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## **A TAXONOMY OF POST-SOCIALIST FINANCIAL SYSTEMS: DECENTRALIZED ENFORCEMENT AND THE CREATION OF INSIDE MONEY**

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A Taxonomy of Post-Socialist Financial Systems:  
Decentralized Enforcement and the Creation of Inside Money

by

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## Abstract

This paper offers a classification of credit markets in transition economies. It describes a continuum of systems by identifying its polar cases: countries where the entire financial system still relies on outside money, mostly republics of the former Soviet Union; and those where a more decentralized intermediation system is developing (Central/Eastern Europe).

We believe that different outcomes of financial reform depend on several factors, such as initial macroeconomic conditions and a differential ability of enterprises to restructure. However, we submit that the major element is the different degree of institutional development. Our thesis is that outside money continues to dominate in circumstances when decentralized enforcement of credit is unreliable. The inability to enforce credit conditions is a more basic challenge than the scarcity of ability to assess creditworthiness (although serious in itself). As a result, there is no reintermediation of private savings, and the central bank remains the lender of first resort. The resulting money creation potentially leads to hyperinflation and capital flight, which further compromise the development of a private intermediation circuit. Ultimately, firms are induced to capture the banking sector, and more generally to build lobbying power to attract refinancing credit.

In the latter system, macroeconomic stabilization has largely succeed: enforcement of credit obligations is more effective, permitting more decentralized credit decisions. However, the burden of non-performing loans, worsened by high real interest rates caused by stabilization, produces moral hazard in lending decisions. Banks have a perverse incentive to direct funding towards their former debtors, financing less efficient projects. The result is further concentration of loan portfolios, an overall lower productivity of investment and a greater concentration of risk in the transition phase.

Finally, we identify an intermediate stage of transition in which decentralized credit is still not fully reliable, as it may be extended collusively to uncreditworthy borrowers. As restructuring is costly for many enterprises, and impossible for value-subtractors, a tight outside money policy subtracts more liquidity than the corporate sector can generate by internal restructuring. Marginal enterprises may then resist restructuring by extending unenforceable trade credit, recognizing that other firms will do the same. As a result, trade credit is plentiful and rapidly turns into arrears, and the probability of a collective rescue increases with the prospect of an

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output collapse driven by illiquidity. A collective bailout then validate the enterprises' view of private credit as nonbinding, and refocuses the system around flows of refinancing credit.

## Section I

### The transition from a passive financial system

The traditional goal of finance in a centrally planned socialist economy was political control; its economic role was passive. The financing of working and investment capital, as well as the payment system, were tightly controlled from the center to ensure implementation of the five-year plan. Financial flows and bank services for production were channelled through a single, monolithic "Gosbank". Deposit-taking, never very developed, was handled by the Savings Bank, which made full use of its monopoly power by offering very low interest rates. As in many politically repressive system, the banking system was used to force savings into state-directed capital accumulation. The real value of deposits was implicitly destroyed by low interest rates and excessive monetary growth, which resulted in repressed inflation. In addition, retail bank operations were minimal and discouraged private activity, which was seen as illicit and politically suspect.

The asset side of the balance sheet of the financial system was debt owed by enterprises (as households could not legally accumulate assets). Enterprise debt was largely fictional, reflecting the accounting of allocated resources rather than claims which were expected to be repaid. There was in fact hardly any incentive for enterprises to ever repay a loan, as future credit was independent of past repayment; in fact, a proven record of financial needs may allow a firm to claim more resources in the future. Since profits were routinely confiscated through the fiscal system while debts were fully covered, there were incentives to maximize expenses and minimize residual value. Not unlike other financially repressed systems with poor individual incentives, the socialist system built up gradually its own financial self destruction. This could have been seen by the example of Yugoslavia, a more centralized system which already in the seventies exhibited serious financial difficulties. In a classic pattern, the financial crisis was at first hidden by the central government by an expansion of refinancing

credit directed to enterprises, thus shifting losses through the banking system. In early 1980s, the central government reported a balanced budget while estimated losses on bad loans by the (state-owned) banking system reached 17% of GNP. <sup>1</sup>

