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Hardening the Budget Constraint:

The Experience of Post-Socialist Economies

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BSTRACT

he budget constraint has not hardened to equal degrees in the various post-socialist countries. some of them a great deal has been done in this respect, while in others there has been ardly any change from the initial state. This study surveys the typical manifestations of softness of the budget constraint, such as state subsidies, soft taxation, non-performing loans, the accumulation of trade arrears between firms, and the build-up of wage arrears.

The reasons behind this are manifold and tend to act in combination. Thus retention of state ownership helps to preserve the soft budget constraint syndrome, while privatization encourages the budget constraint to harden, although it does not form a sufficient condition for it to apply. Also vital is a resolve to establish the requisite political, legal and economic conditions.

It was widely maintained at the outset of the post-socialist transition that the 'Holy Trinity' of liberalization, privatization and stabilization would suffice to produce an efficient market economy. Since then, it has become clear that hardening the budget constraint needs to be given equal priority with these. Unless this occurs, the effects of privatization will fall short of expectations, as they have in Russia.

1. INTRODUCTION: CONCEPTUAL CLARIFICATION*

If this lecture were addressed to economists specializing in the socialist system or the post-socialist transition, I might plunge into the subject right away. However, as there is a broader audience gathered here for this meeting, it is best to begin with some clarification of the concepts involved.[1]

The concept of a budget constraint is familiar from microeconomics: the spending of a household cannot exceed its available financial resources. The same concept can be applied to other organizations, such as firms, non-profit institutions and local-government authorities. Here the attribute 'hard' is being added to the expression established in microeconomics. Hardening the budget constraint means that an organization whose expenditure exceeds its income will be unable to continue to operate.

The concept of a soft budget constraint is one the author introduced in works analysing the socialist system (Kornai, 1979, 1980). It alluded to a situation in which a state-owned enterprise managed to survive even though it made persistent losses, because time and again, the state rushed to its aid. (In the rest of this paper, the abbreviations HBC and SBC are used for the hard and the soft budget constraint.)

Sometimes the concept is misunderstood, so that even a single bail-out is referred to as softness of the budget constraint. In fact it is justified to refer to an SBC situation if there is a recurrent practice of rescuing firms, not a single occurrence of it. Then managers will expect a rescue if losses are made, and this expectation will shape their behaviour.

Although theoretical analyses often oppose two pure cases, HBC versus SBC, in reality

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[1] A more detailed explanation of the concept and a comprehensive survey of the literature appear in Kornai (1998) and Maskin and Xu (1999).

there are degrees of hardness and softness of the budget constraint. These degrees reflect how strongly the management of an organization can expect to be bailed out if losses occur, in other words the subjective probability of this occurring.

The SBC is a complex syndrome that becomes deeply imbedded in an economy's political environment and legal framework and in the behaviour of the economic actors. If softness of the budget constraint becomes pervasive, it spreads through the economy like a cancer, causing great damage.

The subject of this study is the SBC syndrome in economies undergoing post-socialist transition. It is not intended to offer a pure theoretical analysis. Attention is drawn in appropriate places to other works tending in that direction. The main purpose of the study is to survey the extensive empirical literature on the subject.[2] Although the SBC syndrome may not be unknown in our host country, Argentina, or other Latin American countries, these are not covered here.

Attention is focused on the behaviour of firms, with only brief allusions to other organizations.

The rest of the lecture falls into three parts. Section 2 deals with the phenomena, Section 3 with their causes and Section 4 with their consequences. Finally, Section 5 draws some conclusions for economic policy.

2. THE PHENOMENA

The initial situation when the post-socialist transition began in Eastern Europe and the former Soviet Union in 1989–90 was great softness of the budget constraint on firms. The socialist system was strongly pervaded by the SBC syndrome. As a first approach, it can be said generally that some hardening of the budget constraint has occurred during the transformation that followed the collapse of the communist system. However, this observation needs to be qualified in several respects:

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[2] Special attention is due to the comprehensive article by Schaffer (1998) and the summary reports by the European Bank of Reconstruction and Development (1997, 1998). Other important writings include Anderson, Korsun and Murrell (1997) on Mongolia, Bonin and Schaffer (1995) on Hungary, Claessens and Peters (1997) on Bulgaria, Earle and Estrin (1998) on Russia, Li and Liang (1998) on China, Perotti and Carare (1996) on Romania, Raiser (1997) on Poland and China, and Sjöberg and Gang (1996) on China.

- The degree of hardening varies widely from country to country. The foremost country in this respect is Hungary, while Russia and several other post-Soviet republics bring up the rear.
- The degree of hardening in any country is not uniform. It differs across various sectors.
- The trend is towards hardening of the budget constraint, but the changes are not monotone. Sometimes the process speeds up and sometimes it slows down. In some places it stops dead or even reverses.

The first step towards hardening the budget constraint is to introduce the legislation that imposes financial discipline.[3] The first requirements are bankruptcy laws similar to the ones in developed economies and commercial legislation to ensure that private contracts can be enforced. These need to be augmented by laws prescribing up-to-date accounting regulations, governing the operation of the central bank and commercial banks, and so on. It is no good expecting the budget constraint to harden until such laws are in place.

Once the laws are satisfactory, the key question is to ensure they are kept in a disciplined way. This requires law courts to administer justice quickly and efficiently and penalize breaches of contract and lapses of financial discipline. In warranted cases, courts have to declare firms insolvent, and if necessary order their liquidation. Lawyers are needed to represent debtors and creditors professionally, officials to implement court decisions and conduct auctions, personnel and institutions specializing in reorganization and liquidation, and so on. Initially the post-socialist countries possessed no trace of this kind of apparatus, which functions traditionally in developed market economies.

Table 1 ranks the post-socialist countries according to the degree to which they have gained the legal framework for enforcing an HBC. It is not possible to consider here what position each country has reached in other dimensions of the post-socialist transition. However, those familiar with the region will notice how the order of countries in Table 1 resembles their rankings for progress in other aspects of developing a market economy. (See, for instance, de Melo and Gelb, 1996, de Melo, Denizer and Gelb, 1997, and the EBRD Transition Report,

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[3] On the situation with introducing and enforcing bankruptcy legislation in the post-socialist countries, see the EBRD Transition Report (1998, pp. 39–43 and 105–16) and Burniaux (1996).

Table 1. Effectiveness of bankruptcy proceedings and financial regulations

	Bankruptcy Proceedings	Banking		Securities activities	
		Exten-siveness	Effec-tiveness	Exten-siveness	Effec-tiveness
Hungary	Effective	4	4	4	4
Poland	Effective	4	3	4	4
Estonia	Effective	3	3	4	2+
Bulgaria	Partly effective	4	4–	4	3
Croatia	Partly effective	3	3	4	3
Czech Republic	Partly effective	3	3–	4–	3
Slovenia	Partly effective	4	3	3+	2+
Latvia	Partly effective	3	3	4	2
Romania	Partly effective	3	2+	3	3
Lithuania	Partly effective	3–	2+	3	2
FYR Macedonia	Partly effective	3	3–	3	1
Armenia	Partly effective	3	3–	2+	1
Kyrgizstan	Partly effective	3–	2	1+	1
Georgia	Partly effective	2	2	1+	1
Slovak Republic	Ineffective	3	2	3	2
Russian Federation	Ineffective	3–	2+	3	2
Kazakhstan	Ineffective	2	2	2+	2
Ukraine	Ineffective	2+	2	2	2–
Albania	Ineffective	2+	2	1+	1
Azerbaijan	Ineffective	2	1	2	1
Uzbekistan	Ineffective	2	1	2	1
Belarus	Ineffective	2	2	1	1
Tajikistan	Ineffective	2+	1	2–	1
Turkmenistan	Ineffective	2	1	1	1

Source: EBRD Transition Report 1998, pp. 42 and 112.

