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## Bulgaria: from Enterprise Indiscipline to Financial Crisis

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## RESUME

La première partie de l'article montre les nombreuses formes d'ajustement souvent perverses adoptées par les entreprises publiques bulgares depuis 1992. La différenciation entre quatre sous-groupes d'entreprises, aux performances productives inégales, permet de souligner en particulier deux points. Tout d'abord, un nombre important de firmes fortement déficitaires ont été maintenues en vie depuis le début de la transition aux dépens du reste de l'économie, et notamment des banques dont l'insolvabilité s'est accrue avec le déboursement de nouveaux crédits à ce secteur de l'économie. Toutefois, de manière générale, la plus grande partie des pertes a été financée par des moyens informels ou non-contractuels, en premier lieu l'accumulation d'arriérés d'intérêts et d'impôts. En principe, l'impossibilité d'obtenir de nouveaux financements externes, ou bien d'émettre des actions après la disparition des capitaux propres, auraient dû se traduire par une mise en faillite immédiate. Le deuxième aspect décisif de ce processus d'ajustement est que des entreprises plus compétitives, souvent profitables, ont également accumulés des montants importants d'arriérés en particulier vis-à-vis des banques. En d'autres termes, les flux d'arriérés ont été nettement plus larges sur le plan agrégé, que ce que demandait la seule couverture des pertes d'exploitation : pour une proportion tangible des entreprises ils ont donc été plutôt utilisés comme une source complémentaire de revenu que comme un moyen de financement. Au total, entre 1992 et 1995, les entreprises publiques ont imposés des transferts de revenus informels aux autres agents pour un montant représentant en moyenne 28% de leur propre valeur ajoutée chaque année.

La seconde partie de l'article explique comment l'accumulation de ces arriérés ainsi que des déficits publics a été absorbée depuis 1992 sans entraîner de crise financière aiguë. L'évolution des comptes financiers agrégés des entreprises, de l'Etat, des ménages et des banques commerciales est présentée en termes simplifiés et montre que trois facteurs ont joué un rôle décisif dans le contrôle des tensions financières. D'abord les ménages ont supporté des taxes inflationnistes très importantes qui ont permis de rééquilibrer partiellement le bilan des banques. Ensuite, malgré ces pertes importantes, ils ont continué d'accroître leurs dépôts bancaires à un rythme soutenu quoique déclinant, ce qui a permis de repousser le moment où l'insolvabilité des banques se traduirait par une crise de liquidité immédiate. Enfin, l'Etat a dégagé un large excédant primaire en 1994 et 1995 qui a aussi contribué à contenir les tensions financières dues à l'indiscipline des entreprises et des banques.

Cependant, depuis la fin de 1995, la crise du système bancaire s'est accélérée : une série de banques ont été fermées et la Banque Centrale a dû injecter des montants croissants de monnaie de réserve dans le système bancaire afin d'éviter une crise de liquidité généralisée qui aurait entraîné une panique sur l'ensemble des dépôts bancaires. De larges retraits de liquidités ont toutefois été observés en avril et mai, alors qu'une crise de change aiguë se développait au cours de ce dernier mois, entraînant une baisse de près de 50% de la valeur en dollar de la monnaie nationale. Au cours des mois suivants (qui ne

sont pas couverts par cette étude), le risque majeur est qu'une accélération brutale de l'inflation domestique accroisse le déficit public (effet Tanzi) et conduise à des rythmes d'inflation très élevés, voire à une hyperinflation. Une telle issue aurait des résultats destructeurs à court terme et entraînerait des pertes très importantes pour les ménages, mais elle permettrait aussi de dévaloriser massivement la dette publique interne comme les très gros stocks de prêts non-performants dans le bilan des banques (prêts de 75% de leur encours de crédits aux entreprises au mars). A moyen terme, ceci donnerait les moyens d'un renforcement décisif de la discipline financière des entreprises et des banques, permettant un retour de la transition bulgare sur une voie plus stable et plus prometteuse que cela n'a été le cas au cours des dernières années.

## SUMMARY

The first part of the paper highlights the many and often perverse forms taken by the adjustment of State Owned Enterprises in Bulgaria since 1992. The differentiation into four clusters of unevenly performing State firms shows *inter alia* two important aspects in this process. First, a large number of heavily loss-making public enterprises has been allowed to survive since the beginning of transition at the expense of the rest of the economy, first of all the banks whose insolvency they contributed to while absorbing a large part of newly extended credits. However, as a rule, losses have been much financed more through informal or non-contractual means, mostly by the accumulation of interest and tax arrears, while in principle the impossibility of obtaining new external finance, or issuing equity after having lost all base capital should have made bankruptcy the only remaining solution. The second decisive aspect in the adjustment process is that more competitive, often profitable enterprises have also been accumulating large arrears towards other agents, with the banks again being the main victim. The implication is that arrears have been much larger than the mere financing of losses would have required, and have apparently been considered by a substantial number of enterprises as a current revenue flow rather than as a financing source. Indeed, SOEs as a whole have imposed informal revenue transfers to other agents averaging (on a conservative estimate), 28% of their own value added per year between 1992 and 1995.

The second part of the article analyses how the accumulation of enterprise arrears and of budget deficits, since 1992, has been absorbed without major financial disruptions. The evolution of the aggregate accounts for enterprises, government, households and the commercial banking sectors are then presented, so as to highlight three decisive factors in this exercise in crisis deferment. First, households have suffered large inflation taxes on their deposits, which have helped banks to rebalancing their balance sheets; second, despite these heavy wealth losses, private deposits in banks have kept increasing at sustained though declining rates till 1995, a trend which has limited the risk of an immediate liquidity crisis, notwithstanding the increasing insolvency of financial intermediaries; third, the State was able to post a large primary surplus in 1994 and 1995, which has also contributed to containing the financial tensions due to microeconomic indiscipline.

However, the banking crisis has been gathering pace since the end of 1995: a series of banks have been closed down and the Central bank has injected increasing amounts of reserve money in the banking sector, so as to reduce the risk of a systemic liquidity crisis and of a large-scale run on deposits. Large withdrawals were observed in April and May 1996, while a sharp foreign exchange crisis developed during the latter month, causing a total fall in the dollar value of the national currency of nearly 50%. Hence, the major risk is that a sharp acceleration in inflation may increase the budget cash deficit (through the

Tanzi effect) in the immediate future, leading possibly to high or even hyperinflation. Though such an issue would have very destructive immediate consequences, and would drastically reduce household wealth, it would also inflate away the largest part of the domestic public debt, as well as of the banks huge stock of non-performing loans. In the medium-term, this would provide the basis for re-establishing strong financial discipline on enterprises and banks, so as to set the Bulgarian transition on a more stable, promising course.

## **BULGARIA: FROM ENTERPRISE INDISCIPLINE TO FINANCIAL CRISIS**

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### **INTRODUCTION**

Bulgaria is generally considered a laggard in the transition among Eastern European countries. Although its political evolution since the fall of the communist regime has followed the general path in Eastern Europe, its economic changes have been slower and more uneven. The lack of decision and organisational capacity in the implementation of the reform has opened the space for (often) uncontrolled developments<sup>2</sup>.

The roots of this "backwardness" are complex but, without doubt, they can be related to the historical background of the Bulgarian society. A strong tradition of government intervention in the economy has been a dominant feature not only of the socialist period, but also (in a more distant past) of the pre-war "capitalist" experience of the country.

Several key developments paved the way of the present situation (*Table 1*). The radical change of the Bulgarian economy started with the implementation of a wide-ranging, "standard" IMF-supported stabilization and liberalization programme in February 1991. The programme was based on two nominal anchors - the money supply and the nominal wages. It was designed to overcome the main macroeconomic disequilibria inherited from the communist regime and exacerbated in the aftermath of its crash. The liberalization of prices, the foreign trade regime and the forex market were intended to eliminate the monetary overhang, while inflation had to be tamed by restrictive monetary and fiscal policies, supported by an adequate incomes policy. According to the initial principles of the reform, the Government had to achieve a greater command of the classical tools of macroeconomic policy in order, if not to fine-tune the economy, then at least to have the possibility of carrying out a more or less consistent stabilization policy. The ensuing relations with the International Financial Institutions (IFI) were turbulent. Three stand-by arrangements were signed with the IMF and several loans extended from the WB. Periods of interruptions were also observed (in 1993 and 1995-1996), and at times negotiations took on a dramatic character (March 1994, May 1996).

In the context of the "stabilization *cum* structural reforms" paradigm of the 90s, it was expected that a comprehensive structural reform would back and deepen the efforts of the macroeconomic stabilization. In fact the Bulgarian economic landscape has dramatically transformed during the last years, the main symbol being the spur of the private sector. Starting from virtual non-existence in 1989, it generates roughly 40% of the GDP (80% in

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agriculture and trade, 15% in the manufacturing industry) in 1996. But the institutional and structural transformations of the economy have been superficial. Entire sections of economic legislation are still missing and urgent, radical measures were continually postponed.

**Table 1**  
**Basic Macro-Economic Indicators**

	1990	1991	1992	1993	1994	1995
Real GDP growth (%)	-9.1	-11.7	-7.3	-2.4	1.4	2.6
Unemployment rate (average, %)	1.8	6.8	13.2	15.8	14.0	11.1
Inflation (CPI, end of period, %)	23.8	338.5	79.4	56.1	121.9	32.9
Cash budget deficit (% GDP)	-7.0	-4.3	-5.3	-10.9	-5.5	-6.8
Revenues (% GDP)	52.4	40.9	41.7	39.4	40.4	37.0
Expenditures (% GDP)	59.4	45.2	47.4	50.3	46.0	43.8
Exchange rate (BGL/USD, average)	2.11	6.68	23.34	27.65	4.25	67.08
Balance of payments (USD mn)						
Current account	-	-76.9	-360.5	-1098.0	156.8	293.3
Trade balance	-	-32.0	-212.4	-885.4	151.6	431.8
Gross foreign exchange reserves (end of period, USD mn)	-	-	902.0	655.3	1001.8	1236.4

Sources: Bulgarian National Bank, National Statistical Institute Publications, authors' calculations.