The first step of institutional reform in the financial sector involved the separation of commercial and central banking activities, by breaking away from the central bank all commercial lending divisions. However, these newly created units had usually very limited retail operations, and thus remained highly dependent on refinancing credit at favorable rates. At the same time, macroeconomic stabilization involved precisely restraining these flows of "outside money". The goal was to force the enterprise sector to reduce its financial needs, induce the newly created banks to become fully responsible for their lending and funding, and encourage the development of private intermediation flows (inside money claims), namely deposit-taking from the public and firms as well as interbank and interfirm lending.

However, this passage turned out to be much more difficult than planned, indicating that the institutional framework lacked some fundamental elements necessary to ensure adjustment. First of all, the initial price liberalization imposed a large financial burden to finance working capital (Galvo and Coricelli, 1992). Most enterprises reacted to credit contraction by running up tax and trade arrears. Banks continued to direct most credit (perhaps not involuntarily) to the worse borrowers. Governments had to maintain subsidies in the face of a sharp drop in revenues, and resorted to deficit monetization.

Such dire circumstances could have been addressed more easily in the presence of an intermediation system to absorb the temporary shocks and secure funds for creditworthy firms. However, most household and enterprise savings were not reintermediated by the domestic financial system. In most Eastern

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<sup>1</sup> Abcl and Szekely (1988) provide some evidence. They found that monetary flows in Hungary were segregated by sectors: movements in the household money circuit (currency and deposits) were unrelated to movements in the enterprise money circuit, indicating a general failure to intermediate savings. However, they found a strong Granger causality running from from the government money circuit to enterprise money, and some causality from the government circuit to the household circuit, suggesting a regular monetization of financial needs of enterprises and (to a lesser degree) households.

European countries, deposit rates were very low; the inflation unleashed by price liberalization rapidly destroyed their real value, and discouraged bank intermediation. In addition, a strong diffidence towards a banking system which had been used in the past for outright confiscation of savings, and a tradition of poor service, also hurt the development of bank deposits. Whenever possible, households preferred to hold foreign currency. At the same time, the threat of future privatization and the loss of central control over the enterprise and bank sector led to massive appropriation and flight of enterprise capital, which were stashed abroad in convertible currencies, further reducing the deposit base of banks.

In summary, the first steps of reform led to a compression of an already minimal inside money circuit of private intermediation, and a sharp drop in the money multiplier. At the same time, a combination of inflation and lack of a security law undermined the development of a bond market for government or corporate paper. Ultimately, the combination of massive financial requirements and the shrinking of the inside money intermediation circuit led to immense pressure for an expansion of central bank refinancing.

From this common initial financial situation, however, the different Eastern European economies have diverged considerably in their path of stabilization and financial development. The next section presents two polar cases, and discusses the major features affecting the movement towards and away from stabilization in the intermediate stages. The last section offers some general policy principles, aimed at securing a transition to a financial system centered around reliable inside money claims rather than flows of outside money.

## Section II A classification of transition financial systems

Credit markets in Eastern Europe can be classified in two types: an outside-money based system, where central bank refinancing dominates, and an inside-money system where decentralized credit decisions are becoming prevalent.

We start with a quick overview of the least progressed post-socialist financial system, which dominates in the former Soviet Union.

## The outside money systems

Bank credit represents by far the main source of capital in Eastern Europe. We accordingly focus our attention mostly on bank and interenterprise credit, the main sources of inside money.