1997, pp. 98–111.)[4]

Economists have always traced the frequency of bankruptcies and liquidations among firms, as one measure of the business cycle. More exits indicate a recession in the economy. However, the customary outlook leads to confusion when Russia's figures are examined, for instance. Although production there was falling sharply, firms did not fail. The explanation is that the frequency of bankruptcies and liquidations depends not only on the buoyancy or slackening of the economy, but on the softness or hardness of the budget constraint. Given a set of macro conditions, the harder the budget constraint the commoner bankruptcy and liquidation will become. Table 2 compares in this respect three Eastern European countries in the forefront of the reforms. There are notable differences between them. Bankruptcies and liquidations are far less frequent in the Czech Republic than in Hungary or Poland, which points to a softer budget constraint in the former.

Figure 1 presents Russian data. Every second firm there makes a loss, and the proportion is still rising, yet they continue to trade.

There are several instruments for softening the budget constraint. These can be classified into five main groups.

1. Fiscal subsidy. Occasionally or regularly, the state awards fiscal subsidies to inefficient firms. This is a familiar procedure in all parts of the world, not just in socialist and post-socialist countries. It is the most visible and accessible instrument for softening the budget constraint. It certainly explains why the scale of fiscal subsidies appreciably reduces when governments in the post-socialist region announce the introduction of a market economy. (See Table 3.)

2. Soft taxation. This less transparent instrument can be applied in three ways. The first is to tailor the tax rules themselves: for instance, the tax rates may not be uniform, so that they fall more lightly on sectors or firms to be preferred. With the second method, the regulation is uniform, but a legal way to make exceptions is left open. Finally, the third, crudest method is for the firm simply not to pay its tax. All three procedures appear in Table 4, in relation to a group of firms in a Chinese township. Here it is worth noting that so-called 'collective' firms (in municipal, local-government ownership) are subject to a softer budget constraint than firms

[4] No one imagines, of course, that hardness of the budget constraint is the only factor governing the success of a post-socialist transformation. All that can be said is that it makes a significant contribution to that success, which is what the rest of this study also tries to confirm.

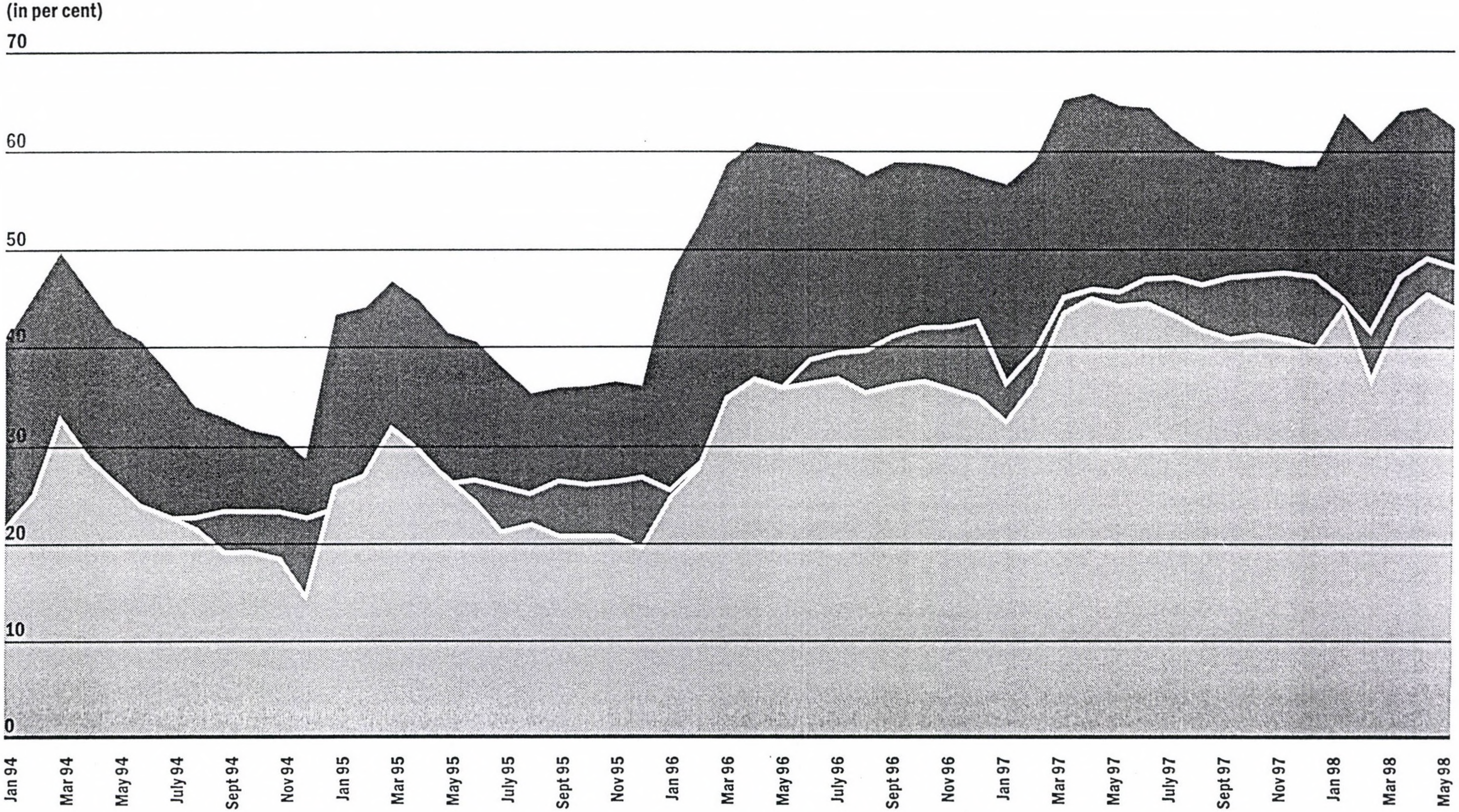
Table 2. Bankruptcies in the Czech Republic, Hungary and Poland, 1992–96

	1992	1993	1994	1995	1996
Czech Republic					
Number of bankruptcies filed	350	1,098	1,816	2,393	2,990
Number of bankruptcies completed	5	61	290	482	725
Reorganizations	0	1	2	2	6
Liquidations	5	60	288	480	719
Hungary					
Number of bankruptcies filed	14,060	8,229	5,900	6,461	7,477
Number of bankruptcies completed	1,302	1,650	1,241	2,276	3,007
Reorganizations	740	510	90	21	9
Liquidations	562	1,140	1,151	2,255	2,998
Poland					
Number of bankruptcies filed	4,349	5,936	4,825	3,531	3,118
Number of bankruptcies completed	910	1,048	1,030	1,030	984
Reorganizations	98	279	235	287	173
Liquidations	812	869	795	743	811

Note: The figure for liquidations in Hungary in 1997 is now available: 3761, which is a further increase.

Source: Balcerovicz, Gray and Hoshi, 1998.

