbance caused by bad loans. The paper also discusses the policies embraced since the transition's inception in an effort to deal with these problems within the framework of the broader reform strategy.

1. The Genesis of Bad Loans in Bulgaria: A Time Bomb Planted in the 1980s

The genesis of the bad-loan problem in Bulgaria must be traced to the economic policy pursued in the socialist past, particularly during the late 1980s. Paradoxically, what

now appears as a legacy of central planning, in retrospect was the outcome mainly of the attempts of introducing market-oriented reforms within the confines inherent in the preserved monopoly on power. It is often overlooked in the mainstream literature that by the 1980s Bulgaria was no longer a highly centralized economy, as distinct from its political power and relationship with the Soviet Union. This is not accurate. Bulgaria started experimenting with tentative market-oriented reforms around the same time that Hungary did – the late 1960s. Although the Bulgarian reforms were not as consistent and comprehensive as the Hungarian, many important changes had already been introduced in the 1980s.

One important characteristic of these reforms referred to the status of state-owned enterprises (SOE). Following a sequence of economic legislation, SOEs were granted some autonomous powers and the scope of centrally imposed economic targets and resource allocation was curtailed. These changes affected especially the product mix of SOEs (most enterprises had at least some spare capacity which they could allocate based on their own performance and marketing strategy) and the mechanism of allocation of financial resources, which was largely decentralized. In the 1980s, a number of ‘sectoral’ banks were created for specific industrial branches [Dobrinsky R., 1994b]. Their main function was to provide long-term finance to SOEs. But they also performed some other limited commercial activities.

Unfortunately, the attempts at introducing market-oriented reforms were promising in rhetoric, but little changed in actual performance and decision making of either SOEs or the central plan. The administrative decentralization of enterprise financing, in particular of long-term credit, did not necessarily entail a change in the actual allocation of investment funds. The crucial investment decisions, particularly for large-scale projects, remained the priority of central authorities. However, even in this case a large portion of the actual financing was not provided from the central budget. Rather, central investment decisions were simply imposed on SOEs and the banks for implementation in the form of long-term bank credit. What should really have happened was the formation of equity rather than loan financing for these new, large projects.

Seen in context, though the mechanics of financing changed, very little modification occurred in the actual allocation of investment funds and thus in their efficient use. Moreover, many of the projects of that period were industries in which Bulgaria was ‘specialized’ within the Council for Mutual Economic Assistance (CMEA). In most cases, neither firms nor the banks were allowed to partake in the decision-making process. But both ended up with legal commitments deriving from the loan as asset for the bank and as liability for the enterprise. Most of these loans were simply not collateralized.

The legacies of this practice constitute one of the main underlying factors for the emergence of bad bank loans in Bulgaria during the transition, and particularly in that PET because it probably most widely resorted to this way of financing investments. This

accounts for part of the reason behind the fact that the structure of Bulgarian bad bank loans differ distinctly, for example, from Czechoslovakia's (or now the Czech Republic's), where a significant share of substandard and nonperforming loans consisted of the so-called 'perpetual' loans for working capital [Kerouš M., 1993].

There is another specific, and truly unique, legacy of Bulgaria's financing during the last few years preceding the transition. A large portion of the loans allocated in the late 1980s was in convertible currency and was expected to be serviced in convertible currency. Bulgaria was extensively borrowing abroad at the time and the central authorities, ultimately the Bulgarian National Bank (BNB) as Central Bank and its agent – the Bulgarian Foreign Trade Bank – with the funds being channeled through the nominally commercial banks, were trying to devolve part of the responsibility for servicing the foreign debt to those benefiting from the loans used mainly for modernization of equipment. The intention was to press them to export to convertible-currency markets in order to be able to service such debts.

This strategy never worked as planned because actual credit allocation remained heavily distorted by centrally made decisions and low efficiency. Besides, very few incentives existed for convertible-currency exporters if only because Bulgaria remained heavily dependent on CMEA trade. In fact, then, convertible-currency loans were being transformed into transferable ruble earnings. This risky expansion strategy coupled with mismanagement of borrowing led to the debt crisis in the country and the suspension of the servicing of foreign debt in 1990.

As a result, after the adoption of a floating exchange rate in February 1991, when the rate suddenly depreciated almost ten-fold, the domestic-currency value of the foreign-currency loans (which were denominated in *valuta lev*) soared overnight, unlike the value of loans in domestic *lev* (Lv) which was furthermore eroded by inflation. In the case of a floating exchange rate in an unstabilized economy (as it is in Bulgaria) these credits inherently bear a very high foreign exchange risk that, under the circumstances, had to be borne by firms.

Other legacies of administrative planning also exerted a negative influence on the initial conditions for transition. One was the large monetary overhang stemming from very high levels of repressed inflation. After the liberalization of prices in 1991 it translated into high and persistent open inflation (see Table 1). To counter this, since 1991 the Central Bank has been following a restrictive monetary policy by restraining the growth of money supply and maintaining high nominal interest rates (see Table 1). After the liberalization of the interest rate as part of the stabilization program of 1991, commercial banks were allowed to apply the newly established rates retroactively to outstanding loans (except household mortgages for which higher rates were phased in more gradually, but they remain far below current market lending rates). As a result, even though the value of the principal was eroded by inflation, the interest burden on enterprises increased substantially. In the case of positive interest rates, as has been the case since

liberalization when industrial prices are compared to nominal interest rates, it raises on average the burden to the firm (but not necessarily for each firm just like a negative real interest rate would not necessarily be a boon to each firm).