In market economies, creditors are an important source of financial discipline, particularly since for most firms creditors are the sole providers of outside finance. Banks, lenders and trade creditors have the ability to limit further credit, impose restrictive covenants, monitor performance and ultimately obtain control over assets of insolvent firms.<sup>2</sup>

However, conventional debt obligations become ineffective in a context of poor ex post contractual enforcement. In circumstances when no contractual terms can be enforced, credit markets cannot serve any disciplinary role.<sup>3</sup> Major examples are the inability of creditors to secure repayment; the lack of legal sanctions for default or reliable bankruptcy procedure; the lack of laws on collateral; and the unregulated concentration of exposure of many financial institutions on a few large borrowers, which undermines their capacity to demand liquidation.<sup>4</sup> Even privatization by itself cannot induce hard budget constraints in such a weak legal framework. As a result of these weaknesses, savers will lack confidence in the domestic financial system, and no autonomous intermediation system develops. As government and enterprise financial deficits are significant at the beginning of the transition period, this creates immense pressure for further money creation: the central bank remains the lender of first resort, as in the former system of passive finance.

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<sup>2</sup> This ability to reallocate control over assets removes inefficient managers to avoid further value dissipation; since creditors of bankrupt firms are the residual claimants, they have more efficient incentives to run the firm than highly leveraged owners. It thus acts as a powerful incentive to perform.

<sup>3</sup> This is certainly true for other types of financial markets: see Modigliani and Perotti (1992) on the effect of poor legal enforcement on the development of equity markets.

<sup>4</sup> In Russia and Ukraine, most loans are guaranteed by insurance companies. These institutions hardly resemble their Western namesakes, as they are staffed by tough and often dangerous experts in credit collection.

Although some lending institutions may emerge, they will mostly act as redistribution channels of funding from the center (outside money) to their owners. Their only other function will be to manage insiders' resources, without offering much reintermediation. In fact, many banks in Eastern Europe are insufficiently distinct from their borrowers, and may actually collude with them to reduce financial discipline. In the former Soviet Union as well as in some other Eastern European countries, many new commercial banks have emerged on initiative of state-owned enterprises or groups closely related with branch Ministries, and are captive to groups and associations of large enterprises. This is in part a response to early liberalization efforts which gave enterprise managers greater discretion over financial flows. These banks do not aim at raising retail deposits; rather, they have developed in response to tighter credit conditions to act as lobbying centers for their state-owned shareholders, with the aim of attracting cheap credit from the Central Bank; as a way of reintermediating enterprise deposits among a few insiders; and as conduits for capital flight.<sup>5</sup> They often create an "united front" of large enterprises able to challenge credit restrictions.<sup>6</sup> Particularly in Russia and Ukraine, they play a collusive role in embryonal mutual reliance groupings, linked by mutual or joint ownership relations.

Thus, even where bankruptcy proceedings are possible, the direct control of banks by industrial enterprises is perpetuating a long history of collusion among debtors and creditors. Inevitably, financial reform in Eastern Europe must address the excessive vertical and horizontal integration of production, disentangling enterprises from their mutually protective linkages with commercial banks and other large enterprises.

The other main component of inside money, interfirm credits, also grew

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<sup>5</sup> This is a common purpose of large business groups in financially repressed countries (Perotti, 1992).

<sup>6</sup> For a positive view on these bank-enterprise groupings, see Johnson and Ulstenko (1993), who argue that insider lending is a solution to the severe information asymmetry between savers and enterprises. Insider lending was in fact prevalent in the early years of banking in the West; however, it is arguable whether information asymmetries, particularly after price liberalization, are more serious problem than the extreme moral hazard under poor regulation and inexistent legal enforcement.

rapidly in the wake of stabilization policy. Trade credit has in this context self-entrenching effects, as it allow firms to continue operating as before for some time in reaction to tighter credit. Interlocked trade credits create a collective front, a natural instinct in view of an history of ex post settlement of nonperforming loans. When several enterprises succeed in linking financially, any attempt by creditors to liquidate an insolvent enterprise would cause other firms to become insolvent, with a politically unacceptable domino effect. Furthermore, it becomes very hard to distinguish between profitable and unprofitable firms (Ickes and Rutherford, 1993). Thus, while a large fraction of trade arrears are probably unintentional, the mutual extension of trade among connected enterprises allows managers to hinder outside attempts to challenge individual firms with insolvency. As a result, a large fraction of the apparent rise in the gross stock of inside money is aimed at forcing the clearance of net financial exposures with outside money.