Figure 1. Share of enterprises reporting losses in Russia



Share of loss-making enterprises in transport | Share of loss-making enterprises in industry | Share of loss-making enterprises in construction

Source: EBRD Transition Report 1998, p. 16

Table 3. Budgetary subsidies, 1989–96 (in per cent of GDP)

	1989	1990	1991	1992	1993	1994	1995	1996
Albania	6.6	13.9	17.8	4.3	0.0	0.1	0.0	–
Bulgaria	15.5	14.9	4.2	1.8	2.2	1.4	1.1	0.8
Croatia	–	–	1.7	1.3	1.2	1.6	1.6	–
Czech Republic	7.8	–	–	4.9	4.2	3.5	2.4	2.0
FYR Macedonia	–	–	–	–	–	3.4	2.9	2.2
Hungary	–	7.0	5.7	4.0	3.8	4.5	3.8	3.8
Poland	10.2	7.3	5.1	3.2	2.3	3.3	3.0	1.7
Romania	–	7.0	9.1	13.0	6.8	3.8	4.1	4.3
Slovak Republic	7.8	–	-	5.2	4.7	4.2	3.7	3.3
Slovenia	–	–	2.8	2.8	2.2	1.6	1.7	0.8
Estonia	–	–	2.8	1.8	1.5	0.9	0.5	–
Latvia	–	–	1.3	0.3	0.0	0.1	0.4	–
Lithuania	–	14.0	5.5	2.1	1.3	1.3	0.9	1.0
Armenia	–	–	–	–	16.7	12.8	0.9	–
Azerbaijan	–	–	–	10.8	3.8	3.8	1.9	2.0
Belarus	–	–	–	9.2	15.0	6.5	3.4	3.7
Georgia	–	–	–	–	25.7	12.7	0.2	0.0
Kazakhstan	–	–	–	3.3	2.3	1.7	1.0	–
Moldova	–	–	–	5,2	2.8	2.0	–	–
Russian Federation	–	–	–	10.4	3.0	1.8	1.3	–
Ukraine	–	–	–	–	11.0	7.0	–	–
Uzbekistan	–	–	–	8.7	6.3	1.6	1.2	–

Source: EBRD Transition Report 1997, p. 83.

Table 4. Chinese township enterprises

	1988		1989		Average	
	Loss-making firms	Profitable firms	Loss-making firms	Profitable firms	Loss-making firms	Profitable firms
Number of enterprises	36	433	55	559(1)	–	–
% granted tax exemption	13.9	9.3	12.7	8.2	13.3	8.8
% with outstanding taxes	16.9	15.0	25.5	14.0	21.1	14.5
Percentage of total taxes paid	72.5	70.7	71.0	66.2	71.8	68.5
Collective	73.3	61.1	62.3	57.3	67.8	59.2
Non-collective	70.7	100.0	80.9	90.9	75.8	95.0

Source: Sjöberg and Gang 1996, p. 25.

that are not in collective ownership. The study returns to this point later.

Schaffer (1998, p. 99) singles out the Polish firms that recorded negative profitability greater than 20 per cent. He shows that their debt to the state and the social-security system increased by 11.3 per cent in 1993, while the average increase among all firms was only 0.5 per cent.

The most alarming example is provided by the Russian data again. (See Table 5.) These show a galloping increase in tax arrears.

3. Soft bank credit. These days this is the most important instrument for softening the budget constraint in the post-socialist region, especially in Eastern Europe.[5] Banks that lend on prudent terms are not charitable institutions. They give preference to profitable firms that promise to be reliable borrowers. If it becomes easy for loss-makers to borrow, an SBC situation develops, in which bank credit simply turns into an instrument for helping out inefficient firms. A study by Gao and Schaffer (1998) compares Chinese and Hungarian firms from this point of view. (See Figure 2.) They show that loss-making enterprises in China gain access to bank credit on a mass scale, while in Hungary such selectiveness in reverse is much rarer.

Perotti and Carare (1996) use an econometric model to examine in Romania's case the relations between the extension of bank loans, the size and profitability of the borrowing firm, and its stock of previous debt. To quote the authors, 'Bank credit appears to be directed increasingly toward firms that are on average larger, less profitable and have larger arrears in trade and bank credit' (p. 3). 'Bank arrears are a significant determinant of credit. In fact, the correlation appears to be becoming stronger' (p. 17).

Often it emerges only after the event that the debtor firm is unable to comply with the credit contract. The higher the proportion of non-performing loans in the credit stock of a country's banking sector, the softer the budget constraint on its corporate sector. Table 6 shows the very wide differences between countries in this respect.

4. Soft trade credit. With most transactions between firms, the buyer eventually pays for the

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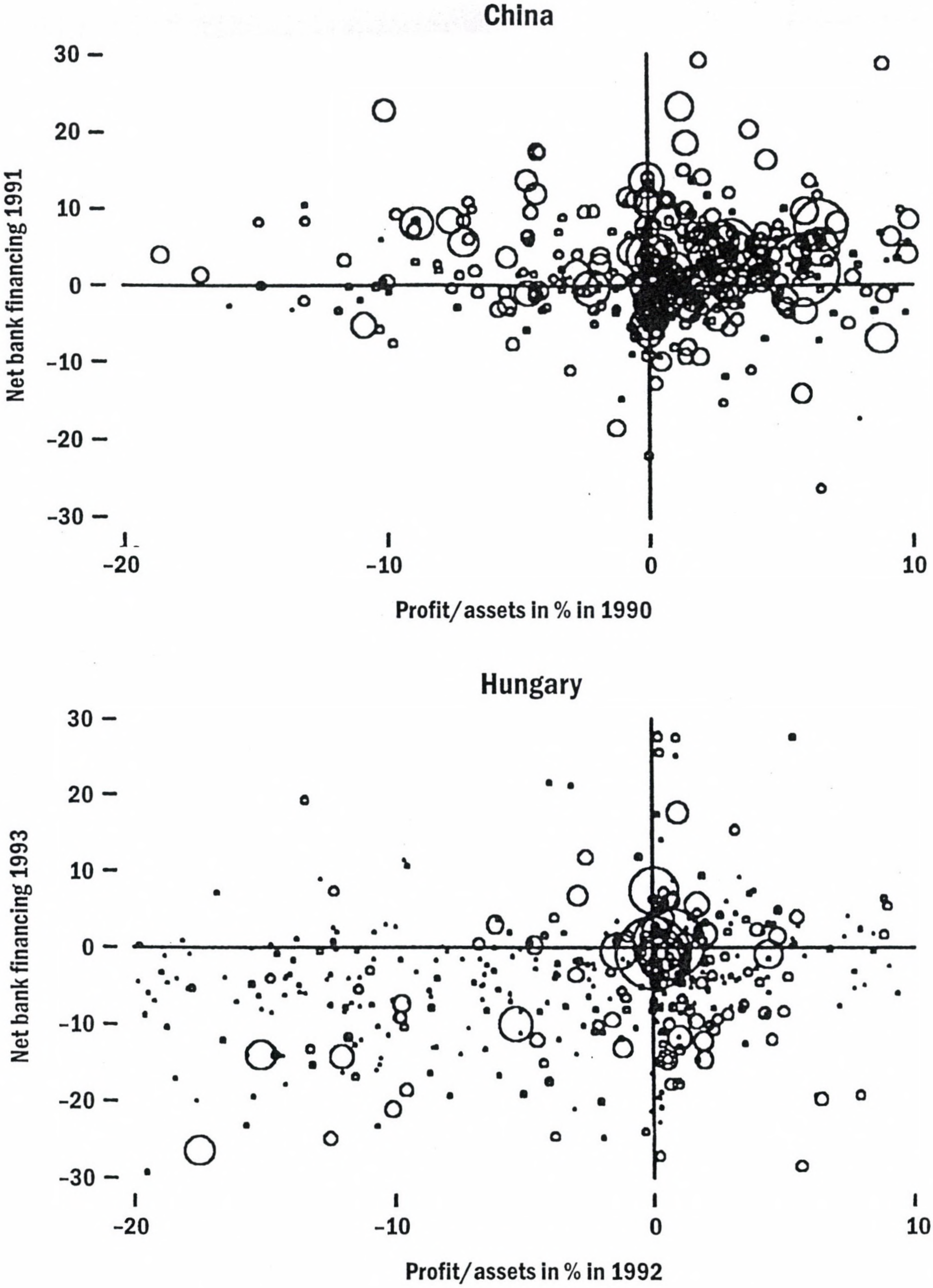
[5] There have been several theoretical studies dealing with the banking system's role in softening the budget constraint, above all Berglof and Roland (1997, 1998). Among those describing post-socialist experiences are Bonin and Schaffer (1995), Perotti and Carare (1996) and Schaffer (1998).