The partial and hesitant structural reform has turned out to be the major barrier to macroeconomic stabilization in Bulgaria. The inertia and complexity of the post-communist society was underestimated on the eve of the transition. The "politics of transition", in particular, became an unpredictable factor with strong repercussions on the economic policy decision-making process. Political and vested interests, as well as the interests of the Government itself, obstructed the formation of truly independent economic institutions, thus precluding the implementation of a coherent and consistent macroeconomic policy. Being neither supported by clear and enforceable "rules of the game", nor by a genuine political will for restructuring ownership, the stabilization effort lost its medium-term perspective and degenerated into an exercise in solving the immediate economic problems. Furthermore, the external support for transition (both in term of official flows and voluntary capital inflows) turned out to be far below initial expectations. Last but not least, the country experienced the effects of severe external shocks, such as the recession in Western Europe and/or the embargo on former Yugoslavia.

Retrospectively<sup>3</sup>, and as in the other East European countries, it seems that the initial model was not politically marketable for long periods, under pluralistic regimes. There were no possibilities to bargain (to buy) support for the reforms from the losers (the majority), without abandoning some of the basic principles of the reforms themselves. Among other things, this was not possible due to the underlying time-profile, implying that before

<sup>3</sup> The *ex-post* explanation is not a reason to reject the initial paradigm in its historical context. The leftist and/or widespread academic criticism of the "shock therapy" is too easy and abstract. It does not take into account the fact that countries like Bulgaria did not have any other valid options to choose from. Besides, the underlying economic logic of the stabilization effort is still valid.



enjoying the benefits of reforms, broad segments of society would have to accept severe losses. As this inter-temporal pattern was accompanied by the accumulation of wealth in the hands of a small minority, it was too similar to the extinct official communist ideology to be readily accepted. The great majority of the population (as everywhere) acts and shapes its political behavior according short-term interests (often modeled by political manipulation) rather than according to medium-term economic rationality.

In economic terms the impossibility of attaining a successful stabilization is to be related to the prevailing institutional and behavioral background. The incapacity of imposing clear (and enforceable) rules of the game is at the source of pervasive, perverse behavior of the main economic agents - the state owned enterprises (SOEs) and the government. More important, the emerging private sector tends to replicate this behavior in a generalized ambiance of soft budget constraints, permissive behavior and unsound credit policies. It is no wonder that the private banks have become a major source of a new wave of bad credits and eventually of losses in the banking system.

The dominance of the "grey" economy has produced a no-man's-land in which "wild" privatization has been widespread and a massive decapitalization of the state sector has begun. In this background, the traditional assessment of the real progress of the transition through the statistically measurable share of the private sector is important but obviously limited. The situation is harmful, not so much because of an alleged relatively small size of the private sector but because of the unclear boundaries between the private and the state sectors, as well as the lack of market-enforced behavior.

The focus and the criteria might be oriented towards another dimension of the transition - the degree of the budget constraint hardening for the main agents, as well as the character of the new economic agents acting in transitional economies. This point of view (which could be defined as a "behavioral approach") has been our main frame of reference.

In this context, the fundamental macroeconomic problem is the pervasive generation of "vicious" financial flows, of negative savings and losses spread across the entire economy. Initially their source was heavily concentrated in a core of loss-making enterprises in the real economy. But the huge losses had to be financed in some way and this was obtained on a very restricted scale from *internal* sources (retained earnings; reserves; own capital). The major source of financing of the losses in the real economy was *external* i.e. through the endemic accumulation of debts and arrears to other firms and institutional sectors - the banking system; government and households. An intricate chain of transfers of income, losses and capital was build-up on this basis. The post-communist economy became an "economy of transfers" with a continual struggle to shift the burden of the transition onto the capital and revenues of other sectors and individuals, thus "bailing out" those that were the source of the problem. Decapitalizing "others" becomes the basic behavioral rule<sup>4</sup>. "Others" may be enterprises or the banking system. In the end, however, the losses are "socialized" through the budget and the Central bank by increasing tax pressure and by an inflationary

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<sup>4</sup> This is the basic rationale of any economy and developed countries are not immune. Some recent issues make this point: the Savings and Loan institutions crisis in the United States, the "Credit Lyonnais" case in France or the bad debts problem in the Japanese economy. However it is the degree of "taming" this economic instinct that distinguishes the economy of primitive accumulation from the mature market economy.

redistribution of wealth. So the greatest burden is eventually taken up by the enterprise sector and mostly by households.

The outcome of this societal and economic pattern has been a highly unstable economic performance, marked by a stop-go syndrome and the impossibility of achieving durable, non-inflationary growth. The economic policy has had to confront many recurring problems, without being able to offer any lasting solutions.

- Uneven growth. Bulgaria has recorded one of the deepest post-communist recessions and was the last country to register a positive real growth (in 1994). Yet, growth has been slower than in the other Eastern European countries and has proved to be short-lived. 1995 was the first "after-shock" year of more moderate macroeconomic parameters - inflation falling to 35%, a real GDP growth of 2.6%, unemployment declining, a foreign trade surplus and a remarkable stability of the exchange rate. In 1996, however, a collapse of the banking system led to a strong deterioration of the macroeconomic framework and to new slowdown in real growth.
- A foreign exchange market characterized by strong fluctuations. Severe forex crises were registered, namely at the end of 1993, in the spring of 1994 and in April-May of 1996. They reflected balance of payments problems and short-term set-backs in the repayment capacity of the country. But, more fundamentally, they revealed the incapacity to generate a stable and even flow of foreign currency, as well as the strong dependency on the official foreign financing. It has to be stressed that the volatility of the exchange market was further reinforced by the two episodes of (forced) real appreciation of the Leva (in 1992 and in 1995) - their inevitable collapse produced even stronger fluctuations in the market.
- Recurring pressure to bail-out state enterprises and to recapitalize the banking system. Several exercises of this type were realized, the major one being the Bad Debt Act of 1993 (implemented in 1994). Poorly designed, it raised the need of a recapitalization of some troubled banks in 1994 and (again) in 1995. As the fundamental problems of these banks were not addressed and they were not declared bankrupt, the Central bank was forced to inject liquidity into them, at the cost of totally undermining the credibility of its own monetary policy.

The deep banking and exchange rate crisis of spring 1996 ends a first cycle of the Bulgarian transition. It may mark a real turning point, however, only if economic policy goes beyond the most urgent (repeatedly postponed) immediate measures taken in the aftermath of the crisis, and embarks on a coherent and comprehensive medium-term, structural reform of the economy.

The "economy of transfers" is the main topic of the article. Part I deals with the generation of losses at the microlevel. A panel of state-owned enterprises is constructed in order to assess different types of adjustment behaviour. A brief comparison is made with the available data for the private sector. In part II the macroeconomic impact of this behaviour is analyzed. It is shown how the effect of financial indiscipline in the real and the banking sector is spread among the different institutional sectors, and how the burden of adjustment is eventually rechanneled (through the Central bank and the budget) to households.

## I. FINANCIAL INDISCIPLINE AND MICRO-ECONOMIC ADJUSTMENT

In order to test some behavioural hypotheses we focus on a set of data reflecting the financial performance of state-owned enterprises (SOE). Although the state sector has been squeezed by the growth of private businesses, it still remains vital for the overall financial equilibrium of the economy.

### 1.1. Method and Data

The approach is based on the clustering of enterprises according to their "earnings before interest and taxes", normalised by the volume of sales. The lack of full consistency of observations and units in the aggregated data for different years required the selection of a panel of enterprises. The panel includes the same set of enterprises over time (from 1992 till the end of 1995) and allows the study of changes in their behaviour (*Table 2*).

The panel consists exclusively of *state-owned* enterprises (SOEs) from the industrial and construction sectors, each with over 100 employees as of the end of 1993. It covers roughly 40% of total sales in these sectors. SOEs still shape the profile of the entire manufacturing sector, as private business represents only 17% of output.

Parameters for both the financial performances of the enterprises and the patterns of their adjustment are analysed.

The panel is structured as of the situation at the end of 1993. It was divided into four clusters (A, B-, B+, C) according to their increasing "earnings before interests and taxes"/sales ratio in that year. Clusters (A) and (B-) showed no profits in 1993. Alternatively, the cluster (C) had the highest profitability in 1993. Group (A) includes the enterprises generating 50.5% of total losses in the panel, and group (C) generated 41% of total profits as of the end of 1993. In the other years this structure changed as some enterprises in (A) and (B-) became profitable and some from the other clusters generated losses. (A) and (C) are the extreme poles in the set of enterprises, while (B-) and (B+) are more heterogeneous groups.

Aggregated income accounts, consistent with the standards of the System of National Accounts, were devised for each cluster. They outline the distribution of generated incomes, and the end result of the accumulation process - the change in the net worth of each group of enterprises. The accounts are estimated in two versions: on *due basis* where the accrued interest and taxes are included; on *paid basis* where the effectively paid sums are shown. Both estimates often diverge due to the accumulation of large arrears.

**Table 2**  
**Structure of the Panel**

		<i>(in %)</i>				
		Share in value added	Share in sales	Share in wages	Share in profits	Share in losses
Cluster (A)	1992	6.0	8.3	15.0	0.5	39.1
	1993	-0.2	6.6	14.0	0.0	50.5
	1994	8.0	8.9	14.5	3.1	36.8
		12.0	9.5	14.5	1.9	33.6

1995					
Cluster (B-) 1992	8.4	21.9	25.9	10.9	25.0
1993	5.8	19.7	24.2	0.0	31.6
1994	22.1	19.5	24.0	11.6	22.1
1995	21.7	19.0	23.1	35.2	26.4
Cluster (B+) 1992	65.3	55.6	47.9	62.0	25.9
1993	74.2	57.7	49.7	59.0	11.6
1994	50.5	55.4	48.8	48.1	34.9
1995	51.6	55.7	49.0	33.7	20.1
Cluster (C) 1992	20.5	14.2	11.1	26.6	10.0
1993	20.2	16.0	12.0	41.0	6.3
1994	19.5	16.2	12.7	37.1	6.1
1995	15.0	15.8	13.3	29.2	19.8

Primary source: National Statistical Institute, authors' calculations.

Several profitability/value added ratios have been calculated for the different clusters (*Table 3*). It is important to note that only one general revaluation of fixed assets has been made (in 1992). It had a strong impact on the figures for the change in net worth for that year.

## 1.2. Patterns of Adjustment

The intra-group analysis is suitable for testing some hypotheses concerning the prevailing patterns of adjustment. It shows, in particular, the adjusting (or perverse) behaviour of the main loss-makers, and of the "success stories" in the economy.