Lack of reliable enforcement also makes it impossible to collect funds from savers. A difficulty facing potential depositors is the separation of cash and noncash circuits, and the poor regulation of new commercial bank institutions which depositors rightfully mistrust. Yet another example of poor reliability is the ability of banks to slow down the process of transfer of payments, thus financing their operation with the float. It is reportedly not uncommon for Russian commercial banks to finance up to a third of their lending through "cash in transit". A similar problem concerns the uncertainty over the ability of depositors to withdraw their savings rapidly.

In conclusion, in such a system the process of recycling savings from units in surplus to units in financial deficit cannot take place, and savings are stashed away in unproductive holdings of inflationary hedges or foreign currency.<sup>7</sup> As a result, the entire financial system comes to rely on outside money creation. Unfortunately, central bank refinancing does not create credit resources; it simply reallocates them through inflation, a bitterly disruptive device. Inflation in turn further destroys the development of a private intermediation mechanism, reinforcing pressure for new monetary injections.

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<sup>7</sup> There is some evidence that even the payment system is "imported", since the settlement of large transactions tends to take place through the exchange of deposits on foreign banks.

### The stabilized financial systems

In Central Europe, enforcement of credit obligations is more reliable and inflation is finally under control. This allows the development of an independent banking system to recycle private savings, more decentralized credit decisions, and a greater separation of borrowers and lenders. However, the tightening of credit enforcement also causes difficulties, particularly as a result of the burden of non-performing loans.

In principle, since the state sector is shrinking and selling assets, it should be expected to stabilize its borrowing; while the private sector, which needs to finance its acquisition of capital stock, should receive a rapidly increasing fraction of credit flows. However, there is a diffused perception among observers that state-owned banks in Eastern Europe are showing a marked preference to lend to state-owned firms. For instance, Polish data suggests that credit to the private sector as a fraction of domestic bank assets is rising quite slowly: it was 16.6 % in December 1990, rose to 17.3 in mid 1991, and is believed to be still well below one-quarter. This contrasts with the evidence of a vibrant private sector, currently producing over half of GNP. The situation appears to be similar in Czechoslovakia. Czech data indicate that credit to the private sector is rising fast, although nowhere as fast as the importance of private activity. In the period January through September 1991, it rose from 5 to 40 billion korunas, reflecting in part borrowing to invest in small scale privatization. However, at the same time the state sector increased its borrowing by 70 billion korunas, to a total of 600 billion (Dyba and Svejnar, 1992).<sup>8</sup> Recent data from Romania suggests that bank credit to the private sector is around 13-14 % of the total, while its share of output is at least one-fifth (Ciorici, 1993).

Currently, several reasons exist for excessive bank lending to state-owned firms. There may be reluctance by the bankers to cut off their former clients, since it also implies admitting the difficult state of their

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<sup>8</sup> More recent Czech data indicate a sharp increase in the level of credit to the private sector, following mass privatization of many enterprises. However, these firms have been operating without an active bankruptcy law; for many of them, the value of assets does not cover bank liabilities. It is a question whether these firms are entirely "private".

institutions. Certainly a major cause is the political opposition to restructuring and layoffs which would follow a declaration of insolvency of the old state-owned sector. The large banks in Eastern Europe are still largely controlled by the state. Thus, even when the former state-owned firms are privatized, the state retains enormous indirect control and financial responsibility for these enterprises.<sup>9</sup> The implication is that the banking sector is covertly used to finance subsidies to the corporate sector, and to reduce the reported budget deficit to comply with IMF guidelines. But the main reason why potentially bankrupt banks still attract funds is that private citizens perceive an implicit government guarantee behind their deposits.

In addition, a legacy of the old order's bias in favour of producers is the fact that banks are in part owned by state-owned enterprises; this is true, for instance, in Yugoslavia, Hungary and Latvia (see Varhegyi, 1992).