Table 5. Stock of tax arrears, 1990–96 (in per cent of GDP, end of period)

	1990	1991	1992	1993	1994	1995	1996
Bulgaria	4.7	6.7	10.3	10.9	12.2	11.1	13.4
Moldova	–	–	–	–	9.6	8.2	10.4
Poland	1.1	4.1	5.3	5.3	4.5	3.6	–
Romania	–	–	1.5	1.5	4.2	4.6	5.1
Russian Federation	–	–	1.7	1.7	2.5	3.5	10.0

Source: EBRD Transition Report 1997, p. 83.

Figure 2. The relationship between net bank financing and the reported profits of firms, in China and Hungary



Note: The vertical axis shows the net profitability of the firms in the year concerned, and the horizontal axis the net bank financing a year later. The latter is a positive number if the borrowing from the bank exceeds the deposits of the bank. The Hungarian data are concentrated in the top right-hand corner: the banks are mainly lending to profitable firms. The Chinese data are more scattered, with quite a few in the left-hand space, indicating that the bank system is 'throwing good money after bad'.

Source: Gao and Schaffer, 1998, p. 19 and 22.

Table 6. Non-performing loans, 1994–97 (in per cent of total loans, end of period)

	1994	1995	1996	1997
Estonia	4	3	2	1
Hungary	18	10	7	4
Georgia	24	41	7	7
Kazakhstan	–	15	20	8
Armenia	34	36	23	8
Kyrgizstan	92	72	26	8
Croatia	12	13	11	10
Poland	29	21	13	10
Moldova	16	9	17	10
Latvia	10	19	20	10
Ukraine	5	13	12	11
Slovenia	22	13	14	12
Belarus	8	12	14	13
Bulgaria	7	13	15	13
Turkmenistan	–	11	11	14
Azerbaijan	16	22	20	20
Lithuania	27	17	32	28
Czech Republic	34	33	30	29
Slovak Republic	30	41	32	33
Albania	–	35	40	49
Romania	19	38	48	57

Source: EBRD Transition Report 1998, p. 133.

goods delivered. Still, it is not rare for the buyer to miss a contracted payment deadline, even in consolidated market economies. This effectively obliges the seller to extend the buyer involuntary trade credit.

Involuntary trade credits exist in post-socialist economies as well. This signifies an SBC, provided the proportion of involuntary credit is high, the period for which involuntary credit is obtained is lengthy, and the proportion of trade-credit arrears grows over time. Russia can again be cited as a bad example, where the stock of arrears is mounting very rapidly. (See Figure 3.)

5. Wage arrears. This is an especially brutal breach of payment discipline. A firm that is unable to generate in income the full monetary value of its actual costs manages to reduce those costs by postponing the wage payments due for several months. The practice is most common in Russia and other post-Soviet economies, but it occurs in other post-socialist countries as well.

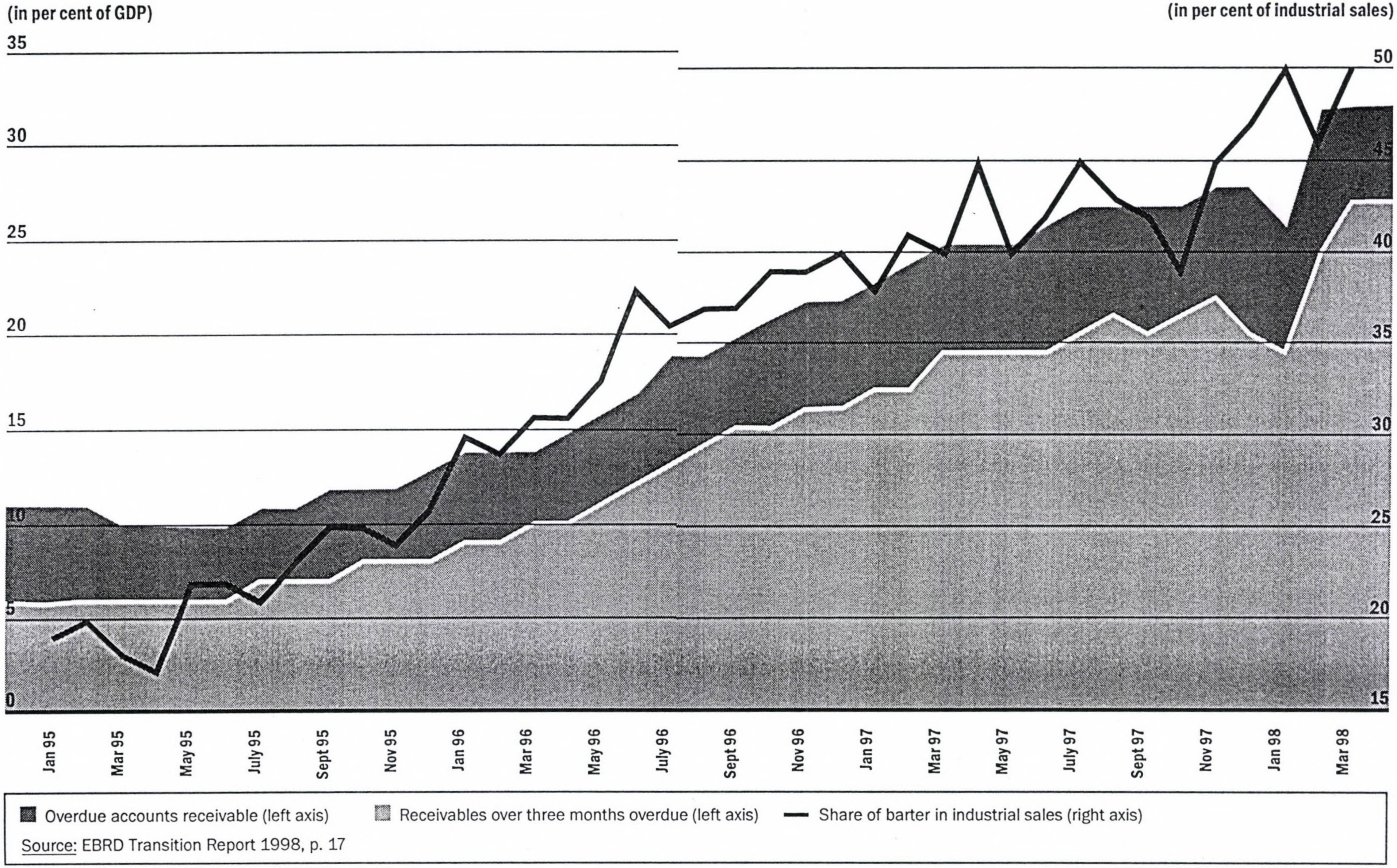
The five types of instrument listed can be applied concurrently, so as to complement or substitute for each other. Schaffer (1998) analyses in depth the relative weights of the various budget constraint-softening instruments during the period of the post-socialist transition. Based mainly on Eastern European experience, he concludes that soft taxation and soft bank credit play the main roles, while soft trade credit between firms is becoming overshadowed. The proportions seem to be somewhat different in Russia and the other post-Soviet republics that are suffering severe financial problems. There soft trade credits and wage arrears are also prominent.