### *Cluster (A)*

The cluster represents the core of the loss-makers in the economy, generating 1/3 to 1/2 of the losses in the panel. It includes the prime candidates for liquidation or bankruptcy procedure in the context of a radical structural adjustment. The firms are systematically

**Table 3**  
**Aggregated Income Statements: Profitability Ratios**

(% of Value Added)

	Gross profits (Due basis)	Gross Profits (Paid basis)	Gross income (Due basis)	Gross income (Paid basis)
Cluster (A) 1992	-304.9	-133.0	-247.3	-133.9
1993	-	-	-	-
1994	-224.4	-161.3	-227.1	-162.9
1995	-32.1	2.0	-33.3	0.0
Cluster (B-) 1992	-210.0	-152.9	-225.1	-166.3
1993	-349.9	-223.1	-351.1	-225.5
1994	-1.0	20.2	-7.7	16.3
1995	-32.1	34.9	12.9	27.6
Cluster (B+) 1992	41.6	44.8	33.5	41.2
1993	44.9	47.8	41.1	44.9
1994	21.1	24.9	12.7	19.5
1995	37.0	40.5	29.4	33.3
Cluster (C) 1992	27.0	41.9	17.6	36.6
1993	16.8	34.5	10.7	31.0
1994	25.6	33.3	12.2	24.7
1995	18.8	28.0	7.9	18.7

	Net retained income (Due basis)	Net retained income (Paid basis)	Change in net worth (Due basis)	Change in net worth (Paid basis)
Cluster (A) 1992	-270.7	-157.4	448.1	561.4
1993 *	-	-	-	-
1994	-252.8	-188.7	-248.1	-184.0
1995	-45.9	-11.5	-45.8	-11.5
Cluster (B-) 1992	-251.9	-193.3	598.8	657.5
1993	-425.9	-300.3	-191.9	-66.2
1994	-23.9	0.0	-21.2	2.3
1995	1.1	15.7	1.7	16.4
Cluster (B+) 1992	20.3	28.1	455.9	463.6
1993	24.0	28.3	44.3	48.1
1994	-6.8	0.0	-3.4	3.4
1995	14.5	18.5	14.7	18.6
Cluster (C) 1992	11.0	30.0	178.1	197.8
1993	-1.6	18.7	44.9	65.2
1994	1.0	14.8	4.0	16.4
1995	-1.8	9.0	-1.7	9.1

Primary source: National Statistical Institute, authors' calculations.

\* In 1993 (A) recorded a negative value added.

Gross Profits: Value added - (Wages + Social security payments).

Gross Income: Gross profits - Interests - Taxes.

Net Retained Income: Gross income - Depreciation allowances.

Change in Net Worth: Net retained income + Net revaluation (upward+) of fixed assets.

"over-waged", as their share in the total wages of the panel is substantially higher than in total sales.

i. The enterprises in the group are the "worse" debtors among the panel. They are heavily indebted, and post the highest short-term debt/sales ratio. The share of the group in overall, short-term credit outstanding is relatively stable, while its share in the long-term credit declined sharply in the aftermath of the massive bail-out of 1993.

The firms in (A) are clearly bad debtors, as their interest paid/ interest due ratio is the lower. A strong increase in credit arrears was recorded in 1995, the share of the cluster in the panel total jumping from 34 to 41%.

ii. The group emerges as one of the main sources of arrears in social security payments, and (to a substantially lesser extent) in the budget. So, its impact on the budget deficit is twofold - through revenues lost and through the accumulation of arrears.

Two parameters of (A) confirm the absence of an active adjustment strategy - the wage arrears and the accumulation of inter-firm credits. The shares of the group in both are substantially higher than their weight in total sales.

iii. The cluster records two symptoms of positive adjustment - a sustained decrease in the inventory/sales ratio and the best export performances among the four groups. The growth in exports was particularly strong in 1994, in the aftermath of the sharp devaluation of the Leva. Furthermore, it was pursued in 1995, in the context of a real appreciation of the currency. This "paradox" has to be partly related to the structure of Bulgarian export growth in 1994-1995, strongly supported by the metallurgy sector, which is, at the same time, one of the most important loss-makers. But official losses are to be treated cautiously, as a complex network of private satellite firms surrounds the SOEs in this branch and diverts profits from foreign trade activities.

iv. The cluster (A) is clearly the source of a steady flow of negative disposable income (*Table 3*). The decapitalization of the firms is reflected in a negative change in their net worth, even in years of strong sales and exports growth. Some signs of a positive move were first recorded in gross trading profit in 1995, not enough, however, to cover the interest and tax payments.

#### *Cluster (B-)*

This group accounts for 19-22% of the sales. By convention (B-) is the group with no profits in 1993. During the other years, however, sizeable profits were registered by some of these enterprises, their share attaining 35% in total profits in 1995. As a whole the group remains a loss-maker, with 22 to 31% of the total losses in the panel. This reflects the mixed performances of a more heterogeneous cluster with a strong core of loss-making enterprises.

i. The record of (B-) as a debtor is more ambiguous. Its short-term credit/sales ratio was substantially lower than in (A). The growth of the short-term credit in the group was the lowest one in 1993-1994, and it matched the general trend of slower growth in credit than

of sales. In general terms it seems that during those years (B-) was more successfully isolated from the credit flows than the other groups of loss-makers. At the same time (B-) has benefited from a relative easing in credit conditions in 1995, as this is the sole group to register an acceleration in the nominal credit growth.

The level of indebtedness of (B-) is lower than in (A) with a clear decrease in the trend since 1993. The share of (B-) in the interest accrued, however, still outweighs its share in sales. The level of long-term debt did not decrease as in (A) - the group benefited to a lesser extent from the bail-out of the bad debts in 1994.

The repayment record of (B-) has shown a clear deterioration in 1993. Afterwards a slow improvement was observed, but the interest paid/due ratio remains low (a peak of 38.9% is registered in 1995).

ii. Budget arrears have been a major tool of "adjustment" of this group. They were utilised at an increasing pace in 1994 and 1995. In turn, arrears on Social Security, have not been accumulated on the scale of (A).

iii. The group is one of the important sources of inter-firm credit in the economy. Its payables/sales ratio is above 1 and, more important, its weight in arrears is very high. (Data for 1994 and 1995 are not published).

The group is labour-intensive, with its share in wages outweighing that in sales. (The ratio is lower than in A). This profile explains why wage arrears are an important tool of "adjustment".

Among the other instruments of adjustment, export growth has been important since 1993 with the highest export/sales ratio in the panel. Inventory management does not seem to have been very active, as the inventory/sales ratio is almost constant.

iv. The aggregated income statement for (B-) (Table 3) indicates that gross profits (on "due" basis) became positive in 1995. (They have been positive on "paid" basis since 1994). The trough in the financial parameters of (B-) was observed in 1993 with a steady improvement afterwards. The tax and interest arrears have allowed the group to record positive gross income (on "paid" basis) since 1994. The gross after-tax income (on the due basis) recorded a positive value only in 1995.

The enterprises in (B-), although less decapitalized than in (A), are not in a position to generate a sizeable net income. The net retained income (after deducing depreciation allowances) was negative or close to zero in 1992-1994. A nominal decapitalization (negative net worth growth) of the cluster was recorded in 1993 and 1994 (due basis). The first significant positive financial figures were observed in 1995.

#### *Cluster (B+)*

This group is the largest with 55% of the sales. Its composition is heterogeneous and includes profit-makers (33-60% of the profits in different years), as well as loss-makers (11-35% of the losses).

i. In relative terms the cluster is the least indebted in the panel. The share of (B+) in interest accrued is substantially lower than its share in sales. The short-term credit/sales ratio is also the lowest. The enterprises are not, however, isolated from the credit flows. They have a stable share in short-term credit, and a growing share one in the long-term flows. The later can be attributed to a restructuring of the credit outstanding in the aftermath of the Bad Credit Act of 1993. In effect, the bail-out of the enterprises in (A) produced a restructuring in the outstanding long-term credit towards (B+). The growth rate of the credit to the group follows the general trend - at higher rate than sales in 1993 and decelerating (below sales growth) in 1994-1995.

The enterprises in (B+) have a relatively respectable debtor performance. They registered the highest interest payments ratio in 1992-1993, which was still important in 1994-1995. Their weight in the stock of credit arrears is much lower than in sales.

ii. (B+) shows the best record in budget arrears with a clear declining trend in 1994-1995. The arrears an Social Security are stable.

(B+) is a less labour-intensive, with the share of wages below its share in sales. As expected, the arrears in wages are not a typical feature of its behaviour.

iii. No clear pattern emerges for the other tools of adjustment. The inventories/sales ratio is stable. The group is not a typical exporter, occupying the third/forth place according its export/sales ratio. It appears mostly as a "passive" pole of the inter-firm credit i.e. a net creditor. The evidence in this respect for 1995 is, however, less convincing.

iv. The aggregated income statement of (B+) points to a globally positive outcome (*Table 3*). The gross profits and after-tax income have been consistently positive through the period both on due and paid basis. The net retained income manifested a unique nominal decline (in 1994). The net worth has been growing in nominal terms, except during the through of 1994 (on a due basis). It is important to stress that (B+) has the best net income/value added ratios among the four groups. Despite the relatively good performances of (B+) its share in the total profits of the panel are declining and it has a significant share in total losses. (B+) is apparently splitting out into two subgroups, a "bad" group occupying an important place and worsening the aggregate performances of the cluster in 1994, and (to some degree) in 1995.

#### *Cluster (C)*

The cluster (C) is the relatively small group (16% of sales) of supposed "success stories".

i. The servicing of the debts in (C) is regular. Although in 1995 the group was as indebted in relative terms as (A), it had a relatively normal repayment pattern. Its ratio of interest arrears was the lowest in 1994-1995, and the share of (C) in the unserviced outstanding credit declined in 1993-1994. A strong surge of such credit was observed in 1995, paralleled by a substantial growth of (C) in the total losses of the panel. Besides, the group was partially crowded-out of the credit flows in 1995, when the effects of the generalised credit restraint were mainly felt by the extreme poles - (A) and (C).



ii. Despite the *a priori* label of (C) as a "success story", its pattern of adjustment is characterised by a growing accumulation of budget arrears. It shows a stable position as a net inter-firm creditor, and a stable inventory/sales ratio. The export performances of (C) are in line with the general trend, but the group is clearly lagging in its level of export/sales ratio.

iii. The trend of the gross profits and the net worth in (C) are similar to those of (B+) (*Table 3*). The net retained income has been close to zero on an accrued basis, but it has been firmly positive on the basis of effectively paid interest and taxes. The profitability of (C), relative to value added, is lower than that of (B+), and declining. In retrospect, 1995 appears as a turning point, with a deterioration of the performances in the group: worsening in gross profits and disposable income figures. This trend is a symptom of the differentiation in the enterprise sector, and of the growing difficulties which culminated in the banking crisis of 1996.