Table 1 - BULGARIA: SELECTED MACROECONOMIC INDICATORS, 1990-1993
(average annual percentage rates, unless otherwise specified)

	1990	1991	1992	1993*
Gross domestic product	-9.1	-11.7	-7.7	-4.8
Gross industrial outputb	-17.2	-22.2	-16.2	-9.3
Unemployment rate (as % of labor force, end of period)	1.7	11.1	15.6	16.4
Consumer prices	23.8	338.5	91.3	74.0
Industrial producer prices~^	330.5	40.1	15.4	
Average wages and salaries~				
- Nominal	31.8	165.7	113.8	60.8
- Real	6.5	-39.4	11.8	-7.6
Money supply (M1)	24.0	24.2	40.7	27.3
Money supply (broad money)	16.1	118.0	52.5	53.1
Time deposits (domestic currency)	-	513.8	129.7	85.6
Central interest rate"	4.5	61.4	60.9	57.9
Average lending interest rate of commercial banks" (short-term)	-	67.8	74.0	78.3
Average interest rate of commercial banks on time deposits"	-	59.2	55.6	52.0
Exchange rate (leva per dollar, period average)	-	16.7	23.3	27.8

* Preliminary.

~ Without private sector.

^ Year-end data for 1992 and 1993.

" Annual compound percentage rate.

Source: Various issues of *Annual Report of the Bulgarian National Bank; News; Statisticheski godishnik na Republika Bulgariya; Tekushta stopanska konyunktura.*

The above developments conditioned the magnitude of the bad-loan problem and its country-specific features. But this constitutes only one side of the story. Of no less importance are the economic policies pursued and the performance delivered since the start of the transition. In this respect, Bulgaria's experience also has some particular characteristics, of which I shall analyze the behavior and performance of the highly indebted en-

terprises and the consequences on the financial system as a whole, but particularly on the banking system.

2. Bulgarian Enterprises in the Transition: The Snowball Effect of Bad Loans

Since 1989 the Bulgarian economy has been in deep depression. By 1993, GDP had been declining for five consecutive years and industrial output dropped to about 45% of its pre-crisis level (Table 1). Two strong shocks contributed to this development: the disintegration of the CMEA, which was Bulgaria's main market, and the austerity measures resulting from the stabilization program of 1991. Similar to the stabilization programs of Poland in 1990 and Czechoslovakia in 1991, it included almost complete price liberalization, liberalization of foreign trade, the establishment of a uniform and market-determined (floating) exchange rate, and the liberalization of interest rates [Avramov R., 1993].

At the same time, SOEs were granted full autonomy and were expected to be self-supporting. Even prior to the political changes, in 1989 the corporatization of SOEs had started, resulting in their transformation into joint-stock or public limited companies with full state ownership. An important element of the Bulgarian reform was the organizational disaggregation of large monopolistic SOEs into smaller, independent and competing, units in the course of in the period 1991-1992.

One of the goals of this policy was to make enterprises more responsive to changes in demand. Another was to introduce competitive pressures to foster economic restructuring and the emergence of competitive market prices. The experience of the past years has signaled weighty systemic factors that set limits to the possible speed of market adaptation of economic agents. In general, the performance of large SOEs was characterized by slow adjustment to the changing market environment. The loss of traditional CMEA markets, disturbances in the supply of some inputs, the lack of marketing and managerial skills as well as of experience in operating within a highly competitive environment, the malfunctioning and imperfect domestic markets, the complete lack of incentives for enterprise managers, and the general resistance to change are only some of the paramount factors that impeded restructuring and adjustment; inconsistent economic policy was another.

Privatization in the sense of divestment, which is the most radical way of restructuring SOEs, has been proceeding very slowly due to a combination of factors. One serious obstacle has been the actual philosophy of the privatization law voted in 1992. It set quite rigid lines for divestment, oriented chiefly towards sales of SOEs to dominant investors. The experience since then has underlined that the chances of such a privatization path in Bulgaria are not very good. Domestic private capital is scarce and foreign investors have not shown much interest in Bulgarian firms. Last but not least, domestic political instability and frequent changes of government have also adversely affected the process.

Because new private companies have been emerging only slowly and next to nothing in manufacturing, SOEs remain the overwhelming majority of Bulgarian industrial enterprises. It is therefore the behavior and performance of SOEs that shape the current industrial performance [Dobrinsky R. et al., 1993]. Hardening of budget constraints for firms in PETs is one of the main preconditions for changing their behavior, thus eliciting adjustment and restructuring [Aghion P., Blanchard O.J. and R. Burgess, 1993]. In order to be effective this has to be coupled with proper bankruptcy legislation, posing the threat of liquidation on enterprises that do not adjust to market conditions.

In Bulgaria, neither of these conditions was in place and the process of enterprise restructuring, as a result, has been proceeding very slowly. The lack of bankruptcy legislation was especially corrosive in this regard as it legally impeded the enforcement of hard budget constraints. Such an attempt was made at the start of the stabilization program with the discontinuation of most of the enterprise subsidies at the time of price liberalization. Direct budget subsidies were restricted to some specific branches such as coal mining, energy, metallurgy, and sawing and wood processing (see Table 2).