The management of a loss-making firm may use the various softening instruments in a 'tricky', manipulative way, always making use mainly of the instrument against which there is least resistance at the time. There is an important lesson in this for economic policy during the post-socialist transition, if the task of hardening the budget constraint is taken seriously. It is not enough to succeed on just one front, in reducing state subsidies or introducing uniform tax regulations, for example. The struggle has to be waged on all fronts at once; all the cracks through which soft money could seep to keep non-viable firms alive have to be sealed.

This concurrent approach to hardening the budget constraint can be observed in Hungary (Tóth, 1998, Tóth and Semjén, 1999). Tables 7 and 8 point to a concurrent improvement in taxpaying morality and payment discipline between firms. However, the data suggest that not even Hungary has come close enough to possessing an HBC regime.

Discussion so far has been confined to firms. It is worth adding briefly that SBC phenomena

Figure 3. Barters and arrears in Russia



Source: EBRD Transition Report 1998, p. 17

Table 7. The improvement in financial discipline in Hungary – a subjective assessment

	Average scores				
	1992	1993	1994	1995	1996
Delays in paying debts to other firms	1,580	1,561	1,552	1,631	1,466
Delays in paying social-insurance contributions	1,532	1,564	1,536	1,615	1,517
Delays in paying taxes (VAT, company tax etc.)	1,631	1,642	1,500	1,544	1,479
Delays in paying back bank credits	1,266	1,196	1,133	1,202	1,155
Delays by firm's customers in paying obligations	3,230	3,124	2,900	2,886	2,931
N	*390*	*499*	*628*	*450*	*323*

Note: Respondents to the panel survey were scored on a scale from 1 to 5, according to how typical they considered each phenomenon to be. A response of 1 means it is not typical and a response of 5 it is wholly typical.

Source: Tóth 1998, p. 1131.

Table 8. The improvement in financial discipline in Hungary – frequency of violations (in per cent)

		1996	1998
Has the firm ever breached its contractual obligations?	No	83.3	90.2
	Yes	16.7	9.8
	Total	100.0	100,0
	N	393	298
Has the firm ever been late with its social insurance payments?	No	17.7	6.8
	Yes	82.3	93.2
	Total	100.0	100.0
	N	293	299
During the last two years, has the firm ever paid after the deadline?	No	38.7	27.1
	Yes	61.3	72.9
	Total	100.0	100.0
	N	293	296

Source: Tóth and Semjén 1999, p. 38.

are present in the situation of other organizations as well.

It is usually brought abruptly to the notice of the public as well when banks are rescued from financial crisis. In most cases the state bail-out occurs as a way to avoid catastrophic spill-over effects. Such actions involve sizeable injections of capital that come out of the taxpayer's pocket, directly or indirectly. This has already occurred in a high proportion of post-socialist countries, and in some of them more than once.

From time to time, various quasi-state or extra-budgetary institutions—universities, schools, hospitals, or even nationwide social-insurance funds—become insolvent because their customary income does not cover their expenditure, or their spending exceeds their allocation, which is a breach of financial discipline. On such occasions the government may reprimand the heads of the organization, but will almost automatically cover the losses they made.[6]

The situation is similar in most countries with local-government authorities on various levels.[7] Overspending, exceeding the budgetary allocation and debt accumulation are also frequent in their case. Generally, the central government steps in eventually to bail out the local-government authority that is on the verge of bankruptcy.

3. THE CAUSES

It would be misguided to seek a single explanatory factor for so complex a syndrome as the SBC. This is obviously a phenomenon with multiple causes. As with cancer, used earlier as a metaphor, a single factor may suffice to cause the disease, or it may be generated by several concurrent factors that reinforce each other.

The motives

The motives of a firm trying to soften its budget constraint are plain: it wants to survive even though it makes losses, or if it is not in mortal financial danger, it wants to improve its low

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6 Hungary's formally 'extra-budgetary' national pension and health funds have to cover their expenditure out of the contributions paid. Nonetheless, they end with a deficit almost every year. This the state budget is legally bound to cover. So these are two SBCs on a grandiose scale.

7 A study by Wildasin (1997) deals with the problem of SBC in local government, on a theoretical plane (based on the American example, not the post-socialist transition).

Qian and Roland (1998) show that fiscal territorial decentralization ('fiscal federalism') can result in a hardening of the budget constraint under certain conditions.

earnings. What needs explaining is what motivates the rescuer. Returning to the firm-state relationship again some remarks will be made about relations among other organizations as well. The review that follows is far from exhaustive—only a few of the motives are identified here.

1. The state institution that bails out a firm may be moved to do so by political considerations. If the loss-maker should go out of business, its employees would be out of a job. Before the socialist system began to erode, this was of less concern to politicians because the labour market was marked by a chronic labour shortage, not unemployment. The change of system was followed by a complete reversal of this situation as an appreciable rate of unemployment appeared and consolidated. Furthermore, politicians necessarily became more sensitive to public opinion after the introduction of the multi-party system and its party rivalries. If large numbers of factories had to close, causing a surge of unemployment (nationally or in the area of a particular parliamentarian or local politician), it would sour the political atmosphere and scare voters away from the governing parties.

2. Another important motive may be fear of negative externalities. If the firm in trouble enjoys a monopoly or near-monopoly, its liquidation may cause supply problems (Segal, 1998). The firm may be the sole, or almost the sole customer for several suppliers, so that its collapse will bring several other firms down after it. Such knock-on effects could be forestalled under a command economy by issuing a directive, but they are harder to avoid in a decentralized market economy.

A market exit may bring similar coordination problems in financial relations as in the production sphere. One firm's insolvency may cause difficulties to other firms waiting to be paid for goods they have delivered. (See the problem of involuntary trade credit discussed in the last section.)

Fear of negative externalities is especially strong in the case of large firms, as the commonly heard expression 'too big to fail' points out. This is clearly perceptible in the post-socialist region, even where strides have been made in hardening the budget constraint. The SBC syndrome raises its head time and again among the biggest corporations and in the banking sector.

3. There may be personal connections between the heads of the rescuing and the rescued institutions. These may rest on political ties: the troubled firm may be the political 'client' of a governing party, so that politicians and business people provide each other with mutual

support.[8] They may be based on personal contacts through some kind of 'old-boy network', and they may be founded on plain corruption, of course. These three types of connection are not mutually exclusive. Two or even all three of them may operate at once.

4. Another motive for bailing out a firm may be to defend the prestige of a superior authority (Bai and Wang, 1996). The person responsible (for a state-owned enterprise, someone at the highest level of the central or local state bureaucracy, or for a private conglomerate, someone at head office) may have made an error initially, failed to choose wisely between alternatives or issued bad instructions. If the stricken firm is left to its fate, this may highlight the original error and undermine the superior's personal prestige.

The common feature of these four possible motives is that the heads of the rescuing institution show a kind of schizophrenia. One part of their mind is telling them that an HBC is required for efficient economic operation. Another part, because of the factors outlined, causes them to decide in favour of an SBC. The requirement that the firms under their sway should operate efficiently has clashed with other requirements. However, there is another possible motive worth distinguishing from this.