*Table 4* presents a comparative view of the patterns of adjustment of the four clusters. The coefficients are strictly comparable within the cluster, and within a particular year. In this case they reflect the different "intensity" of arrears, normalised by the volume of sales. The relative magnitude of the coefficient for the different clusters over time, and for the different arrears over clusters is fairly stable. This suggests that cautious conclusions can be drawn for the cross-clusters patterns also.

### 1.3. General Patterns

Several general patterns of behaviour can be outlined. Many of them are paradoxical in a free-market context, but reflect the deep institutional inertia and the lack of incentives for adjustment in the background of slow institutional reforms.

i. The performances of the four clusters have followed (and supported) the main trends in the development of the economy. Two clear subperiods can be outlined. In 1992-1993, the country experienced a severe post-shock depression. In 1994-1995, in turn, a fragile recovery developed with a positive impact on the financial performances of the "bad" clusters. The improvement was largely due to the effects of the devaluation of the Leva on labour costs, productivity gains, the boost of exports and the incipient real growth of the economy. The effect of the bail-out of pre-1991 bad debts also played a role.

**Table 4**  
**Intensity of Adjustment Coefficients (\*)**

		Wage Arrears	Interest Arrears	Budget Arrears	Social Security Arrears	Arrears in Payables
Cluster (A)	1992	1.2	4.8	1.9	3.2	1.5
	1993	1.4	5.9	2.5	5.8	3.6
	1994	1.2	4.2	2.0	4.9	-
	1995	1.3	4.3	1.8	4.9	-
Cluster (B-)	1992	1.1	1.3	0.6	1.3	2.0
	1993	1.2	1.7	0.9	1.5	2.3
	1994	1.2	1.8	1.2	1.3	-
	1995	1.5	1.4	1.1	1.2	-
Cluster (B+)	1992	0.9	0.2	1.0	0.6	0.7
	1993	0.8	0.2	1.0	0.4	0.4
	1994	0.9	0.3	0.7	0.4	-
	1995	0.9	0.3	0.8	0.4	-
Cluster (C)	1992	0.9	1.3	0.8	0.7	0.3
	1993	0.8	1.0	0.6	0.4	0.4
	1994	0.8	0.7	1.2	0.4	-
	1995	0.8	0.9	1.2	0.5	-

Primary source: National Statistical Institute, authors' calculations.

(\*) The Intensity of Adjustment Coefficients are the ratios between the share of the cluster in the panel (for the corresponding arrear) and its share in the total sales of the panel. (For wage arrears the ratio is to the share in total wages in the panel).

Data for arrears in payables are missing for 1994 and 1995.

ii. There has been a strong polarisation among SOEs in the first years of the economic transition. The financial indicators of (A) and (B-) in 1992-1993 are characteristic of nearly bankrupt enterprises. Wages and Social Security payments exceeded value added in 1992-1994 (for A) and in 1992-1993 (for B-). For (B+) and (C) the opposite occurred which reflects a polarisation between the "good" and the "bad" groups. In the "good" clusters, the share of wages in value added is lower, the amount of interest paid grows, cash-flow is generated, and the net worth increases.

1994 marks a clear turning point. In 1994-1995 a converging trend was observed as a substantial improvement was registered for (A) and mainly for (B-). The latter even shows a higher average profitability ratio than (C) in 1995. At the same time the financial results of the "best" cluster have deteriorated. It seems that in 1994-1995 a polarisation occurred, mainly within the clusters, the overall results tending towards some convergence.

The strong mobility observed in the panel of SOEs is a crucial point, as the substantial progress of the "bad" clusters indicates that (at least) a part of their firms have the potential for adjustment, in the context of an improving macroeconomic framework.

iii. The liberalisation of the economy has imposed new constraints on enterprises. Cuts in subsidies have forced a large pool of firms either to curb expenditures, or find substitutes. However, given the loose control by their formal owner (the state), and the absence of credible bankruptcy procedures many SOEs preferred to increase their debts and arrears while minimising job or wage cuts. This naturally raised the amount of bad credits and arrears on taxes and interfirm credit, and hence maintained the pressure on prices. As the Bad Debts Act of 1993 put all firms on relatively equal terms, the argument that pre-1991 credits are the main reason for the poor financial condition of some enterprises is hardly sustainable. The pervasive generation of losses and arrears (the latter even by profit-makers) appears to be related to deeply rooted behavioural problems and to the dominant rule of Government policies. Till very recently, the typical Government policy has been to delay structural reforms, and to prolong the life of strictly unviable enterprises, thus producing a "moral hazard" effect in the entire state-owned sector.

iv. The attitude to the budget is not conditional on the financial stance of enterprise. The appeal of tax evasion is obviously a generalised phenomenon. Growing budget arrears have been observed in the "bad" as in the "best" group. One of the main objectives of SOEs is to sustain the level of the real wages and divert a sizeable part of their revenues to the "neighbouring" private businesses. As a result it is hard to estimate the true potential of the firms.

v. No positive correlation was registered between the financial status of the enterprises and the intensity of their exports. On the contrary, the systematic link revealed that the "better" the enterprise, the weaker its export/sales ratio. After the sharp depreciation of the leva in the first quarter of 1994, the share of export sales in (A) and (B-) increased, while no substantial difference was observed in (B+) and (C). At the same time, the improvement in the financial outcome of the "bad" clusters in 1994-1995 could be attributed precisely to their better export performances.

vi. **Table 5** reveals a dramatic and generalised lack of investment potential among SOEs. Symptomatic behavior is shown by cluster (B-) which tried to maintain a very high ratio in 1992-1993, but which was forced to reduce it drastically in 1994-1995. A similar move was observed for (A) in 1992, when investment was realised while the cluster posted negative value added figure. Those cases point out the strong behavioural inertia many enterprises inherited from the past, namely a readiness to make investment expenditures without any rational assessment of their real financial position. The figures for 1994-1995 show that the four clusters made the appropriate adjustment by reducing their gross investment ratio. It has to be stressed that, if the depreciation allowances are taken into account, then "net investment" is negative (or insignificant) in most of the cases, which is in line with the overall financial stance of the SOEs.

**Table 5**  
**Gross Investment and Depreciation Allowances**

	<i>(% of Value Added)</i>			
	1992	1993	1994	1995
Cluster (A)				
Gross investment	19.4	-501.2	13.6	16.2

Depreciation allowances	23.5	-130.7	25.8	12.6
Cluster (B-)				
Gross investment	68.5	66.8	13.8	16.2
Depreciation allowances	26.9	74.7	16.2	11.2
Cluster (B+)				
Gross investment	13.6	9.6	11.4	15.1
Depreciation allowances	13.1	17.2	19.4	14.8
Cluster (C)				
Gross investment	17.8	9.2	8.2	13.0
Depreciation allowances	6.6	8.5	9.9	9.7

Primary source: National Statistical Institute, authors' calculations.

#### 1.4. Evidence for the Private Sector

Only partial and inaccurate information can be obtained concerning the behaviour of private enterprises. As a first approach some conclusions based on two sources are presented here (*Table 6*):

- the unique (till now) set of official data collected on the basis of a survey of the balance-sheets of private enterprises in 1994. We focus on the comparative aspect of private and SOEs;
- the statistical data of the Central Bank on the credits and deposits of the commercial banks by institutional sectors.

The structure of the assets of the two sectors differs sharply. A bias towards short-term assets is typical for the private sector. At the same time the latter has a much more fragile capital structure in which loans clearly dominate over own capital. This structure reflects a dominant feature in the emergence of the private business, financed to a large extent through dubious loans which eventually become bad debts. It is clear that the collateral capacity of private business is quite limited.

The data on the operational performances show many similarities between the behaviour of the two sectors. Both produce negative after-tax/after-interest income, although the ratio to operating profits is higher for the state sector: -46.4% versus -26% for the private enterprises. The rate of return (on sales) of the profitable enterprises is roughly equal: 5.6% for the SOEs and 6.9% for the private sector. The "rate of losses" for the loss-

**Table 6**  
**State Owned and Private Enterprises: Comparative Financial Profiles (1994)**

	State-Owned Non-Financial Enterprises	Private Non-Financial Enterprises
Operational profits (Lv mn)	61 490	8 514
Gross profits (after interests, Lv mn)	-2 276	-911
After-tax profits (Lv mn)	-28 530	- 2 215
After-tax profits/Operational profits (%)	-46.4	-26
Profitability of profit-making firms (sales) (%)	5.6	6.9
Intensity of losses of loss-making firms (sales) (%)	13.8	24.7
Structure of the assets (%)		
Long-term assets	55.7	31.2
Short-term assets	34.9	58.7
Receivables	10.8	22.6
Financial assets	1.8	7.9
Losses	9.3	9.2
Structure of the liabilities (%)		
Own resources	60.5	27.9
Capital	55.2	19.7
Profits	1.8	6.4
External finance	38.1	66.8
Loans	15.7	29.2
Payables	6.5	16.1
Liquidity ratio (General)	1.05	0.94
Liquidity ratio (Quick)	0.55	0.62
Liquidity ratio (Immediate)	0.16	0.19
Own capital/external (Loan) financing (%)	147	27
Dependency ratio (from creditors) (%)	30	158
Self-financing ratio (%)	58	21
Dubious loans (A) / Total assets of the banks in non-financial enterprises (%) (Leva)	7.3	7.1
Dubious loans (A) / Total assets of the banks in non-financial enterprises (%) (USD)	30.6	30.1
Dubious loans (B) / Total assets of the banks in non-financial enterprises (%) (Leva)	5.6	8.6
Dubious loans (B) / Total assets of the banks in non-financial enterprises (%) (USD)	2.2	11.4
Uncollectible loans / Total assets of the banks in non-financial enterprises (%) (Leva)	14.8	17.3
Uncollectible loans / Total assets of the banks in non-financial enterprises (%) (USD)	15.2	15.2
Interest arrears / Total assets of the banks in non-financial enterprises (%) (Leva)	37.0	31.3
Interest arrears / Total assets of the banks in non-financial enterprises (%) (USD)	16.7	4.9

Sources: "Enterprises' Finance (1994)", National Statistical Institute, 1995 (in Bulgarian); Bulgarian National Bank, Monthly Bulletin 1995/6 (in Bulgarian); authors' calculations.