It may appear that privatization of banks is really a precondition to ensure efficient credit decisions. However, even profit-maximizing banks may create a very poor allocation of credit in the absence of close monitoring, as the overhang of old debt creates a perverse incentive to throw good money after bad loans. The main reasons are the implicit deposit insurance, which makes banks' liabilities insensitive to the riskiness of its assets; and the fact that bank loans are highly concentrated, so that very few or even just one bank typically hold the bulk of borrowing of individual companies (Estrin, Hare and Suranyi, 1991).

Under such assumptions, the effect of accumulated bad loans and their concentration may cause a bias against the financing of new, more profitable ventures (Perotti, 1993a). Nonperforming loans to state-owned firms, worsened by high real rates of interest, produces moral hazard in lending decisions because the banks have a perverse incentive to continue to direct funding towards their former debtors in order to increase their chance of repayment, a gamble undertaken at the cost of neglecting better borrowers. The result is further concentration of bank loan portfolio, an overall lower productivity of investment and a greater concentration of risk in the transition phase. In addition, the expansion of new firms will be delayed, leading to a slower

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<sup>9</sup> This pressure does not need to be explicit, as legislation often grants them limited powers to enforce liquidation (Mitchell, 1991).

economic recovery and a greater risk of future financial crisis. The consequences may be very inefficient if a rapid transition is necessary to avoid the collapse of the public budget, perhaps because there exist significant spillover effects among private sector firms (Roland and Verdier, 1993, and Lacan and Wolf, 1991).

However, the resolution of nonperforming loans by the substitution of bal loans with long government debt (Calvo and Frenkel, 1991) or short term debt, closer to a monetary injection (Begg and Portes, 1992) challenges the very notion of establishing reliable, binding financial obligations and should be addressed very carefully, most certainly not offering an indiscriminate resolution. Preferrably, further lending by banks to bad borrowers should be kept in check by tight regulatory restrictions. We return to these issues later.

#### The intermediate cases

Finally, the intermediate segment on this continuum is occupied by economies (e.g., Romania, Bulgaria, Latvia, Estonia, Lithuania) which are trying to move towards stabilization and financial discipline. The main policy instrument available initially is control over refinancing credit volumes. Their efforts are hampered by a poor legal framework, large deficits and a greater fraction of poorly performing enterprises than in Central Europe.

The first instrument of financial reform is the establishment of tight financial constraints from the center. However, the tools available to the authorities in the absence of a strong regulatory and contractual framework are very blunt, mostly consisting of the control over monetary and credit aggregates. The main problem is that macroeconomic stabilization does rely on adjustment by many individual productive units; but to force (costly) changes in microeconomic behavior requires a strong regulatory and legal framework. Its success depended on inducing firms to substitute internal finance for bank credit through a process of productive restructuring. As this adjustment process may involve wage restraint, increases in productivity, changes in output composition and layoffs, it is clearly painful to firm insiders, and is likely to be resisted bitterly. In fact, the initial response to the credit tightening has been generally disappointing, as the adjustment of state firms

has proven much more sluggish than anticipated (Blejer and Gelb (1992)).

When the authority attempt to force restructuring through changes in some credit aggregate, the risk is that the response of individual units will be to continue to act inertially, implicitly relying on a similar behavior by other productive units. This inertial collective attitude by firm managers probably reflects a rational expectation over the likely response by other state-owned firm managers to the reduction in credit and subsidies, and may well be the crucial factor determining the success of the financial transformation from outside money to inside claims. If many other firms are expected to act inertially, creating a wide front of unrestructured enterprises, it is rational to expect that the central authorities will be very hard pressed politically to enforce contractual terms of unfulfilled credit obligations. Thus managers' attitudes are crucial to determine their behavior and ultimately the microeconomic response to stabilization policy.

Presumably, firms will restructure as long as the associated improved probability of survival is not outweighed by the adjustment costs borne by its insiders. Under normal market conditions, as in the West, where there is a small fraction of value-subtracting firms and an established reputation of the central bank, more enterprises are induced to adjust as credit is progressively tightened. However, in the presence of a large number of value-subtracting enterprises, a tight credit stance may be counter-productive.