Since 1990, the financial situation of Bulgarian firms has been continuously deteriorating. This can be traced in some of their financial indicators, particularly in their profit margins (Table 2). As per the latest available data, in 1993 all industrial branches operated at a loss [see *Tekushta stopanska konyunktura*, 1993:12]. The aggregate loss of all SOEs in 1993 amounted to 13.6% of GDP, thus vividly underlining the very deep financial crisis of the corporate sector. Of course, the aggregate figures mask the different situation of firms within branches. Thus, among 5,798 SOEs surveyed in the first half of 1993, 3,466 operated at a loss, 2,158 had positive profit, and 174 reported zero profit [AECD, 1993a]. However, the profit-making firms were as a rule small- and medium-size enterprises and their profit margins were quite low, so they cannot compensate for the losses elsewhere.

Apart from the obvious negative effect of the abrupt decline in revenues due to the loss of CMEA markets the financial indicators (Table 2) reveal the profound impact of indebtedness on enterprise performance. The high levels of enterprise debt coupled with high nominal interest rates (Table 1) contributed to a substantial increase in the interest burden on enterprises. The data also suggest (Table 2) that the problem of indebtedness was unevenly distributed across industries. The most severely affected were the sectors of metallurgy, mechanical engineering, and electrical engineering – precisely the sectors selected to deepen Bulgaria's specialization within the CMEA context. In many cases, investment credits were allocated for construction of new capacities that remained unfinished, thus nonproductive, but which had to be serviced just the same.

The debt burden was aggravated by the fact that industrial producer prices, whose measurement leaves something to be desired, in this period trailed consumer prices (Table 1), the indicator chosen by the Central bank to attune its Central interest rate. There are also notable differences in the producer price dynamics across sectors

Table 2 - FINANCIAL INDICATORS OF BULGARIAN INDUSTRIAL ENTERPRISES, 1991-1992 (weighted averages by industrial sectors)

Sector	Quick ratio* (ratio)	Average collection period ^d (days)	Interest burden ^e (%)	Times interest earned ^f (ratio)	Sub-ditization ratio ^g (%)	Gross profit margin ^h (%)
1991						
Electricity & thermal power	1.13	81	2.4	3.51	1.0	5.6
Coal mining	0.81	46	1.5	34.83	24.2	34.3
Extraction of petroleum and natural gas	1.60	33	1.8	26.05	0.0	31.0
Iron and steel industry	0.32	274	10.4	1.60	0.0	5.9
Nonferrous metallurgy	0.41	48	11.8	0.29	0.1	-9.2
Metal processing and machine building.	0.70	241	15.1	0.70	0.2	-4.7
Electroal and electronic equipment	0.98	91	13.0	1.71	0.0	8.5
Chemical industry and oil refining	0.75	53	2.7	5.40	0.0	10.5
Manufacture of building materials	0.86	58	10.8	0.45	0.0	-6.4
Wood sawing and processing	0.85	48	8.5	1.11	3.7	0.9
Pulp and paper industry	1.26	30	6.8	2.81	0.0	11.0
Glass and ceramics industry	0.63	130	4.5	0.76	0.0	-1.1
Textile and knitting industry	0.70	77	7.9	1.45	0.1	3.4
Manufacture of ready-made clothes	0.41	44	6.5	3.65	0.0	14.7
Leather and shoe industry	0.41	56	8.1	1.92	0.1	6.9
Printing industry	1.11	285	4.5	4.18	0.0	12.6
Food-processing industry	0.56	63	5.8	3.43	0.2	12.4
Other industry	0.72	51	2.7	2.25	0.1	3.2
Industry, total	0.71	84	6.7	2.25	1.2	7.7

See over for notes.

Table 2 - FINANCIAL INDICATORS OF BULGARIAN INDUSTRIAL ENTERPRISES, 1991-1992 (weighted averages by ind. sectors) - cont'd

Sector	Quick ratio* (ratio)	Average collection period' (days)	Interest burden^ (%)	Times interest earned'' (ratio)	Subsidi- dization ratio\$ (%)	Gross profit margin- (%)
1992						
Electricity & thermal power	0.59	66	2.2	-7.10	5.6	-21.5
Coal mining	0.98	176	1.5	14.78	26.2	16.8
Extraction of petroleum and natural gas	3.00	31	0.0	0.00	0.0	25.2
Iron and steel industry	0.31	39	17.1	0.08	0.6	-18.7
Nonferrous metallurgy	0.43	24	7.0	0.97	3.7	-0.2
Metal processing and machine building.	0.50	102	19.9	0.34	0.0	-15.2
Electrocal and electronic equipment	0.62	64	20.3	0.27	0.0	-17.5
Chemical industry and oil refining	0.42	44	7.8	1.19	0.0	1.5
Manufacture of building materials	0.47	32	10.0	0.13	0.0	-9.5
Wood sawing and processing	0.50	23	6.1	0.22	5.8	-5.0
Pulp and paper industry	0.96	27	10.0	0.38	0.0	-6.6
Glass and ceramics industry	0.41	46	8.6	0.15	0.0	-7.9
Textile and knitting industry	0.46	42	10.0	0.45	0.2	-5.8
Manufacture of ready-made clothes	0.45	27	9.6	0.74	0.0	-2.6
Leather and shoe industry	0.29	18	8.6	1.07	0.0	0.6
Printing industry	0.55	21	1.5	3.94	0.0	4.2
Food-processing industry	0.43	38	8.3	1.52	0.1	4.1
Other industry	0.65	27	3.9	0.72	0.1	-1.1
Industry, total	0.50	52	10.2	0.56	1.8	-4.8

See over for notes.