**Operational Profits:** Total revenues from activity - Total expenditures for activity. **Gross Profits:** Operational profits + Net financial and other expenditures (Before taxes). **Profitability:** Gross profits before taxes/Sales. **Intensity of Losses:** Losses/Sales of loss-makers. **General Liquidity Ratio:** Short-term assets/ Short-term liabilities. **Quick Liquidity Ratio:** Liquid assets/Short-term liabilities. **Immediate Liquidity Ratio:** Financial assets/Short-term liabilities. **Dependency Ratio:** Received loans/Own resources. **Self-Financing Ratio:** Own resources/Assets.

makers is, however, substantially higher for the private enterprises: -24.7% versus -13.8% in the state sector.

The debtor performances of the two sectors are quite different. Although the degree of liquidity is comparable (slightly higher for private business), the degree of dependence of the private sector on credits is five times higher. The servicing of the debt also differs. The provisioned leva credits extended to both sectors are very important: 27.7% (15% uncollectible) of total credits extended by the commercial banks to non-financial, state-owned enterprises and 33% (15.2%) to the private firms. These figures are even higher for dollars credits. Meanwhile the private sector shows a better servicing performance. The share of interest arrears in the portfolio of the banks is more important for the loans extended to state-owned enterprises. The main conclusion which emerges from this very summary outlook is the extreme instability of the new-born private sector. Even when taking into consideration the inevitable downward bias of the data available, it is clear that the private business rests on a weak capital basis. The fact that despite this barrier, the private sector represents more than half of the exposure of the commercial banks points the dangers to the financial system.

The banking crisis of 1996 revealed in a tangible way that these dangers are real. The behaviour of the private business appeared to be (together with the well-known standards of the state enterprises) one of the main sources of the recent accumulation of bad debts and of the transfer of losses to the banks. The causes are on both sides - the private/state banks as lenders and the private business as user of credits.

Although the stress has been put generally on the enterprise side, the role of the banking system could not be presented as a purely passive one. The collusive behavior of the state, commercial banks (public and private) and of enterprises has been one of the stable features in the post-communist economy. The complicity in the extension of loans which were known *ex-ante* as uncollectible by the banks has been a current practice.

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The *a priori* assumption that the private sector is more sound financially does not matter in a context of generalised soft constraints, as well as unclear legal and institutional background. The Bulgarian case is a clear illustration of this feature of the economies in transition.

## **II. FROM MICROECONOMIC INDISCIPLINE TO MACROECONOMIC IMBALANCES**

The preceding section has highlighted the partial, and often perverse forms taken by the adjustment of Bulgarian enterprises since 1992, as well as their most visible consequences: a long recession with limited prospects for sustained recovery, large-scale losses, a common reliance by all categories of enterprises upon informal financing

sources, i.e. accumulation of arrears. The next sections shift to the aggregate level and try to identify the impact of large microeconomic distortions on overall (mostly monetary) balances. The most critical question is indeed how such widespread financial and contractual indiscipline has been compatible with a roughly stabilised macroeconomic framework over a relatively long period, and especially with the partial control of inflation. Actually, the experience shows that the transition economies have a limited capacity to withstand such pervasive disorders as a rule: in Russia and Romania, for instance, relatively short-term cycles have been observed after 1990, whereby the accumulation of arrears between enterprises, as well as between them and commercial banks, rapidly lead to a huge liquidity crisis and eventual monetisation. As Bulgaria was largely cut-off from external financing sources, and all as institutional sectors (with the only exception of households) accumulated substantial deficits, losses and arrears, major monetary shocks would indeed have been expected well before the one which started in May 1996.

## 2.1. The Enterprise Sector

### a) Aggregate Accounts

The previous section highlighted a large differentiation in the adjustment and financing patterns of four clusters of enterprises, covering together the State-owned, industry and construction sectors. We now shift to the public enterprises sector as a whole, so as to assess the impact of the underlying financial microeconomic indiscipline on the aggregate dynamics of the economy. *Table 7* summarises the aggregated income statements of all SOEs between 1992 and 1995, on the basis of data centralised at the National Statistical Institute. The data are consistent with those in the previous section, though they now cover *all* SOEs. Unless otherwise stated, all figures are expressed as a percentage of the sector's value added the same year, which represents a large, though declining proportion of total GDP.

The income statement is presented on an accrued basis and derives the net profit (after interest and taxes), to which amortisation is added so as to give cash-flow. Subtracting gross investment then delivers the "net liquidity balance": although a non-conventional accounting notion, it is intended to estimate how much liquidity SOEs have been able to accumulate on the basis of their current operations (excluding capital account transactions), under the assumption that all liabilities have been served. Then, the line "predatory finance" accounts for the flows of arrears steaming from public administrations, wage-earners, and banks<sup>5</sup>. This allows an estimate first of what could be dubbed the "total opportunistic profit", equivalent to the net profit on a *paid* basis, and then the "net opportunistic accumulation of liquidity", if arrears are added to the net cash balance. Payables and receivables (that is, inter-enterprise credit) have not been included in the overall accounts, though relevant figures are provided. The former is generally difficult to interpret in transition economies although, in the present case, slow real growth since 1994 does not cast this experience in usual Russian or Romanian scheme as a soft financing source capable of off-setting restrictive bank credit. The relations with banks are actually even more tricky and will be further discussed later.

<sup>5</sup> Tax arrears cover the profit tax but also indirect taxes (the past turnover tax, VAT and excises duties). Interest arrears are also derived from the enterprises' accounts, on the basis of what *they* declare as interest due.

Striking evolutions can then be observed, which confirm the trends witnessed previously on an aggregate basis at a more microeconomic level.

i. In 1992 and 1993, labour costs clearly overran the financial situation of enterprises, despite widespread, early redundancies (*Table 7*). Then a strong consolidation occurred after the March 1994 devaluation, which boosted exports and imposed a sharp reduction in real wages as in unit labour costs. On this basis, the aggregate after-tax profit swung back from -8% of GDP in 1993, to close to +4% in 1994 and 1995. In other words, enterprises responded quite positively to the devaluation, and then defended their real-cost competitiveness effectively, contrary to what happened after 1991. This does not put Bulgarian SOEs in a wholly different set to that of the other adjusting State sectors in Eastern Europe.

ii. Yet, a second implication of the 1994 turnaround is that, on an *aggregate* basis, the SOEs have actually had the financial capacity to serve *all* their liabilities over the last two years. As at the microeconomic level, individual profits do not match losses, the aggregate figures cannot be interpreted directly as an indicator of widespread, continuing reliance upon predatory finance by all types of firms. A substantial part very probably corresponds to heavy loss-making firms, which should have been either restructured or bankrupt for long so as to relieve the rest of the economy of the burden of financing them. However it was also shown, on the more limited, but still large statistical base used in the preceding section, that profitable firms also used to accumulate arrears on a standard basis. While decisive for the microeconomic analysis, the aggregate consequences of this distinction is limited: the point is that huge amounts of resources are still being redistributed informally, either as way to socialise losses or as the result of more explicitly strategies of free-riding by profitable firms.

iii. A more positive aspect in the evolution of predatory, non-contractual revenues is the decline in their relative weight: they averaged "only" 21% of the sector's value added in 1994-1995, against 35% over the two preceding years. However, this still represents huge financial resources, at a time when the enterprise sector was recording high, aggregate levels of profits and self-finance. This purely opportunistic approach to liability service was indeed observed during the two first years, as predatory revenues already reached



**Table 7**  
**The Performance and Financing Public Enterprises**

<i>a- Industrial Competitiveness (All Industry)</i>	1991	1992	1993	1994	1995
Industrial production	77	64	56	59	60
Industrial employment	82	69	61	56	52
Labor productivity	96	95	94	108	118
Industrial real wages (PPI)	na	100	126	122	129
Unit labour cost (PPI)	na	100	127	107	105
Industrial wages in USD (monthly average)	59	86	112	88	109

Source: OECD.

<i>b- Income Statement (in % of own added value)</i>	1992	1993	1994	1995
<b>1. Value Added</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
In percentage of GDP	40	32	38	32
Wages & Social Security	-72	-84	-55	-60
<b>2. Trading profit</b>	<b>28.3</b>	<b>16</b>	<b>45</b>	<b>40</b>
Interest due	-36	-38	-21	-18
Other financial revenue, net	3	1	-6	0
Profit tax	-10	-6	-9	-9
<b>3. Net Profit</b>	<b>-15</b>	<b>-26</b>	<b>8</b>	<b>13</b>
In percentage of GDP	-6	-8	3.2	4.2
Depreciation allowances	14	24	14	13
<b>4. Cash flow</b>	<b>-1</b>	<b>-2</b>	<b>22</b>	<b>26</b>
Gross investment	-5	-9	-7	-14
<b>5. Net cash position</b>	<b>-6</b>	<b>-11</b>	<b>15</b>	<b>12</b>
<b>6. Predatory finance</b>	<b>31</b>	<b>39</b>	<b>23</b>	<b>19</b>
Interest arrears	15	22	9	8
Tax arrears	13	11	11	8
Social security and wage arrears	3	6	3	4
<b>Total opportunistic profit (3+6)</b>	<b>16</b>	<b>13</b>	<b>31</b>	<b>33</b>
In percentage of GDP	6.4	4.2	11.9	10.4
<b>Net opportunistic accumulation of liquidity (5+6)</b>	<b>24</b>	<b>29</b>	<b>38</b>	<b>31</b>
In percentage of GDP	9.7	9.1	14.4	10.0
Predatory revenue as a % of total	126	138	60	63
<b>Capital account</b>	<b>-6</b>	<b>-11</b>	<b>15</b>	<b>12</b>
Increase in net bank credit	13	25	16	7
Deposits in banks (% of GDP, BNB)	26	22	21	15
In real terms (PPI deflator)	100	103	119	91
Real inter-enterprises credit***	100	85	87	82

Sources: Bulgarian National Bank; National Statistical Institute.

levels much higher than that which mere liquidity constraints of cash-strapped enterprises would have required.

iv. Hence, since 1992, whatever the cycle in net losses and profits, SOEs have apparently been able to accumulate more than 10% of GDP in liquidities on average each year, the eventual use and destination of which are largely unknown. Though the data certainly include large imprecisions, and may miss some sub-groups of firms or subsidiaries, the sheer size of these flows probably makes it impossible to disregard them as a pure statistical mirage. Moreover, the primary statistical source being used -the SOEs accounts- would rather strengthen these estimates, as the incentive for them should have been rather to under-estimate arrears. An element of accounting ingeniousness may then be relied upon. Finally, it should be remembered that other, potential instruments for redistributing revenue have not been taken into account: inter-enterprise credit, transfer prices, asset-stripping, etc.