Perotti (1993c) develops a formal model of this process. A very tight initial credit stance by the monetary authorities may subtract more liquidity than the corporate sector can generate by internal restructuring. This depends on the ability of most enterprises to adjust at a tolerable cost, and on the size of the subset of value-subtractors for which restructuring is impossible. The presence of a large core of hopeless firms implies that the enterprise sector will not compensate internally for the reduction of bank finance, preferring to postpone adjustment and instead agree to a trade arrears policy, gambling on a collective bail out. In these circumstances there may be a critical mass effect: an excessively severe credit contraction may actually increase the fraction of firms voluntarily extending credit to their uncreditworthy buyers, endogenously creating soft budget constraints through unreliable financial contracts.

The cause of this perverse reversion in the degree of adjustment is the externality across firms' strategies introduced by the indiscriminate nature of ex post collective bailouts, caused by the poor information available to monetary authorities to discriminate among firms.

More fundamentally, the incentive to such collective collusive behavior is the historical confusion between the credit channels and the social welfare circuit. This causes potentially reformable firms to become entangled with hopeless firms, in the attempt to force a bailout. This behavior is further enhanced by a rigid production structure, often entailing monopolistic supplier-buyer relations, which forges close links.

The result depends on the systemic nature of the transition, when all firms must adjust at once. Note that a collusive outcome may also result from self-fulfilling expectations; because of the externality across firms' decisions, there are multiple equilibria.<sup>10</sup> However, the phenomenon does not require explicit collusion or self-fulfilling beliefs, only the recognition by all firms of the limited ability of the enterprise sector as a whole to compensate internally to a contraction in externally-supplied liquidity: this by itself produces rational coordinating beliefs which encourage inertia.

The risk is that the inclination of the previous economic regime to use the financial system as a tool of redistribution, rather than an independent structure to allocate resources, will linger on, fuelled by inertial behavior which continues to be rational in the presence of ex post policy reversal. Ultimately, the uncertainty over whether inside money obligations are truly reliable reflects the uncertain political will to challenge collective collusive behavior by entrenched interest aimed at blocking the implementation of financial reform. In these circumstances, it is possible that a severely restrictive program may fail, if its future support requires a sufficient response by firms choosing to restructure.

This formal analysis indicates several features that support a sharper contraction, in addition to a greater fraction of value-subtracting firms. First is a greater ability to switch rapidly to new markets, thus ensuring

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<sup>10</sup> In particular, there are trivial collusive equilibria in which no firm is expected to adjust for any level of credit; then the degree of adjustment is always zero, and the probability of a bailout is one.

viability and greater reliance on markets rather than collusion and lobbying as a source of income; in this sense, economies less autarkic and less integrated with the Former Soviet Union (such as Central Europe, or Estonia) should be more able to weather a rapid transition than, say, Byelorussia, Romania or Albania. Second is a industrial sector less concentrated on military production and other declining heavy industries. Third, a less compromised initial monetary stance (such as Czechoslovakia) which ensured a greater financial credibility.

The implication is that whenever a government may be politically vulnerable to a massive build-up of unpaid arrears, it is preferable to start by a sharp but not drastic reduction in refinancing credit; this would produce a gradual adjustment without the risk of subsequent reversals. An excessive tightening at the beginning may produce a greater reliance by enterprises on trade (and tax) arrears, which may then force to reflate (as in the cases of Russia and Romania). In addition, a firm stance should be taken against providing ex post relief to clear arrears.

In the next section we also offer some views on a possible policy to contain the effect of hopeless firm to stabilization and financial transition.

### Section III Policy Implications and Final Remarks

In a system dominated by outside money, financial discipline can initially rely only on the threat of refusing further credit by a committed central bank, hoping to induce economic agents to reduce their financial deficits. However, this will be ineffective when enterprise groups are simply too large to fail, or when many firms become entangled through trade credits. Even privatization of enterprises is not likely to resolve this problem, which is not uncommon in financially repressed market economies.