Table 2 - Notes

* (Cash + accounts receivable)/current liabilities

' (365 × accounts receivable)/net sales

^ Interest payable/total expenditure

" Earnings before interest and taxes/interest payable

§ Total subsidies received/total revenue

– Profit before taxes/total revenue

Source: Calculations based on data from the Bulgarian National Statistical Institute.

[Dobrinsky R. et al., 1994]. All this results in excessively high real interest rates for a number of industrial producers. The impact of the credit burden on enterprises in the situation of a strongly depressed economy can be clearly traced in the 'times interest earned' ratio (Table 2). In 1992, the total earnings (before interest and taxes) of enterprises covered only 56% of the interest payable for that year. In some sectors, the picture is especially grim. In fact, only five sectors generated earnings in excess of the interest due. Although comparable figures for 1993 are not yet available, it is certain that the situation has deteriorated further. Another evidence of the deep financial crisis in the corporate sector is enterprise liquidity which by 1992, as approximated by the 'quick ratio' (Table 2), had fallen across the board far below satisfactory levels.

Under these circumstances the lack of bankruptcy legislation had two main negative effects. First, there was no direct threat of liquidation of loss-making firms, something which worsened their underperformance. On the one hand, it affected their competitive behavior in the market, resulting in forgone income from lost market shares in both domestic and foreign markets. On the other hand, it reduces the incentives for internal restructuring which would yield more efficient operation. In spite of the reported high open unemployment (Table 1) there is still considerable overstaffing, including when comparing relative performance of SOEs, let alone absolute performances. Taking into account the fact that average nominal wages in 1991-1992 grew much faster than producer prices (Table 1) this further depressed profit margins.

Second, probably even more destructive was that it created the possibility for 'spreading the disease' and 'contaminating' other, potentially viable operations. The fact that loss-making enterprises continue operating as going concerns implies that they find alternative sources than sales to finance their existence. Such alternative sources stem either from defaulting on (some of) their liabilities or by failing to deliver (or delaying) contracted output. On the liability side the enterprises had a number of options for suspending payments: servicing of bank credit, remittance of taxes and social security contributions, servicing of accounts payable to suppliers, and wage payments.

The interruption of wage payments is the least acceptable for enterprise managers as

it will not be tolerated by their workforce. Usually wages have the highest priority among all enterprise liabilities. Deferring such payments, as per the Bulgarian experience, happens only in extreme cases when an enterprise falls into an absolute liquidity crisis.

Suspension of accounts payable to suppliers, resulting in involuntary interenterprise credit, was a preferred method of alternative financing of SOEs at the start of the transition, when enterprises were granted full autonomy. However, this did not last long due to the learning mechanisms and the existing technological restrictions. Enterprises usually have a limited number of suppliers and when their suppliers learn that their clients are unreliable in payments they either stop deliveries or request immediate payment. Although there is a large amount of accumulated interenterprise arrears (a recent survey of the Bulgarian industry estimated them at Lv 8.65 billion, or 4.4% of GDP, in 1992 [see Report, 1993]), recent data indicate that the rate of growth of this stock has been declining. By the middle of 1993, the share of interenterprise arrears in total accounts payable to suppliers for industry as a whole remained at 40%, the same as a year earlier [AECD, 1993a]. Moreover, interenterprise arrears were concentrated in some sectors where payment problems had become chronic. The same is valid also for failing to deliver (or delaying delivery of) contracted output as an alternative source of finance. Besides, the latter is only possible when the contract is at least partially prepaid. Such type of finance has had limited appeal.

At the same time, industrial enterprises became much more concerned about the solvency of their clients. An indication of this is the improvement in the average collection period, which in 1992 for the industry as a whole declined to 52 days from 86 days in 1991 (Table 2). This tendency is confirmed also by the fact that in June 1993 the share of arrears in accounts receivable from clients of industrial enterprises had dropped to 24.1% from 48.4% in June 1992 [AECD, 1993a].

The remittance of taxes and related dues to the budget – the social security system is still incorporated in the consolidated Central budget – to a large degree depends on the efficiency of the tax-collection system. The one inherited from the past was not designed for the conditions of a market economy. Tax evasion is widespread, especially in the emerging private sector. In 1993, a comprehensive tax reform was initiated which included measures designed to raise the efficiency of the tax-collection process. Although the level of tax collection remains unsatisfactory even in SOEs, it has been improving – in the first half of 1993 the ratio of collected over levied profit taxes for industrial SOEs was 60% as compared to 53.3% a year earlier [AECD, 1993a].

This elimination process suggests that the main source of alternative finance for firms has been defaulting on bank credits. This can be confirmed from available information. For example, the ratio 'interest paid/interest due' for industry as a whole for the first half of 1992 was 61% and declined during the rest of 1992, yielding 51.7% for the year as a whole, and to 37.2% in the first half of 1993 [AECD, 1993a; Report, 1993]. Although the learning mechanism also works in this case, so that banks begin to segregate 'good'

from 'bad' clients, its efficiency is much lower in the absence of the financial discipline imposed by the threat of bankruptcy. Besides, the substitution of banks was less painful than the substitution of suppliers due to the relatively large number of banks, including newly established private banks, in the country and the competition for clients among them [Dobrinsky R., 1994b].