On this basis, the "net predatory finance" can be interpreted as a net flow of revenue which has no corresponding item in the capital accounts of respective enterprises, unless one expects them to repay all accumulated arrears eventually - an assumption which stretches all credulity. The implication is that apparently some other agents, operating at the limits of the public, private and informal sectors, have financed their own accumulation of capital with the predatory revenue and trading profits transferred from State enterprises - whatever the use they have made of it. Indeed, many possibilities can be envisaged among which data does not permit to discriminate (as is to be expected): capitalisation of private firms controlled by SOEs managers, redistribution through financial and commercial holdings, flight capital, investment in BMW cars and swimming pools, etc.

*b) Credit to Enterprises: the Point of View of Banks*

The relation between enterprises and banks is among the most complex, as statistical information on the revenue flows of banks is limited and declining; in the meantime, this sector is also a decisive intermediary both in the redistribution of revenue between agents, and in the passage from microeconomic disorders to macroeconomic and monetary imbalances. As for the bank/enterprises relationship, three main factors at stake can then be underlined.

i. As far as monetary statistics are used, as opposed *inter alia* to SOE figures, credit distribution to enterprises has been nominally tight since 1992, with real lending rates averaging 36% (PPI deflator) between 1992 and 1995. Two elements are mainly responsible for this, among others: the huge intermediation margins of commercial banks (37 percentage points on average over the same period, for leva credits), and the lag in producer prices with regard to consumer prices, which made the relative position of enterprises quite "unfavourable" in this respect. However if the GDP deflator is being used, real interest rates still remain very high, at 27% on average over the same period<sup>6</sup>.

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<sup>6</sup> The very large, unstable differences between the three available internal price deflators (PPI, CPI, and GDP) contribute to making the analysis of evolving revenue flows, as that of monetary policy, especially difficult. In principle, the latter is driven by the IPC index.

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In terms of access to new credit, the situation has been very restrictive as well, as, in a relatively disinflationary monetary framework, enterprises received on average 45% of domestic credit, which is less than in most transition economies (Sgard, 1996b). A consequence is that, with inflation remaining high, nominal growth in enterprise credit has not kept pace with prices, so that in real terms, it has fallen steadily, whatever deflator is used: its average level was reduced by 24% between 1992 and 1995, on a PPI basis, or by 51% if the GDP deflator is applied.

ii. When levels of both interest and credit distribution are taken into account (on the basis of the Monetary Survey and related times series) it becomes clear that the overall situation in the "credit market" was not consistent with the defence of payments discipline: in any country, enterprises would have not been able to transfer the corresponding amounts of interest payments to banks while receiving so few resources from them<sup>7</sup>: one would have witnessed either a massive breach in payments discipline, or widespread bankruptcies in the enterprises and, hence, in the banking sector. Both trends since 1992 then reflect the underlying financial distress of commercial banks which, *inter alia*, made wholly impossible the extension of a more or less autonomous, "quasi-normal" market segment, parallel to that of loss-making SOEs. In other words, as long as banks were not restructured, and were not given a strong governance, it apparently became increasingly difficult for them and for enterprises to evolve stepwise out of the present, low level equilibrium of weak financial discipline. Hence, even if financial discipline had progressively strengthened in the real sector, this would have probably made difficult an escape out of the financial collapse.

iii. It then comes as no surprise that beyond an apparent, hard credit crunch, actual payments have had few relations with contractual liabilities, which means that informal flows of revenue have been dominant between enterprises and banks since 1992. The accumulation of interest arrears by enterprises, as discussed above, reduced the implicit interest rate on leva and foreign currency loans from 38% to 20% on average between 1992 and 1995. On an accounting basis (see previous section), the losses in revenues for banks have been estimated to close to 6.3% of GDP per year during the two first years, and 3% in 1994-95. This downward trend reflects more the reduction in the base for this type of transfer (the outstanding bank debt in real terms) than a lower rate of transfer (*Table 1*).

iv. However, all hidden flows of revenues were not beneficial to enterprises, as they incurred inflationary losses on their large bank deposits, which have received on average, negative real interests (-1.3% per year since June 1992, using a weighted rate). Substantial occasional losses were then incurred, as after the devaluation in March 1994 when the pick-up in inflation resulted in a loss of 3.2% of GDP by enterprises (mostly redistributed to indebted agents, i.e. other firms and the State). This high exposure to inflationary risk derives from the large banks deposits of Bulgarian SOEs, which were close to 25% of GDP in 1991 and 1992, before being reduced to 15% by 1995. Typically, enterprise deposits in Eastern Europe (with the only exception of the Czech Republic),

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<sup>7</sup> On an accounting basis, it may be estimated that if enterprises had fully respected their obligation towards banks, as derived from official data sources, they would have had to transfer to banks an average of 11.5% of GDP between 1992 and 1995, of which 9.1% points would have corresponded to interest payments with the balance corresponding to capital amortisation in real terms.

have represented between 8 and 10% of GDP. In the present case, inefficiencies in the mechanism of transfer payments (i.e. a large monetary 'float') are probably part of the explanation; another one being that despite the losses incurred, in an economy with ill-defended property rights and few alternate options for financial or real investments, liquid assets may have become a reasonable answer to uncertainty and limited time-horizons.

## **2.2. The Government Sector**

*Table 8* shows that the budget has been constantly in deficit since 1992, with the shortfall reaching a maximum of 10.9% of GDP in 1993 and averaging 5.4% otherwise. Two essentially exogenous factors played a role in this process: the first is the standard fiscal crisis observed in almost all transition economies, caused by the overall recession and the initial lack of adequate fiscal instruments. Second, the high level of Bulgaria's foreign debt, accumulated largely in the mid-1980's, also had a negative impact: foreign interest payments averaged 2.3% of GDP between 1992 and the 1994 Brady agreement, though they had been sharply cut-off, either on a unilateral or an agreed basis. The coming years will see a rapid increase in foreign interest payments, of which the largest part will have to be funded with fiscal or quasi-fiscal (seigniorage) resources. Some capital payments have also added to the public domestic borrowing requirement, while privatisation has scarcely contributed to funding the State.

However, the most important evolution has been the rapid accumulation of a large domestic public debt since 1993, when the government reduced its reliance upon direct borrowing from the Central Bank and started to issue public bonds as the almost sole, alternate source of financing. Although real interest rates have apparently remained only slightly positive on these marketed securities (the State's internal deflator is not known) low real growth and the recapitalisation of commercial banks contributed to a rapid increase in the domestic public debt from the end of 1993 onwards (*Table 8*). Its pressure was directly felt on budget balances, with domestic interest payments averaging 11% of GDP, or 30% of total fiscal resources in 1994 and 1995.

Remarkably, after interest payments had been the main factor behind slippage in the budget deficit in 1993, their increase was then partially absorbed thanks to a rapid consolidation of the primary balance, which swung from a small deficit in 1993 to a surplus of 8.2% one year later. This was obtained through a severe real terms reduction of non-interest public expenditures, which were reduced by almost a third between 1993 and 1995 (GDP deflator). However, this correction was probably decisive in alleviating a monetary/financial crisis in 1994, as a reduction in the primary deficit by only half the result actually reached would have imposed, other things equal, a doubling to 120% of the increase in the supply of reserve money or (alternatively) a 15% cut in the stock of real enterprise credit. This effort also contributed eventually to reducing inflation in 1995, as well as to bringing down the relative level of the domestic debt. Real foreign exchange appreciation also had an impact on the share of the public domestic debt which is denominated in dollars<sup>8</sup>.

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<sup>8</sup> It is generally assumed that this represents between a fifth and a quarter of the outstanding stock. Most of these bonds have been exchanged against non-performing, foreign currency loans of commercial banks through general or individual recapitalisation programmes.

**Table 8**  
**Public Finance**

	<i>(As % of GDP)</i>				
	1991	1992	1993	1994	1995
Total revenues	41.0	41.7	40.6	41.2	37.3
Non-interest expenditures	37.2	39.2	40.9	33.0	28.0
Primary balance	3.8	2.5	-0.3	8.2	9.3
Interest on foreign debt	-1.9	-2.9	-2.3	-2.0	-4.5
Interest on domestic debt	-6.0	-4.8	-8.3	-11.8	-11.3
Budget deficit	-4.1	-5.2	-10.9	-5.6	-6.5
Total Financing	4.1	5.2	10.9	5.6	6.5
Foreign financing	-1.1	-0.8	-1.2	-0.5	-1.3
Domestic financing	5.2	6.1	12.1	6.1	7.8
Central Bank	3.1	5.5	3.4	-0.8	-0.2
Securities	2.5	2.0	9.5	6.9	8.0
Other	-0.5	-1.5	-0.8	0.0	0.0
Public debt	157	155	150	157	111
Domestic	15	15	37	53	40
External	142	140	113	104	71
Real non-interest expenditures (GDP deflator)	100	99	100	83	68
Interest as % of revenue	19	18	26	33	42

Sources: Bulgarian National Bank, Ministry of Finance, authors' calculations.

Total interest payments on the public foreign debt have been included (World Bank data), with i.a. those made directly by the BNB. It has not been possible to consolidate over the whole period interest transactions and profit remittances between the Central Bank and the State Budget; on average, between 1991 and 1993, this increases State expenditures by 3.5% of GDP, and revenue by 2.7%.

### 2.3. Households Savings

In an economy where both the enterprises and the government sectors have posted large operational deficits, and where access to foreign savings has been limited, the overall financial balance has clearly fallen upon households. Indeed, by all accounts, they have borne the full weight of the relative failure of reforms so far, and they will most probably also support the largest part of the coming financial consolidation.

Their plight actually starts with the adjustment in the real sector, as both employment and wages have been among the rare variables on which enterprises immediately imposed severe restrictions: during the first four months of reforms, industrial employment fell by 22% in Bulgaria, against 12% to 16% in Czechoslovakia, Hungary, Poland and Romania. At the end of 1995, public industrial employment was 51% lower than five years before, with aggregate labour productivity up by 17.5% (*Table 7*). The adjustment has also borne on real wages: on a CPI basis, industrial wages were 23.5% lower in 1995 than in 1991 (annual averages), although the benefits for enterprises, in terms of unit labour costs, have apparently been partially matched by lower producer price inflation. Meanwhile, dollar wages in the industry have risen from USD59 in 1991, to USD109 in 1995; yet at an exchange rate of 130 leva per dollar, in May 1996, they may only be worth USD 80.