The main difficulty of the transition to a decentralized credit system is the risk of inertial behavior, financed in the short term by a collusive accumulation of inside money claims which cannot be enforced or repaid. This ultimately puts enormous pressure for a resolution of the arrears problem through an expansion of refinancing credit, regressing to the previous outside money system. A very tight initial credit contraction may fail because it

assumes that firms would not extend trade credit to firms which are not creditworthy. But when liquidity is suddenly depleted by such a severe credit shock, there are too few firms able to pay cash. It is then a natural reaction to involve as many other firms in a chain of trade arrears to force a collective bailout.

The failure to create a reliable decentralized enforcement mechanism following a shift to greater financial autonomy of economic units forces the central bank to act as the ultimate source of financial discipline, raising the risk of tremendous political pressure. The threat of refusing further credit by a committed central banker may be not credible when enterprise groups are simply too large to fail, or when too many firms are facing illiquidity. Even privatization of the large enterprises is not likely to resolve this problem. Then the risk is that recurrent bouts of base money creation become necessary to keep clearing a mountain of unpaid debts, which are immediately replenished by further collusive lending.

The transition to a stabilized system may be undermined if the initial response is a collusive inertia which threatens massive bankruptcy of enterprises and banks. This is particularly delicate because of the strong rigidities in inter-firm productive relations and between banks and large enterprises; especially those banks created from the specialized lending divisions of the central bank exhibit a very high concentration of lending in their portfolios to specific costumers (insiders) or sectors.

In such circumstances, the ideal response is to resist the temptation to resolve the financial imbalances by issues of outside money. Leaving banks and enterprises in doubt over the resolution of their overdue credit is probably a better form of installing greater financial prudence over future, collusive lending, and is likely to sway the enterprises of intermediate credit quality to refrain from attempting to be confused with the hopeless cases.

Finally, bank credit towards larger firms must be supervised and strictly limited to avoid collusive linkages. A policy of conditional subsidies, rather than cheap credits, to the worse firms may be more effective in reducing the fraction of firms which choose to resist restructuring (Perotti, 1993c). There are two reasons for this expected outcome.

The first is that an explicit subsidy permits to distinguish between binding credit and a pure transfer of financial resources, thus allowing to

tighten the enforcement of credit terms only to those enterprises which may be able to fulfil them; in contrast, the extension of credit to firms with no such ability is hypocritical. Moreover, such a financial transfer provides liquidity without adding to insolvency and without subtracting to restructuring, since these firms would not adjust in any case. In contrast, creating credits which cannot be repaid introduces a perverse externality effect on firms which are potentially able to restructure, but prefer to take refuge in collective insolvency.

On the other hand, notwithstanding the positive indirect effect of subsidies to the hopeless firms in disciplining other firms (as insolvency is now separated from illiquidity), their direct incentive effect to the receiving firm is clearly negative.<sup>11</sup> Thus the terms of such transfers must explicitly include elements of conditionality for future outlays, and some forms of ex post sanction for failure to meet conditions. First, they should be channelled through state or foreign-sponsored institutions directly involved in supervising welfare aspects of the downsizing and restructuring process of value-subtractors, and not involved in industrial policy. Second, these transfers must be clearly designed to be sharply reduced over time. Third, they may in part at least be linked with privatization and a decrease in the scale of operations. Moreover, any future extension of working capital subsidies must be linked to a progressive scaling down of operations; firms which reduce inventories more, for instance, may be rewarded with a more gradual abatement in transfers.

Although any credit expansion required for these transfer will be reflected in higher current inflation, it would be conducive to lower inflation tomorrow if it succeeded in scaling down the value-subtracting sector without causing an illiquidity crisis. Liquidation of their assets may in fact nurture the transfer of productive assets to the private sector.

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<sup>11</sup> A possible rationale for a policy of directed state loans to hopeless firms is that in theory it grants the state the ability, upon insolvency, to declare bankruptcy and replace management, when other forms of direct control may fail (for a related argument, see Legros and Mitchell (1993)). Such a policy may be unrealistic, and thus noncredible, because of the limited bargaining power and managerial capacity of the state and the poor enforceability of bankruptcy laws.

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