Apart from the destructive effect of the lack of bankruptcy legislation, the snowballing of bad bank loans was accelerated by the inconsistency of the economic policies for dealing with this problem. Both in 1991 and in 1992, the authorities decided to enact a partial centralization of old enterprise loans for which a special fund was appropriated in the Central budget. These steps were meant mainly as financial assistance to troubled enterprises. They were not aimed at cleaning up the banks' portfolios, which at that time did not show signs of trouble. However, these decisions were taken without clear goals and strategy for the follow-up process and, in the first round, even without formulating coherent eligibility criteria. As a consequence moral-hazard problems were endemic.

All in all, 124 industrial SOEs received such relief in the first wave and 140 in the second [Report, 1993]; the total amount of industrial enterprise debt which was 'nationalized' by this intervention amounted to Lv 5.53 billion. In addition, Lv 3.47 billion of old debts of SOEs from other sectors were taken over by the state. The enterprises covered by these measures had to prepare a restructuring program aiming at improving their financial state as part of contract signed with the enterprises in the second wave. However, an appraisal of the results of the first-wave programs, when the selection of firms was very chaotic, indicated that actual performance of these enterprises fell far below expectations, and in fact many of the problems reemerged [Report, 1993].

Such an inconsistent and partial policy which did not lead to a 'once-and-for-all' solution of the problem gave the wrong signals to the enterprises. Although it covered only a small portion of the existing SOEs (there were more than 5,500 in all), it created the overwhelming expectations of an 'all-is-forgiven' policy on behalf of the state, inducing the firms to stop servicing their old bank credits. Thus, 90.7% of all actual repayments of principal by industrial enterprises in 1992 were repayments of short-term credit (for working capital) and only 9.3% constituted repayment of long-term (investment) credits; for the first half of 1993, the corresponding data are 93% and 7%, respectively [Report, 1993].

In short, the snowballing of bad loans on the part of Bulgarian enterprises during the transition was the outcome of quite rational economic microeconomic behavior: fighting for survival, given the circumstances in which they were placed in the initial phase of the transition process and the economic policies current at that time. One of the pernicious consequences of these developments was that the financial crisis generated in the corporate sector easily infected the banking system as well.

3. Bad Loans and the Banking System

Despite the fact that the Bulgarian banking system underwent major restructuring since 1991, with new legislation making way for the development of a modern banking system in the country [Dobrinsky R., 1994b], these positive developments were given a setback as a result of the bad-loan problem for the reasons noted earlier. Data do not permit a detailed quantitative analysis of bad loans in Bulgaria. And the rare data that are available are compounded by the fact that different classification criteria have been used since 1991. According to the latest banking regulations, the categories substandard and nonperforming loans include credits that have not been serviced for more than 30 days. These categories together are usually taken to denote the 'bad' loans.

A rough estimate based on the volume of arrears indicates that at the end of 1992 they amounted to almost 57% of the total credit extended by the commercial banks (Table 3). A large share of the bad loans is concentrated in a small number of banks, particularly the sectoral and some of the regional state banks. However, due to its magnitude the problem is reflected throughout the whole financial system.

Table 3 - OVERDUE DEBT SERVICE TO BULGARIAN COMMERCIAL BANKS AS OF 31 December 1992 (% of outstanding credit)

Type of credits by denomination	Overdue principal	Interest arrears	Allocated reserves
Allocated before 31 December 1990			
- in domestic currency	55.3	31.6	10.9
- in convertible currencies	47.5	13.3	4.8
Subtotal	50.6	20.5	7.2
Allocated after 1 January 1991			
- in domestic currency	36.0	10.6	3.2
- in convertible currencies	11.2	0.9	0.8
Subtotal	32.5	9.2	2.8
Total	41.7	15.0	5.1

Source: Various issues of *Annual Report of the Bulgarian National Bank*.

The figures indicate also that the bad-loan infection contaminated not only old credits, extended before 1991, which can be regarded as a legacy of the past [Brabant J.M. van, 1994b], but also credits which were allocated after the start of the reforms. This

stemmed in part from the inertia in banking practices inherited from the Central planning period – banks simply did not have the experience of and expertise for lending under market conditions. Proper risk-assessment skills were practically nonexistent. Frequently, no such skills were required as some loans were granted upon pressure, with or without political backing, exerted on the banks to continue lending to enterprises even though they did not service their old obligations. This preserved such enterprises as clients of the banks but resulted in ‘throwing good money after bad’ and contributed to the general exacerbation of the magnitude and depth of the bad-loan problem.

The impact of the bad loans on the performance of the banking sector has been devastating. The first important implication for the economy was that the banks burdened with bad loans were driven to operate with high interest spreads in order to be able to provision and to make up for the losses incurred due to enterprise bad loans. There are no systematic data on individual bank interest spreads. But there are indications that in 1991-1993 the interest spread was continuously increasing and reached 26% on average in 1993 (Table 1). Thus good clients of the banks had also to pay partially for their bad clients (the high spread between the Central bank interest rate, applied to refinancing, and the lending rates is indicative of this development).

However, the highest price for the financial crisis was actually paid by savers. With real deposit rates (as per consumer prices) being highly negative throughout 1991-1993 (Table 1) and deposits, particularly the newly introduced time deposits, rising rapidly, there has been an outflow of real income from households to the banking system. This might seem odd at first glance. Two explanations can be adduced. One is that with privatization delayed and practically non-existing capital markets, small investors in particular had very few alternatives for placing their savings. Furthermore, the lev was appreciating in real terms during that period, so the dollar value of deposits has been increasing, thus probably persuading savers to hold domestic money balances. Note, however, that this also created the conditions for speculative operations on the foreign-exchange market, which was one of the reasons for a serious exchange rate crises in Bulgaria in late 1993 and early 1994 [Dobrinsky R., 1994a].