A second element which has contributed to the impoverishment of the largest part of the population have been sharply negative real interest rates on bank deposits (-15.3% on average between 1992 and 1994, but +4% in 1995, *Table 9*). This translated into massive inflationary taxes well after the initial phase of stabilisation and price liberalisation. On CPI basis, these transfers averaged 5.6% of GDP between 1992 and 1994, to which 4.3% should be added to account for the inflation tax levied on cash holdings. If the GDP deflator is being used the total transfer of resources is reduced 7.4% of GDP over the same period<sup>9</sup>. These hidden flows reached a post-stabilisation maximum after the March 1994 devaluation, but 1995 brought about more favourable results thanks to a few months lag between disinflation and the adjustment of interest rates. As is to be expected the overall result, especially during the 1994 crisis, has been an accelerating currency substitution by households which undermined the base for future inflationary revenues.

However, the high financial savings rate of households, despite huge inflationary losses over the last years, is probably one of the most positive and surprising feature, of the Bulgarian economy. Indeed, it can be estimated that, *after* interest payments, households savings collected by banks, including foreign currency deposits, have represented around 10% of GDP in 1991 and 1992, before falling to close to 5% in 1995<sup>10</sup>. This certainly was a most decisive factor for the economy, apart from the containment of the increasing

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<sup>9</sup> In the absence of a statistical breakdown, it has been assumed that households hold the total stock of reserve money outside banks; this may lead to a slight over-estimation of inflationary transfers, as un-incorporated, small size businesses are also considered to hold relatively large amounts of cash.

<sup>10</sup> Banks are allowed to open foreign exchange deposits in US dollars, Deutsch-Mark and Swiss Francs, but only the two former currencies are used in practice. Cross-valuation effects could not be accounted for in the present estimate, although, apparently, their potential impact has consistently remained below 0.5 % of GDP, excluding 1994 when it may have reached 1.4%. Figures presented here are based upon the hypothesis of a 50-50 sharing between the two types of deposits.

pressure exerted on monetary policy by the underlying indiscipline of banks and enterprises.

**Table 9**  
**Households Savings and Wealth**

*(% of GDP, Annual Averages)*

	1991	1992	1993	1994	1995
Total monetary assets	28.3	36.6	41.7	39.9	41.8
Cash holdings	6.5	7.3	7.3	5.7	5.5
Leva deposits	17.7	24.8	30.4	26.7	28.2
Foreign currency deposits	4.0	4.5	4.0	7.5	8.2
Total, real terms, CPI deflator	100	105	101	90	93
Total, real terms, GDP deflator	100	139	162	153	157
Aggregate real interest rate on deposits (CPI)	-	-16.3	-7.9	-21.6	4.0
Inflationary tax*	-	8.7	6.3	14.5	(-2,2)
Of which: on cash holdings	-	4.5	3.7	4.7	1.7
Nominal increase in leva cash and deposits**	9.6	9.5	6.2	2.2	3.2
Including foreign currency deposits (estimates)	9.1	10.1	6.9	6.7	5.0
Average wage, CPI deflated	100	116	103	82	77

Primary source: Bulgarian National Bank, authors' calculations.

\* Only on leva assets.

\*\* Net of interest received.

#### 2.4. The Banking Crisis

In the earlier section on enterprises finance, it was mentioned that, on the basis of their own balance sheets, SOEs have accumulated interest arrears towards banks representing each year between 7% and 2.7% of GDP. If we now turn to the accounts of the commercial banks, these arrears immediately translate into as much revenue losses and indicate that a large proportion of their assets is non-performing. However, the estimate of the total implicit capital losses should also take into account a second factor, though one which is rather more difficult to estimate than the accounted arrears of SOEs.

The problem is the following: the volume of the commercial banks claims towards SOEs, after the official Monetary Survey, compared to the levels of bank debt which SOEs actually acknowledge in their balance sheet, as studied above, show a gap varying between 58% and 22% of the Monetary Survey figures since 1992, depending upon the time period. Moreover, the smallest gap appeared after June 1995, when the BNB redistributed a large part of the stock of enterprise credit from the public to the private sectors. Although there has not been any significant privatisation till now, this reallocation made the private sector the largest debtor, on an aggregate basis, and reduced the gap between the BNB and the SOEs series. Of course, the latter still pay as few interests as before on the basis of a stock of credits which, in their accounts, remains unchanged. Thus, by far, all indications have not disappeared that, indeed, the banks may have accumulated capital losses higher than what can be derived from the SOEs accounts.

Three benchmark estimates of implicit capital losses can then be very tentatively put forwards. First, the residual statistical hole, after the June 1995 accounting changes, represents at least 4% of GDP, that is 3.2% of GDP in lost interest revenue for banks, on the basis of the 1995 average nominal lending rates (80%). At the other extreme, the pre-June 1995 monetary series could have been basically right, in which case liability-holders may be missing for up to 57% of the banks stock of enterprise credit; this would represent close to 16% of GDP in implicit capital losses, and would imply around 13% of GDP in lost interest revenue in 1995. In-between, if one first accounts for a minimal 22% hole, and then assumes that the remaining stock of banks claims is actually held by identifiable agents which pay the same proportion of accrued interest as the SOEs account for (45% in 1995), then the interest losses would have been close to 8% of GDP in 1995, with 2.7% of them corresponding to the SOEs officially-accounted arrears (earlier section). This may possibly represent a viable estimate though with a very large dose of cautiousness.

Available alternate sources do not allow to directly cross-check these figures. On the one hand, the official figure of consolidated losses of the banking sector, as reported by the Bulgarian National Bank in its annual report, is rather limited (*Table 10*). Clearly, if the order of magnitude of these amounts is correct, then the above-mentioned accounting hole would correspond much more to informational losses than to real ones; moreover, it should then also be assumed that cross-subsidisation of opportunistic enterprises by households has also allowed banks to cover a large part of their implicit revenue shortfall. A less optimistic interpretation would rather suggest that, on top of substantial inflationary taxes, unknown implicit losses have been covered, on an accounting basis, thanks to a rapid accumulation of households deposits which contributed decisively to postponing the eventual liquidity crisis.

This would be much more consistent, on the other hand, with data on the quality of the bank assets, as well as with the evidences presented above. Indeed, official figures show that the relative share of standard, well-performing credits never represented more than 25% of the banks total claims towards enterprises since the beginning of transition. Their financial distress is then further evidenced by the gap between the actual and the normative levels of reserves needed to cover these capital losses: more than other, these figures highlight the limited pool of domestic financial resources available to restructure the banking sector without fuelling inflation. This overall situation of insolvency was eventually confirmed by a May 1996, IMF estimates which put at 1.7 billion USD (around 20% of GDP) the financial resources needed to recapitalise the whole sector, which net worth was then estimated at -5.8% of its total assets.

Thus, a reasonable assumption is that the Bulgarian banking sector as a whole has never been solvent since the early days of transition. In other words it never had the financial resource (capital base) needed to impose tougher budget constraints on enterprises and was thus probably doomed to fall prey to the predatory attempts of unregulated SOEs. Weak or inexistent monitoring by the State, shareholders and supervisory agencies certainly also contributed to the ongoing disaster, despite some stabilising efforts made since 1993. A first, large recapitalisation was then implemented, under the form of an injection of State bonds in the bank balance sheets. Although some positive trends emerged the following years, the programme proved to have rather a stop-gap character. First, State bonds have had only a low remuneration and liquidity - that is, their net



present value was less than half their face value unless they were to be refinanced, from 1995 onwards, by the BNB. Then the State did not take the opportunity of this recapitalisation programme to strengthen the governance and regulatory structures of banks.

The implication is that, at best, the development of the banking crisis has only been slowed down during eighteen months. Two smaller recapitalisations had to be implemented in 1994 and 1995, at a time when cash injections by the Central Bank was already becoming the dominant refinancing instrument (*see Table 10*). As illustrated on *Graph*, a rapid acceleration in the provision of reserve money to the banking sector was then observed from the mid-1995 onwards, as two large public banks experienced immediate liquidity crisis and deposit holders started to panic. Then in December 1995, a well-known private bank was put under administration by the Central Bank, a movement which accelerated deposit withdrawals from almost all institutions and was followed by cash injections by the BNB in order to prevent a systemic crisis. It is estimated that during the first three months of 1996, close to 5% of the total stock of leva deposits has been withdrawn from the banking sector, while 1.6 time this amount had to be transferred to banks in reserve money. In May, both the largest private bank and one of the biggest State-owned one were closed down, which prompted the government to make legal and mandatory the principle of a State deposit guarantee which was in fact applied since the first 1995 crisis. 100% guarantee is was then offered to the households leva-deposits; the same is true for foreign currency deposits, although a two-year time-schedule for withdrawals has been imposed, a move which did not contribute to a slow down in the outflow of resources from the banking system. Enterprise deposits as those of non-incorporated businesses are only 50% guaranteed.

What could be the next steps? If one relies upon many comparable experiences in developing countries during the 1980s, especially in Latin America, it should be difficult to avoid a high inflation crisis. With the banking sector bankrupt, large cash injections since late 1995 and a State guarantee on bank deposits, the sharp devaluation observed in April-May should rapidly feed-back into domestic inflation. The Tanzi-Oliveira effect would then have its usual, inflation-accelerating effect so that the interplay of domestic inflation and falling foreign exchange, in a context of a rapidly demonetising economy, may even open on a hyperinflation. On the other hand, if, against all learned expectations, the population starts to consider that the crisis is over, with the banks under control and the exchange rate stabilised, then liquidity may flow back in the banks and help shore the crisis.

**Table 10**  
**Monetary Policy**

	1991	1992	1993	1994	1995
<b>Interest Rates (effective annual rates)</b>					
Short-term credits	65	77	79	103	80
Time deposits (1 month)	44	56	52	65	44
Average deposit rates (enterp. & Hhds)	36	48	47	58	40
Banking intermediation margin (nominal)	29	29	32	44	40
Yearly yields of T-bills	-	-	55	76	62
<b>Money Supply</b>					

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M2 / GDP (%)	53	63	63	61	57
M2-leva, nominal growth rate (%)	-	178	166	151	156
M2 total, nominal growth rate (%)	-	175	151	173	152
Real M2-leva (GDP deflator, 1992 = 100)	77	100	114	94	90
Multiplier M0 / M2-leva	5.7	6.1	6.8	7.4	7.5
M0 velocity	15.4	13.7	13.7	17.6	18.3
Official reserves / M0 (end of year)	1.12	1.54	1.26	2.25	1.77
<b>Distribution of domestic credit</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Government	23	44	88	26	64
Enterprises	84	57	12	74	38
Households	-7	-1	0	-1	-3
<b>Banks solvency and refinancing</b>					
Bank debt of SOEs					
After the monetary survey (% of GDP)	-	65	61	47	35
SOEs accounts as a % of MS data (end of period)	-	60	60	43	78
State recapitalisation as a % non-State assets**	-	-	(41)	4	11
BNB refinancing as a % of non-State assets**	-	-	0.1	12	11
<i>Total</i>	-	-	(41.1)	15.8	21.5
<b>Loan classification :</b>					
<i>Total</i>	-	-	100	100	100*
Standard	-	-	8	16	21*
Sub-standard	-	-	92	84	79*
Of which: uncollectible	-	-	7	11	15*
Reported reserves/statutory levels	-	-	7.2	23.6	25.4*
Own capital+reserves/sub-standard	-	-	12.9	27.0	35.6*
<i>Total losses, in % of GDP</i>	-	-	2.5	0.8	2.0*

Primary source: Bulgarian National Bank, authors' calculations.