5. There may develop a situation in which it is in the narrowly defined <u>economic</u> interest of a rescuing body to bail out a troubled organization. This is the case studied in a seminal paper by Dewatripont and Maskin (1995).[9] In one of the cases they modelled the economy is centralized. A monopoly bank, symbolizing central decision-making, decides only to lend to new projects that are quick to implement and promise to be profitable. It announces beforehand that financing will stop if it emerges that the investment has failed. However, it

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[8] It is especially characteristic of the post-socialist transition for political parties seeking to establish themselves to try to build up 'client' networks in the business field, in the hope of encouraging mutual assistance. On the one hand, the politicians will gain financial support. On the other, they will try to assist their clients with public-supply contracts, and by influencing where bail-outs should occur.

[9] Several notable studies that apply the Dewatripont-Maskin model or modified versions of it have appeared, offering theoretical analysis of various SBC situations. See, for instance, Dewatripont, Maskin and Roland (forthcoming), Qian and Roland (1993), Qian (1994), and Qian and Xu (1998).

Some theoretical literature on the SBC syndrome works with an apparatus different from the Dewatripont-Maskin model. Examples include Goldfeld and Quandt (1988) and Kornai and Weibull (1983).

does not possess the information to enable to screen out in advance projects that will fail to meet these criteria. Later it proves unable to keep its pre-commitment. The initial investment costs have been sunk in the projects that are going awry. The bank has to 'run after its money.' It would cause itself greater losses if it stopped financing than if it displayed time inconsistency by providing refinancing after all. The project initiators know this will be the outcome, which encourages them to apply for credit even if they guess the investment will fail. So a typical SBC situation has arisen.

The theoretical analysis shows that this kind of situation occurs less often if there is a decentralized banking sector, as small banks do not have enough capital to continue refinancing. Where there is a decentralized banking system, the investor cannot expect this, which means there is no expectation of an SBC, and only investors in really efficient projects dare to borrow.[10]

Similar motives appear strongly within various financial-industrial groups and conglomerates. This has yet to be demonstrated in the post-socialist countries, but the problem can be expected to occur eventually.[11]

Development of the SBC syndrome grows more probable, the stronger the bonds between the government, the banks and the big industrial corporations become.

Property relations and the SBC

Having completed the causal analysis and especially in the light of motive No. 5, it is important to enquire how hardness or softness of the budget constraint ties in with property relations.

Some economists dealing with the post-socialist transition are inclined to give too simple an answer: the cause of the SBC is state ownership, so that privatization alone will solve the

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[10] Perotti (1993), using a theoretical apparatus different from the Dewatripont-Maskin model, proves that the banks have a perverse interest in refinancing their earlier debtors. That is the only way they have a chance of regaining their earlier loans. So they often give preference to inefficient state-owned enterprises, their earlier debtors, rather than to potential new borrowers among more efficient privately owned firms.

[11] Huang and Xu (1999) discovered that this kind of SBC situation plays a significant role in instigating the financial crisis in Japan and South-East Asia in general. A special kind of redistribution takes place within the financial-industrial groups, to help the weak at the expense of the strong. Units are kept alive artificially that would not survive if left to themselves to compete on the market.

problem.

To add a personal comment here, I myself have never seen the question as simply as that. Although I emphasized the strong relation between state ownership and the SBC, and between private ownership and the HBC, I indicated from the outset that the SBC syndrome could appear under capitalism as well. After a decade of experience with the post-socialist transition it is now time to return to the subject.

While the vast majority of the economy is in state ownership a high degree of softness of the budget constraint is inevitable. That is one of the main reasons why the 'market-socialist' experiments in Hungary, Poland and Yugoslavia failed. It is impossible to establish the financial discipline and smooth operation of a market economy while political power and the management of the state-owned enterprises are tied into a single bureaucratic hierarchy, so that motives 1, 2, 3 and 4 fully apply. Private ownership is a necessary condition for the various forms of hardening the budget constraint to become dominant in the corporate sphere.

Once that has happened, there is hope that the budget constraint in the residual state-owned firms will harden. Even then it will not happen automatically, like some side-effect of private-sector domination.[12] However, the opposite cannot be ruled out either. It may be, in a democratic political environment, that the government cannot conduct bail-outs behind the scenes at the taxpayers' expense, so that the budget constraint becomes more or less hard for the state sector as well (now responsible for only a minority of production).[13]

Considering what has just been said, a dominant role for the private sector is a necessary condition for an HBC. A succession of empirical studies has shown that broadening the private sector and privatizing state-owned firms brought a hardening of the budget constraint in the economy as a whole. (See, for instance, Pohl, Anderson, Claessens and Djankov, 1997, and Claessens and Peters, 1997.)

Dominance by the private sector is a necessary condition for hardening the HBC regime,

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[12] The organizations of the state still display SBC behaviour towards the state sector in several market economies that have never undergone a period under a communist regime. This observation has been made several times by economists investigating, for instance, the economies of India and other developing countries. See, for example, the study by Majumdar (1998).

[13] Signs of this are apparent, for instance, in the state-owned firms of the Polish economy. See Pinto, Belka and Krajewski (1993).

but not a sufficient one. That is one of the main lessons to be learnt from the post-socialist transition. Table 9, which Murrell and his associates compiled from their experiences of Mongolia, shows how state-owned enterprises have stronger expectations of being rescued, although the idea is not foreign to private firms either.

It is worth looking back to Table 2, which compares exit data for Hungarian, Polish and Czech firms. During the final years featured the economy was growing, so that the increase in the number of liquidations cannot be due to cyclical factors. The trend presumably indicates that the budget constraint has hardened.

Although the number of exits increased in all three countries, the numbers in Poland and Hungary were greater than in the Czech Republic. This suggests that Hungary and Poland have a harder budget constraint. The three countries do not differ from each other in the size of their private sectors, which accounted for three-quarters of production in all three cases, by the second half of the 1990s. However, they do differ in the procedures used for privatizing the state sector. The Czech Republic made prominent use of voucher privatization, i.e. of a give-away scheme for disposing of state property. The fragmented assets were then concentrated in investment funds that were launched and managed by the big banks, which were still state-owned. Ultimately, therefore, the umbilical cord between the enterprises and the state was not severed. These links between them are what preserve the SBC situation. In Hungary and Poland, the private sector expanded mainly through the establishment on a mass scale of new businesses. The privatization of state-owned enterprises was largely in the form of sales; there was only very limited free distribution. So assets tended to go to people with a real ownership mentality, or to strategic investors, not least large foreign corporations. These new owners have fewer links with the state and fewer expectations of state assistance.

It should be noted that in Hungary and Poland, a big (though not exclusive) role was played by privatization based on bankruptcy and liquidation. This meant that enterprises as organizations ceased to exist in their original, state-owned form. The assets of real value were bought by new owners during the liquidation, and one or more new firms run according to the ideas of the new owners rises instead of the state-owned enterprise. This course of events makes it plain from the outset that the old SBC regime with its burden of unpaid debts has given way to an HBC regime.[14]

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[14] On the importance of this type of privatization, see Perotti (1993).

Table 9. Perceptions of soft budget constraints among Mongolian enterprises

Set of enterprises	No government assistance	Government assistance covering less than 50%	Government assistance covering more than 50%
All	73.1	13.2	13.6
No state ownership	80.7	13.5	5.7
Minority state ownership	77.4	12.9	9.7
Majority state ownership	57.7	12.8	29.5
Central government ownership	52.9	15.7	31.3
Local government ownership	72.4	10.3	17.2

Note: Enterprise managers were asked, 'Suppose that unfortunate market conditions resulted in a sudden drop in your enterprise's revenues, so that you might have to lay off workers. How likely it is that the government (national or local) would help out your enterprise, so that it would not be forced to lay off workers by its financial situation?" The second column totals the responses of firms that consider the government would cover part of their losses, but less than 50 per cent. Those in the third column expect that the government would cover 50 per cent or more of their losses.