In a competitive market environment the policy of maintaining high interest spreads by some banks would create competitive disadvantages for the latter and they would tend to price themselves out of the market. This is not what has thus far been happening in the Bulgarian banking system. Instead, banks that are not burdened with bad loans simply follow the pricing policy of the first who become market makers. The main determinant of this behavior is the existence of credit ceilings – the main monetary policy instrument of the Central bank [Filipov L., 1992] – which effectively sets limits to the market expansion of individual banks. Accordingly, ‘clean’ banks have no incentives to deviate from the pricing policy of the market makers as the demand for credit generally exceeds the constrained supply. Under such circumstances the entire commercial banking sector in essence operates as one big cartel.

In spite of the large interest spread the banks burdened with bad loans were not able to allocate sufficient provisions due to the very depressed economy and due to the snowballing of the bad loans themselves. Actually, on the whole the commercial banks had been able to provision by the end of 1992 only a small portion of the total bad loans (Table 3). At the same time they allocated for this purpose most of their net income (as well as some of their general purpose reserves) or even finished the year at a loss. On the other hand the 'clean' banks, which are mainly the new private ones, are using the opportunity to cash in windfall profits.

Table 4 - PERFORMANCE OF THE BULGARIAN BANKING SECTOR: FINANCIAL RATIOS*, 1991-1992 (weighted average percentage rates by groups of banks)

	State-owned banks	Private banks~	Five-largest banks	Medium-sized banks^	Small-sized banks"	All banks
1991						
Return on equity	34.54	50.19	27.04	53.59	60.90	35.60
Return on assets	1.80	3.79	1.60	1.89	3.07	1.89
Capital/asset ratio	5.20	7.55	5.90	3.53	5.04	5.32
1992						
Return on equity	0.77	28.09	2.77	8.86	2.99	3.92
Return on assets	0.04	1.81	0.15	0.37	0.24	0.21
Capital/asset ratio	5.34	6.44	5.52	4.17	8.14	5.45

a Excluding State Savings Bank.

~ Banks in which private ownership has a controlling interest.

^ Banks with total assets over Lv 2 billion (excluding the five largest banks).

" Banks with total assets of less than Lv 2 billion.

Source: Dobrinsky R. (1994b), Reform of the financial system in Bulgaria, in Bonin J.P. and I.P. Srékely (eds.), *Development and reform of financial systems in Central and Eastern Europe*, Edward Elgar, Aldershot (forthcoming).

The data on the performance of Bulgarian commercial banks (Table 4) clearly illustrates the distinctively different situation of the two ownership groups, which is to a large extent driven by the bad-loan problem. The most important factor behind this was not increased profitability in the private banks – actually they also experienced a fall in their returns in 1992 – but the catastrophic drop in the after-tax profit margins of the state banks. The figures in Table 4 reveal also that in terms of capital adequacy (here meas-

ured roughly by the ratio of capital to assets) on the average the private banks are better prepared to face the realities of the market economy than the state-owned ones. However, the banking system as a whole is extremely undercapitalized and the situation can be improved only by the injection of fresh capital into the system.

The breakdown by size reveals that in 1991 it was on average the small-sized banks that performed best, whereas in 1992 the medium-sized banks did better. It must be borne in mind that the composition of these groups changed in the course of the consolidation process due to the fact that some fast growing new private banks moved to the upper category. It should also be mentioned that the average figures hide the substantial dispersion of performance indicators among banks (in 1992 the standard deviation of the return on assets across all banks was 2.26 and the standard deviation of the capital/asset ratio was 8.22). All in all, in 1992 seven banks ended the year at a loss and eleven reported zero profits. With the snowballing of bad loans the situation deteriorated markedly in 1993. The banking system in the aggregate operated at a loss and preliminary data suggest that the total loss of the commercial banks for the year was close to Lv 10 billion [News, no. 24, 1993]. Thus the stability of the whole financial system became endangered by the bad loans problem.

4. Policies to Deal with Bad Loans in Bulgaria

I do not want to restart the discussion on the possible approaches to dealing with the bad loans problem in PETs. This issue has been widely debated and effort have been made to reveal the pros and cons of the alternative approaches [Brabant J.M. van, 1994a, 1994b; Mizsei K., 1994; Rostowski J., 1994]. By now most PETs have opted for some kind of bailout operation, which in essence amounts to 'nationalizing' the bad loans (coupled with cleaning up of the banks' balance sheets), direct recapitalization of the banks (by injecting additional capital), or financial aid to troubled enterprises singly or in combination.

Students of the bad-loan problem have been warning that the moral-hazard of implications of bailout operations might lead to a recurrence of the problem in due course [Begg D. and R. Portes, 1992; Mizsei K., 1994; Rostowski J., 1994; Székely I.P., 1993]. Two main conditions have been emphasized to reduce moral hazard:

- it should be made crystal clear, and its credibility guaranteed, that such an operation will be a one-time, once-and-for-all undertaking; and
- bad-loan management should be coupled with restructuring and, preferably, with privatization of the enterprises involved so that there will be responsible owners to take care of their future financial position.

The experience of the PETs has not been particularly successful in observing either of these two conditions. Only the Polish scheme is directly linked to enterprise restructuring or actual liquidation [Mizsei K., 1994]. However, its practical implementation has thus

far been limited, largely for administrative reasons.