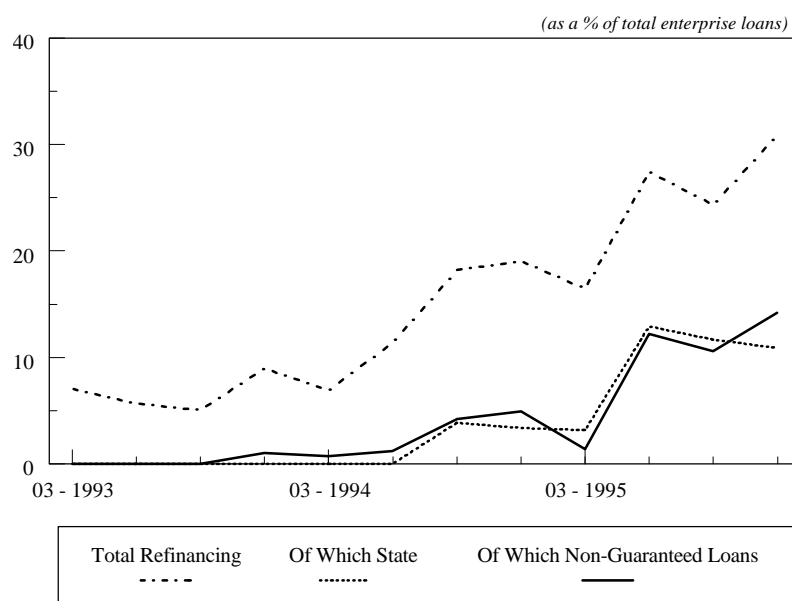
Yearly averages unless otherwise stated.

(\*) January-June 1995

(\*\*) Assets at the beginning of the year.

However, this would not mean a real, enduring stabilisation, but either a few months relapse -in other words, a few extra months of unpleasant monetary arithmetic (Sargent and Wallace, 1981)- or a form of soft demonetisation: households will incur large inflationary losses, so that the banks balance sheet will be progressively consolidated, but this process would not take the form of an open, violent high inflation crisis. Instruments of financial repression, old or new, may also contribute to this result. Considering the

**Graph**  
**The Refinancing of Commercial Banks, 1993-1995**



Source: Bulgarian National Bank, Ministry of Finance.

social cost of a hyper-inflation, as well as the long-term constraints which a demonetised economy exerts on economic policy, the latter option would certainly be preferable. But its eventual long-term success would also suppose that the experience for public authorities will be hard enough so as to force a decisive turn towards financial discipline, both on the macro and micro-levels.

## CONCLUSION

The first part of this paper has highlighted the many and often perverse forms taken by the adjustment of State Owned Enterprises in Bulgaria since 1992. The differentiation among groups of more or less profitable firms showed *inter alia* two important aspects of this process. First, a large number of heavily loss-making public enterprises has been allowed to survive since the beginning of transition, at the expense of the rest of the economy. First of all for the banks whose insolvency they contributed to while absorbing a large part of newly extended credits. However, as a rule, losses have been much more financed through informal or non-contractual means, mostly the accumulation of interest and tax arrears, while in principle the impossibility of obtaining new external finance, or of issuing equity after having lost all base capital should have made bankruptcy the only

remaining solution. The second decisive aspect in the adjustment process is that more competitive, often profitable enterprises have also been accumulating large arrears towards other agents, among which banks have again been the main victim. The implication is that arrears have been much larger than the mere financing of losses would have required, and have thus been considered by a substantial number of enterprises as current revenue, with total opportunistic transfer of resources being estimated conservatively at 28% of their own added value each year since 1992.

Hence the absence of effective bankruptcy laws, or of a State willingness to restructure, close or privatise loss-making SOEs, show a tight link with a more general, extreme weakening of all forms of property rights, whether private or public. This has had significant consequences on the set of microeconomic constraints and incentives of all agents, and consequently on their behaviours. Indeed, when the State is not strong enough to collect taxes due by profitable enterprises, when deposit holders suffer huge inflationary taxes, when private and public banks let firms accumulate interest arrears, or when they even distribute new credits while knowing that these will not be recovered, the overall economic environment becomes very particular: it is one where ownership structures and contractual liabilities, as reflected in the balance sheets of firms, weigh only lightly on the allocation their revenue, as well as on their medium term chances of surviving and developing. Apparently (and logically) the rule for a large number of them has then been, to maximise both the revenue derived from their own productive assets and the predatory revenue extracted from weaker, less-entrenched, public or private agents. The notions of own capital, as well as that of the rate of profit, have thus had little practical significance, while apparently the liquidity position has remained the main performance criteria.

This maximisation aim should indeed be considered in the framework of a rational, optimising behaviour, which exploits opportunistically the weaknesses of the surrounding institutional environment, as well as the opportunities emerging in the goods markets. In other words, despite weak budget constraints and limited State initiative towards restructuring, Bulgarian SOEs have not been simply surviving as mere old-time, bureaucratic dinosaurs nor have they been captured by wage-earners: control upon labour costs and the speedy reaction to the March 1994 devaluation have been important signals in this respect. Since 1992, they act as autonomous microeconomic agents driven by their own objective function (which was probably to some extent already the case before), and they have shown a capacity to mobilise economic and informational resources, which is probably not so different from that observed in more disciplined, transitional economies. The difference in environment thus explains the difference in the adjustment paths and in the optimisation aims.

However, this describes an economy whose microeconomic structure, while indeed rational and optimising, is not consistent with any form of macroeconomic stability, whether governed by monetary rules or planning. In other words, since the end of the former regime no agent has been able to impose a coordination mechanism on semi-privatised SOEs which would have aligned their microeconomic incentives and constraints on lines consistent with macroeconomic discipline. Consequently, the absence of this most essential public good has been doomed to produce, sooner or later, a large-scale dislocation of the economy (*Table 11*). The latter part of the paper described how this pervasive accumulation of arrears by enterprises, as well as the financing of large

budget deficits have actually remained compatible with a grossly stabilised, even disinflationary environment for more than four years.

Three factors have been identified as having played a decisive role in deferring the financial crisis. The first one was the substantial inflationary tax levied on the household deposits in banks, since the beginning of transition, with only a short relapse during the first half of 1995. However, as was made clear at the time, interest payments consistent with the protection of the real value of private savings would have rapidly caused acute liquidity problems in banks. The second factor was the willingness of households to compensate their inflationary losses by making new deposits so that the relative weight of their total assets in banks has remained rather stable since 1992, as a proportion of GDP. One can actually assume that in an economy with a larger experience of high inflation, banks insolvency and foreign exchange crisis (as in Latin America), the March 1994 crisis would have probably precipitated much larger deposit-withdrawals as well as a sharper dollarisation of the economy, this in turn would have imposed much tighter constraints on the conduct of monetary policy. The last decisive factor has been of a more short-term nature: while the 1994 devaluation was a clear signal that underlying imbalances had become unsustainable, the very rapid reduction in the State deficit that year was probably decisive in postponing the eventual crisis. The ensuing disinflation, lower nominal interest rates and the stability of the nominal exchange rate then contributed to maintaining aggregate stability in 1995, while the banking crisis was gathering pace. However, since the end of that year, large injections of reserve money into the banking sector, followed by the closure of some large banks have translated into an open crisis of confidence towards both the domestic banks and the national currency, with widespread deposit withdrawals and an acute foreign exchange crisis starting in early May 1996. The ensuing devaluation (50%) will translate into a sharp acceleration in inflation which may then open on a phase of high or even hyper-inflation: most experiences of this type, during the 1980's, actually started with a bank or a budget crisis, spilling over to the foreign exchange before interacting with domestic inflation through money flight, falling real fiscal revenue and the generalisation of indexed contracts.

Indeed, as in the latter cases, relative demonetisation remains the only solution left open in order to finance the massive losses accumulated in the balances sheets of the banking sector since 1992. It will also reflect the increasing incapacity of the State to service its own debt: with declining real fiscal resources, less capacity to issue domestic debt and a sharp increase in the domestic cost of serving its foreign liabilities financial consolidation. While the IMF should lend some new foreign money as from the second half of 1996, the domestic financial resources to absorb the present crisis appear limited: only a renewed confidence of the public in the commercial banks, taking the form of a recovery in bank deposits, may help shoring the financial system for a while. In that case, a scenario of very high inflation may be escaped, as the inflationary reduction in past losses and debt

**Tableau 11**  
**Total Losses in the Public Sector**

*(in % of GDP)*

	1992	1993	1994	1995
Public enterprises*	12.3	12.6	8.7	6.3
Budget deficit	5.2	10.9	5.6	6.5
Banks losses (official figures)	0.0	2.5	0.8	2.0
<b>Total</b>	<b>17.5</b>	<b>26.0</b>	<b>15.1</b>	<b>14.8</b>
Inflation tax on households	8.7	6.3	14.5	(-2.2)

Primary source: Bulgarian National Bank, authors' calculations.

\* Corresponds to SOEs predatory revenues.

may be obtained without precipitating a run on the domestic currency and banking sector. The important into is that, however the eventual outcome of the 1996 crisis, in a medium term perspective, the huge redistribution of resources which will take place during these months, mostly at the expenses of households, should also be considered as a pre-condition for a future stabilisation, as well as for the establishment of strong financial discipline on enterprises and banks. If many other economic, institutional and political conditions will be needed in order to succeed, this new coming phase of the Bulgarian transition cannot be envisaged if the State, public enterprises and the banks still have to finance the accumulated losses of the past years from future revenue flows.

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