Source: Anderson, Korsun and Murrell, 1997, p. 27.

Another important factor to remember when considering the relation between privatization and the SBC is that Poland and Hungary have higher proportions of outsider owners and lower proportions of insider owners than the Czech Republic. Li (1998) has demonstrated theoretically that privatization to insiders tends towards a softening of the budget constraint.

Ultimately, the course by which the Hungarian and Polish private sectors obtained their dominant positions was more instrumental in hardening the budget constraint than the course in the Czech Republic, as the exit data in Table 2 imply. It gave a stronger incentive for restructuring firms, which favourably affected the productivity of labour.[15] The paper returns to this correlation later. Here it is enough to augment Table 2 with Figure 4, which shows that the productivity of Hungarian and Polish industry has improved more strongly than that of Czech industry.

What has been said about the relation between privatization and the SBC phenomenon is confirmed vividly by the example of Russia. There the free-distribution schemes and insider privatization went even further than in the Czech Republic. Soon, after a few short years, the Western and local initiators of the programme were proudly announcing that privatization of the former Soviet state sector was largely complete. That was so, but Russia is the country where the SBC has survived to the greatest extent, undermining the healthy operation of a market economy based on private ownership.

When the post-socialist transition began, the conviction spread among Western economists that it was indispensably necessary and sufficient to perform three great tasks in the East European region. However, it emerged that the 'holy trinity' of stabilization, liberalization and privatization were not sufficient after all. Hardening the budget constraint is a task of equal rank with them, as experience in Russia has shown. There the government carried out sweeping liberalization near the beginning of the reform process. Privatization, mentioned already, was also early. Stabilization was more protracted, but by the mid-1990s, the inflation rate was falling conspicuously. What was lacking above all was the set of institutional

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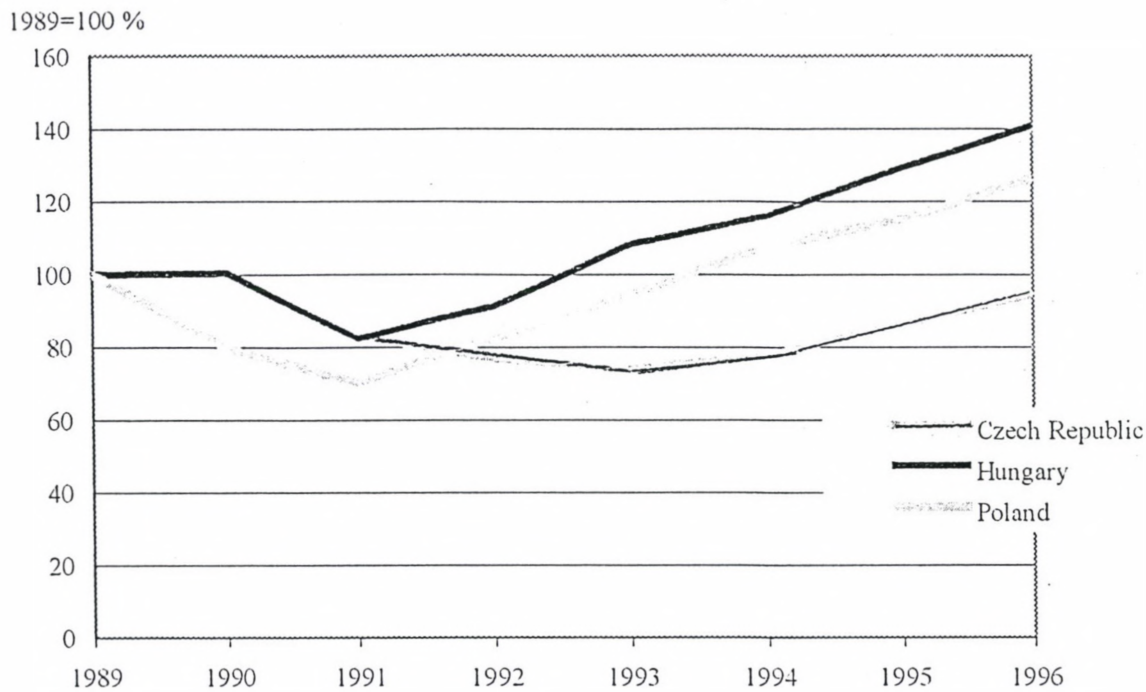
[15] This assertion gains further, indirect support from Czech data as well, if the enterprises that followed the characteristic 'Czech road' to privatization are compared with those in which a strategic investor gained a majority share (the 'Polish and Hungarian road'). Weiss and Nikitin (1998) confirm with an econometric model based on Czech statistics that concentration of property in the hands of major shareholders produces a better corporate performance than concentration in the hands of investment trusts.

Figure 4. Labour productivity in manufacturing, 1989–96



Source: EBRD (1997), p. 131.

Note: Productivity is calculated as the ratio of manufacturing production to manufacturing employment.

conditions required for normal operation of a market economy. This covers many things, and it is not intended here to claim that hardening the budget constraint and tightening financial discipline will suffice as institutional conditions. However, it may not be an exaggeration to claim that making the HBC regime dominant will provide the core of the conditions in most of the economy. That is what is needed to make every bureaucrat in the administration and every actor in the economy take seriously such matters as contracts, obligations, debts, taxation and so on. Where this has not happened, grave problems inevitably ensue, as they have in Russia.

4. THE CONSEQUENCES

This section does not aim at completeness either. It simply takes a few of the effects of an SBC.

1. Healthy operation of a market economy cannot rest only on administrative enforcement of state legislation and regulations. It is essential to have trust among the actors. One grave consequence of the SBC syndrome and the associated loosening of financial discipline (a cluster of phenomena that overlaps with it in many ways) is that mutual trust between the state and its citizens and among market actors is undermined. Sellers distrust buyers, creditors debtors, the tax office taxpayers, and employees their employer. Trust weakens further if the state at central and local-government level sets a bad example as owner, debtor or employer by not paying its debts honestly.

Softness of the budget constraint and loosening of financial discipline destroy trust in the national currency. That leads to weaker monetization of the economy. The process is illustrated in Table 10, with Russia as the example again.

Softness of the budget constraint provokes awkward delays and constant, strong friction in payment relations, which hamper the transformation from a centralized, bureaucratic command economy into a market economy. This conclusion, incidentally, offers a yardstick to analysts for gauging where a country has reached in its transformation. If it can be shown that an economy has made marked progress in hardening its budget constraint, that shows indirectly that it has also advanced significantly in its transformation into a market economy.

2. Softness of the budget constraint means that the natural selection which market competition performs by eliminating non-viable organizations fails to occur. So it disables one of the main incentive forces in a market economy and conserves inefficiency. If a loss-making firm knows that it will certainly be bailed out, it will postpone painful restructuring, which usually involves dismissing many employees and perhaps closing a factory and shedding several managers as

Table 10. Money supply (M2) in Russia in relation to GDP, 1990–97 (in per cent)

Ratio	1990	1991	1992	1993	1994	1995	1996	1997
M2/GDP	61.3	53.6	21.5	12.8	11.0	9.8	11.4	11.1

Note: As a comparison, the M2/GDP ratio in the United States was 102 per cent in 1996.
Source: Aslund 1998, p. 316.

well. For a firm in an SBC situation, it is not essential to adapt to domestic and foreign demand. It is more concerned to curry favour with the potential rescuers.[16]

Claessens and Peters (1997) analysed the prevalence of the SBC syndrome in Bulgaria, using an econometric model. One important observation they made (p. 315) is how stubborn the losses are in many Bulgarian enterprises. In a market economy with an HBC regime, such firms would be obliged to adapt or go bankrupt, but those examined by the authors were able to postpone their adjustment and continue working in spite of their losses.