The magnitude of the bad-loan problem adds another dimension to the choice of strategy for a workout. Among all PETs, Bulgaria appears to be the country with the most severe bad-loan problem relative to the country's size. Mismanagement and inconsistent policies in the transition period have also contributed to the aggravation of this bad loans problem. Arguably the most serious mistake was the intention, incorporated into a series of economic-policy measures, to apply a gradualist, step-by-step approach to the cleaning up the balance sheets of banks and enterprises. Thus in 1991 the government announced its decision to replace about 25% of the nonperforming bad loans allocated before 1990 (at that time they were estimated at about Lv 20 billion) with government securities and that later on it would continue to deal with the remaining part in a similar manner (eventually in 1992-1993 a similar portion of bad loans was also replaced with government securities).

As argued, the success or failure of a bad-loan management strategy depends to a large extent on its credibility as well as on whether it transmits the right signals about the expected and desired type of behavior and especially about the required changes in behavior through incentives and sanctions to the right agents. If these are not in place the enterprises could rationally simply continue to follow their previous policies and the bad-loan problem would reappear soon, hence the moral-hazard problem. This is exactly what was lacking in the partial, step-by-step solutions to the Bulgarian bad-loan problem pursued to date. The principal outcome of the inconsistent government policy was that the wrong signals it transmitted to economic agents generated the expectations of an 'all-forgiving' policy of the state which translated into a self-fulfilling prophecy.

The first rescue operations in Bulgaria were designed as financial aid to troubled enterprises. The snowballing of bad loans that followed and the sharp deterioration of the situation in 1993 made it clear that at that point it was now the banking system that found itself in a more troubled situation. As already discussed, the problem reached a scale which endangered the stability of the country's entire financial system.

One of the specific features of the Bulgarian situation is not only that the going-concern market value of many large 'dinosaurs' inherited from communist planning is zero or negative, but so is also their liquidation value due to the fact that their physical assets have very low market value. Although there are no detailed assessments of such enterprises there is indirect evidence that there is a sizable number of them, especially in heavy industry. The bad loans of such enterprises are not retrievable in principle and the enterprises themselves are doomed to be liquidated sooner or later; this process has been delayed for lack of bankruptcy legislation. As regards the effect on the banks holding bad loans of such enterprises, the only satisfactory approach to emerging from the predicament is the taking over of the debt by the state as the owner of the enterprises. This was another factor which predetermined the outcome of the discussions of the policy to deal with the bad-loan issue.

After heated political debates throughout the year, in December 1993 the Bulgarian parliament adopted a law on the settlement of old bad loans of Bulgarian SOEs. This is a large-scale bad-loan management program (its coverage is estimated to be over US\$3 billion), basically in line with the Begg and Portes (1992) model, with some further refinements. The main characteristics of the Bulgarian approach are as follows.

The State issues 25-year government bonds to the amount of the outstanding bad loans of SOEs. Loans eligible for the program are all commercial bank credits allocated before the end of 1990 that had not been serviced for at least three months by 30 June 1993. Banks holding such loans replace them with these bonds on the basis of contracts with the Ministry of Finance. Two types of bonds are issued: one denominated in lev and another in US dollars to replace bad loans denominated in domestic and convertible currency, respectively. All bonds acquired by commercial banks within this program are registered with the BNB which maintains a full national register.

The interest on the lev-denominated bonds is variable, gradually moving up to the BNB's Central interest rate over a period of six years, starting from one third of the basic rate. The interest on the dollar-denominated bonds is equal to the six months LIBOR and is paid in lev over the current lev value of the bond, at the current exchange rate. The bonds will be serviced from the Central budget.

When nonperforming bank credits of an enterprise are replaced with bonds only the interest arrears are written off the enterprise balance sheet (they are transformed into reserves) whereas the principal is transformed into collectible debt to the state. The enterprises involved have to prepare a business plan of their future activities, including expected solvency position, within three months after the debt transformation. This program must be approved by state authorities. On the basis of these programs enterprises are required to sign a contract of financial restructuring with the Ministry of Finance. This contract will either define the terms of servicing the collectible debt (such debt can also be bought back by the enterprise) or it can be written off altogether. The adoption of such programs and the signing of the contracts will in addition be a precondition for such enterprises to reenter the commercial-credit market.

One distinct and unique feature of the Bulgarian approach is that the bonds replacing the bad loans are designed as quasi 'convertible' in the sense that they can be used as a means of payment in the process of privatization of SOEs. Banks holding such bonds can exchange them for stakes in to-be privatized companies at face value. Alternatively, they can sell them on the secondary market where they are expected to be traded at (supposedly) market prices by those interested in acquiring SOEs to be privatized. This last option is expected to have a wide-ranging positive impact on the economy.

The rationale is as follows. Since the bonds carry a below-market interest rate they are still low-quality assets for the banks. The banks will be interested to exchange them (eventually at some loss) for good-quality assets. On the other hand, it is assumed that the bonds will be attractive to privatization investors because they would provide them

with a discount on their investment. An active secondary market will have two positive effects. The fresh investors' capital will be routed to the banks and indirectly will recapitalize them (by increasing their risk-adjusted capital-adequacy ratio). At the same time it will give an impetus for speeding-up the process of privatization.

When an investor uses the bonds to acquire stakes in to-be privatized SOEs the bonds are redeemed. Thus as more and more bonds are channeled through this procedure, the financial burden on the state in terms of interest due on bonds will decrease proportionally. Eventually within several years the whole bond emission could be redeemed in this way (especially, if this were combined with a more intensive inflow of foreign capital to the country). Of course, the state in turn loses the entire value of SOEs bought with such bonds.