Ultimately it can be observed that the harder the budget constraint, the more the adaptive capability, the competitiveness and the productivity of the economy improve. The positive examples are Hungary, Poland and Estonia, and the negative examples Russia, Ukraine and Romania.[17]

3. The lingering SBC syndrome influences the situation on the credit market, especially if soft credit is a prominent softener of the budget constraint. Firms are irresponsible in their borrowing because they feel they will be able to survive even as bad debtors. A great pressure of demand weighs on the credit market, and if the central bank and the commercial banking sector fail to show adequate resistance, a weakness normally indicated by the SBC syndrome, the rashly handled credit supply will adjust to this overblown demand.

This allows one of the important mechanisms for creating a financial 'bubble' to be identified. False, unduly low prices that fail to take account of the real risk of investments generate false credit demand and investment intentions (Huang and Xu, 1998.[18]

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[16] Here there are points of contact between SBC theory and the theory of 'rent-seeking'. See Krueger (1974).

[17] Comparative data for Hungary, Poland and the Czech Republic appeared in the previous section. A study by Claessens and Djankov (1998) comparing seven post-socialist countries arrived at similar conclusions.

Although Romania is included here as a negative example, there seems to have been some improvement in this respect in the Romanian economy in recent years, with the government making efforts to harden the budget constraint. The beneficial macroeconomic effects of these will only appear after a delay, of course.

[18] It is hard to resist a short diversion at this point, on a notorious SBC event outside the post-socialist region. The US firm Long Term Capital Management was bailed out when it was on the verge of financial catastrophe. What operated was the second of the motives listed in the previous section—fear of negative externalities—which is an acceptable reason, but the

Along with other factors, run-away demand for credit and a credit supply that passively adjust to it will conserve and even accelerate the inflation that already applies in many countries.

4. The SBC syndrome exercises a negative effect on the fiscal situation, especially if the two fiscal softening instruments—state subsidy and/or soft taxation—are prominent. If the loss-making firms are in state ownership, they cannot contribute to the revenue side of the state budget by definition, and whoever is the owner, they will not pay tax either. On the contrary, large bail-outs and less conspicuous, regular assistance increase state expenditure. To that extent an SBC can foreshadow a lasting fiscal deficit, which ultimately, by another transmission, may fuel inflation as well.

It can also depend on the degree of softness of the budget constraint, the frequency of bail-outs and the fiscal and/or monetary burden these impose whether the economy suffers a financial catastrophe. If it does, mass closure of firms will only exacerbate the problems, so that rescues become almost inescapable, which will make the problems even greater. The SBC syndrome reinforces itself, like a spreading and deepening cancer.

Even if a catastrophe is not inevitable in every case, a fairly soft, but persistent SBC syndrome will bring on the harmful consequences outlined under points 1–4.

So far the rescue-inducing factors and the harmful consequences of the SBC have been considered separately. In reality the arguments for and against appear simultaneously before those who decide whether to accept the liquidation of a loss-making firm or other organization or whether to throw it a life belt, often presenting them with serious dilemmas.

It is now time to tie together the ideas in the sections dealing with the causes and effects. The SBC syndrome can be explained partly by a conflict between the various objectives that motivate a decision-maker (e.g. the central or local government, or the management of a conglomerate): his or her preferences are not consistent. There may also be disagreements among decision-makers, each influencing separately the troubled firm's chances of survival as they pursue contradictory objectives.

This study is not intended to promote any one-sided, conclusive point of view. No one can say with a clear conscience that there are no circumstances in which it is permissible to rescue a

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long-term effect of such a rescue is to strengthen the SBC syndrome in the whole financial world.

troubled firm or other organization. There are cases in which there are emphatic reasons in favour of a bail-out, for instance if the bankruptcy of a firm would have extremely painful social consequences or provoke serious coordination disturbances. The main thing for those facing such decisions to remember is that despite the good momentary, short-term arguments for intervention, the long-term effect will certainly be harmful, because it will increase the SBC expectations.

5. SOME CONCLUSIONS

The experience of the last decade, reviewed briefly in this paper, may inspire some further theoretical research. Here are just some of the possible research tasks:

- Adherence to the SBC and the obstacles to hardening the budget constraint can be explained to a large extent by political and social factors. So there are mainly political and social conditions to meet before progress can be made. It needs interdisciplinary research to link the theories of economists, political scientists and sociologists and create new, common theories that explain the situation.
- As mentioned before, hardening the budget constraint has direct and indirect costs, as well as benefits. It would be useful to devise models that express this specific cost-benefit problem.
- With observation and measurement in its present state, this study has only been able to juxtapose ad hoc observed indicators based on differing definitions, complement them with anecdotal evidence, and so try to make comparisons between countries and over time. The result is just a mosaic, which it is hoped will reflect the situation more or less faithfully, but it is not an exact description. What is needed is an internationally uniform system of indicators able to express the hardness or softness of the budget constraint at any time. A methodology needs to be derived for creating composite indices that reflect the changes in the state of the SBC-HBC syndrome. A suitable cluster of partial and composite indicators could serve as a basis for stricter longitudinal and country comparisons and for econometric analyses. It would be desirable for international organizations concerned with this subject, notably the World Bank and the EBRD, to undertake to organize uniform observation of this kind. This is a requirement before more strictly based statements about wider historical trends and relations can be composed at a later stage.

Having mentioned a few research implications, it is worth concluding with an attempt to draw a few economic-policy conclusions as well, apart from those suggested during the paper, which will not be repeated here.

The SBC syndrome is induced by a constant practice, not just a few sporadic rescue operations. The expectation of a bail-out becomes stubbornly and deeply imprinted in the minds of managers. This cannot be overcome with a couple of quick, radical changes in the rules. Even if it may seem as if these bring success in hardening the budget constraint, the motives that generate a softening are constantly at work, so that the SBC syndrome can return. This is a danger that can never be eliminated; there has to be an endless struggle against it.

All economic actors have to undergo a patient re-education in the broadest sense. The earlier expectations of all those concerned have to be erased by consistent, principled practice, not just by rhetoric, and replaced by opposite ideas, about how it is essential to preserve financial discipline. Firms have to know it is not permissible or even advisable to overstep the budget constraint, because they can certainly expect a bail-out to be denied.

The tasks follow clearly from what has been said in this study about the syndrome itself and the causal relations behind it. The first steps must be taken by the legislature, where this has not happened already. They have to be augmented by judicial activity to tighten financial discipline and impose an HBC. Every state body has to do its bit, by shunning instruments that soften the budget constraint. It should be the state above all, as owner, debtor and employer, that sets an example of financial discipline.

There is a need for a few demonstrative instances, not least for educational purposes. Rescue has to be publicly denied to some firms and other organizations that try to exert political pressure or bring political connections to bear on their financial failures. However, the hardening cannot be confined to a few spectacular liquidations. The principles need consistently applying in a thousand tiny details of daily practice. This can be effectively promoted by ensuring publicity for subsidies, taxation principles and lending criteria.

There is great need for this, so that the public comes to understand how taxpayers' money (with banks, depositors' money and with conglomerates, shareholders' money) is being used when the budget constraint is softened to allow non-viable firms to survive. The more transparent rescue transactions become, the easier it will be to combat them. This represents a big challenge to the media, and not least to academic exponents of the economists' profession.

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