Some details of this process remain to be finalized and complementary regulations are expected soon. For example, there are fears of large-scale speculation on the secondary market and it is proposed to strictly regulate this market. Also, it is not yet decided how to tackle any loss in face value of the bonds in the banks' balance sheets.

The debt-conversion schemes open the road, albeit indirectly, to divestment of at least some of the enterprises whose bad loans are cleaned up. An example of how this scheme may work is a recent case of an employee-management buyout (see *168 chasa*, 4 April 1994). The SOE *Stil* in Dimitrovgrad was bought by a private joint-stock company established by the managers and employees of the same enterprise for the sum of Lv 20.1 million. In order to pay the private company bought convertible bonds with a face value of Lv 20.1 million from *Mineralbank*, one of the larger state-owned commercial banks in Bulgaria (details on the price of this deal were not released), which it submitted to the agency for privatization. The bond deal of the private company with the bank was arranged in the form of a six-year credit with the assets of the enterprise being used as collateral. The enterprise itself is assessed to have good future prospects. So the positive outcome of the whole operation is as follows:

- the bank transformed a 25-year low-quality asset for a six-year good-quality asset, at some loss of face value;
- the investor bought a going-concern enterprise at some discount; and
- an SOE was privatized. Of course, this is only one of the different potential solutions made possible by the new scheme.

The major rescue operation that is the bad-loan program incorporates some serious economic-policy risks. First, it is a very expensive operation. If it were to fail to induce sufficient inflows of fresh capital into the banking system, servicing the bonds will constitute a heavy burden on the Central budget, which is in chronic deficit anyway. Actually, it is equivalent to the open recognition by the state that some of its assets have no value and are to be discarded. This may have implications on the future potential of the state to service some of its liabilities such as pensions. Second, although it was announced as a one-time operation, it is not protected against moral-hazard. One serious

problem is the large amount of 'new' bad loans that are not eligible for the loan-conversion program. The past attempts for a step-by-step approach had already created the expectation of a bailout of both enterprises and banks. If the situation were to deteriorate, there may be rising pressures for another rescue operation, instead of looking for other possible solutions. Although it was planned to adopt bankruptcy legislation together with the bad-loan package, this was not done and financial discipline remains very low. Moreover, as indicated by the experience of other PETs, even when such legislation is in place, it cannot be regarded as a panacea for enterprise restructuring. If proper bankruptcy procedures were implemented, they would result in layoffs and unemployment of magnitudes that would be intolerable for society. Hence, policy interventions will continue to play an important role in the process of enterprise restructuring.

There are some doubtful technical aspects of the loans conversion scheme as well. Thus, the decision to issue two types of bonds may destabilize the foreign-exchange market in the country. Since 1991 Bulgaria has introduced internal convertibility (for trading transactions of authorized domestic agents) of the lev based on a floating exchange rate. A massive one-time injection of instruments denominated in foreign exchange (the dollar-bonds amount to over \$1.8 billion) will affect the market, which is shaky anyway.

The denomination of the bonds assigns the foreign-exchange risk. During the initial debates on the debt-conversion package it had been suggested to issue only bonds in domestic currency, leaving the foreign-exchange risk with the commercial banks as part of their responsibility for the whole operation. This would have had two positive effects. First, it would motivate the banks to try to sell such bonds to foreign investors for convertible currency in order to minimize the foreign-exchange risk and this would stimulate the inflow of portfolio investment into the country. Second, such an arrangement would have functioned as a sort of stabilizer for the exchange rate as the banks that are active participants in the foreign-exchange market would be motivated to maintain a stable exchange rate.

Probably on account of local lobbies, this proposal was dismissed, thus leaving the full exchange risk to the state. Moreover, the large state-owned commercial banks, which hold the bulk of the bad loans, are at the same time the market makers on the foreign-exchange market. The current lev price of the dollar-denominated bonds (as banks assets) is changing with the variation of the exchange rate and the banks cash in an immediate capital gain when the lev depreciates and *vice versa*. These market makers as a result have a vested interest in the depreciation of the national currency. This might have been one of the reasons for a second exchange-rate crisis (after the one in 1993) of March-April 1994, immediately after the issue of the debt-conversion bonds.

So, with all its strengths and weaknesses, it remains to be seen how the Bulgarian bad loans management program will operate on a massive scale.

5. Conclusions

The problem of bad enterprise and bank debts has developed into one of the most acute economic problems in PETs. The general delay in implementing comprehensive policy measures to combat this issue as well as mismanagement contributed to the snowballing of bad loans. In the case of Bulgaria this led to a major financial crisis and the authorities had to undertake a large-scale rescue operation.

The experience of the past three years or so indicates that there are no ideal definitive solutions to the bad-loan problem. All bad-loan management options discussed in the literature and experimented with in PETs have serious drawbacks and their inherent cost is usually quite high. So the bad-loan problem has turned into one of the many dilemmas that economic policy makers of the PETs have to face up to.

The Bulgarian approach to the bad loans issue builds on ideas that have been debated in the literature and adds some new and original aspects. It is an attempt to link the process of cleaning up the bad loans to the recapitalization of commercial banks and to the process of privatizing SOEs. In this respect it can be regarded as an element of a broader policy aimed at speeding-up the process of economic transformation of the country. At the same time, the Bulgarian approach has a number of weak features that may have undesirable consequences.

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